



# Full wwPDB X-ray Structure Validation Report ⓘ

Dec 2, 2023 – 01:42 pm GMT

PDB ID : 1W63  
Title : AP1 clathrin adaptor core  
Authors : Heldwein, E.; Macia, E.; Wang, J.; Yin, H.L.; Kirchhausen, T.; Harrison, S.C.  
Deposited on : 2004-08-12  
Resolution : 4.00 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

---

The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

MolProbity : 4.02b-467  
Xtrriage (Phenix) : **NOT EXECUTED**  
EDS : **NOT EXECUTED**  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.36

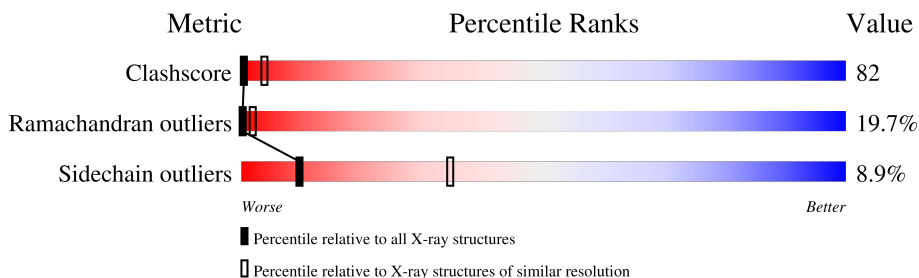
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 4.00 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



| Metric                | Whole archive<br>(#Entries) | Similar resolution<br>(#Entries, resolution range(Å)) |
|-----------------------|-----------------------------|---|
| Clashscore            | 141614                      | 1148 (4.30-3.70)                                      |
| Ramachandran outliers | 138981                      | 1108 (4.30-3.70)                                      |
| Sidechain outliers    | 138945                      | 1099 (4.30-3.70)                                      |

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$

Note EDS was not executed.

| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1   | A     | 618    | 14% 59% 21% • 5% |
| 1   | C     | 618    | 14% 59% 20% • 5% |
| 1   | E     | 618    | 14% 59% 20% • 5% |
| 1   | G     | 618    | 14% 59% 20% • 5% |
| 1   | I     | 618    | 15% 59% 20% • 5% |
| 1   | K     | 618    | 13% 60% 20% • 5% |
| 2   | B     | 584    | 14% 59% 23% ••   |
| 2   | D     | 584    | 14% 59% 23% ••   |

Continued on next page...

Continued from previous page...

| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 2   | F     | 584    | 14% 59% 23% ..   |
| 2   | H     | 584    | 14% 59% 23% ..   |
| 2   | J     | 584    | 14% 59% 23% ..   |
| 2   | L     | 584    | 14% 59% 23% ..   |
| 3   | M     | 423    | 23% 54% 14% • 8% |
| 3   | N     | 423    | 23% 54% 14% • 8% |
| 3   | O     | 423    | 22% 55% 13% • 8% |
| 3   | P     | 423    | 22% 55% 14% • 8% |
| 3   | R     | 423    | 22% 56% 13% • 8% |
| 3   | V     | 423    | 22% 56% 13% • 8% |
| 4   | Q     | 158    | 20% 54% 19% • 6% |
| 4   | S     | 158    | 22% 53% 18% • 6% |
| 4   | T     | 158    | 22% 53% 18% • 6% |
| 4   | U     | 158    | 22% 53% 18% • 6% |
| 4   | W     | 158    | 22% 53% 18% • 6% |
| 4   | X     | 158    | 22% 53% 18% • 6% |

## 2 Entry composition

There are 4 unique types of molecules in this entry. The entry contains 81744 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called ADAPTER-RELATED PROTEIN COMPLEX 1 GAMMA 1 SUBUNIT.

| Mol | Chain | Residues | Atoms |      |     |     |    | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|---------|-------|
|     |       |          | Total | C    | N   | O   | S  |         |         |       |
| 1   | A     | 590      | 4663  | 2933 | 821 | 869 | 40 | 0       | 0       | 1     |
| 1   | C     | 590      | 4663  | 2933 | 821 | 869 | 40 | 0       | 0       | 1     |
| 1   | E     | 590      | 4663  | 2933 | 821 | 869 | 40 | 0       | 0       | 1     |
| 1   | G     | 590      | 4663  | 2933 | 821 | 869 | 40 | 0       | 0       | 1     |
| 1   | I     | 590      | 4663  | 2933 | 821 | 869 | 40 | 0       | 0       | 1     |
| 1   | K     | 590      | 4663  | 2933 | 821 | 869 | 40 | 0       | 0       | 1     |

- Molecule 2 is a protein called ADAPTER-RELATED PROTEIN COMPLEX 1 BETA 1 SUBUNIT.

| Mol | Chain | Residues | Atoms |      |     |     |    | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|---------|-------|
|     |       |          | Total | C    | N   | O   | S  |         |         |       |
| 2   | B     | 576      | 4558  | 2907 | 750 | 874 | 27 | 0       | 0       | 1     |
| 2   | D     | 576      | 4558  | 2907 | 750 | 874 | 27 | 0       | 0       | 1     |
| 2   | F     | 576      | 4558  | 2907 | 750 | 874 | 27 | 0       | 0       | 1     |
| 2   | H     | 576      | 4558  | 2907 | 750 | 874 | 27 | 0       | 0       | 1     |
| 2   | J     | 576      | 4558  | 2907 | 750 | 874 | 27 | 0       | 0       | 1     |
| 2   | L     | 576      | 4558  | 2907 | 750 | 874 | 27 | 0       | 0       | 1     |

There are 18 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment  | Reference  |
|-------|---------|----------|--------|----------|------------|
| B     | 155     | MET      | LEU    | conflict | UNP P52303 |
| B     | 439     | ASP      | LEU    | conflict | UNP P52303 |
| B     | 459     | SER      | ILE    | conflict | UNP P52303 |
| D     | 155     | MET      | LEU    | conflict | UNP P52303 |
| D     | 439     | ASP      | LEU    | conflict | UNP P52303 |
| D     | 459     | SER      | ILE    | conflict | UNP P52303 |
| F     | 155     | MET      | LEU    | conflict | UNP P52303 |
| F     | 439     | ASP      | LEU    | conflict | UNP P52303 |
| F     | 459     | SER      | ILE    | conflict | UNP P52303 |
| H     | 155     | MET      | LEU    | conflict | UNP P52303 |
| H     | 439     | ASP      | LEU    | conflict | UNP P52303 |
| H     | 459     | SER      | ILE    | conflict | UNP P52303 |
| J     | 155     | MET      | LEU    | conflict | UNP P52303 |
| J     | 439     | ASP      | LEU    | conflict | UNP P52303 |
| J     | 459     | SER      | ILE    | conflict | UNP P52303 |
| L     | 155     | MET      | LEU    | conflict | UNP P52303 |
| L     | 439     | ASP      | LEU    | conflict | UNP P52303 |
| L     | 459     | SER      | ILE    | conflict | UNP P52303 |

- Molecule 3 is a protein called ADAPTOR-RELATED PROTEIN COMPLEX 1, MU 1 SUB-UNIT.

| Mol | Chain | Residues | Atoms |      |     |     |    | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|---------|-------|
|     |       |          | Total | C    | N   | O   | S  |         |         |       |
| 3   | M     | 388      | 3166  | 2042 | 531 | 579 | 14 | 0       | 0       | 0     |
| 3   | N     | 388      | 3166  | 2042 | 531 | 579 | 14 | 0       | 0       | 0     |
| 3   | O     | 388      | 3166  | 2042 | 531 | 579 | 14 | 0       | 0       | 0     |
| 3   | P     | 388      | 3166  | 2042 | 531 | 579 | 14 | 0       | 0       | 0     |
| 3   | R     | 388      | 3166  | 2042 | 531 | 579 | 14 | 0       | 0       | 0     |
| 3   | V     | 388      | 3166  | 2042 | 531 | 579 | 14 | 0       | 0       | 0     |

There are 12 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment  | Reference  |
|-------|---------|----------|--------|----------|------------|
| M     | 134     | PHE      | TYR    | conflict | UNP P35585 |
| M     | 406     | ILE      | LEU    | conflict | UNP P35585 |
| N     | 134     | PHE      | TYR    | conflict | UNP P35585 |
| N     | 406     | ILE      | LEU    | conflict | UNP P35585 |

*Continued on next page...*

*Continued from previous page...*

| Chain | Residue | Modelled | Actual | Comment  | Reference  |
|-------|---------|----------|--------|----------|------------|
| O     | 134     | PHE      | TYR    | conflict | UNP P35585 |
| O     | 406     | ILE      | LEU    | conflict | UNP P35585 |
| P     | 134     | PHE      | TYR    | conflict | UNP P35585 |
| P     | 406     | ILE      | LEU    | conflict | UNP P35585 |
| R     | 134     | PHE      | TYR    | conflict | UNP P35585 |
| R     | 406     | ILE      | LEU    | conflict | UNP P35585 |
| V     | 134     | PHE      | TYR    | conflict | UNP P35585 |
| V     | 406     | ILE      | LEU    | conflict | UNP P35585 |

- Molecule 4 is a protein called ADAPTER-RELATED PROTEIN COMPLEX 1 SIGMA 1A SUBUNIT.

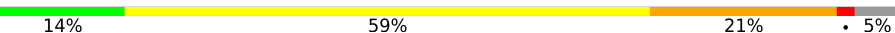
| Mol | Chain | Residues | Atoms |     |     |     |    | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|----|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S  |         |         |       |
| 4   | Q     | 149      | 1237  | 800 | 203 | 223 | 11 | 0       | 0       | 1     |
| 4   | S     | 149      | 1237  | 800 | 203 | 223 | 11 | 0       | 0       | 1     |
| 4   | T     | 149      | 1237  | 800 | 203 | 223 | 11 | 0       | 0       | 1     |
| 4   | U     | 149      | 1237  | 800 | 203 | 223 | 11 | 0       | 0       | 1     |
| 4   | W     | 149      | 1237  | 800 | 203 | 223 | 11 | 0       | 0       | 1     |
| 4   | X     | 149      | 1237  | 800 | 203 | 223 | 11 | 0       | 0       | 1     |

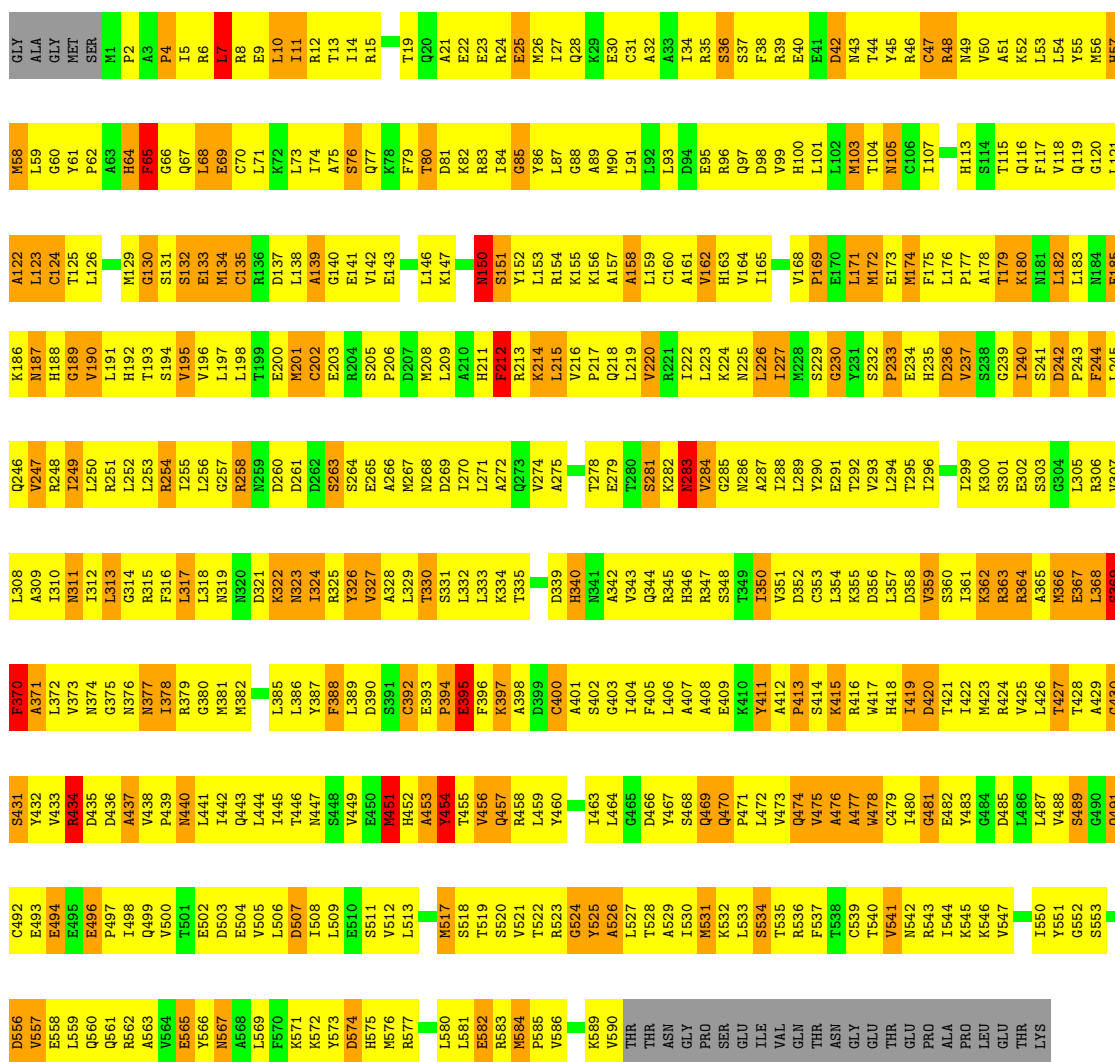
### 3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

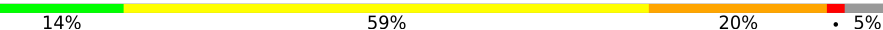
Note EDS was not executed.

- Molecule 1: ADAPTER-RELATED PROTEIN COMPLEX 1 GAMMA 1 SUBUNIT

Chain A: 



- Molecule 1: ADAPTER-RELATED PROTEIN COMPLEX 1 GAMMA 1 SUBUNIT

Chain C: 

|      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|
| GLY  | M68  | G120 | H184 | F244 | R306 | L368 | A429 | S489 | G552 |
| ALA  | L59  | L121 | E185 | L245 | V307 | S369 | G430 | G490 | S553 |
| MET  | G60  | A122 | K186 | Q246 | L308 | F370 | S554 | Q491 | S554 |
| SER  | Y61  | L123 | N187 | V247 | A309 | A371 | Y432 | C492 | I555 |
| M1   | P62  | T125 | H188 | L249 | N310 | L372 | D556 | E493 | D556 |
| P2   | A63  | T126 | G189 | R249 | I311 | V373 | R434 | E494 | V557 |
| A3   | H64  | L126 | V190 | L250 | I312 | N374 | D435 | E495 | E558 |
| I5   | F65  | M129 | L191 | R251 | L313 | G375 | D436 | E496 | L559 |
| R6   | Q66  | G130 | H192 | L252 | G314 | P376 | A437 | Q560 | Q560 |
| L7   | Q67  | S131 | T193 | R253 | R315 | N377 | V438 | I498 | Q561 |
| R8   | L68  | G132 | S194 | L254 | R316 | L378 | P439 | R562 | R562 |
| E9   | E69  | E133 | V195 | L255 | L317 | R379 | N440 | V500 | A563 |
| L10  | C70  | S134 | V196 | L256 | G318 | G380 | L441 | T501 | V564 |
| I11  | L71  | M134 | L197 | G257 | N319 | M381 | L442 | E502 | E565 |
| R12  | R72  | C135 | L198 | R258 | N320 | N382 | Q443 | Q503 | Y566 |
| T13  | L73  | R136 | T199 | D260 | K322 | L385 | L444 | E504 | N567 |
| R14  | I74  | D137 | E200 | D261 | K323 | L386 | T446 | V505 | A568 |
| T15  | A75  | L138 | M201 | D262 | L324 | Y387 | M447 | L506 | L569 |
| I14  | S76  | A139 | C202 | E263 | R325 | F388 | S448 | D507 | F570 |
| R15  | Q77  | G140 | E203 | S263 | R326 | L389 | Y449 | I508 | K571 |
| T19  | R78  | E141 | E204 | S264 | Y326 | L390 | Y450 | L509 | K572 |
| Q20  | F79  | V142 | S205 | A266 | A328 | C392 | R451 | E510 | F573 |
| A21  | T80  | E143 | P206 | A267 | A329 | S391 | R452 | D574 | D574 |
| E22  | D81  | L146 | D207 | M267 | L329 | C392 | R453 | H575 | H575 |
| R23  | K82  | K147 | M208 | D268 | T330 | E393 | A453 | L513 | M576 |
| E24  | R83  | K147 | L209 | D269 | S331 | P394 | Y454 | M577 | R577 |
| R24  | I84  | M150 | A210 | L270 | L332 | E395 | T455 | M578 | L580 |
| E25  | G85  | S151 | R211 | L271 | L333 | F396 | V456 | S518 | L581 |
| M26  | Y86  | E152 | R212 | A272 | A328 | K397 | Q457 | T519 | L582 |
| I27  | L87  | Y152 | R213 | A273 | A328 | R458 | R458 | S520 | E582 |
| Q28  | G88  | L153 | K214 | V274 | T335 | S399 | L459 | V521 | R583 |
| E29  | A89  | K154 | L215 | V275 | D339 | C400 | Y460 | T522 | M584 |
| E30  | M90  | K156 | L216 | A275 | R340 | A401 | K461 | R523 | F585 |
| C31  | L91  | K156 | P217 | T278 | N341 | S402 | A462 | G524 | V586 |
| A32  | L92  | A157 | Q218 | E279 | A342 | G403 | L463 | Y525 | K589 |
| A33  | L93  | A158 | L219 | T280 | V343 | L404 | L464 | A526 | V590 |
| I34  | D94  | L159 | L219 | S281 | Q344 | F405 | S465 | L527 | THR  |
| R35  | E95  | C160 | R221 | K282 | R345 | L406 | D466 | T528 | THR  |
| S36  | R96  | A161 | I222 | K283 | R346 | A407 | Y467 | A529 | ASN  |
| S37  | Q97  | V162 | L223 | V284 | R347 | A408 | S468 | I530 | GLY  |
| F38  | D98  | H163 | K224 | G285 | S348 | E409 | Q469 | M531 | PRO  |
| R39  | V99  | V164 | N225 | N286 | L350 | K410 | Q470 | K532 | SER  |
| E40  | H100 | I165 | L226 | A287 | V350 | Y411 | P471 | L533 | GLU  |
| E41  | L101 | I165 | I227 | L288 | V351 | A412 | L472 | S534 | ILE  |
| D42  | L102 | V168 | M228 | L289 | D352 | P413 | V473 | T535 | VAL  |
| M43  | M103 | P169 | S229 | Y290 | C353 | S414 | Q474 | R536 | GLN  |
| T44  | T104 | E170 | G230 | E291 | L354 | K415 | V475 | F537 | THR  |
| Y45  | M105 | L171 | Y231 | T292 | K355 | R416 | A476 | T538 | ASN  |
| R46  | C106 | M172 | S232 | V293 | D356 | W417 | C539 | T540 | GLY  |
| C47  | L107 | E173 | P233 | L294 | L357 | H418 | Y478 | M541 | GLU  |
| R48  | L111 | M174 | E234 | T295 | D356 | L419 | C479 | N542 | GLU  |
| M49  | L112 | F175 | H235 | L296 | V359 | D420 | L480 | R542 | THR  |
| V50  | H113 | L176 | D236 | I299 | S360 | T421 | G481 | R543 | GLU  |
| A51  | H113 | P177 | V237 | K300 | L361 | I422 | E482 | I544 | PRO  |
| K52  | S114 | A178 | S238 | K362 | K362 | M423 | Y483 | K545 | ALA  |
| L115 | T115 | T179 | S239 | S301 | R363 | R424 | S484 | K546 | PRO  |
| L53  | T115 | T179 | G239 | S302 | R364 | V425 | D485 | V547 | LEU  |
| L54  | Q116 | K180 | I240 | E302 | R364 | V425 | D485 | V547 | GLU  |
| Y55  | F117 | F117 | S241 | S303 | A365 | L426 | L486 | T550 | THR  |
| M56  | Q118 | L182 | D242 | G304 | M56  | L426 | L486 | T550 | THR  |
| H57  | Q119 | L183 | P243 | L305 | E367 | T428 | V488 | Y551 | LYS  |

• Molecule 1: ADAPTER-RELATED PROTEIN COMPLEX 1 GAMMA 1 SUBUNIT

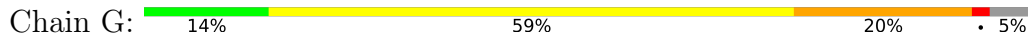
Chain E: 14% 59% 20% 5%

|      |      |      |      |      |
|------|------|------|------|------|
| GLY  | M68  | L121 | E185 | L245 |
| ALA  | L59  | A122 | K186 | Q246 |
| MET  | G60  | A123 | N187 | V247 |
| SER  | Y61  | L124 | H188 | R248 |
| M1   | P62  | T125 | G189 | L249 |
| A3   | A63  | T126 | V190 | L250 |
| I5   | F65  | M129 | L191 | R251 |
| R6   | Q66  | G130 | H192 | L252 |
| L7   | Q67  | S131 | T193 | R253 |
| R8   | L68  | E132 | S194 | L254 |
| E9   | E69  | E133 | V195 | L255 |
| L10  | C70  | S134 | V196 | L256 |
| I11  | L71  | M134 | L197 | G257 |
| R12  | R72  | C135 | L198 | R258 |
| T13  | L73  | R136 | T199 | F259 |
| R14  | I74  | D137 | N200 | D260 |
| T15  | A75  | L138 | M201 | S263 |
| I14  | S76  | A139 | C202 | S264 |
| R15  | Q77  | G140 | E203 | E285 |
| T19  | R78  | E141 | E204 | A286 |
| Q20  | F79  | V142 | S205 | M287 |
| A21  | T80  | E143 | P206 | N288 |
| E22  | D81  | L146 | D207 | D269 |
| R23  | K82  | K147 | M208 | L270 |
| E24  | R83  | K147 | L209 | L271 |
| R24  | I84  | M150 | A210 | A272 |
| E25  | G85  | S151 | R211 | Q273 |
| M26  | Y86  | E152 | R212 | V274 |
| I27  | L87  | L153 | R213 | A275 |
| Q28  | G88  | R154 | K214 | T278 |
| E29  | A89  | K155 | L215 | E279 |
| E30  | M90  | K156 | L216 | T280 |
| C31  | L91  | K156 | P217 | S281 |
| A32  | L92  | A157 | Q218 | K282 |
| A33  | L93  | A158 | L219 | V284 |
| I34  | D94  | L159 | L219 | G285 |
| R35  | E95  | C160 | R221 | A287 |
| S36  | R96  | A161 | I222 | L289 |
| S37  | Q97  | V162 | L223 | Y290 |
| F38  | D98  | H163 | K224 | T292 |
| R39  | V99  | V164 | N225 | V293 |
| H100 | I100 | I165 | L226 | L296 |
| E40  | H100 | I165 | L226 | E299 |
| E41  | L101 | I165 | I227 | T299 |
| D42  | L102 | V168 | M228 | S299 |
| M43  | M103 | P169 | S229 | G300 |
| T44  | T104 | E170 | G230 | S301 |
| Y45  | M105 | L171 | Y231 | E302 |
| R46  | C106 | M172 | S232 | S303 |
| C47  | L107 | E173 | P233 | G304 |
| R48  | L111 | M174 | E234 | S304 |
| M49  | L112 | F175 | H235 | L305 |
| V50  | H113 | L176 | D236 | R306 |
| A51  | H113 | P177 | V237 | V307 |
| K52  | S114 | A178 | S238 |      |
| L115 | T115 | T179 | S239 |      |
| L53  | T115 | T179 | G239 |      |
| L54  | Q116 | K180 | I240 |      |
| Y55  | F117 | F117 | S241 |      |
| M56  | Q118 | L182 | D242 |      |
| H57  | Q119 | L183 | P243 |      |



|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| L308 | A309 | I310 | N311 | I312 | I313 | G314 | R315 | F316 | L317 | L318 | N319 | N320 | D321 | K322 | N323 | N324 | I325 | R326 | Y327 | A328 | L329 | T330 | S331 | L332 | L333 | K334 | T335 | F370 | A371 | L372 | V373 | N374 | G375 | I376 | N377 | L378 | N440 | N441 | G380 | M381 | M382 | L385 | L386 | Y387 | F388 | L389 | D390 | S391 | C392 | E393 | P394 | E395 | F396 | K397 | A398 | R399 | C400 | Y401 | A402 | S403 | I404 | F405 | L406 | H407 | H346 | R347 | S348 | T349 | I350 | V351 | D352 | C353 | L354 | K355 | D356 | L357 | D358 | V359 | S360 | I361 | K362 | R423 | R363 | R424 | R364 | V425 | V426 | L427 | L428 | V429 | L430 | G431 | D556 | F557 | E558 | L559 | Q560 | Q561 | R562 | A563 | Q499 | V500 | T501 | R502 | D503 | E504 | V505 | L506 | K571 | K572 | Y573 | D574 | H575 | M576 | R577 | L580 | L581 | E582 | R583 | S520 | V521 | M584 | P585 | V586 | G587 | Y525 | L463 | L464 | D466 | Y467 | S468 | Q469 | Q470 | P471 | L472 | A412 | P413 | S414 | K415 | A416 | W417 | H418 | C479 | I419 | D420 | T421 | I422 | M423 | R424 | G484 | D485 | L486 | L487 | V488 | S489 | G490 | G491 | L550 | Y551 | G552 | L553 | S553 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

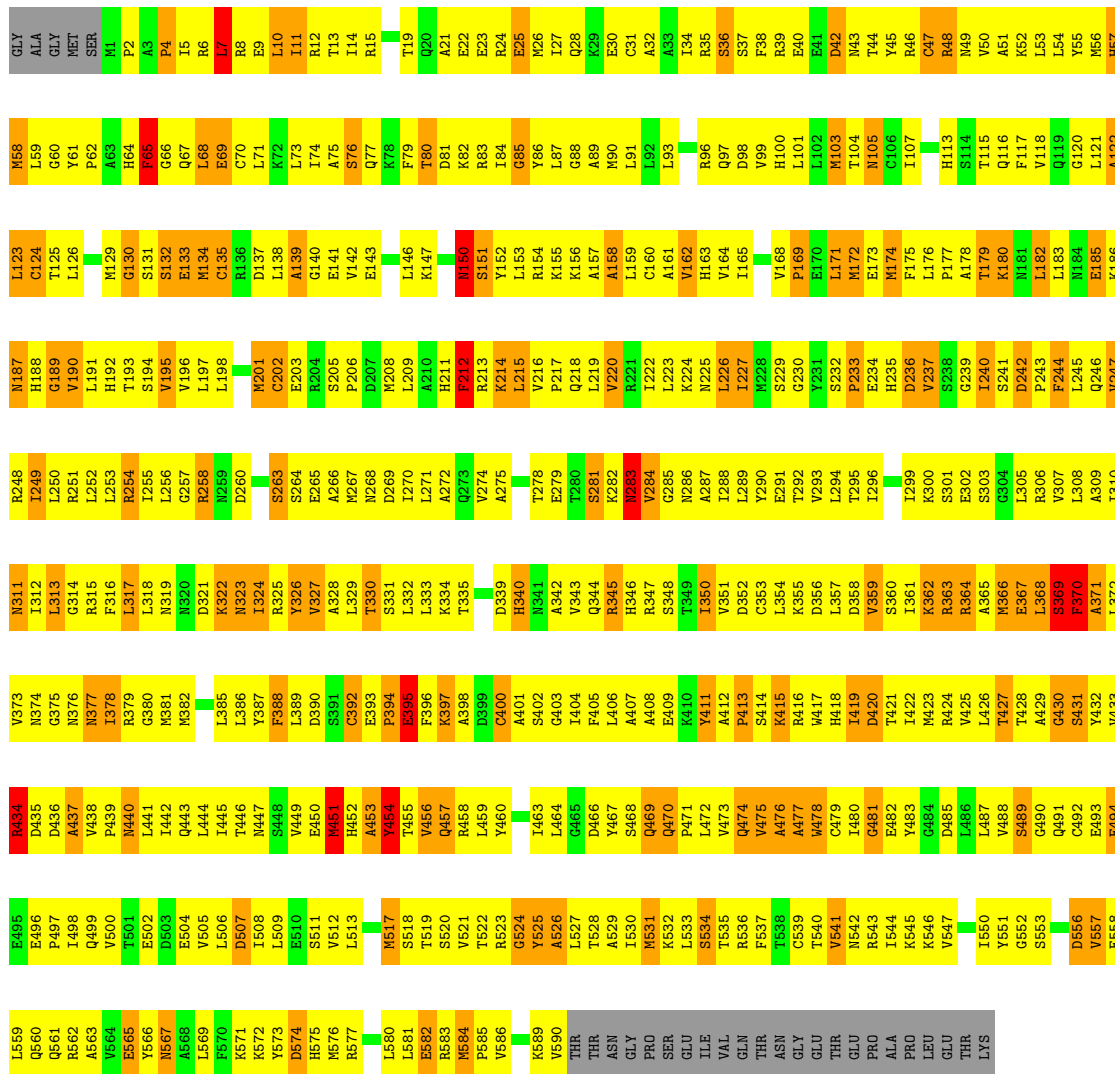
• Molecule 1: ADAPTER-RELATED PROTEIN COMPLEX 1 GAMMA 1 SUBUNIT



|     |     |     |     |     |     |     |     |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |      |      |      |     |      |     |      |     |     |     |     |     |     |      |      |      |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     |      |      |      |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|------|------|------|-----|------|-----|------|-----|-----|-----|-----|-----|-----|------|------|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|------|------|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| GLY | ALA | L59 | G61 | P62 | A63 | H64 | F65 | A3 | P4 | G66 | Q67 | L68 | E69 | C70 | L71 | L72 | I73 | I74 | T75 | I76 | I77 | D81 | K82 | R83 | R84 | G85 | Y86 | L87 | G88 | A89 | M90 | C91 | A32 | A33 | I34 | R35 | S36 | D98 | F99 | H100 | R101 | E40 | L102 | M103 | T104 | T44 | C105 | Y45 | I107 | C47 | R48 | M49 | V50 | A51 | K52 | V118 | Q119 | G120 | M56 | L121 | A122 | M187 | H188 | G189 | V190 | H191 | L192 | T193 | S194 | M201 | C202 | E203 | R204 | G205 | S206 | A75 | P206 | D207 | M208 | F79 | A210 | H211 | R212 | K213 | K214 | L215 | A216 | P217 | K155 | K156 | L219 | V220 | R221 | L222 | L223 | K224 | N225 | L226 | A227 | I228 | M228 | L289 | Y290 | E291 | T292 | V293 | L294 | T295 | D236 | V237 | S238 | G239 | I240 | S241 | R242 | S303 | P243 | F244 | L245 | Q246 | M188 | K186 | R248 | I249 | L250 | R251 | L252 | L253 | R254 | I255 | L256 | G257 | L258 | M259 | D260 | D261 | D262 | S263 | S264 | E265 | A266 | M267 | N268 | D269 | I270 | L271 | A272 | G273 | V274 | A275 | T276 | N277 | K278 | E279 | L280 | S281 | K282 | V283 | V284 | G285 | N286 | A287 | I288 | L289 | Y290 | E291 | T292 | V293 | L294 | T295 | D296 | L299 | K300 | S301 | E302 | S303 | D304 | G304 | L305 | R306 | V307 | L308 | A309 | I310 | N311 | I312 | L313 | G314 | R315 | F316 | L317 | L318 | N319 | N320 | D321 | K322 | N323 | I324 | R325 | Y326 | Y327 | A328 | L329 | T330 | S331 | L332 | L333 | K334 | T335 | A371 | L372 | V373 | N374 | G375 | I376 | N377 | L378 | N440 | N441 | G380 | M381 | M382 | L385 | L386 | Y387 | F388 | L389 | D390 | S391 | C392 | E393 | P394 | E395 | F396 | K397 | A398 | R399 | C400 | Y401 | A402 | S403 | I404 | F405 | L406 | H407 | H346 | R347 | S348 | T349 | I350 | V351 | D352 | C353 | L354 | K355 | D356 | L357 | D358 | V359 | S360 | I361 | K362 | R423 | R363 | R424 | R364 | V425 | V426 | L427 | L428 | V429 | L430 | G431 | D556 | F557 | E558 | L559 | Q560 | Q561 | R562 | A563 | Q499 | V500 | T501 | R502 | D503 | E504 | V505 | L506 | K571 | K572 | Y573 | D574 | H575 | M576 | R577 | L580 | L581 | E582 | R583 | S520 | V521 | M584 | P585 | V586 | G587 | Y525 | L463 | L464 | D466 | Y467 | S468 | Q469 | Q470 | P471 | L472 | A412 | P413 | S414 | K415 | A416 | W417 | H418 | C479 | I419 | D420 | T421 | I422 | M423 | R424 | G484 | D485 | L486 | L487 | V488 | S489 | G490 | G491 | L550 | Y551 | G552 | L553 | S553 |
|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|------|------|------|-----|------|-----|------|-----|-----|-----|-----|-----|-----|------|------|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|------|------|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

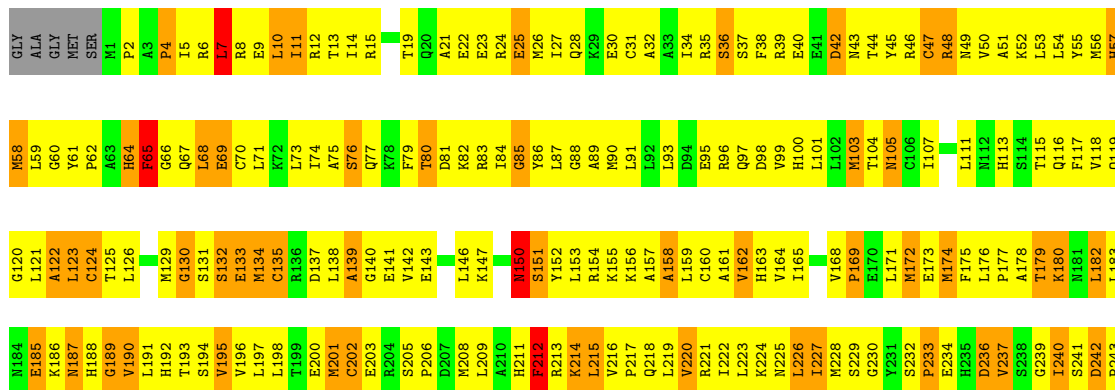
• Molecule 1: ADAPTER-RELATED PROTEIN COMPLEX 1 GAMMA 1 SUBUNIT

Chain I: 15% 59% 20% 5%

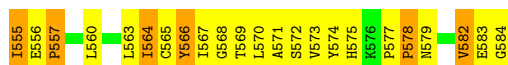


• Molecule 1: ADAPTER-RELATED PROTEIN COMPLEX 1 GAMMA 1 SUBUNIT

Chain K: 13% 60% 20% 5%

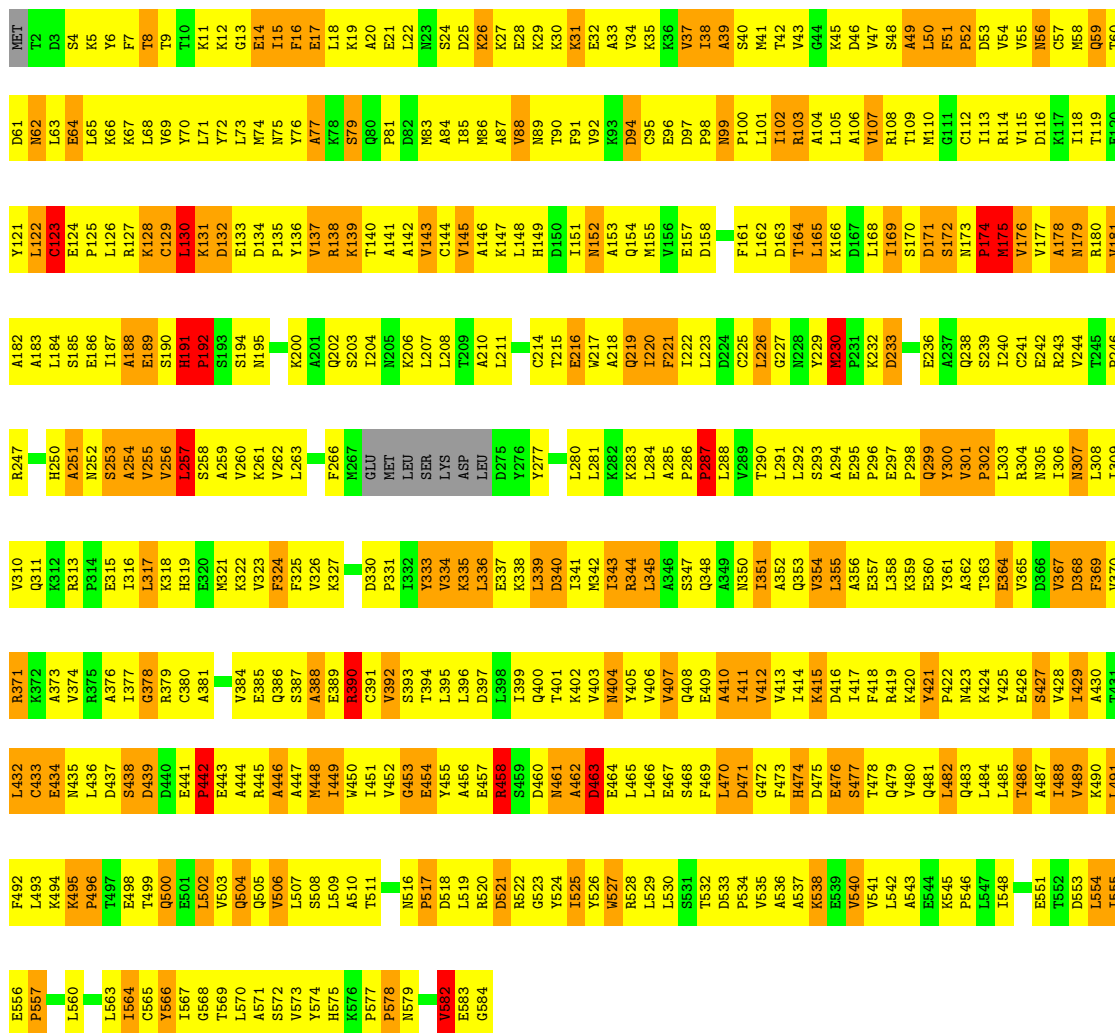






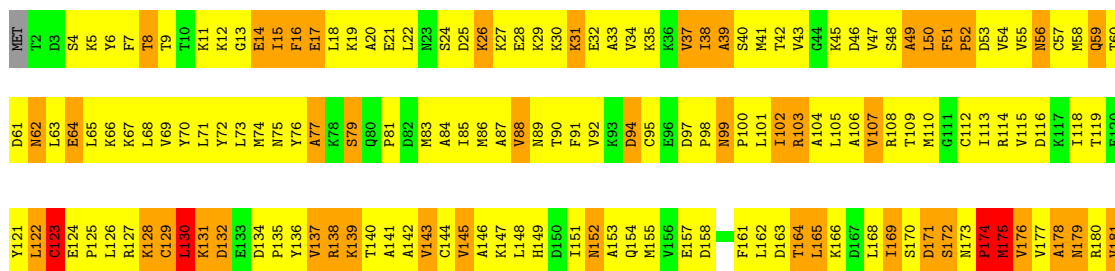
● Molecule 2: ADAPTER-RELATED PROTEIN COMPLEX 1 BETA 1 SUBUNIT

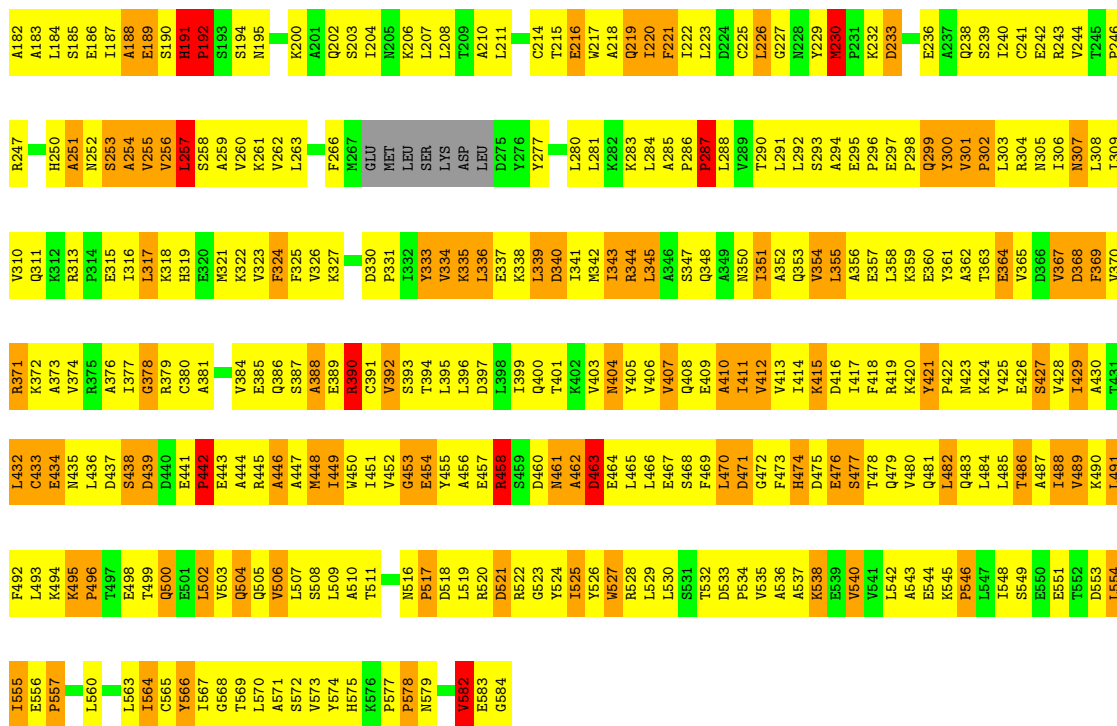
Chain D: 14% 59% 23% ..



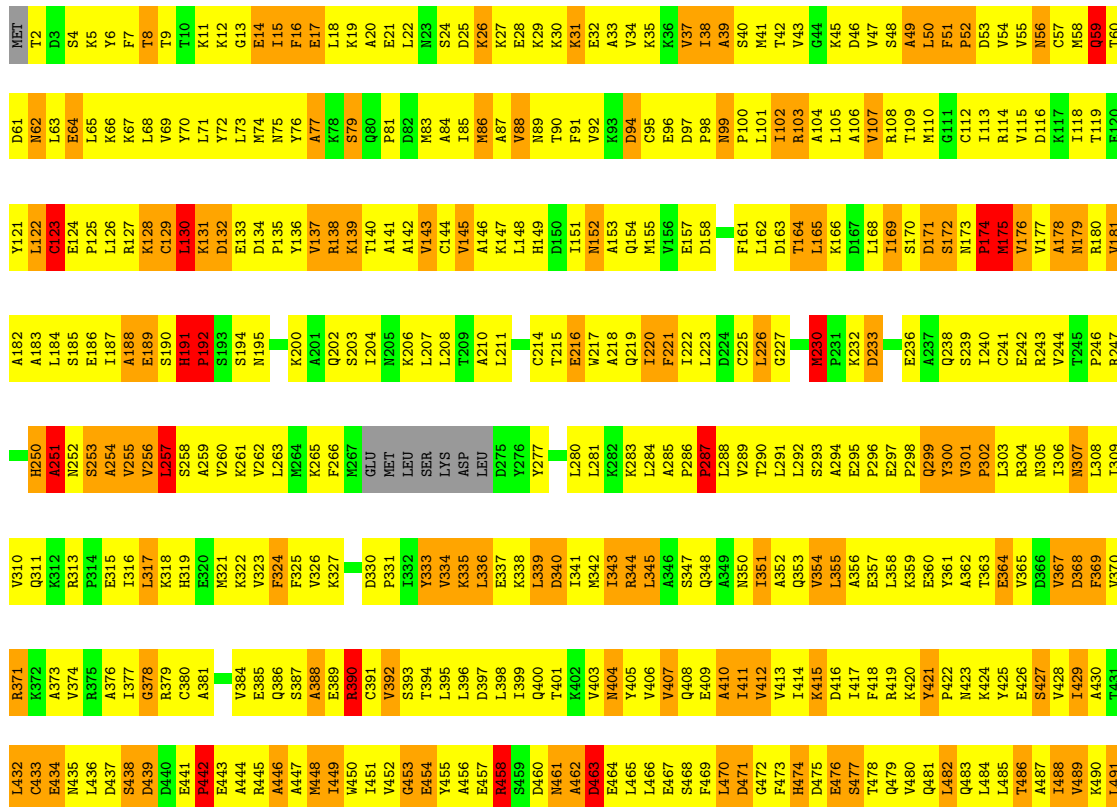
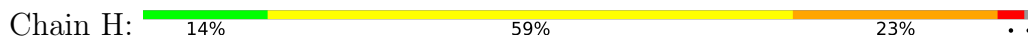
● Molecule 2: ADAPTER-RELATED PROTEIN COMPLEX 1 BETA 1 SUBUNIT

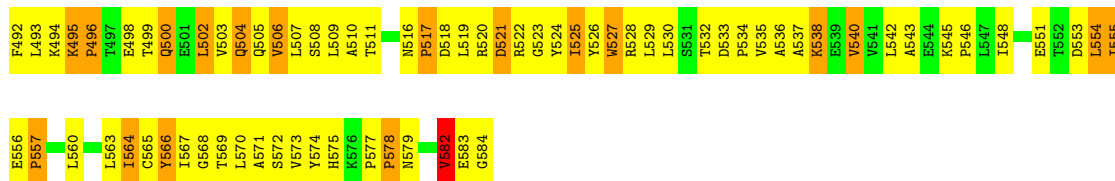
Chain F: 14% 59% 23% ..



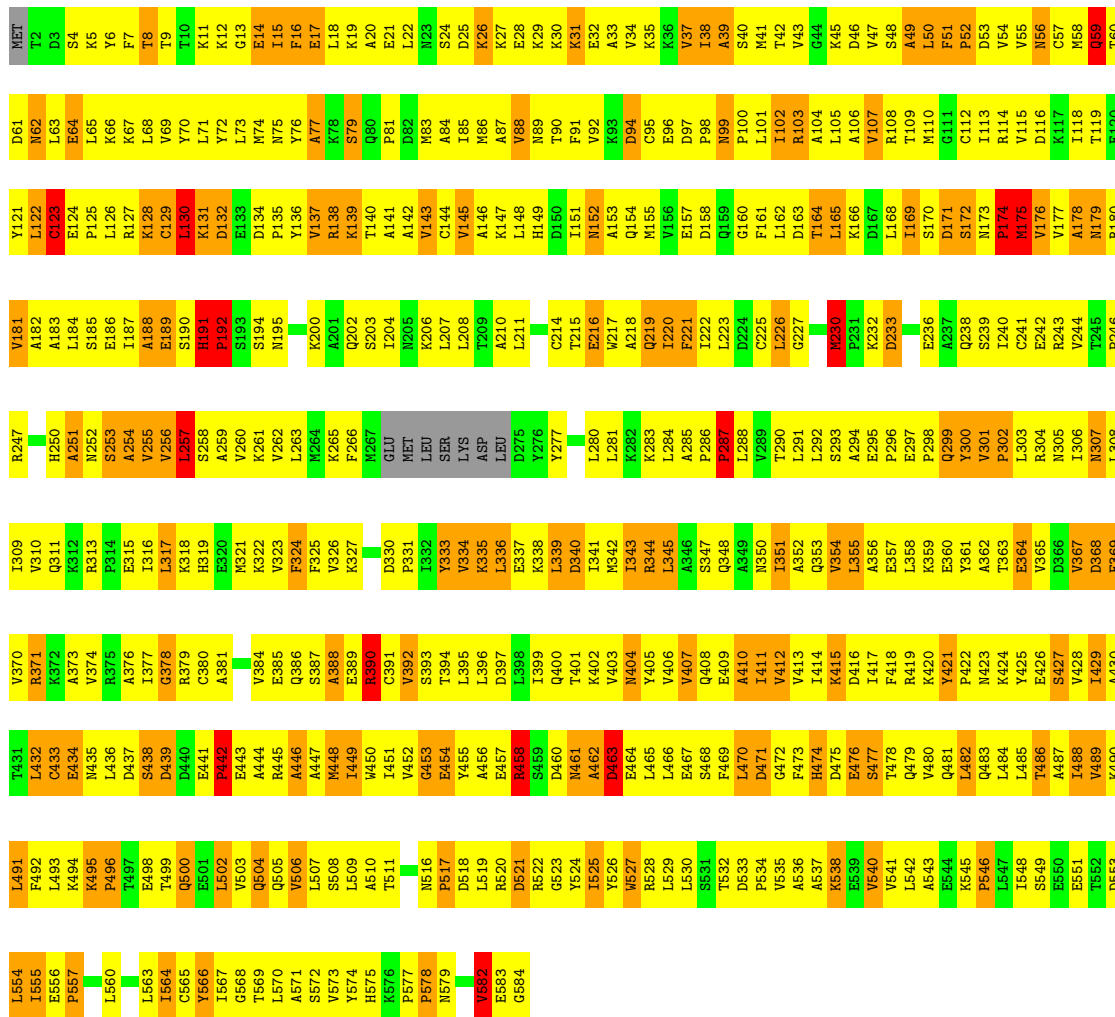
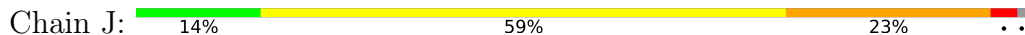


• Molecule 2: ADAPTER-RELATED PROTEIN COMPLEX 1 BETA 1 SUBUNIT

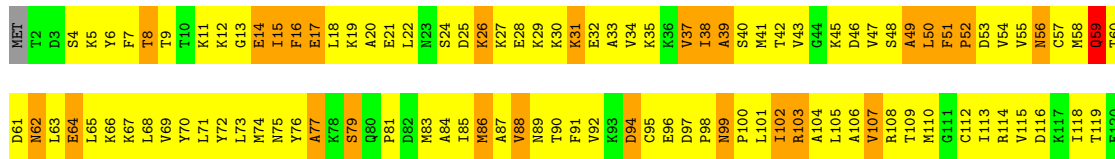
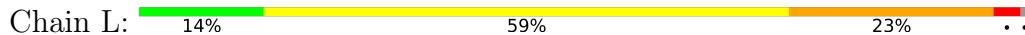


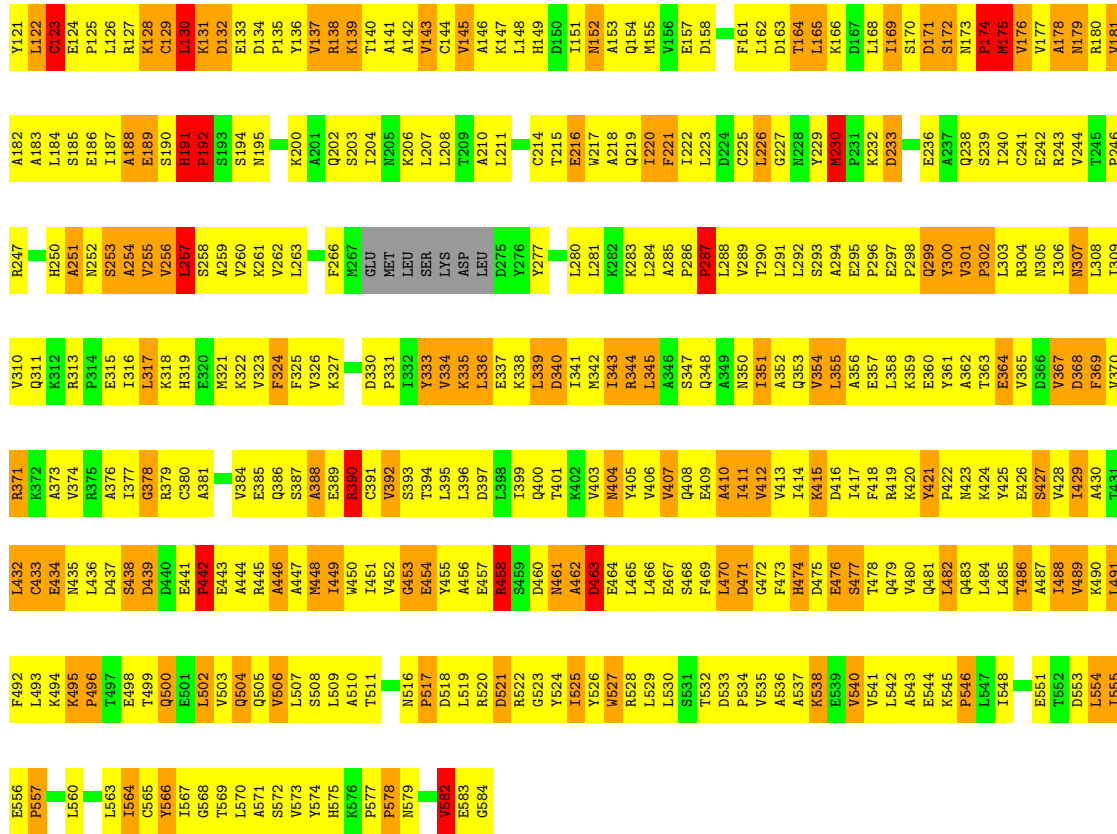


• Molecule 2: ADAPTER-RELATED PROTEIN COMPLEX 1 BETA 1 SUBUNIT

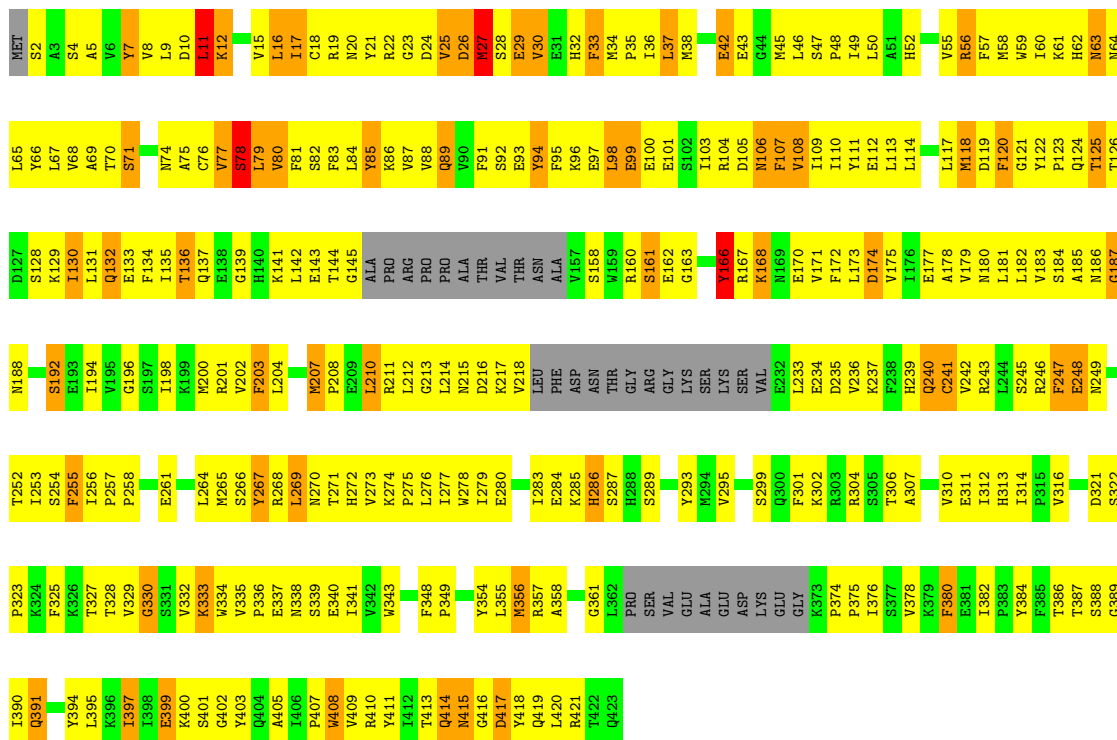
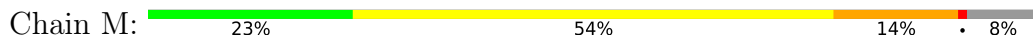


• Molecule 2: ADAPTER-RELATED PROTEIN COMPLEX 1 BETA 1 SUBUNIT



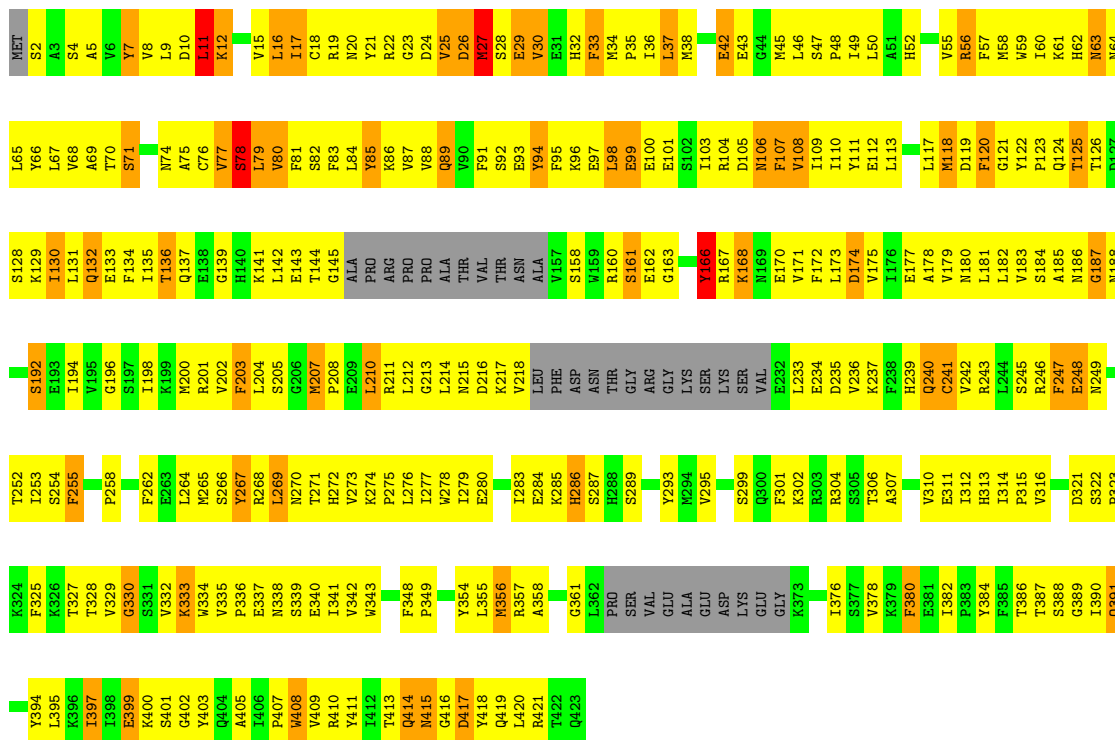


● Molecule 3: ADAPTOR-RELATED PROTEIN COMPLEX 1, MU 1 SUBUNIT



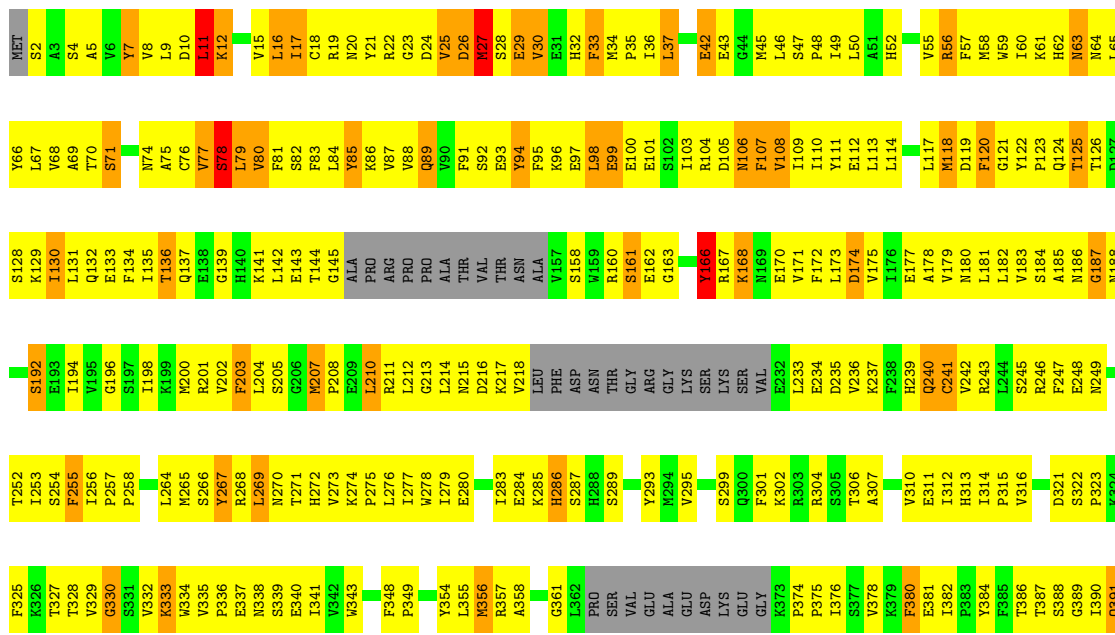
• Molecule 3: ADAPTOR-RELATED PROTEIN COMPLEX 1, MU 1 SUBUNIT

Chain N: 23% 54% 14% 8%

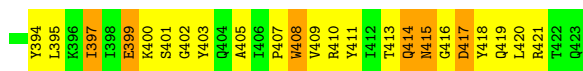


• Molecule 3: ADAPTOR-RELATED PROTEIN COMPLEX 1, MU 1 SUBUNIT

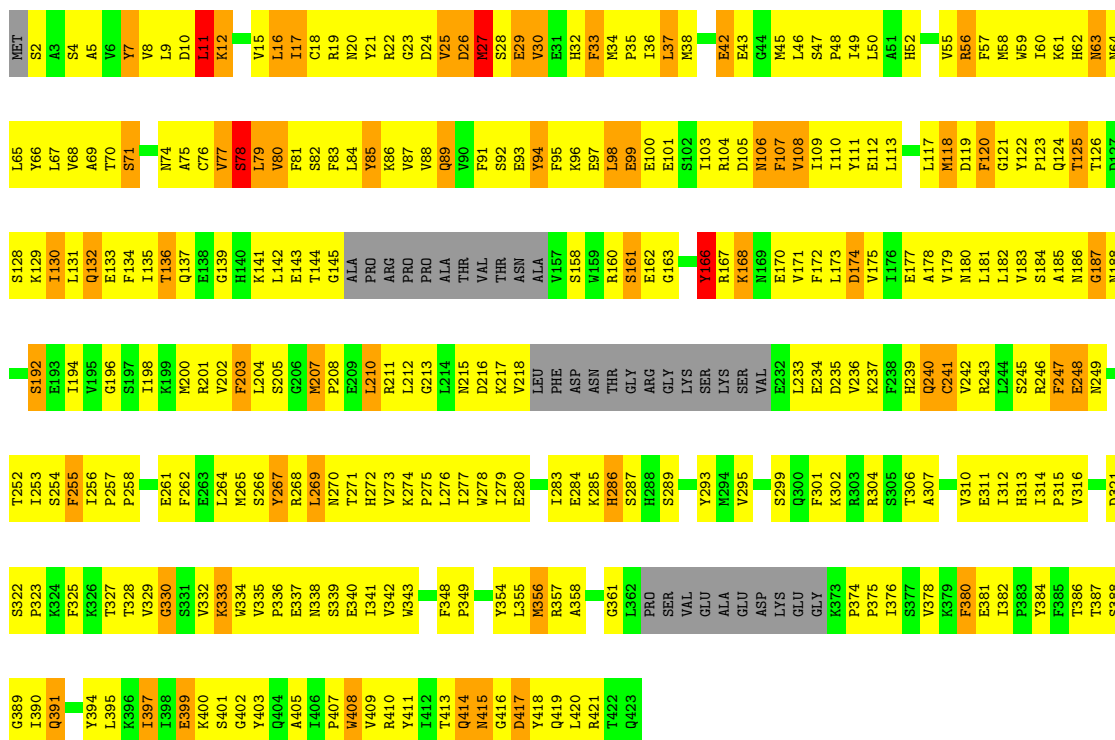
Chain O: 22% 55% 13% 8%



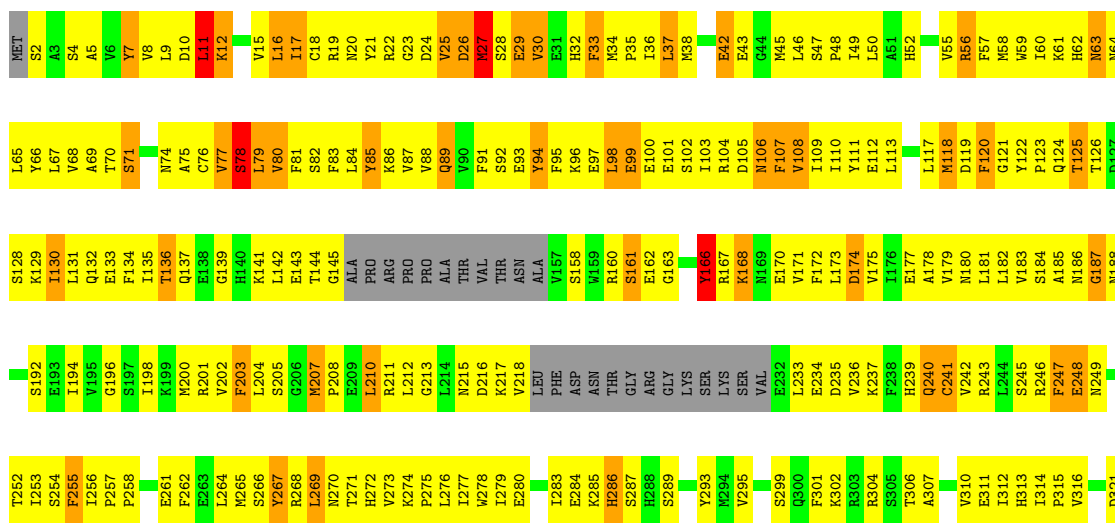


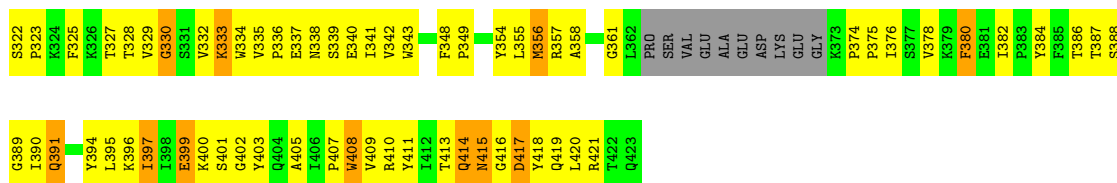


● Molecule 3: ADAPTOR-RELATED PROTEIN COMPLEX 1, MU 1 SUBUNIT

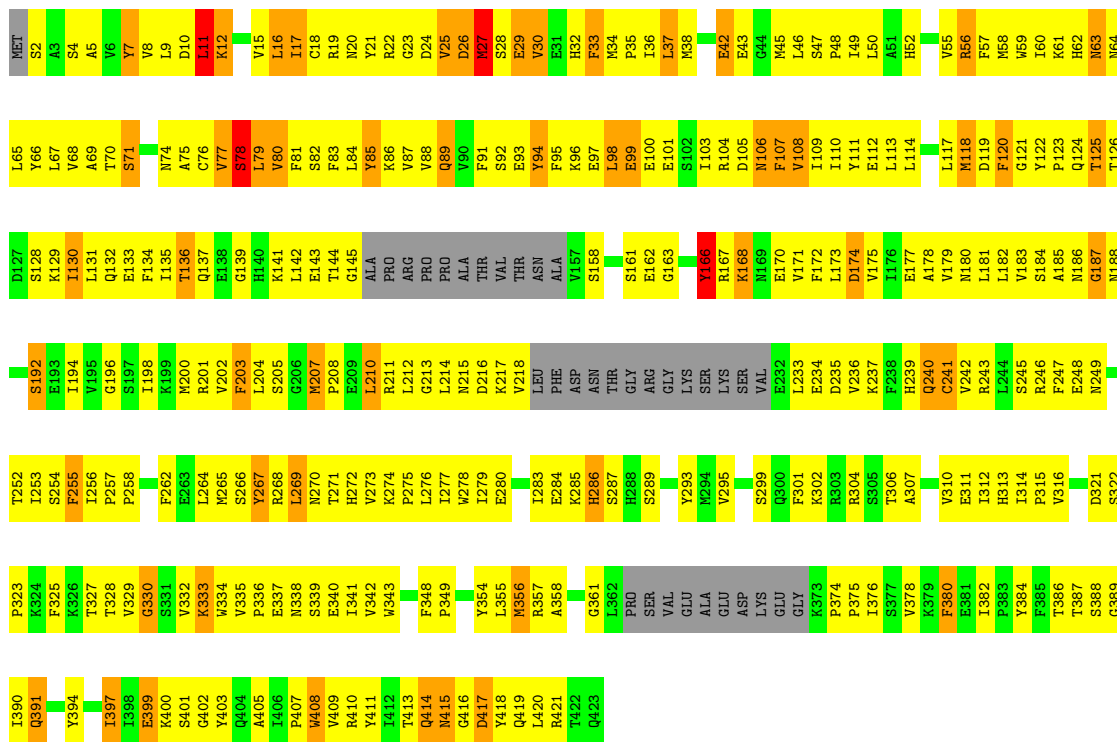
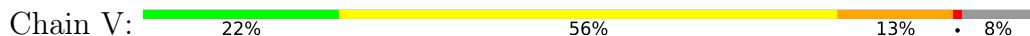


● Molecule 3: ADAPTOR-RELATED PROTEIN COMPLEX 1, MU 1 SUBUNIT

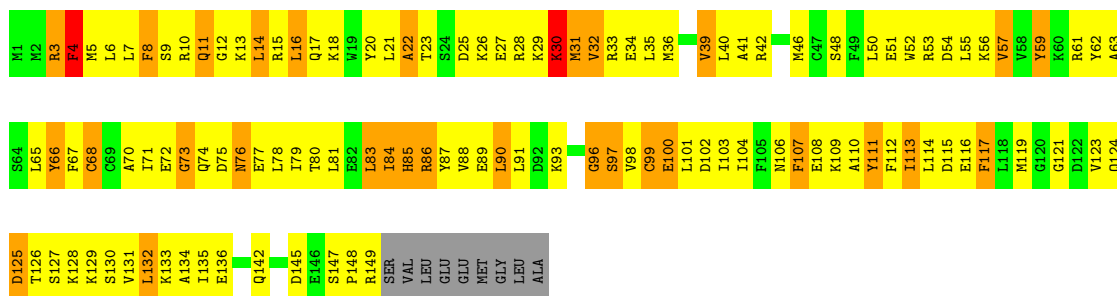
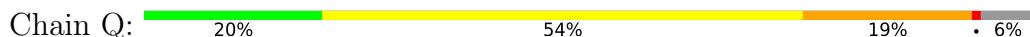




• Molecule 3: ADAPTOR-RELATED PROTEIN COMPLEX 1, MU 1 SUBUNIT

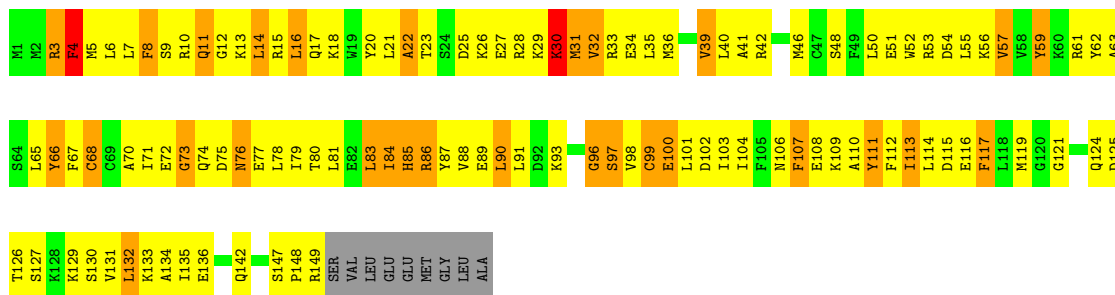


• Molecule 4: ADAPTER-RELATED PROTEIN COMPLEX 1 SIGMA 1A SUBUNIT



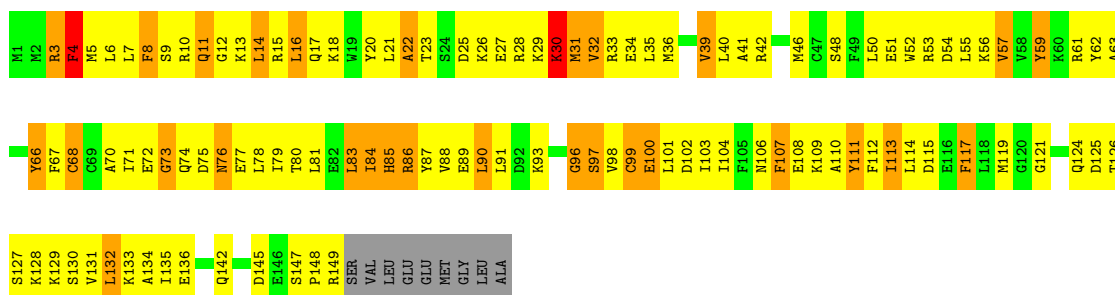
• Molecule 4: ADAPTER-RELATED PROTEIN COMPLEX 1 SIGMA 1A SUBUNIT





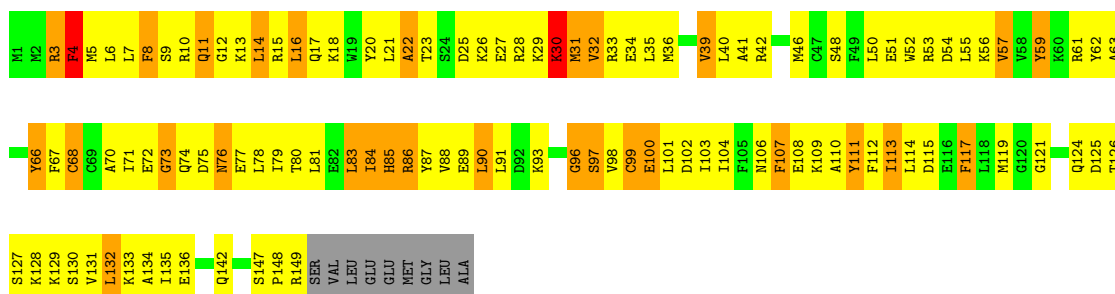
- Molecule 4: ADAPTER-RELATED PROTEIN COMPLEX 1 SIGMA 1A SUBUNIT

Chain T: 22% 53% 18% • 6%



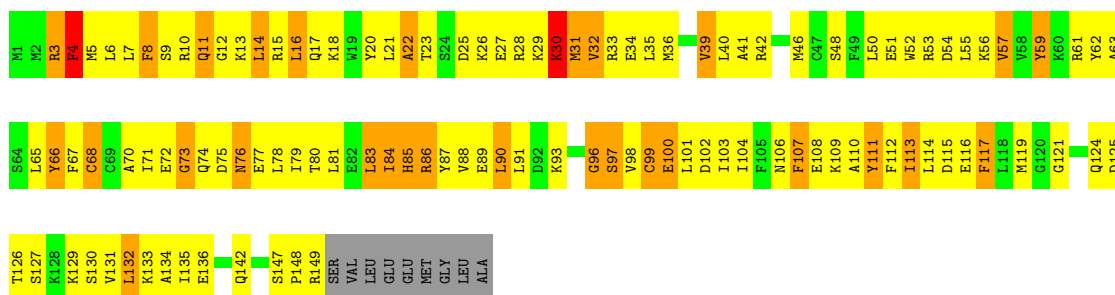
- Molecule 4: ADAPTER-RELATED PROTEIN COMPLEX 1 SIGMA 1A SUBUNIT

Chain U: 22% 53% 18% • 6%



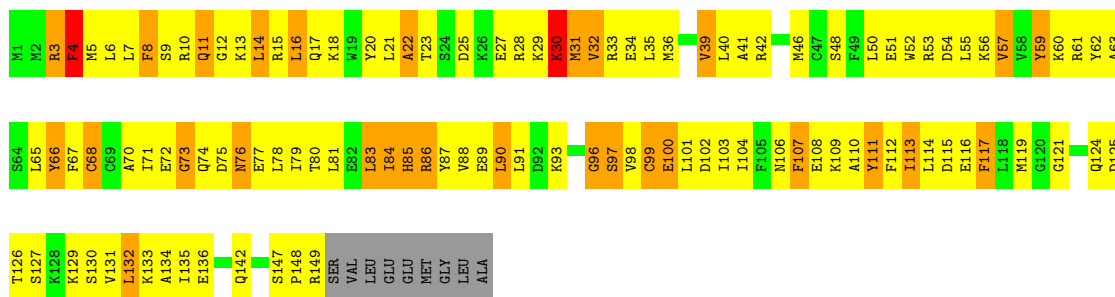
- Molecule 4: ADAPTER-RELATED PROTEIN COMPLEX 1 SIGMA 1A SUBUNIT

Chain W: 22% 53% 18% • 6%



- Molecule 4: ADAPTER-RELATED PROTEIN COMPLEX 1 SIGMA 1A SUBUNIT

Chain X: 22% 53% 18% 6%



## 4 Data and refinement statistics

Xtrriage (Phenix) and EDS were not executed - this section is therefore incomplete.

| Property   | Value   | Source    |
|--|---|-----------|
| Space group  | P 32 1 2  | Depositor |
| Cell constants<br>a, b, c, $\alpha$ , $\beta$ , $\gamma$ | 178.14Å 178.14Å 1134.99Å<br>90.00° 90.00° 120.00° | Depositor |
| Resolution (Å)   | 40.00 – 4.00                                      | Depositor |
| % Data completeness<br>(in resolution range)             | 78.8 (40.00-4.00)                                 | Depositor |
| $R_{merge}$  | 0.12  | Depositor |
| $R_{sym}$  | (Not available)                                   | Depositor |
| Refinement program                                       | CNS 1.1   | Depositor |
| R, $R_{free}$  | 0.297 , 0.310                                     | Depositor |
| Estimated twinning fraction                              | No twinning to report.                            | Xtrriage  |
| Total number of atoms                                    | 81744   | wwPDB-VP  |
| Average B, all atoms (Å <sup>2</sup> )                   | 89.0  | wwPDB-VP  |

## 5 Model quality i

### 5.1 Standard geometry i

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 5$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

| Mol | Chain | Bond lengths |                 | Bond angles |                   |
|-----|-------|--------------|-----------------|-------------|-------------------|
|     |       | RMSZ         | # Z  >5         | RMSZ        | # Z  >5           |
| 1   | A     | 0.61         | 1/4728 (0.0%)   | 0.83        | 4/6381 (0.1%)     |
| 1   | C     | 0.61         | 1/4728 (0.0%)   | 0.83        | 4/6381 (0.1%)     |
| 1   | E     | 0.61         | 1/4728 (0.0%)   | 0.83        | 4/6381 (0.1%)     |
| 1   | G     | 0.61         | 1/4728 (0.0%)   | 0.83        | 4/6381 (0.1%)     |
| 1   | I     | 0.61         | 1/4728 (0.0%)   | 0.83        | 4/6381 (0.1%)     |
| 1   | K     | 0.61         | 1/4728 (0.0%)   | 0.83        | 4/6381 (0.1%)     |
| 2   | B     | 0.62         | 0/4630          | 0.90        | 11/6278 (0.2%)    |
| 2   | D     | 0.63         | 0/4630          | 0.90        | 12/6278 (0.2%)    |
| 2   | F     | 0.63         | 0/4630          | 0.90        | 12/6278 (0.2%)    |
| 2   | H     | 0.62         | 0/4630          | 0.90        | 12/6278 (0.2%)    |
| 2   | J     | 0.62         | 0/4630          | 0.90        | 12/6278 (0.2%)    |
| 2   | L     | 0.62         | 0/4630          | 0.90        | 12/6278 (0.2%)    |
| 3   | M     | 0.73         | 1/3237 (0.0%)   | 0.93        | 3/4366 (0.1%)     |
| 3   | N     | 0.73         | 1/3237 (0.0%)   | 0.93        | 3/4366 (0.1%)     |
| 3   | O     | 0.73         | 1/3237 (0.0%)   | 0.93        | 3/4366 (0.1%)     |
| 3   | P     | 0.73         | 1/3237 (0.0%)   | 0.93        | 3/4366 (0.1%)     |
| 3   | R     | 0.73         | 1/3237 (0.0%)   | 0.93        | 3/4366 (0.1%)     |
| 3   | V     | 0.73         | 1/3237 (0.0%)   | 0.93        | 3/4366 (0.1%)     |
| 4   | Q     | 0.64         | 1/1259 (0.1%)   | 0.75        | 0/1686            |
| 4   | S     | 0.64         | 1/1259 (0.1%)   | 0.75        | 0/1686            |
| 4   | T     | 0.64         | 1/1259 (0.1%)   | 0.75        | 0/1686            |
| 4   | U     | 0.64         | 1/1259 (0.1%)   | 0.75        | 0/1686            |
| 4   | W     | 0.64         | 1/1259 (0.1%)   | 0.75        | 0/1686            |
| 4   | X     | 0.64         | 1/1259 (0.1%)   | 0.75        | 0/1686            |
| All | All   | 0.65         | 18/83124 (0.0%) | 0.87        | 113/112266 (0.1%) |

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 3   | M     | 0                   | 2                   |

*Continued on next page...*

*Continued from previous page...*

| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 3   | N     | 0                   | 2                   |
| 3   | O     | 0                   | 2                   |
| 3   | P     | 0                   | 2                   |
| 3   | R     | 0                   | 2                   |
| 3   | V     | 0                   | 2                   |
| All | All   | 0                   | 12                  |

All (18) bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 4   | X     | 68  | CYS  | CB-SG | -5.94 | 1.72        | 1.81     |
| 4   | Q     | 68  | CYS  | CB-SG | -5.92 | 1.72        | 1.81     |
| 4   | W     | 68  | CYS  | CB-SG | -5.90 | 1.72        | 1.81     |
| 4   | S     | 68  | CYS  | CB-SG | -5.89 | 1.72        | 1.81     |
| 4   | U     | 68  | CYS  | CB-SG | -5.87 | 1.72        | 1.81     |
| 4   | T     | 68  | CYS  | CB-SG | -5.86 | 1.72        | 1.81     |
| 1   | G     | 400 | CYS  | CB-SG | -5.27 | 1.73        | 1.81     |
| 1   | K     | 400 | CYS  | CB-SG | -5.27 | 1.73        | 1.81     |
| 3   | N     | 408 | TRP  | CB-CG | -5.26 | 1.40        | 1.50     |
| 3   | M     | 408 | TRP  | CB-CG | -5.24 | 1.40        | 1.50     |
| 1   | E     | 400 | CYS  | CB-SG | -5.24 | 1.73        | 1.81     |
| 3   | V     | 408 | TRP  | CB-CG | -5.23 | 1.40        | 1.50     |
| 1   | A     | 400 | CYS  | CB-SG | -5.23 | 1.73        | 1.81     |
| 1   | C     | 400 | CYS  | CB-SG | -5.23 | 1.73        | 1.81     |
| 3   | O     | 408 | TRP  | CB-CG | -5.23 | 1.40        | 1.50     |
| 3   | R     | 408 | TRP  | CB-CG | -5.23 | 1.40        | 1.50     |
| 3   | P     | 408 | TRP  | CB-CG | -5.22 | 1.40        | 1.50     |
| 1   | I     | 400 | CYS  | CB-SG | -5.22 | 1.73        | 1.81     |

All (113) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms   | Z      | Observed(°) | Ideal(°) |
|-----|-------|-----|------|---------|--------|-------------|----------|
| 2   | H     | 174 | PRO  | CA-N-CD | -11.26 | 95.73       | 111.50   |
| 2   | B     | 174 | PRO  | CA-N-CD | -11.24 | 95.77       | 111.50   |
| 2   | L     | 174 | PRO  | CA-N-CD | -11.23 | 95.78       | 111.50   |
| 2   | F     | 174 | PRO  | CA-N-CD | -11.22 | 95.78       | 111.50   |
| 2   | J     | 174 | PRO  | CA-N-CD | -11.22 | 95.79       | 111.50   |
| 2   | D     | 174 | PRO  | CA-N-CD | -11.22 | 95.79       | 111.50   |
| 2   | L     | 192 | PRO  | CA-N-CD | -10.85 | 96.31       | 111.50   |
| 2   | F     | 192 | PRO  | CA-N-CD | -10.84 | 96.32       | 111.50   |
| 2   | D     | 192 | PRO  | CA-N-CD | -10.83 | 96.34       | 111.50   |
| 2   | B     | 192 | PRO  | CA-N-CD | -10.82 | 96.35       | 111.50   |

*Continued on next page...*

*Continued from previous page...*

| Mol | Chain | Res | Type | Atoms    | Z      | Observed(°) | Ideal(°) |
|-----|-------|-----|------|----------|--------|-------------|----------|
| 2   | J     | 192 | PRO  | CA-N-CD  | -10.82 | 96.36       | 111.50   |
| 2   | H     | 192 | PRO  | CA-N-CD  | -10.82 | 96.36       | 111.50   |
| 2   | F     | 130 | LEU  | CA-CB-CG | -7.25  | 98.62       | 115.30   |
| 2   | B     | 130 | LEU  | CA-CB-CG | -7.25  | 98.64       | 115.30   |
| 2   | H     | 130 | LEU  | CA-CB-CG | -7.25  | 98.64       | 115.30   |
| 2   | L     | 130 | LEU  | CA-CB-CG | -7.23  | 98.66       | 115.30   |
| 2   | J     | 130 | LEU  | CA-CB-CG | -7.23  | 98.68       | 115.30   |
| 2   | D     | 130 | LEU  | CA-CB-CG | -7.23  | 98.68       | 115.30   |
| 2   | F     | 232 | LYS  | N-CA-C   | 6.56   | 128.70      | 111.00   |
| 2   | J     | 232 | LYS  | N-CA-C   | 6.55   | 128.69      | 111.00   |
| 2   | D     | 232 | LYS  | N-CA-C   | 6.55   | 128.68      | 111.00   |
| 2   | L     | 232 | LYS  | N-CA-C   | 6.55   | 128.68      | 111.00   |
| 2   | B     | 232 | LYS  | N-CA-C   | 6.55   | 128.68      | 111.00   |
| 2   | H     | 232 | LYS  | N-CA-C   | 6.54   | 128.65      | 111.00   |
| 1   | I     | 4   | PRO  | CA-N-CD  | -6.43  | 102.50      | 111.50   |
| 1   | K     | 4   | PRO  | CA-N-CD  | -6.42  | 102.51      | 111.50   |
| 1   | G     | 4   | PRO  | CA-N-CD  | -6.41  | 102.52      | 111.50   |
| 1   | C     | 4   | PRO  | CA-N-CD  | -6.41  | 102.52      | 111.50   |
| 1   | A     | 4   | PRO  | CA-N-CD  | -6.40  | 102.54      | 111.50   |
| 1   | E     | 171 | LEU  | N-CA-C   | 6.40   | 128.28      | 111.00   |
| 1   | K     | 171 | LEU  | N-CA-C   | 6.39   | 128.25      | 111.00   |
| 1   | C     | 171 | LEU  | N-CA-C   | 6.39   | 128.24      | 111.00   |
| 1   | E     | 4   | PRO  | CA-N-CD  | -6.39  | 102.56      | 111.50   |
| 1   | I     | 171 | LEU  | N-CA-C   | 6.39   | 128.24      | 111.00   |
| 1   | A     | 171 | LEU  | N-CA-C   | 6.38   | 128.22      | 111.00   |
| 3   | O     | 248 | GLU  | N-CA-C   | 6.37   | 128.19      | 111.00   |
| 2   | F     | 582 | VAL  | N-CA-C   | 6.37   | 128.19      | 111.00   |
| 1   | G     | 171 | LEU  | N-CA-C   | 6.36   | 128.18      | 111.00   |
| 3   | N     | 248 | GLU  | N-CA-C   | 6.36   | 128.18      | 111.00   |
| 3   | M     | 248 | GLU  | N-CA-C   | 6.35   | 128.15      | 111.00   |
| 3   | P     | 248 | GLU  | N-CA-C   | 6.35   | 128.15      | 111.00   |
| 3   | V     | 248 | GLU  | N-CA-C   | 6.35   | 128.13      | 111.00   |
| 2   | H     | 582 | VAL  | N-CA-C   | 6.34   | 128.12      | 111.00   |
| 2   | J     | 582 | VAL  | N-CA-C   | 6.34   | 128.12      | 111.00   |
| 2   | D     | 582 | VAL  | N-CA-C   | 6.34   | 128.12      | 111.00   |
| 3   | R     | 248 | GLU  | N-CA-C   | 6.33   | 128.10      | 111.00   |
| 2   | L     | 582 | VAL  | N-CA-C   | 6.32   | 128.08      | 111.00   |
| 2   | F     | 233 | ASP  | N-CA-C   | 6.20   | 127.73      | 111.00   |
| 2   | H     | 233 | ASP  | N-CA-C   | 6.19   | 127.71      | 111.00   |
| 2   | L     | 233 | ASP  | N-CA-C   | 6.19   | 127.72      | 111.00   |
| 2   | B     | 233 | ASP  | N-CA-C   | 6.18   | 127.69      | 111.00   |
| 2   | D     | 233 | ASP  | N-CA-C   | 6.18   | 127.68      | 111.00   |

*Continued on next page...*



*Continued from previous page...*

| Mol | Chain | Res | Type | Atoms  | Z     | Observed(°) | Ideal(°) |
|-----|-------|-----|------|--------|-------|-------------|----------|
| 2   | J     | 233 | ASP  | N-CA-C | 6.17  | 127.67      | 111.00   |
| 2   | D     | 191 | HIS  | N-CA-C | 6.05  | 127.34      | 111.00   |
| 2   | B     | 191 | HIS  | N-CA-C | 6.05  | 127.33      | 111.00   |
| 2   | H     | 191 | HIS  | N-CA-C | 6.05  | 127.32      | 111.00   |
| 2   | F     | 191 | HIS  | N-CA-C | 6.04  | 127.32      | 111.00   |
| 2   | L     | 191 | HIS  | N-CA-C | 6.04  | 127.32      | 111.00   |
| 2   | J     | 191 | HIS  | N-CA-C | 6.03  | 127.29      | 111.00   |
| 2   | J     | 230 | MET  | N-CA-C | 6.01  | 127.24      | 111.00   |
| 2   | L     | 230 | MET  | N-CA-C | 6.01  | 127.24      | 111.00   |
| 2   | B     | 230 | MET  | N-CA-C | 6.00  | 127.20      | 111.00   |
| 2   | H     | 230 | MET  | N-CA-C | 5.99  | 127.18      | 111.00   |
| 2   | L     | 214 | CYS  | N-CA-C | 5.99  | 127.17      | 111.00   |
| 2   | D     | 230 | MET  | N-CA-C | 5.99  | 127.17      | 111.00   |
| 2   | F     | 230 | MET  | N-CA-C | 5.99  | 127.16      | 111.00   |
| 2   | D     | 214 | CYS  | N-CA-C | 5.98  | 127.14      | 111.00   |
| 2   | F     | 214 | CYS  | N-CA-C | 5.98  | 127.14      | 111.00   |
| 2   | B     | 214 | CYS  | N-CA-C | 5.98  | 127.14      | 111.00   |
| 2   | J     | 214 | CYS  | N-CA-C | 5.97  | 127.12      | 111.00   |
| 2   | H     | 214 | CYS  | N-CA-C | 5.97  | 127.12      | 111.00   |
| 1   | I     | 229 | SER  | N-CA-C | 5.60  | 126.11      | 111.00   |
| 1   | A     | 229 | SER  | N-CA-C | 5.59  | 126.09      | 111.00   |
| 1   | G     | 229 | SER  | N-CA-C | 5.59  | 126.09      | 111.00   |
| 1   | E     | 229 | SER  | N-CA-C | 5.59  | 126.08      | 111.00   |
| 2   | J     | 191 | HIS  | C-N-CD | -5.59 | 108.31      | 120.60   |
| 2   | F     | 191 | HIS  | C-N-CD | -5.58 | 108.31      | 120.60   |
| 2   | H     | 191 | HIS  | C-N-CD | -5.58 | 108.32      | 120.60   |
| 1   | C     | 229 | SER  | N-CA-C | 5.58  | 126.07      | 111.00   |
| 1   | K     | 229 | SER  | N-CA-C | 5.58  | 126.07      | 111.00   |
| 2   | L     | 191 | HIS  | C-N-CD | -5.57 | 108.34      | 120.60   |
| 2   | B     | 191 | HIS  | C-N-CD | -5.57 | 108.35      | 120.60   |
| 2   | D     | 191 | HIS  | C-N-CD | -5.56 | 108.36      | 120.60   |
| 2   | L     | 251 | ALA  | N-CA-C | 5.16  | 124.94      | 111.00   |
| 1   | C     | 150 | ASN  | N-CA-C | -5.16 | 97.07       | 111.00   |
| 1   | A     | 150 | ASN  | N-CA-C | -5.15 | 97.09       | 111.00   |
| 1   | E     | 150 | ASN  | N-CA-C | -5.15 | 97.10       | 111.00   |
| 1   | G     | 150 | ASN  | N-CA-C | -5.15 | 97.10       | 111.00   |
| 2   | B     | 251 | ALA  | N-CA-C | 5.14  | 124.89      | 111.00   |
| 2   | D     | 251 | ALA  | N-CA-C | 5.14  | 124.89      | 111.00   |
| 1   | K     | 150 | ASN  | N-CA-C | -5.14 | 97.11       | 111.00   |
| 1   | I     | 150 | ASN  | N-CA-C | -5.14 | 97.12       | 111.00   |
| 2   | F     | 251 | ALA  | N-CA-C | 5.14  | 124.87      | 111.00   |
| 2   | J     | 251 | ALA  | N-CA-C | 5.13  | 124.86      | 111.00   |

*Continued on next page...*

Continued from previous page...

| Mol | Chain | Res | Type | Atoms   | Z     | Observed(°) | Ideal(°) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 3   | R     | 408 | TRP  | CB-CA-C | -5.13 | 100.14      | 110.40   |
| 2   | L     | 232 | LYS  | CA-C-N  | 5.13  | 128.48      | 117.20   |
| 2   | H     | 251 | ALA  | N-CA-C  | 5.13  | 124.84      | 111.00   |
| 3   | P     | 408 | TRP  | CB-CA-C | -5.12 | 100.16      | 110.40   |
| 3   | N     | 408 | TRP  | CB-CA-C | -5.12 | 100.16      | 110.40   |
| 3   | O     | 408 | TRP  | CB-CA-C | -5.12 | 100.16      | 110.40   |
| 2   | B     | 232 | LYS  | CA-C-N  | 5.11  | 128.44      | 117.20   |
| 3   | M     | 408 | TRP  | CB-CA-C | -5.11 | 100.19      | 110.40   |
| 2   | J     | 232 | LYS  | CA-C-N  | 5.11  | 128.43      | 117.20   |
| 2   | D     | 232 | LYS  | CA-C-N  | 5.10  | 128.43      | 117.20   |
| 3   | V     | 408 | TRP  | CB-CA-C | -5.10 | 100.21      | 110.40   |
| 2   | F     | 232 | LYS  | CA-C-N  | 5.09  | 128.41      | 117.20   |
| 2   | H     | 232 | LYS  | CA-C-N  | 5.09  | 128.41      | 117.20   |
| 3   | V     | 391 | GLN  | N-CA-C  | -5.08 | 97.28       | 111.00   |
| 3   | N     | 391 | GLN  | N-CA-C  | -5.07 | 97.30       | 111.00   |
| 3   | P     | 391 | GLN  | N-CA-C  | -5.07 | 97.31       | 111.00   |
| 3   | M     | 391 | GLN  | N-CA-C  | -5.07 | 97.32       | 111.00   |
| 3   | O     | 391 | GLN  | N-CA-C  | -5.06 | 97.33       | 111.00   |
| 3   | R     | 391 | GLN  | N-CA-C  | -5.06 | 97.34       | 111.00   |

There are no chirality outliers.

All (12) planarity outliers are listed below:

| Mol | Chain | Res | Type | Group     |
|-----|-------|-----|------|-----------|
| 3   | M     | 166 | TYR  | Sidechain |
| 3   | M     | 85  | TYR  | Sidechain |
| 3   | N     | 166 | TYR  | Sidechain |
| 3   | N     | 85  | TYR  | Sidechain |
| 3   | O     | 166 | TYR  | Sidechain |
| 3   | O     | 85  | TYR  | Sidechain |
| 3   | P     | 166 | TYR  | Sidechain |
| 3   | P     | 85  | TYR  | Sidechain |
| 3   | R     | 166 | TYR  | Sidechain |
| 3   | R     | 85  | TYR  | Sidechain |
| 3   | V     | 166 | TYR  | Sidechain |
| 3   | V     | 85  | TYR  | Sidechain |

## 5.2 Too-close contacts

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen

atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1   | A     | 4663  | 0        | 4792     | 832     | 0            |
| 1   | C     | 4663  | 0        | 4792     | 817     | 6            |
| 1   | E     | 4663  | 0        | 4792     | 826     | 12           |
| 1   | G     | 4663  | 0        | 4792     | 824     | 0            |
| 1   | I     | 4663  | 0        | 4792     | 816     | 7            |
| 1   | K     | 4663  | 0        | 4792     | 819     | 12           |
| 2   | B     | 4558  | 0        | 4674     | 867     | 0            |
| 2   | D     | 4558  | 0        | 4674     | 877     | 0            |
| 2   | F     | 4558  | 0        | 4674     | 874     | 3            |
| 2   | H     | 4558  | 0        | 4674     | 876     | 0            |
| 2   | J     | 4558  | 0        | 4674     | 876     | 0            |
| 2   | L     | 4558  | 0        | 4674     | 861     | 4            |
| 3   | M     | 3166  | 0        | 3178     | 431     | 0            |
| 3   | N     | 3166  | 0        | 3178     | 432     | 0            |
| 3   | O     | 3166  | 0        | 3178     | 422     | 0            |
| 3   | P     | 3166  | 0        | 3178     | 436     | 0            |
| 3   | R     | 3166  | 0        | 3178     | 434     | 0            |
| 3   | V     | 3166  | 0        | 3178     | 419     | 0            |
| 4   | Q     | 1237  | 0        | 1261     | 227     | 0            |
| 4   | S     | 1237  | 0        | 1261     | 217     | 0            |
| 4   | T     | 1237  | 0        | 1261     | 221     | 0            |
| 4   | U     | 1237  | 0        | 1261     | 216     | 0            |
| 4   | W     | 1237  | 0        | 1261     | 225     | 0            |
| 4   | X     | 1237  | 0        | 1261     | 221     | 0            |
| All | All   | 81744 | 0        | 83430    | 13624   | 22           |

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 82.

All (13624) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

| Atom-1          | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:E:488:VAL:HA  | 1:E:500:VAL:HG11 | 1.20                     | 1.19              |
| 1:A:482:GLU:HB3 | 1:A:584:MET:SD   | 1.83                     | 1.18              |
| 1:E:482:GLU:HB3 | 1:E:584:MET:SD   | 1.83                     | 1.18              |
| 1:G:482:GLU:HB3 | 1:G:584:MET:SD   | 1.83                     | 1.17              |
| 1:K:482:GLU:HB3 | 1:K:584:MET:SD   | 1.83                     | 1.17              |
| 1:I:482:GLU:HB3 | 1:I:584:MET:SD   | 1.83                     | 1.16              |
| 1:C:482:GLU:HB3 | 1:C:584:MET:SD   | 1.83                     | 1.16              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:488:VAL:HA   | 1:K:500:VAL:HG11 | 1.20                     | 1.15              |
| 1:C:488:VAL:HA   | 1:C:500:VAL:HG11 | 1.20                     | 1.14              |
| 2:J:130:LEU:HD21 | 2:J:141:ALA:HB3  | 1.26                     | 1.14              |
| 2:L:130:LEU:HD21 | 2:L:141:ALA:HB3  | 1.26                     | 1.14              |
| 3:O:98:LEU:H     | 3:O:98:LEU:HD22  | 1.10                     | 1.13              |
| 1:I:488:VAL:HA   | 1:I:500:VAL:HG11 | 1.20                     | 1.13              |
| 3:M:98:LEU:HD22  | 3:M:98:LEU:H     | 1.10                     | 1.13              |
| 2:B:130:LEU:HD21 | 2:B:141:ALA:HB3  | 1.26                     | 1.13              |
| 2:H:130:LEU:HD21 | 2:H:141:ALA:HB3  | 1.26                     | 1.11              |
| 3:R:98:LEU:H     | 3:R:98:LEU:HD22  | 1.10                     | 1.11              |
| 2:D:162:LEU:HA   | 2:D:165:LEU:HD12 | 1.32                     | 1.11              |
| 4:T:11:GLN:H     | 4:T:11:GLN:NE2   | 1.49                     | 1.11              |
| 1:A:488:VAL:HA   | 1:A:500:VAL:HG11 | 1.20                     | 1.11              |
| 4:S:11:GLN:NE2   | 4:S:11:GLN:H     | 1.49                     | 1.11              |
| 2:D:130:LEU:HD21 | 2:D:141:ALA:HB3  | 1.26                     | 1.10              |
| 2:J:162:LEU:HA   | 2:J:165:LEU:HD12 | 1.32                     | 1.10              |
| 3:P:98:LEU:HD22  | 3:P:98:LEU:H     | 1.10                     | 1.10              |
| 4:Q:11:GLN:H     | 4:Q:11:GLN:NE2   | 1.49                     | 1.10              |
| 1:G:488:VAL:HA   | 1:G:500:VAL:HG11 | 1.20                     | 1.10              |
| 1:K:390:ASP:HA   | 1:K:428:THR:HG21 | 1.34                     | 1.09              |
| 1:E:390:ASP:HA   | 1:E:428:THR:HG21 | 1.34                     | 1.09              |
| 2:L:162:LEU:HA   | 2:L:165:LEU:HD12 | 1.32                     | 1.09              |
| 3:N:11:LEU:H     | 3:N:11:LEU:HD12  | 1.16                     | 1.09              |
| 4:X:11:GLN:H     | 4:X:11:GLN:NE2   | 1.49                     | 1.08              |
| 1:I:390:ASP:HA   | 1:I:428:THR:HG21 | 1.34                     | 1.08              |
| 2:F:130:LEU:HD21 | 2:F:141:ALA:HB3  | 1.26                     | 1.08              |
| 1:I:135:CYS:HB3  | 1:I:164:VAL:HG13 | 1.36                     | 1.08              |
| 2:F:162:LEU:HA   | 2:F:165:LEU:HD12 | 1.32                     | 1.08              |
| 1:G:135:CYS:HB3  | 1:G:164:VAL:HG13 | 1.36                     | 1.08              |
| 4:W:11:GLN:NE2   | 4:W:11:GLN:H     | 1.49                     | 1.08              |
| 3:M:11:LEU:H     | 3:M:11:LEU:HD12  | 1.16                     | 1.08              |
| 4:U:11:GLN:H     | 4:U:11:GLN:NE2   | 1.49                     | 1.08              |
| 1:E:6:ARG:HD3    | 3:M:337:GLU:HG2  | 1.36                     | 1.07              |
| 1:E:135:CYS:HB3  | 1:E:164:VAL:HG13 | 1.36                     | 1.07              |
| 3:N:98:LEU:H     | 3:N:98:LEU:HD22  | 1.10                     | 1.07              |
| 1:A:390:ASP:HA   | 1:A:428:THR:HG21 | 1.34                     | 1.07              |
| 1:K:135:CYS:HB3  | 1:K:164:VAL:HG13 | 1.36                     | 1.07              |
| 3:V:98:LEU:H     | 3:V:98:LEU:HD22  | 1.10                     | 1.06              |
| 2:F:298:PRO:O    | 2:F:302:PRO:HD2  | 1.56                     | 1.06              |
| 2:H:162:LEU:HA   | 2:H:165:LEU:HD12 | 1.32                     | 1.06              |
| 2:L:298:PRO:O    | 2:L:302:PRO:HD2  | 1.56                     | 1.06              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:O:106:ASN:HB3  | 3:O:109:ILE:HD11 | 1.37                     | 1.06              |
| 3:R:106:ASN:HB3  | 3:R:109:ILE:HD11 | 1.37                     | 1.06              |
| 3:V:106:ASN:HB3  | 3:V:109:ILE:HD11 | 1.37                     | 1.06              |
| 2:H:450:TRP:HB2  | 2:H:483:GLN:HG2  | 1.37                     | 1.06              |
| 3:O:11:LEU:H     | 3:O:11:LEU:HD12  | 1.16                     | 1.06              |
| 2:H:387:SER:HA   | 2:H:390:ARG:HD2  | 1.38                     | 1.06              |
| 1:C:135:CYS:HB3  | 1:C:164:VAL:HG13 | 1.36                     | 1.05              |
| 1:C:390:ASP:HA   | 1:C:428:THR:HG21 | 1.34                     | 1.05              |
| 1:I:422:ILE:O    | 1:I:425:VAL:HG12 | 1.56                     | 1.05              |
| 2:J:450:TRP:HB2  | 2:J:483:GLN:HG2  | 1.37                     | 1.05              |
| 1:A:422:ILE:O    | 1:A:425:VAL:HG12 | 1.56                     | 1.05              |
| 2:L:387:SER:HA   | 2:L:390:ARG:HD2  | 1.38                     | 1.05              |
| 1:G:422:ILE:O    | 1:G:425:VAL:HG12 | 1.56                     | 1.05              |
| 2:H:60:THR:HG22  | 2:H:61:ASP:H     | 1.21                     | 1.05              |
| 2:L:450:TRP:HB2  | 2:L:483:GLN:HG2  | 1.37                     | 1.05              |
| 3:M:106:ASN:HB3  | 3:M:109:ILE:HD11 | 1.37                     | 1.05              |
| 3:N:106:ASN:HB3  | 3:N:109:ILE:HD11 | 1.37                     | 1.05              |
| 3:P:11:LEU:HD12  | 3:P:11:LEU:H     | 1.16                     | 1.05              |
| 2:D:298:PRO:O    | 2:D:302:PRO:HD2  | 1.56                     | 1.05              |
| 3:V:11:LEU:H     | 3:V:11:LEU:HD12  | 1.16                     | 1.05              |
| 2:F:347:SER:N    | 2:F:350:ASN:HD22 | 1.55                     | 1.05              |
| 2:B:298:PRO:O    | 2:B:302:PRO:HD2  | 1.56                     | 1.04              |
| 2:F:60:THR:HG22  | 2:F:61:ASP:H     | 1.21                     | 1.04              |
| 1:K:498:ILE:HG22 | 1:K:499:GLN:H    | 1.22                     | 1.04              |
| 1:A:135:CYS:HB3  | 1:A:164:VAL:HG13 | 1.36                     | 1.04              |
| 1:K:562:ARG:HB3  | 1:K:566:TYR:HE1  | 1.22                     | 1.04              |
| 3:R:11:LEU:H     | 3:R:11:LEU:HD12  | 1.16                     | 1.04              |
| 1:C:422:ILE:O    | 1:C:425:VAL:HG12 | 1.56                     | 1.04              |
| 1:A:468:SER:O    | 1:A:469:GLN:HB2  | 1.58                     | 1.04              |
| 2:J:298:PRO:O    | 2:J:302:PRO:HD2  | 1.56                     | 1.04              |
| 1:E:422:ILE:O    | 1:E:425:VAL:HG12 | 1.56                     | 1.04              |
| 2:F:450:TRP:HB2  | 2:F:483:GLN:HG2  | 1.37                     | 1.04              |
| 2:J:347:SER:N    | 2:J:350:ASN:HD22 | 1.55                     | 1.04              |
| 2:B:450:TRP:HB2  | 2:B:483:GLN:HG2  | 1.37                     | 1.03              |
| 1:G:390:ASP:HA   | 1:G:428:THR:HG21 | 1.34                     | 1.03              |
| 1:A:498:ILE:HG22 | 1:A:499:GLN:H    | 1.22                     | 1.03              |
| 2:B:347:SER:N    | 2:B:350:ASN:HD22 | 1.55                     | 1.03              |
| 2:D:60:THR:HG22  | 2:D:61:ASP:H     | 1.21                     | 1.03              |
| 2:H:298:PRO:O    | 2:H:302:PRO:HD2  | 1.56                     | 1.03              |
| 1:K:422:ILE:O    | 1:K:425:VAL:HG12 | 1.56                     | 1.03              |
| 2:B:162:LEU:HA   | 2:B:165:LEU:HD12 | 1.32                     | 1.03              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:387:SER:HA   | 2:D:390:ARG:HD2  | 1.38                     | 1.03              |
| 1:E:138:LEU:H    | 1:E:138:LEU:HD22 | 1.23                     | 1.03              |
| 1:E:468:SER:O    | 1:E:469:GLN:HB2  | 1.58                     | 1.03              |
| 1:G:562:ARG:HB3  | 1:G:566:TYR:HE1  | 1.22                     | 1.03              |
| 1:I:498:ILE:HG22 | 1:I:499:GLN:H    | 1.22                     | 1.03              |
| 1:G:498:ILE:HG22 | 1:G:499:GLN:H    | 1.22                     | 1.02              |
| 1:A:438:VAL:HB   | 1:A:439:PRO:HD3  | 1.41                     | 1.02              |
| 1:A:562:ARG:HE   | 2:B:522:ARG:HD2  | 1.23                     | 1.02              |
| 2:B:387:SER:HA   | 2:B:390:ARG:HD2  | 1.38                     | 1.02              |
| 1:C:468:SER:O    | 1:C:469:GLN:HB2  | 1.58                     | 1.02              |
| 1:E:438:VAL:HB   | 1:E:439:PRO:HD3  | 1.41                     | 1.02              |
| 2:F:387:SER:HA   | 2:F:390:ARG:HD2  | 1.38                     | 1.02              |
| 1:I:562:ARG:HB3  | 1:I:566:TYR:HE1  | 1.22                     | 1.02              |
| 1:A:562:ARG:HB3  | 1:A:566:TYR:HE1  | 1.22                     | 1.02              |
| 2:B:255:VAL:HG23 | 2:B:256:VAL:H    | 1.25                     | 1.02              |
| 2:D:347:SER:N    | 2:D:350:ASN:HD22 | 1.55                     | 1.02              |
| 2:B:60:THR:HG22  | 2:B:61:ASP:H     | 1.21                     | 1.02              |
| 1:K:138:LEU:HD22 | 1:K:138:LEU:H    | 1.23                     | 1.02              |
| 1:K:438:VAL:HB   | 1:K:439:PRO:HD3  | 1.41                     | 1.02              |
| 2:H:255:VAL:HG23 | 2:H:256:VAL:H    | 1.25                     | 1.01              |
| 2:L:347:SER:N    | 2:L:350:ASN:HD22 | 1.55                     | 1.01              |
| 2:H:347:SER:N    | 2:H:350:ASN:HD22 | 1.55                     | 1.01              |
| 1:I:468:SER:O    | 1:I:469:GLN:HB2  | 1.58                     | 1.01              |
| 3:P:106:ASN:HB3  | 3:P:109:ILE:HD11 | 1.37                     | 1.01              |
| 1:E:498:ILE:HG22 | 1:E:499:GLN:H    | 1.22                     | 1.01              |
| 1:I:138:LEU:H    | 1:I:138:LEU:HD22 | 1.23                     | 1.01              |
| 1:C:562:ARG:HB3  | 1:C:566:TYR:HE1  | 1.22                     | 1.01              |
| 1:G:438:VAL:HB   | 1:G:439:PRO:HD3  | 1.41                     | 1.01              |
| 2:J:60:THR:HG22  | 2:J:61:ASP:H     | 1.21                     | 1.01              |
| 1:A:138:LEU:H    | 1:A:138:LEU:HD22 | 1.23                     | 1.00              |
| 2:D:450:TRP:HB2  | 2:D:483:GLN:HG2  | 1.37                     | 1.00              |
| 1:E:562:ARG:HB3  | 1:E:566:TYR:HE1  | 1.22                     | 1.00              |
| 2:L:60:THR:HG22  | 2:L:61:ASP:H     | 1.21                     | 1.00              |
| 2:B:190:SER:O    | 2:B:192:PRO:HD2  | 1.61                     | 1.00              |
| 2:F:569:THR:HG23 | 3:O:74:ASN:OD1   | 1.61                     | 1.00              |
| 1:I:562:ARG:HE   | 2:J:522:ARG:HD2  | 1.23                     | 1.00              |
| 1:G:562:ARG:HE   | 2:H:522:ARG:HD2  | 1.23                     | 1.00              |
| 1:K:468:SER:O    | 1:K:469:GLN:HB2  | 1.58                     | 1.00              |
| 2:B:569:THR:HG23 | 3:M:74:ASN:OD1   | 1.61                     | 1.00              |
| 2:F:190:SER:O    | 2:F:192:PRO:HD2  | 1.61                     | 1.00              |
| 2:H:496:PRO:HB2  | 2:H:499:THR:HG23 | 1.43                     | 0.99              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:J:387:SER:HA   | 2:J:390:ARG:HD2  | 1.38                     | 0.99              |
| 2:L:496:PRO:HB2  | 2:L:499:THR:HG23 | 1.44                     | 0.99              |
| 1:C:438:VAL:HB   | 1:C:439:PRO:HD3  | 1.41                     | 0.99              |
| 2:H:190:SER:O    | 2:H:192:PRO:HD2  | 1.61                     | 0.99              |
| 3:M:11:LEU:HD12  | 3:M:11:LEU:N     | 1.77                     | 0.99              |
| 2:L:190:SER:O    | 2:L:192:PRO:HD2  | 1.61                     | 0.99              |
| 2:D:190:SER:O    | 2:D:192:PRO:HD2  | 1.61                     | 0.99              |
| 1:I:438:VAL:HB   | 1:I:439:PRO:HD3  | 1.41                     | 0.99              |
| 1:C:138:LEU:HD22 | 1:C:138:LEU:H    | 1.23                     | 0.99              |
| 2:F:285:ALA:HB3  | 2:F:286:PRO:HD3  | 1.45                     | 0.99              |
| 2:D:285:ALA:HB3  | 2:D:286:PRO:HD3  | 1.45                     | 0.99              |
| 2:L:299:GLN:O    | 2:L:302:PRO:HG2  | 1.63                     | 0.99              |
| 1:G:468:SER:O    | 1:G:469:GLN:HB2  | 1.58                     | 0.99              |
| 1:K:562:ARG:HE   | 2:L:522:ARG:HD2  | 1.23                     | 0.99              |
| 2:L:255:VAL:HG23 | 2:L:256:VAL:H    | 1.25                     | 0.99              |
| 2:H:569:THR:HG23 | 3:P:74:ASN:OD1   | 1.61                     | 0.99              |
| 1:C:498:ILE:HG22 | 1:C:499:GLN:H    | 1.22                     | 0.98              |
| 1:C:562:ARG:HE   | 2:D:522:ARG:HD2  | 1.23                     | 0.98              |
| 2:F:255:VAL:HG23 | 2:F:256:VAL:H    | 1.25                     | 0.98              |
| 1:G:138:LEU:HD22 | 1:G:138:LEU:H    | 1.23                     | 0.98              |
| 1:E:562:ARG:HE   | 2:F:522:ARG:HD2  | 1.23                     | 0.98              |
| 2:D:569:THR:HG23 | 3:N:74:ASN:OD1   | 1.61                     | 0.98              |
| 2:J:190:SER:O    | 2:J:192:PRO:HD2  | 1.61                     | 0.98              |
| 2:J:496:PRO:HB2  | 2:J:499:THR:HG23 | 1.43                     | 0.98              |
| 2:F:35:LYS:HA    | 2:F:38:ILE:HD11  | 1.45                     | 0.98              |
| 2:F:496:PRO:HB2  | 2:F:499:THR:HG23 | 1.43                     | 0.98              |
| 4:X:127:SER:HB3  | 4:X:130:SER:HB2  | 1.46                     | 0.98              |
| 2:D:35:LYS:HA    | 2:D:38:ILE:HD11  | 1.45                     | 0.98              |
| 2:F:299:GLN:O    | 2:F:302:PRO:HG2  | 1.63                     | 0.98              |
| 2:D:299:GLN:O    | 2:D:302:PRO:HG2  | 1.63                     | 0.98              |
| 2:J:569:THR:HG23 | 3:R:74:ASN:OD1   | 1.61                     | 0.98              |
| 4:W:127:SER:HB3  | 4:W:130:SER:HB2  | 1.45                     | 0.98              |
| 2:D:496:PRO:HB2  | 2:D:499:THR:HG23 | 1.43                     | 0.98              |
| 4:Q:127:SER:HB3  | 4:Q:130:SER:HB2  | 1.46                     | 0.98              |
| 2:B:35:LYS:HA    | 2:B:38:ILE:HD11  | 1.45                     | 0.98              |
| 2:B:299:GLN:O    | 2:B:302:PRO:HG2  | 1.63                     | 0.98              |
| 2:D:255:VAL:HG23 | 2:D:256:VAL:H    | 1.25                     | 0.98              |
| 2:J:255:VAL:HG23 | 2:J:256:VAL:H    | 1.25                     | 0.98              |
| 2:J:299:GLN:O    | 2:J:302:PRO:HG2  | 1.63                     | 0.98              |
| 3:P:312:ILE:HA   | 3:P:378:VAL:HG12 | 1.46                     | 0.98              |
| 4:U:48:SER:HA    | 4:U:59:TYR:HE2   | 1.28                     | 0.98              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:T:48:SER:HA    | 4:T:59:TYR:HE2   | 1.28                     | 0.98              |
| 2:D:566:TYR:O    | 2:D:569:THR:HB   | 1.65                     | 0.97              |
| 3:O:11:LEU:HD12  | 3:O:11:LEU:N     | 1.77                     | 0.97              |
| 2:L:569:THR:HG23 | 3:V:74:ASN:OD1   | 1.61                     | 0.97              |
| 4:W:48:SER:HA    | 4:W:59:TYR:HE2   | 1.27                     | 0.97              |
| 3:N:11:LEU:HD12  | 3:N:11:LEU:N     | 1.77                     | 0.97              |
| 3:R:312:ILE:HA   | 3:R:378:VAL:HG12 | 1.46                     | 0.97              |
| 3:R:11:LEU:HD12  | 3:R:11:LEU:N     | 1.77                     | 0.97              |
| 2:B:285:ALA:HB3  | 2:B:286:PRO:HD3  | 1.45                     | 0.97              |
| 1:E:71:LEU:HA    | 1:E:74:ILE:HD13  | 1.46                     | 0.97              |
| 1:G:71:LEU:HA    | 1:G:74:ILE:HD13  | 1.46                     | 0.97              |
| 1:K:71:LEU:HA    | 1:K:74:ILE:HD13  | 1.46                     | 0.97              |
| 2:L:566:TYR:O    | 2:L:569:THR:HB   | 1.65                     | 0.97              |
| 3:O:312:ILE:HA   | 3:O:378:VAL:HG12 | 1.46                     | 0.97              |
| 3:V:312:ILE:HA   | 3:V:378:VAL:HG12 | 1.46                     | 0.97              |
| 4:X:48:SER:HA    | 4:X:59:TYR:HE2   | 1.28                     | 0.97              |
| 2:B:496:PRO:HB2  | 2:B:499:THR:HG23 | 1.43                     | 0.97              |
| 2:H:285:ALA:HB3  | 2:H:286:PRO:HD3  | 1.45                     | 0.97              |
| 2:J:566:TYR:O    | 2:J:569:THR:HB   | 1.65                     | 0.97              |
| 4:T:127:SER:HB3  | 4:T:130:SER:HB2  | 1.45                     | 0.96              |
| 3:P:11:LEU:HD12  | 3:P:11:LEU:N     | 1.77                     | 0.96              |
| 4:S:48:SER:HA    | 4:S:59:TYR:HE2   | 1.28                     | 0.96              |
| 2:B:566:TYR:O    | 2:B:569:THR:HB   | 1.65                     | 0.96              |
| 2:L:285:ALA:HB3  | 2:L:286:PRO:HD3  | 1.45                     | 0.96              |
| 3:M:312:ILE:HA   | 3:M:378:VAL:HG12 | 1.46                     | 0.96              |
| 4:U:127:SER:HB3  | 4:U:130:SER:HB2  | 1.46                     | 0.96              |
| 4:S:127:SER:HB3  | 4:S:130:SER:HB2  | 1.46                     | 0.96              |
| 3:N:278:TRP:HD1  | 3:N:279:ILE:H    | 1.14                     | 0.96              |
| 2:F:566:TYR:O    | 2:F:569:THR:HB   | 1.65                     | 0.96              |
| 1:C:71:LEU:HA    | 1:C:74:ILE:HD13  | 1.46                     | 0.96              |
| 2:H:154:GLN:HB3  | 2:H:158:ASP:OD2  | 1.65                     | 0.96              |
| 2:H:299:GLN:O    | 2:H:302:PRO:HG2  | 1.63                     | 0.96              |
| 3:M:278:TRP:HD1  | 3:M:279:ILE:H    | 1.14                     | 0.96              |
| 1:E:68:LEU:HG    | 1:E:69:GLU:H     | 1.30                     | 0.96              |
| 2:H:35:LYS:HA    | 2:H:38:ILE:HD11  | 1.45                     | 0.96              |
| 4:U:76:ASN:C     | 4:U:76:ASN:HD22  | 1.69                     | 0.96              |
| 2:F:347:SER:H    | 2:F:350:ASN:HD22 | 1.11                     | 0.95              |
| 2:H:494:LYS:C    | 2:H:496:PRO:HD3  | 1.86                     | 0.95              |
| 2:F:154:GLN:HB3  | 2:F:158:ASP:OD2  | 1.65                     | 0.95              |
| 2:H:566:TYR:O    | 2:H:569:THR:HB   | 1.65                     | 0.95              |
| 3:V:11:LEU:HD12  | 3:V:11:LEU:N     | 1.77                     | 0.95              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:154:GLN:HB3  | 2:D:158:ASP:OD2  | 1.65                     | 0.95              |
| 1:A:71:LEU:HA    | 1:A:74:ILE:HD13  | 1.46                     | 0.95              |
| 2:D:494:LYS:C    | 2:D:496:PRO:HD3  | 1.86                     | 0.95              |
| 2:F:494:LYS:C    | 2:F:496:PRO:HD3  | 1.86                     | 0.95              |
| 2:L:494:LYS:C    | 2:L:496:PRO:HD3  | 1.86                     | 0.95              |
| 3:O:314:ILE:HB   | 3:O:341:ILE:HG23 | 1.49                     | 0.95              |
| 3:P:278:TRP:HD1  | 3:P:279:ILE:H    | 1.14                     | 0.95              |
| 2:B:494:LYS:C    | 2:B:496:PRO:HD3  | 1.86                     | 0.95              |
| 2:J:154:GLN:HB3  | 2:J:158:ASP:OD2  | 1.65                     | 0.95              |
| 2:J:285:ALA:HB3  | 2:J:286:PRO:HD3  | 1.45                     | 0.95              |
| 2:L:323:VAL:HG23 | 2:L:324:PHE:HD1  | 1.32                     | 0.95              |
| 2:B:154:GLN:HB3  | 2:B:158:ASP:OD2  | 1.65                     | 0.95              |
| 2:B:323:VAL:HG23 | 2:B:324:PHE:HD1  | 1.32                     | 0.95              |
| 4:Q:48:SER:HA    | 4:Q:59:TYR:HE2   | 1.28                     | 0.95              |
| 2:F:288:LEU:O    | 2:F:291:LEU:HB3  | 1.67                     | 0.95              |
| 1:I:68:LEU:HG    | 1:I:69:GLU:H     | 1.30                     | 0.95              |
| 2:B:216:GLU:HB2  | 2:B:217:TRP:CE3  | 2.02                     | 0.94              |
| 2:F:216:GLU:HB2  | 2:F:217:TRP:CE3  | 2.02                     | 0.94              |
| 2:D:288:LEU:O    | 2:D:291:LEU:HB3  | 1.67                     | 0.94              |
| 2:F:295:GLU:O    | 2:F:298:PRO:HD2  | 1.68                     | 0.94              |
| 3:V:314:ILE:HB   | 3:V:341:ILE:HG23 | 1.49                     | 0.94              |
| 2:H:288:LEU:O    | 2:H:291:LEU:HB3  | 1.67                     | 0.94              |
| 3:O:278:TRP:HD1  | 3:O:279:ILE:H    | 1.14                     | 0.94              |
| 4:W:76:ASN:C     | 4:W:76:ASN:HD22  | 1.70                     | 0.94              |
| 2:B:288:LEU:O    | 2:B:291:LEU:HB3  | 1.67                     | 0.94              |
| 1:G:68:LEU:HG    | 1:G:69:GLU:H     | 1.30                     | 0.94              |
| 2:J:478:THR:HA   | 2:J:481:GLN:HE21 | 1.33                     | 0.94              |
| 2:F:297:GLU:HB3  | 3:O:81:PHE:CE2   | 2.02                     | 0.94              |
| 2:J:216:GLU:HB2  | 2:J:217:TRP:CE3  | 2.02                     | 0.94              |
| 2:L:297:GLU:HB3  | 3:V:81:PHE:CE2   | 2.02                     | 0.94              |
| 2:L:478:THR:HA   | 2:L:481:GLN:HE21 | 1.33                     | 0.94              |
| 2:L:154:GLN:HB3  | 2:L:158:ASP:OD2  | 1.65                     | 0.94              |
| 1:A:532:LYS:HB3  | 1:A:536:ARG:NH1  | 1.83                     | 0.94              |
| 2:B:297:GLU:HB3  | 3:M:81:PHE:CE2   | 2.02                     | 0.94              |
| 2:D:216:GLU:HB2  | 2:D:217:TRP:CE3  | 2.02                     | 0.94              |
| 2:D:297:GLU:HB3  | 3:N:81:PHE:CE2   | 2.02                     | 0.94              |
| 2:F:115:VAL:O    | 2:F:118:ILE:HG22 | 1.68                     | 0.94              |
| 2:F:323:VAL:HG23 | 2:F:324:PHE:HD1  | 1.32                     | 0.94              |
| 2:H:115:VAL:O    | 2:H:118:ILE:HG22 | 1.68                     | 0.94              |
| 2:J:115:VAL:O    | 2:J:118:ILE:HG22 | 1.68                     | 0.94              |
| 2:L:166:LYS:HA   | 2:L:169:ILE:HD12 | 1.50                     | 0.94              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:L:347:SER:H    | 2:L:350:ASN:HD22 | 1.11                     | 0.94              |
| 3:M:299:SER:HB3  | 3:M:348:PHE:HE2  | 1.32                     | 0.94              |
| 3:N:314:ILE:HB   | 3:N:341:ILE:HG23 | 1.49                     | 0.94              |
| 4:Q:76:ASN:C     | 4:Q:76:ASN:HD22  | 1.69                     | 0.94              |
| 2:H:323:VAL:HG23 | 2:H:324:PHE:HD1  | 1.32                     | 0.94              |
| 2:J:141:ALA:HA   | 2:J:144:CYS:SG   | 2.08                     | 0.94              |
| 2:J:494:LYS:C    | 2:J:496:PRO:HD3  | 1.86                     | 0.94              |
| 2:L:115:VAL:O    | 2:L:118:ILE:HG22 | 1.68                     | 0.94              |
| 3:O:19:ARG:HD3   | 3:O:20:ASN:H     | 1.33                     | 0.94              |
| 2:D:295:GLU:O    | 2:D:298:PRO:HD2  | 1.68                     | 0.94              |
| 2:H:141:ALA:HA   | 2:H:144:CYS:SG   | 2.08                     | 0.94              |
| 1:K:68:LEU:HG    | 1:K:69:GLU:H     | 1.30                     | 0.94              |
| 2:L:35:LYS:HA    | 2:L:38:ILE:HD11  | 1.45                     | 0.94              |
| 2:F:478:THR:HA   | 2:F:481:GLN:HE21 | 1.33                     | 0.93              |
| 2:J:35:LYS:HA    | 2:J:38:ILE:HD11  | 1.45                     | 0.93              |
| 2:J:323:VAL:HG23 | 2:J:324:PHE:HD1  | 1.32                     | 0.93              |
| 1:K:532:LYS:HB3  | 1:K:536:ARG:NH1  | 1.83                     | 0.93              |
| 3:N:19:ARG:HD3   | 3:N:20:ASN:H     | 1.33                     | 0.93              |
| 2:D:141:ALA:HA   | 2:D:144:CYS:SG   | 2.08                     | 0.93              |
| 2:H:295:GLU:O    | 2:H:298:PRO:HD2  | 1.68                     | 0.93              |
| 2:L:216:GLU:HB2  | 2:L:217:TRP:CE3  | 2.02                     | 0.93              |
| 2:B:115:VAL:O    | 2:B:118:ILE:HG22 | 1.68                     | 0.93              |
| 2:D:115:VAL:O    | 2:D:118:ILE:HG22 | 1.68                     | 0.93              |
| 1:I:71:LEU:HA    | 1:I:74:ILE:HD13  | 1.46                     | 0.93              |
| 2:J:297:GLU:HB3  | 3:R:81:PHE:CE2   | 2.02                     | 0.93              |
| 2:L:288:LEU:O    | 2:L:291:LEU:HB3  | 1.67                     | 0.93              |
| 3:N:312:ILE:HA   | 3:N:378:VAL:HG12 | 1.46                     | 0.93              |
| 2:B:347:SER:H    | 2:B:350:ASN:HD22 | 1.11                     | 0.93              |
| 3:O:98:LEU:HD22  | 3:O:98:LEU:N     | 1.84                     | 0.93              |
| 3:R:299:SER:HB3  | 3:R:348:PHE:HE2  | 1.32                     | 0.93              |
| 2:B:141:ALA:HA   | 2:B:144:CYS:SG   | 2.08                     | 0.93              |
| 1:C:68:LEU:HG    | 1:C:69:GLU:H     | 1.31                     | 0.93              |
| 2:J:295:GLU:O    | 2:J:298:PRO:HD2  | 1.68                     | 0.93              |
| 3:M:98:LEU:HD22  | 3:M:98:LEU:N     | 1.84                     | 0.93              |
| 2:H:297:GLU:HB3  | 3:P:81:PHE:CE2   | 2.03                     | 0.93              |
| 3:R:19:ARG:HD3   | 3:R:20:ASN:H     | 1.33                     | 0.93              |
| 4:X:76:ASN:HD22  | 4:X:76:ASN:C     | 1.69                     | 0.93              |
| 2:D:491:LEU:HD12 | 2:D:492:PHE:N    | 1.84                     | 0.93              |
| 2:F:141:ALA:HA   | 2:F:144:CYS:SG   | 2.08                     | 0.93              |
| 2:H:216:GLU:HB2  | 2:H:217:TRP:CE3  | 2.02                     | 0.93              |
| 2:B:166:LYS:HA   | 2:B:169:ILE:HD12 | 1.50                     | 0.93              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:323:VAL:HG23 | 2:D:324:PHE:HD1  | 1.32                     | 0.93              |
| 1:I:532:LYS:HB3  | 1:I:536:ARG:NH1  | 1.83                     | 0.93              |
| 2:L:141:ALA:HA   | 2:L:144:CYS:SG   | 2.08                     | 0.93              |
| 3:P:299:SER:HB3  | 3:P:348:PHE:HE2  | 1.32                     | 0.93              |
| 2:H:331:PRO:HD2  | 2:H:334:VAL:HG21 | 1.51                     | 0.93              |
| 2:J:491:LEU:HD12 | 2:J:492:PHE:N    | 1.84                     | 0.93              |
| 3:P:314:ILE:HB   | 3:P:341:ILE:HG23 | 1.49                     | 0.93              |
| 3:R:171:VAL:HG13 | 3:R:202:VAL:HG22 | 1.51                     | 0.93              |
| 3:V:171:VAL:HG13 | 3:V:202:VAL:HG22 | 1.51                     | 0.93              |
| 2:B:295:GLU:O    | 2:B:298:PRO:HD2  | 1.68                     | 0.92              |
| 2:H:478:THR:HA   | 2:H:481:GLN:HE21 | 1.33                     | 0.92              |
| 3:R:314:ILE:HB   | 3:R:341:ILE:HG23 | 1.49                     | 0.92              |
| 2:D:331:PRO:HD2  | 2:D:334:VAL:HG21 | 1.51                     | 0.92              |
| 2:F:166:LYS:HA   | 2:F:169:ILE:HD12 | 1.50                     | 0.92              |
| 2:B:488:ILE:HG21 | 2:B:506:VAL:HG21 | 1.50                     | 0.92              |
| 2:D:478:THR:HA   | 2:D:481:GLN:HE21 | 1.33                     | 0.92              |
| 2:J:288:LEU:O    | 2:J:291:LEU:HB3  | 1.67                     | 0.92              |
| 3:R:278:TRP:HD1  | 3:R:279:ILE:H    | 1.14                     | 0.92              |
| 3:V:19:ARG:HD3   | 3:V:20:ASN:H     | 1.33                     | 0.92              |
| 2:F:488:ILE:HG21 | 2:F:506:VAL:HG21 | 1.50                     | 0.92              |
| 3:M:19:ARG:HD3   | 3:M:20:ASN:H     | 1.33                     | 0.92              |
| 3:N:98:LEU:HD22  | 3:N:98:LEU:N     | 1.84                     | 0.92              |
| 4:S:76:ASN:C     | 4:S:76:ASN:HD22  | 1.69                     | 0.92              |
| 2:B:331:PRO:HD2  | 2:B:334:VAL:HG21 | 1.51                     | 0.92              |
| 2:D:347:SER:H    | 2:D:350:ASN:HD22 | 1.11                     | 0.92              |
| 2:F:331:PRO:HD2  | 2:F:334:VAL:HG21 | 1.51                     | 0.92              |
| 2:H:488:ILE:HG21 | 2:H:506:VAL:HG21 | 1.50                     | 0.92              |
| 2:J:331:PRO:HD2  | 2:J:334:VAL:HG21 | 1.51                     | 0.92              |
| 2:L:491:LEU:HD12 | 2:L:492:PHE:N    | 1.84                     | 0.92              |
| 1:G:562:ARG:HB3  | 1:G:566:TYR:CE1  | 2.05                     | 0.92              |
| 2:J:570:LEU:O    | 2:J:573:VAL:HG12 | 1.70                     | 0.92              |
| 3:N:98:LEU:H     | 3:N:98:LEU:CD2   | 1.83                     | 0.92              |
| 1:C:532:LYS:HB3  | 1:C:536:ARG:NH1  | 1.83                     | 0.92              |
| 1:G:532:LYS:HB3  | 1:G:536:ARG:NH1  | 1.83                     | 0.92              |
| 3:M:314:ILE:HB   | 3:M:341:ILE:HG23 | 1.49                     | 0.92              |
| 3:N:171:VAL:HG13 | 3:N:202:VAL:HG22 | 1.51                     | 0.92              |
| 3:M:98:LEU:H     | 3:M:98:LEU:CD2   | 1.83                     | 0.92              |
| 1:C:562:ARG:HB3  | 1:C:566:TYR:CE1  | 2.04                     | 0.92              |
| 2:H:166:LYS:HA   | 2:H:169:ILE:HD12 | 1.50                     | 0.92              |
| 2:L:570:LEU:O    | 2:L:573:VAL:HG12 | 1.70                     | 0.92              |
| 3:O:299:SER:HB3  | 3:O:348:PHE:HE2  | 1.32                     | 0.92              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:68:LEU:HG    | 1:A:69:GLU:H     | 1.31                     | 0.91              |
| 2:B:491:LEU:HD12 | 2:B:492:PHE:N    | 1.84                     | 0.91              |
| 1:E:562:ARG:HB3  | 1:E:566:TYR:CE1  | 2.05                     | 0.91              |
| 2:B:570:LEU:O    | 2:B:573:VAL:HG12 | 1.70                     | 0.91              |
| 2:D:166:LYS:HA   | 2:D:169:ILE:HD12 | 1.50                     | 0.91              |
| 2:L:295:GLU:O    | 2:L:298:PRO:HD2  | 1.68                     | 0.91              |
| 3:P:98:LEU:H     | 3:P:98:LEU:CD2   | 1.83                     | 0.91              |
| 4:T:76:ASN:HD22  | 4:T:76:ASN:C     | 1.69                     | 0.91              |
| 1:A:562:ARG:HB3  | 1:A:566:TYR:CE1  | 2.04                     | 0.91              |
| 2:D:488:ILE:HG21 | 2:D:506:VAL:HG21 | 1.50                     | 0.91              |
| 1:E:532:LYS:HB3  | 1:E:536:ARG:NH1  | 1.83                     | 0.91              |
| 2:F:491:LEU:HD12 | 2:F:492:PHE:N    | 1.84                     | 0.91              |
| 2:F:570:LEU:O    | 2:F:573:VAL:HG12 | 1.70                     | 0.91              |
| 2:H:570:LEU:O    | 2:H:573:VAL:HG12 | 1.70                     | 0.91              |
| 2:L:331:PRO:HD2  | 2:L:334:VAL:HG21 | 1.51                     | 0.91              |
| 4:S:132:LEU:O    | 4:S:135:ILE:HG22 | 1.70                     | 0.91              |
| 3:V:278:TRP:HD1  | 3:V:279:ILE:H    | 1.14                     | 0.91              |
| 3:P:19:ARG:HD3   | 3:P:20:ASN:H     | 1.33                     | 0.91              |
| 3:P:306:THR:HG22 | 3:P:349:PRO:HA   | 1.52                     | 0.91              |
| 1:A:358:ASP:HB3  | 1:A:361:ILE:HD12 | 1.53                     | 0.91              |
| 1:A:532:LYS:HA   | 1:A:581:LEU:HD13 | 1.53                     | 0.91              |
| 1:G:532:LYS:HA   | 1:G:581:LEU:HD13 | 1.53                     | 0.91              |
| 1:I:532:LYS:HA   | 1:I:581:LEU:HD13 | 1.53                     | 0.91              |
| 2:J:488:ILE:HG21 | 2:J:506:VAL:HG21 | 1.50                     | 0.91              |
| 2:L:488:ILE:HG21 | 2:L:506:VAL:HG21 | 1.50                     | 0.91              |
| 4:T:132:LEU:O    | 4:T:135:ILE:HG22 | 1.70                     | 0.91              |
| 4:W:132:LEU:O    | 4:W:135:ILE:HG22 | 1.70                     | 0.91              |
| 1:C:358:ASP:HB3  | 1:C:361:ILE:HD12 | 1.53                     | 0.91              |
| 3:N:299:SER:HB3  | 3:N:348:PHE:HE2  | 1.32                     | 0.91              |
| 3:V:98:LEU:HD22  | 3:V:98:LEU:N     | 1.84                     | 0.91              |
| 3:O:19:ARG:HD3   | 3:O:20:ASN:N     | 1.86                     | 0.91              |
| 4:Q:132:LEU:O    | 4:Q:135:ILE:HG22 | 1.70                     | 0.91              |
| 3:R:98:LEU:HD22  | 3:R:98:LEU:N     | 1.84                     | 0.91              |
| 2:D:570:LEU:O    | 2:D:573:VAL:HG12 | 1.70                     | 0.91              |
| 2:H:491:LEU:HD12 | 2:H:492:PHE:N    | 1.84                     | 0.91              |
| 1:I:562:ARG:HB3  | 1:I:566:TYR:CE1  | 2.04                     | 0.91              |
| 2:J:166:LYS:HA   | 2:J:169:ILE:HD12 | 1.50                     | 0.91              |
| 1:K:492:CYS:HB3  | 1:K:497:PRO:HG3  | 1.53                     | 0.91              |
| 3:V:299:SER:HB3  | 3:V:348:PHE:HE2  | 1.32                     | 0.91              |
| 1:A:172:MET:HE3  | 1:A:172:MET:N    | 1.86                     | 0.91              |
| 2:B:191:HIS:HA   | 2:B:195:ASN:ND2  | 1.86                     | 0.91              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:191:HIS:HA   | 2:D:195:ASN:ND2  | 1.86                     | 0.91              |
| 2:F:191:HIS:HA   | 2:F:195:ASN:ND2  | 1.86                     | 0.91              |
| 3:M:171:VAL:HG13 | 3:M:202:VAL:HG22 | 1.51                     | 0.91              |
| 1:E:358:ASP:HB3  | 1:E:361:ILE:HD12 | 1.53                     | 0.90              |
| 2:J:191:HIS:HA   | 2:J:195:ASN:ND2  | 1.86                     | 0.90              |
| 3:M:19:ARG:HD3   | 3:M:20:ASN:N     | 1.86                     | 0.90              |
| 3:V:19:ARG:HD3   | 3:V:20:ASN:N     | 1.86                     | 0.90              |
| 1:C:67:GLN:HE21  | 1:C:93:LEU:HD23  | 1.37                     | 0.90              |
| 1:G:488:VAL:CA   | 1:G:500:VAL:HG11 | 2.02                     | 0.90              |
| 4:X:132:LEU:O    | 4:X:135:ILE:HG22 | 1.70                     | 0.90              |
| 1:A:172:MET:HE3  | 1:A:172:MET:H    | 1.36                     | 0.90              |
| 2:L:297:GLU:HB3  | 3:V:81:PHE:HE2   | 1.36                     | 0.90              |
| 3:N:19:ARG:HD3   | 3:N:20:ASN:N     | 1.86                     | 0.90              |
| 3:N:306:THR:HG22 | 3:N:349:PRO:HA   | 1.52                     | 0.90              |
| 3:P:98:LEU:HD22  | 3:P:98:LEU:N     | 1.84                     | 0.90              |
| 3:V:98:LEU:H     | 3:V:98:LEU:CD2   | 1.83                     | 0.90              |
| 1:K:562:ARG:HB3  | 1:K:566:TYR:CE1  | 2.04                     | 0.90              |
| 3:P:171:VAL:HG13 | 3:P:202:VAL:HG22 | 1.52                     | 0.90              |
| 2:L:164:THR:HG22 | 2:L:168:LEU:HD11 | 1.54                     | 0.90              |
| 4:U:132:LEU:O    | 4:U:135:ILE:HG22 | 1.71                     | 0.90              |
| 1:G:67:GLN:HE21  | 1:G:93:LEU:HD23  | 1.37                     | 0.90              |
| 1:G:492:CYS:HB3  | 1:G:497:PRO:HG3  | 1.52                     | 0.90              |
| 2:L:191:HIS:HA   | 2:L:195:ASN:ND2  | 1.86                     | 0.90              |
| 1:C:532:LYS:HA   | 1:C:581:LEU:HD13 | 1.53                     | 0.90              |
| 1:I:488:VAL:CA   | 1:I:500:VAL:HG11 | 2.02                     | 0.90              |
| 3:R:98:LEU:H     | 3:R:98:LEU:CD2   | 1.83                     | 0.90              |
| 1:A:488:VAL:CA   | 1:A:500:VAL:HG11 | 2.02                     | 0.89              |
| 2:B:478:THR:HA   | 2:B:481:GLN:HE21 | 1.33                     | 0.89              |
| 1:E:67:GLN:O     | 1:E:70:CYS:HB3   | 1.72                     | 0.89              |
| 1:E:488:VAL:CA   | 1:E:500:VAL:HG11 | 2.02                     | 0.89              |
| 2:B:522:ARG:O    | 2:B:526:TYR:HD1  | 1.55                     | 0.89              |
| 1:I:67:GLN:HE21  | 1:I:93:LEU:HD23  | 1.37                     | 0.89              |
| 1:K:358:ASP:HB3  | 1:K:361:ILE:HD12 | 1.53                     | 0.89              |
| 2:F:522:ARG:O    | 2:F:526:TYR:HD1  | 1.55                     | 0.89              |
| 3:P:19:ARG:HD3   | 3:P:20:ASN:N     | 1.86                     | 0.89              |
| 1:C:274:VAL:HG11 | 1:C:292:THR:HG21 | 1.54                     | 0.89              |
| 1:E:532:LYS:HA   | 1:E:581:LEU:HD13 | 1.53                     | 0.89              |
| 2:F:88:VAL:HG11  | 2:F:121:TYR:CD2  | 2.08                     | 0.89              |
| 2:H:191:HIS:HA   | 2:H:195:ASN:ND2  | 1.86                     | 0.89              |
| 2:B:164:THR:HG22 | 2:B:168:LEU:HD11 | 1.54                     | 0.89              |
| 1:E:67:GLN:HE21  | 1:E:93:LEU:HD23  | 1.37                     | 0.89              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:230:GLY:HA3  | 2:J:461:ASN:ND2  | 1.88                     | 0.89              |
| 2:H:88:VAL:HG11  | 2:H:121:TYR:CD2  | 2.08                     | 0.89              |
| 1:I:67:GLN:O     | 1:I:70:CYS:HB3   | 1.72                     | 0.89              |
| 2:J:347:SER:H    | 2:J:350:ASN:HD22 | 1.11                     | 0.89              |
| 1:K:67:GLN:HE21  | 1:K:93:LEU:HD23  | 1.37                     | 0.89              |
| 1:A:67:GLN:HE21  | 1:A:93:LEU:HD23  | 1.37                     | 0.89              |
| 2:B:297:GLU:HB3  | 3:M:81:PHE:HE2   | 1.36                     | 0.89              |
| 1:G:274:VAL:HG11 | 1:G:292:THR:HG21 | 1.54                     | 0.89              |
| 1:I:492:CYS:HB3  | 1:I:497:PRO:HG3  | 1.52                     | 0.89              |
| 1:K:274:VAL:HG11 | 1:K:292:THR:HG21 | 1.54                     | 0.89              |
| 3:M:306:THR:HG22 | 3:M:349:PRO:HA   | 1.52                     | 0.89              |
| 4:T:16:LEU:HD12  | 4:T:17:GLN:N     | 1.88                     | 0.89              |
| 4:W:16:LEU:HD12  | 4:W:17:GLN:N     | 1.88                     | 0.89              |
| 3:O:171:VAL:HG13 | 3:O:202:VAL:HG22 | 1.51                     | 0.89              |
| 4:Q:16:LEU:HD12  | 4:Q:17:GLN:N     | 1.88                     | 0.89              |
| 1:A:67:GLN:O     | 1:A:70:CYS:HB3   | 1.72                     | 0.89              |
| 3:O:306:THR:HG22 | 3:O:349:PRO:HA   | 1.52                     | 0.89              |
| 3:R:19:ARG:HD3   | 3:R:20:ASN:N     | 1.86                     | 0.89              |
| 1:C:67:GLN:O     | 1:C:70:CYS:HB3   | 1.72                     | 0.88              |
| 1:C:492:CYS:HB3  | 1:C:497:PRO:HG3  | 1.53                     | 0.88              |
| 2:D:88:VAL:HG11  | 2:D:121:TYR:CD2  | 2.08                     | 0.88              |
| 2:D:449:ILE:O    | 2:D:452:VAL:HG12 | 1.73                     | 0.88              |
| 2:D:522:ARG:O    | 2:D:526:TYR:HD1  | 1.55                     | 0.88              |
| 2:J:449:ILE:O    | 2:J:452:VAL:HG12 | 1.73                     | 0.88              |
| 3:R:306:THR:HG22 | 3:R:349:PRO:HA   | 1.52                     | 0.88              |
| 1:K:67:GLN:O     | 1:K:70:CYS:HB3   | 1.72                     | 0.88              |
| 1:K:488:VAL:CA   | 1:K:500:VAL:HG11 | 2.02                     | 0.88              |
| 2:H:522:ARG:O    | 2:H:526:TYR:HD1  | 1.55                     | 0.88              |
| 2:J:88:VAL:HG11  | 2:J:121:TYR:CD2  | 2.08                     | 0.88              |
| 4:S:16:LEU:HD12  | 4:S:17:GLN:N     | 1.88                     | 0.88              |
| 2:B:449:ILE:O    | 2:B:452:VAL:HG12 | 1.73                     | 0.88              |
| 1:G:470:GLN:O    | 1:G:473:VAL:HG22 | 1.74                     | 0.88              |
| 2:L:88:VAL:HG11  | 2:L:121:TYR:CD2  | 2.08                     | 0.88              |
| 2:L:522:ARG:O    | 2:L:526:TYR:HD1  | 1.55                     | 0.88              |
| 1:A:74:ILE:HG23  | 1:A:86:TYR:HE1   | 1.39                     | 0.88              |
| 2:B:88:VAL:HG11  | 2:B:121:TYR:CD2  | 2.08                     | 0.88              |
| 1:E:74:ILE:HG23  | 1:E:86:TYR:HE1   | 1.39                     | 0.88              |
| 2:H:347:SER:H    | 2:H:350:ASN:HD22 | 1.11                     | 0.88              |
| 2:J:164:THR:HG22 | 2:J:168:LEU:HD11 | 1.54                     | 0.88              |
| 1:K:470:GLN:O    | 1:K:473:VAL:HG22 | 1.73                     | 0.88              |
| 1:K:532:LYS:HA   | 1:K:581:LEU:HD13 | 1.53                     | 0.88              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:74:ILE:HG23  | 1:C:86:TYR:HE1   | 1.39                     | 0.88              |
| 1:C:488:VAL:CA   | 1:C:500:VAL:HG11 | 2.02                     | 0.88              |
| 1:G:358:ASP:HB3  | 1:G:361:ILE:HD12 | 1.53                     | 0.88              |
| 1:K:172:MET:HE3  | 1:K:172:MET:N    | 1.88                     | 0.88              |
| 1:A:470:GLN:O    | 1:A:473:VAL:HG22 | 1.73                     | 0.88              |
| 1:G:67:GLN:O     | 1:G:70:CYS:HB3   | 1.72                     | 0.88              |
| 3:V:306:THR:HG22 | 3:V:349:PRO:HA   | 1.52                     | 0.88              |
| 3:O:241:CYS:O    | 3:O:255:PHE:HB2  | 1.74                     | 0.88              |
| 3:R:241:CYS:O    | 3:R:255:PHE:HB2  | 1.74                     | 0.88              |
| 4:U:16:LEU:HD12  | 4:U:17:GLN:N     | 1.88                     | 0.88              |
| 2:F:449:ILE:O    | 2:F:452:VAL:HG12 | 1.73                     | 0.87              |
| 2:H:25:ASP:O     | 2:H:30:LYS:HE2   | 1.75                     | 0.87              |
| 3:N:241:CYS:O    | 3:N:255:PHE:HB2  | 1.74                     | 0.87              |
| 4:X:16:LEU:HD12  | 4:X:17:GLN:N     | 1.88                     | 0.87              |
| 1:I:358:ASP:HB3  | 1:I:361:ILE:HD12 | 1.53                     | 0.87              |
| 2:L:449:ILE:O    | 2:L:452:VAL:HG12 | 1.73                     | 0.87              |
| 3:V:241:CYS:O    | 3:V:255:PHE:HB2  | 1.74                     | 0.87              |
| 1:A:492:CYS:HB3  | 1:A:497:PRO:HG3  | 1.53                     | 0.87              |
| 2:H:297:GLU:HB3  | 3:P:81:PHE:HE2   | 1.36                     | 0.87              |
| 1:I:470:GLN:O    | 1:I:473:VAL:HG22 | 1.73                     | 0.87              |
| 1:E:274:VAL:HG11 | 1:E:292:THR:HG21 | 1.54                     | 0.87              |
| 2:L:25:ASP:O     | 2:L:30:LYS:HE2   | 1.75                     | 0.87              |
| 3:O:181:LEU:O    | 3:O:182:LEU:HD23 | 1.75                     | 0.87              |
| 2:D:25:ASP:O     | 2:D:30:LYS:HE2   | 1.75                     | 0.87              |
| 3:M:181:LEU:O    | 3:M:182:LEU:HD23 | 1.75                     | 0.87              |
| 1:C:470:GLN:O    | 1:C:473:VAL:HG22 | 1.73                     | 0.87              |
| 1:E:492:CYS:HB3  | 1:E:497:PRO:HG3  | 1.53                     | 0.87              |
| 2:J:522:ARG:O    | 2:J:526:TYR:HD1  | 1.55                     | 0.87              |
| 2:F:164:THR:HG22 | 2:F:168:LEU:HD11 | 1.54                     | 0.87              |
| 1:E:100:HIS:CE1  | 1:E:134:MET:HB2  | 2.10                     | 0.87              |
| 1:I:14:ILE:H     | 1:I:14:ILE:HD12  | 1.40                     | 0.87              |
| 1:K:529:ALA:HA   | 1:K:532:LYS:HG3  | 1.56                     | 0.87              |
| 2:L:166:LYS:O    | 2:L:169:ILE:HB   | 1.75                     | 0.87              |
| 2:D:164:THR:HG22 | 2:D:168:LEU:HD11 | 1.54                     | 0.86              |
| 2:J:25:ASP:O     | 2:J:30:LYS:HE2   | 1.75                     | 0.86              |
| 3:O:98:LEU:H     | 3:O:98:LEU:CD2   | 1.83                     | 0.86              |
| 3:V:327:THR:HG22 | 3:V:329:VAL:H    | 1.40                     | 0.86              |
| 1:E:470:GLN:O    | 1:E:473:VAL:HG22 | 1.73                     | 0.86              |
| 2:J:38:ILE:O     | 2:J:41:MET:HB3   | 1.76                     | 0.86              |
| 2:B:166:LYS:O    | 2:B:169:ILE:HB   | 1.75                     | 0.86              |
| 1:C:100:HIS:CE1  | 1:C:134:MET:HB2  | 2.10                     | 0.86              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:38:ILE:O     | 2:F:41:MET:HB3   | 1.76                     | 0.86              |
| 1:G:100:HIS:CE1  | 1:G:134:MET:HB2  | 2.10                     | 0.86              |
| 1:I:274:VAL:HG11 | 1:I:292:THR:HG21 | 1.54                     | 0.86              |
| 1:C:529:ALA:HA   | 1:C:532:LYS:HG3  | 1.56                     | 0.86              |
| 3:M:241:CYS:O    | 3:M:255:PHE:HB2  | 1.74                     | 0.86              |
| 3:P:241:CYS:O    | 3:P:255:PHE:HB2  | 1.74                     | 0.86              |
| 3:R:168:LYS:HE3  | 3:R:170:GLU:OE1  | 1.75                     | 0.86              |
| 1:A:274:VAL:HG11 | 1:A:292:THR:HG21 | 1.54                     | 0.86              |
| 1:E:529:ALA:HA   | 1:E:532:LYS:HG3  | 1.56                     | 0.86              |
| 1:G:74:ILE:HG23  | 1:G:86:TYR:HE1   | 1.39                     | 0.86              |
| 1:K:6:ARG:HD3    | 3:P:337:GLU:HG2  | 1.56                     | 0.86              |
| 3:N:181:LEU:O    | 3:N:182:LEU:HD23 | 1.75                     | 0.86              |
| 1:C:14:ILE:H     | 1:C:14:ILE:HD12  | 1.40                     | 0.86              |
| 1:I:488:VAL:HA   | 1:I:500:VAL:CG1  | 2.06                     | 0.86              |
| 1:K:100:HIS:CE1  | 1:K:134:MET:HB2  | 2.10                     | 0.86              |
| 3:N:327:THR:HG22 | 3:N:329:VAL:H    | 1.40                     | 0.86              |
| 3:R:181:LEU:O    | 3:R:182:LEU:HD23 | 1.75                     | 0.86              |
| 1:A:470:GLN:HB2  | 1:A:471:PRO:HD3  | 1.58                     | 0.86              |
| 2:D:457:GLU:HG3  | 2:D:458:ARG:H    | 1.41                     | 0.86              |
| 2:B:25:ASP:O     | 2:B:30:LYS:HE2   | 1.75                     | 0.86              |
| 1:I:470:GLN:HB2  | 1:I:471:PRO:HD3  | 1.58                     | 0.86              |
| 1:K:14:ILE:H     | 1:K:14:ILE:HD12  | 1.40                     | 0.86              |
| 1:K:172:MET:HE3  | 1:K:172:MET:H    | 1.39                     | 0.86              |
| 2:L:457:GLU:HG3  | 2:L:458:ARG:H    | 1.41                     | 0.86              |
| 1:E:172:MET:HE3  | 1:E:172:MET:N    | 1.90                     | 0.86              |
| 2:H:38:ILE:O     | 2:H:41:MET:HB3   | 1.76                     | 0.86              |
| 1:I:100:HIS:CE1  | 1:I:134:MET:HB2  | 2.10                     | 0.86              |
| 1:K:74:ILE:HG23  | 1:K:86:TYR:HE1   | 1.39                     | 0.86              |
| 3:M:327:THR:HG22 | 3:M:329:VAL:H    | 1.40                     | 0.86              |
| 3:V:168:LYS:HE3  | 3:V:170:GLU:OE1  | 1.76                     | 0.86              |
| 1:A:100:HIS:CE1  | 1:A:134:MET:HB2  | 2.10                     | 0.86              |
| 2:J:297:GLU:HB3  | 3:R:81:PHE:HE2   | 1.36                     | 0.86              |
| 2:H:164:THR:HG22 | 2:H:168:LEU:HD11 | 1.54                     | 0.85              |
| 1:I:74:ILE:HG23  | 1:I:86:TYR:HE1   | 1.39                     | 0.85              |
| 2:F:25:ASP:O     | 2:F:30:LYS:HE2   | 1.75                     | 0.85              |
| 2:F:297:GLU:HB3  | 3:O:81:PHE:HE2   | 1.36                     | 0.85              |
| 1:G:529:ALA:HA   | 1:G:532:LYS:HG3  | 1.56                     | 0.85              |
| 3:O:327:THR:HG22 | 3:O:329:VAL:H    | 1.40                     | 0.85              |
| 3:P:181:LEU:O    | 3:P:182:LEU:HD23 | 1.75                     | 0.85              |
| 1:A:529:ALA:HA   | 1:A:532:LYS:HG3  | 1.56                     | 0.85              |
| 2:B:38:ILE:O     | 2:B:41:MET:HB3   | 1.76                     | 0.85              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:166:LYS:O    | 2:F:169:ILE:HB   | 1.75                     | 0.85              |
| 2:H:457:GLU:HG3  | 2:H:458:ARG:H    | 1.41                     | 0.85              |
| 2:D:297:GLU:HB3  | 3:N:81:PHE:HE2   | 1.36                     | 0.85              |
| 2:J:457:GLU:HG3  | 2:J:458:ARG:H    | 1.41                     | 0.85              |
| 1:G:14:ILE:H     | 1:G:14:ILE:HD12  | 1.40                     | 0.85              |
| 2:H:449:ILE:O    | 2:H:452:VAL:HG12 | 1.73                     | 0.85              |
| 1:I:529:ALA:HA   | 1:I:532:LYS:HG3  | 1.56                     | 0.85              |
| 2:J:166:LYS:O    | 2:J:169:ILE:HB   | 1.75                     | 0.85              |
| 2:L:38:ILE:O     | 2:L:41:MET:HB3   | 1.76                     | 0.85              |
| 3:N:8:VAL:O      | 3:N:16:LEU:HB3   | 1.76                     | 0.85              |
| 3:P:168:LYS:HE3  | 3:P:170:GLU:OE1  | 1.76                     | 0.85              |
| 2:D:38:ILE:O     | 2:D:41:MET:HB3   | 1.76                     | 0.85              |
| 2:H:166:LYS:O    | 2:H:169:ILE:HB   | 1.75                     | 0.85              |
| 3:N:172:PHE:HB2  | 3:N:201:ARG:HB3  | 1.58                     | 0.85              |
| 1:A:14:ILE:H     | 1:A:14:ILE:HD12  | 1.40                     | 0.85              |
| 3:M:168:LYS:HE3  | 3:M:170:GLU:OE1  | 1.76                     | 0.85              |
| 3:N:168:LYS:HE3  | 3:N:170:GLU:OE1  | 1.76                     | 0.85              |
| 3:O:8:VAL:O      | 3:O:16:LEU:HB3   | 1.76                     | 0.85              |
| 2:D:166:LYS:O    | 2:D:169:ILE:HB   | 1.75                     | 0.85              |
| 3:V:8:VAL:O      | 3:V:16:LEU:HB3   | 1.76                     | 0.85              |
| 3:V:172:PHE:HB2  | 3:V:201:ARG:HB3  | 1.58                     | 0.85              |
| 1:A:104:THR:HG23 | 1:A:138:LEU:HD21 | 1.59                     | 0.84              |
| 1:G:470:GLN:HB2  | 1:G:471:PRO:HD3  | 1.58                     | 0.84              |
| 2:L:510:ALA:HB1  | 2:L:519:LEU:HD11 | 1.59                     | 0.84              |
| 3:O:168:LYS:HE3  | 3:O:170:GLU:OE1  | 1.76                     | 0.84              |
| 3:R:334:TRP:CZ2  | 3:R:336:PRO:HG3  | 2.12                     | 0.84              |
| 3:V:181:LEU:O    | 3:V:182:LEU:HD23 | 1.75                     | 0.84              |
| 1:E:35:ARG:HD3   | 1:E:65:PHE:HE2   | 1.43                     | 0.84              |
| 1:I:115:THR:HG22 | 1:I:116:GLN:H    | 1.42                     | 0.84              |
| 3:M:8:VAL:O      | 3:M:16:LEU:HB3   | 1.76                     | 0.84              |
| 1:E:115:THR:HG22 | 1:E:116:GLN:H    | 1.42                     | 0.84              |
| 1:I:466:ASP:O    | 1:I:467:TYR:HD1  | 1.61                     | 0.84              |
| 3:N:334:TRP:CZ2  | 3:N:336:PRO:HG3  | 2.12                     | 0.84              |
| 1:E:212:PHE:O    | 1:E:216:VAL:HG23 | 1.78                     | 0.84              |
| 3:O:334:TRP:CZ2  | 3:O:336:PRO:HG3  | 2.12                     | 0.84              |
| 3:P:8:VAL:O      | 3:P:16:LEU:HB3   | 1.76                     | 0.84              |
| 3:R:239:HIS:O    | 3:R:242:VAL:HG23 | 1.78                     | 0.84              |
| 1:A:115:THR:HG22 | 1:A:116:GLN:H    | 1.42                     | 0.84              |
| 2:D:510:ALA:HB1  | 2:D:519:LEU:HD11 | 1.59                     | 0.84              |
| 2:F:510:ALA:HB1  | 2:F:519:LEU:HD11 | 1.59                     | 0.84              |
| 1:G:115:THR:HG22 | 1:G:116:GLN:H    | 1.42                     | 0.84              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:470:GLN:HB2  | 1:K:471:PRO:HD3  | 1.58                     | 0.84              |
| 3:N:239:HIS:O    | 3:N:242:VAL:HG23 | 1.78                     | 0.84              |
| 3:R:8:VAL:O      | 3:R:16:LEU:HB3   | 1.76                     | 0.84              |
| 1:E:172:MET:HE3  | 1:E:172:MET:H    | 1.43                     | 0.84              |
| 1:G:212:PHE:O    | 1:G:216:VAL:HG23 | 1.78                     | 0.84              |
| 1:K:416:ARG:O    | 1:K:420:ASP:HB2  | 1.77                     | 0.84              |
| 2:B:494:LYS:O    | 2:B:496:PRO:HD3  | 1.78                     | 0.84              |
| 2:D:494:LYS:O    | 2:D:496:PRO:HD3  | 1.78                     | 0.84              |
| 1:E:14:ILE:H     | 1:E:14:ILE:HD12  | 1.40                     | 0.84              |
| 1:A:212:PHE:O    | 1:A:216:VAL:HG23 | 1.78                     | 0.84              |
| 1:C:104:THR:HG23 | 1:C:138:LEU:HD21 | 1.59                     | 0.84              |
| 3:P:172:PHE:HB2  | 3:P:201:ARG:HB3  | 1.59                     | 0.84              |
| 2:B:457:GLU:HG3  | 2:B:458:ARG:H    | 1.41                     | 0.84              |
| 2:F:457:GLU:HG3  | 2:F:458:ARG:H    | 1.41                     | 0.84              |
| 1:I:36:SER:HA    | 1:I:39:ARG:HG2   | 1.60                     | 0.84              |
| 1:I:416:ARG:O    | 1:I:420:ASP:HB2  | 1.77                     | 0.84              |
| 3:P:327:THR:HG22 | 3:P:329:VAL:H    | 1.40                     | 0.84              |
| 3:R:327:THR:HG22 | 3:R:329:VAL:H    | 1.40                     | 0.84              |
| 4:U:10:ARG:HH11  | 4:U:61:ARG:HE    | 1.24                     | 0.84              |
| 1:A:416:ARG:O    | 1:A:420:ASP:HB2  | 1.77                     | 0.84              |
| 2:B:188:ALA:HA   | 2:B:195:ASN:OD1  | 1.78                     | 0.84              |
| 2:D:110:MET:O    | 2:D:113:ILE:HD13 | 1.78                     | 0.84              |
| 1:E:466:ASP:O    | 1:E:467:TYR:HD1  | 1.61                     | 0.84              |
| 1:K:35:ARG:HD3   | 1:K:65:PHE:CE2   | 2.13                     | 0.84              |
| 1:K:104:THR:HG23 | 1:K:138:LEU:HD21 | 1.59                     | 0.84              |
| 1:K:115:THR:HG22 | 1:K:116:GLN:H    | 1.42                     | 0.84              |
| 1:K:488:VAL:HA   | 1:K:500:VAL:CG1  | 2.06                     | 0.84              |
| 3:M:239:HIS:O    | 3:M:242:VAL:HG23 | 1.78                     | 0.84              |
| 3:P:334:TRP:CZ2  | 3:P:336:PRO:HG3  | 2.12                     | 0.84              |
| 1:A:35:ARG:HD3   | 1:A:65:PHE:CE2   | 2.13                     | 0.83              |
| 1:E:416:ARG:O    | 1:E:420:ASP:HB2  | 1.77                     | 0.83              |
| 2:F:188:ALA:HA   | 2:F:195:ASN:OD1  | 1.78                     | 0.83              |
| 1:G:416:ARG:O    | 1:G:420:ASP:HB2  | 1.77                     | 0.83              |
| 2:H:494:LYS:O    | 2:H:496:PRO:HD3  | 1.78                     | 0.83              |
| 1:I:104:THR:HG23 | 1:I:138:LEU:HD21 | 1.59                     | 0.83              |
| 3:P:239:HIS:O    | 3:P:242:VAL:HG23 | 1.78                     | 0.83              |
| 2:J:188:ALA:HA   | 2:J:195:ASN:OD1  | 1.78                     | 0.83              |
| 4:Q:10:ARG:HH11  | 4:Q:61:ARG:HE    | 1.24                     | 0.83              |
| 1:A:466:ASP:O    | 1:A:467:TYR:HD1  | 1.61                     | 0.83              |
| 2:D:188:ALA:HA   | 2:D:195:ASN:OD1  | 1.78                     | 0.83              |
| 1:I:35:ARG:HD3   | 1:I:65:PHE:CE2   | 2.13                     | 0.83              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:510:ALA:HB1  | 2:B:519:LEU:HD11 | 1.59                     | 0.83              |
| 1:C:35:ARG:HD3   | 1:C:65:PHE:HE2   | 1.42                     | 0.83              |
| 1:C:35:ARG:HD3   | 1:C:65:PHE:CE2   | 2.13                     | 0.83              |
| 1:C:115:THR:HG22 | 1:C:116:GLN:H    | 1.43                     | 0.83              |
| 1:E:35:ARG:HD3   | 1:E:65:PHE:CE2   | 2.13                     | 0.83              |
| 1:G:35:ARG:HD3   | 1:G:65:PHE:HE2   | 1.43                     | 0.83              |
| 1:K:466:ASP:O    | 1:K:467:TYR:HD1  | 1.61                     | 0.83              |
| 3:M:334:TRP:CZ2  | 3:M:336:PRO:HG3  | 2.12                     | 0.83              |
| 2:B:317:LEU:HD22 | 2:B:317:LEU:H    | 1.44                     | 0.83              |
| 1:C:40:GLU:HB2   | 1:C:42:ASP:OD1   | 1.78                     | 0.83              |
| 1:C:416:ARG:O    | 1:C:420:ASP:HB2  | 1.77                     | 0.83              |
| 1:C:470:GLN:HB2  | 1:C:471:PRO:HD3  | 1.58                     | 0.83              |
| 1:G:35:ARG:HD3   | 1:G:65:PHE:CE2   | 2.13                     | 0.83              |
| 3:V:239:HIS:O    | 3:V:242:VAL:HG23 | 1.78                     | 0.83              |
| 1:A:11:ILE:HA    | 1:A:14:ILE:HD13  | 1.61                     | 0.83              |
| 1:A:36:SER:HA    | 1:A:39:ARG:HG2   | 1.60                     | 0.83              |
| 1:E:11:ILE:HA    | 1:E:14:ILE:HD13  | 1.61                     | 0.83              |
| 1:E:488:VAL:HA   | 1:E:500:VAL:CG1  | 2.06                     | 0.83              |
| 2:F:110:MET:O    | 2:F:113:ILE:HD13 | 1.78                     | 0.83              |
| 2:F:317:LEU:HD22 | 2:F:317:LEU:H    | 1.44                     | 0.83              |
| 1:G:104:THR:HG23 | 1:G:138:LEU:HD21 | 1.59                     | 0.83              |
| 2:J:494:LYS:O    | 2:J:496:PRO:HD3  | 1.78                     | 0.83              |
| 1:K:212:PHE:O    | 1:K:216:VAL:HG23 | 1.78                     | 0.83              |
| 1:E:104:THR:HG23 | 1:E:138:LEU:HD21 | 1.59                     | 0.83              |
| 1:I:11:ILE:HA    | 1:I:14:ILE:HD13  | 1.61                     | 0.83              |
| 1:I:40:GLU:HB2   | 1:I:42:ASP:OD1   | 1.78                     | 0.83              |
| 2:L:188:ALA:HA   | 2:L:195:ASN:OD1  | 1.78                     | 0.83              |
| 3:O:172:PHE:HB2  | 3:O:201:ARG:HB3  | 1.59                     | 0.83              |
| 3:O:239:HIS:O    | 3:O:242:VAL:HG23 | 1.78                     | 0.83              |
| 3:V:334:TRP:CZ2  | 3:V:336:PRO:HG3  | 2.12                     | 0.83              |
| 1:G:466:ASP:O    | 1:G:467:TYR:HD1  | 1.61                     | 0.83              |
| 4:X:10:ARG:HH11  | 4:X:61:ARG:HE    | 1.24                     | 0.83              |
| 1:C:36:SER:HA    | 1:C:39:ARG:HG2   | 1.60                     | 0.83              |
| 2:D:317:LEU:H    | 2:D:317:LEU:HD22 | 1.44                     | 0.83              |
| 1:E:470:GLN:HB2  | 1:E:471:PRO:HD3  | 1.58                     | 0.83              |
| 2:H:510:ALA:HB1  | 2:H:519:LEU:HD11 | 1.59                     | 0.83              |
| 1:A:40:GLU:HB2   | 1:A:42:ASP:OD1   | 1.78                     | 0.83              |
| 2:D:124:GLU:HB2  | 2:D:125:PRO:HD3  | 1.61                     | 0.83              |
| 1:E:40:GLU:HB2   | 1:E:42:ASP:OD1   | 1.78                     | 0.83              |
| 1:G:430:GLY:HA3  | 1:G:469:GLN:HE21 | 1.44                     | 0.83              |
| 2:F:494:LYS:O    | 2:F:496:PRO:HD3  | 1.78                     | 0.82              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:488:VAL:HA   | 1:G:500:VAL:CG1  | 2.06                     | 0.82              |
| 2:J:473:PHE:C    | 2:J:475:ASP:H    | 1.82                     | 0.82              |
| 1:K:36:SER:HA    | 1:K:39:ARG:HG2   | 1.60                     | 0.82              |
| 1:C:581:LEU:O    | 1:C:583:ARG:N    | 2.13                     | 0.82              |
| 1:K:430:GLY:HA3  | 1:K:469:GLN:HE21 | 1.44                     | 0.82              |
| 2:B:124:GLU:HB2  | 2:B:125:PRO:HD3  | 1.61                     | 0.82              |
| 1:E:36:SER:HA    | 1:E:39:ARG:HG2   | 1.60                     | 0.82              |
| 2:H:473:PHE:C    | 2:H:475:ASP:H    | 1.82                     | 0.82              |
| 2:L:494:LYS:O    | 2:L:496:PRO:HD3  | 1.78                     | 0.82              |
| 1:C:466:ASP:O    | 1:C:467:TYR:HD1  | 1.61                     | 0.82              |
| 1:G:11:ILE:HA    | 1:G:14:ILE:HD13  | 1.61                     | 0.82              |
| 2:H:86:MET:CE    | 3:R:237:LYS:HB3  | 2.08                     | 0.82              |
| 2:H:317:LEU:H    | 2:H:317:LEU:HD22 | 1.44                     | 0.82              |
| 1:K:11:ILE:HA    | 1:K:14:ILE:HD13  | 1.61                     | 0.82              |
| 1:A:415:LYS:HE3  | 1:A:415:LYS:N    | 1.94                     | 0.82              |
| 1:E:250:LEU:HA   | 1:E:253:LEU:HD12 | 1.62                     | 0.82              |
| 1:E:415:LYS:HE3  | 1:E:415:LYS:N    | 1.94                     | 0.82              |
| 2:H:110:MET:O    | 2:H:113:ILE:HD13 | 1.78                     | 0.82              |
| 2:H:188:ALA:HA   | 2:H:195:ASN:OD1  | 1.78                     | 0.82              |
| 1:K:40:GLU:HB2   | 1:K:42:ASP:OD1   | 1.78                     | 0.82              |
| 1:K:415:LYS:HE3  | 1:K:415:LYS:N    | 1.94                     | 0.82              |
| 2:L:317:LEU:H    | 2:L:317:LEU:HD22 | 1.44                     | 0.82              |
| 4:W:10:ARG:HH11  | 4:W:61:ARG:HE    | 1.24                     | 0.82              |
| 2:J:317:LEU:HD22 | 2:J:317:LEU:H    | 1.44                     | 0.82              |
| 2:L:110:MET:O    | 2:L:113:ILE:HD13 | 1.78                     | 0.82              |
| 1:C:212:PHE:O    | 1:C:216:VAL:HG23 | 1.78                     | 0.82              |
| 1:E:581:LEU:O    | 1:E:583:ARG:N    | 2.13                     | 0.82              |
| 1:G:36:SER:HA    | 1:G:39:ARG:HG2   | 1.60                     | 0.82              |
| 2:J:124:GLU:HB2  | 2:J:125:PRO:HD3  | 1.61                     | 0.82              |
| 3:M:172:PHE:HB2  | 3:M:201:ARG:HB3  | 1.58                     | 0.82              |
| 4:T:109:LYS:HA   | 4:T:112:PHE:HD1  | 1.45                     | 0.82              |
| 1:C:172:MET:HE3  | 1:C:172:MET:N    | 1.95                     | 0.82              |
| 1:G:250:LEU:HA   | 1:G:253:LEU:HD12 | 1.62                     | 0.82              |
| 2:J:110:MET:O    | 2:J:113:ILE:HD13 | 1.78                     | 0.82              |
| 2:J:510:ALA:HB1  | 2:J:519:LEU:HD11 | 1.59                     | 0.82              |
| 2:L:124:GLU:HB2  | 2:L:125:PRO:HD3  | 1.61                     | 0.82              |
| 1:G:172:MET:HE3  | 1:G:172:MET:N    | 1.95                     | 0.82              |
| 1:A:35:ARG:HD3   | 1:A:65:PHE:HE2   | 1.43                     | 0.82              |
| 1:A:581:LEU:O    | 1:A:583:ARG:N    | 2.13                     | 0.82              |
| 2:L:477:SER:O    | 2:L:480:VAL:HG12 | 1.80                     | 0.82              |
| 4:T:10:ARG:HH11  | 4:T:61:ARG:HE    | 1.24                     | 0.82              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:124:GLU:HB2  | 2:F:125:PRO:HD3  | 1.61                     | 0.81              |
| 2:F:473:PHE:C    | 2:F:475:ASP:H    | 1.82                     | 0.81              |
| 1:G:147:LYS:HE2  | 1:G:147:LYS:HA   | 1.62                     | 0.81              |
| 2:H:200:LYS:O    | 2:H:204:ILE:HG13 | 1.80                     | 0.81              |
| 1:K:250:LEU:HA   | 1:K:253:LEU:HD12 | 1.62                     | 0.81              |
| 4:W:109:LYS:HA   | 4:W:112:PHE:HD1  | 1.45                     | 0.81              |
| 2:B:110:MET:O    | 2:B:113:ILE:HD13 | 1.78                     | 0.81              |
| 3:M:245:SER:CB   | 3:M:252:THR:HB   | 2.10                     | 0.81              |
| 3:R:172:PHE:HB2  | 3:R:201:ARG:HB3  | 1.58                     | 0.81              |
| 3:R:245:SER:CB   | 3:R:252:THR:HB   | 2.10                     | 0.81              |
| 4:U:108:GLU:HG3  | 4:U:109:LYS:H    | 1.45                     | 0.81              |
| 1:C:488:VAL:HA   | 1:C:500:VAL:CG1  | 2.06                     | 0.81              |
| 1:I:172:MET:HE3  | 1:I:172:MET:N    | 1.94                     | 0.81              |
| 1:I:212:PHE:O    | 1:I:216:VAL:HG23 | 1.78                     | 0.81              |
| 1:I:415:LYS:HE3  | 1:I:415:LYS:N    | 1.94                     | 0.81              |
| 3:P:245:SER:CB   | 3:P:252:THR:HB   | 2.10                     | 0.81              |
| 4:X:109:LYS:HA   | 4:X:112:PHE:HD1  | 1.45                     | 0.81              |
| 1:A:498:ILE:HG22 | 1:A:499:GLN:N    | 1.96                     | 0.81              |
| 4:S:108:GLU:HG3  | 4:S:109:LYS:H    | 1.45                     | 0.81              |
| 3:V:24:ASP:O     | 3:V:26:ASP:N     | 2.14                     | 0.81              |
| 2:B:200:LYS:O    | 2:B:204:ILE:HG13 | 1.80                     | 0.81              |
| 1:G:415:LYS:HE3  | 1:G:415:LYS:N    | 1.94                     | 0.81              |
| 2:H:477:SER:O    | 2:H:480:VAL:HG12 | 1.80                     | 0.81              |
| 1:I:250:LEU:HA   | 1:I:253:LEU:HD12 | 1.62                     | 0.81              |
| 2:L:473:PHE:C    | 2:L:475:ASP:H    | 1.82                     | 0.81              |
| 1:A:430:GLY:HA3  | 1:A:469:GLN:HE21 | 1.44                     | 0.81              |
| 3:N:245:SER:CB   | 3:N:252:THR:HB   | 2.10                     | 0.81              |
| 3:O:245:SER:CB   | 3:O:252:THR:HB   | 2.10                     | 0.81              |
| 4:S:109:LYS:HA   | 4:S:112:PHE:HD1  | 1.45                     | 0.81              |
| 1:A:488:VAL:HA   | 1:A:500:VAL:CG1  | 2.06                     | 0.81              |
| 2:D:200:LYS:HB2  | 2:D:203:SER:OG   | 1.81                     | 0.81              |
| 2:D:200:LYS:O    | 2:D:204:ILE:HG13 | 1.80                     | 0.81              |
| 1:I:35:ARG:HD3   | 1:I:65:PHE:HE2   | 1.43                     | 0.81              |
| 1:I:581:LEU:O    | 1:I:583:ARG:N    | 2.13                     | 0.81              |
| 1:K:147:LYS:HE2  | 1:K:147:LYS:HA   | 1.62                     | 0.81              |
| 1:K:581:LEU:O    | 1:K:583:ARG:N    | 2.13                     | 0.81              |
| 3:M:268:ARG:C    | 3:M:269:LEU:HD23 | 2.01                     | 0.81              |
| 3:N:126:THR:HG23 | 3:N:131:LEU:HD13 | 1.63                     | 0.81              |
| 4:S:10:ARG:HH11  | 4:S:61:ARG:HE    | 1.24                     | 0.81              |
| 3:V:245:SER:CB   | 3:V:252:THR:HB   | 2.11                     | 0.81              |
| 2:B:529:LEU:HD21 | 2:B:537:ALA:HA   | 1.63                     | 0.81              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:581:LEU:O    | 1:G:583:ARG:N    | 2.13                     | 0.81              |
| 4:Q:108:GLU:HG3  | 4:Q:109:LYS:H    | 1.44                     | 0.81              |
| 1:C:11:ILE:HA    | 1:C:14:ILE:HD13  | 1.61                     | 0.81              |
| 1:G:40:GLU:HB2   | 1:G:42:ASP:OD1   | 1.78                     | 0.81              |
| 2:H:175:MET:HE3  | 3:P:124:GLN:HB3  | 1.63                     | 0.81              |
| 1:I:430:GLY:HA3  | 1:I:469:GLN:HE21 | 1.44                     | 0.81              |
| 2:J:529:LEU:HD21 | 2:J:537:ALA:HA   | 1.63                     | 0.81              |
| 1:K:138:LEU:H    | 1:K:138:LEU:CD2  | 1.94                     | 0.81              |
| 4:Q:109:LYS:HA   | 4:Q:112:PHE:HD1  | 1.45                     | 0.81              |
| 1:A:325:ARG:O    | 1:A:328:ALA:HB3  | 1.81                     | 0.81              |
| 2:B:477:SER:O    | 2:B:480:VAL:HG12 | 1.80                     | 0.81              |
| 2:F:200:LYS:HB2  | 2:F:203:SER:OG   | 1.81                     | 0.81              |
| 2:F:578:PRO:O    | 2:F:582:VAL:HG23 | 1.81                     | 0.81              |
| 1:G:498:ILE:HG22 | 1:G:499:GLN:N    | 1.96                     | 0.81              |
| 2:H:200:LYS:HB2  | 2:H:203:SER:OG   | 1.81                     | 0.81              |
| 2:J:122:LEU:O    | 2:J:125:PRO:HD2  | 1.81                     | 0.81              |
| 3:P:34:MET:HB3   | 3:P:35:PRO:HD3   | 1.63                     | 0.81              |
| 3:P:106:ASN:CB   | 3:P:109:ILE:HD11 | 2.11                     | 0.81              |
| 4:S:7:LEU:HD21   | 4:S:67:PHE:CD2   | 2.16                     | 0.81              |
| 4:U:7:LEU:HD21   | 4:U:67:PHE:CD2   | 2.16                     | 0.81              |
| 1:A:250:LEU:HA   | 1:A:253:LEU:HD12 | 1.62                     | 0.80              |
| 1:C:415:LYS:HE3  | 1:C:415:LYS:N    | 1.94                     | 0.80              |
| 2:D:362:ALA:HA   | 2:D:370:VAL:HG13 | 1.64                     | 0.80              |
| 1:E:57:HIS:O     | 1:E:60:GLY:N     | 2.15                     | 0.80              |
| 1:G:57:HIS:O     | 1:G:60:GLY:N     | 2.15                     | 0.80              |
| 2:J:208:LEU:HD11 | 2:J:243:ARG:HD2  | 1.63                     | 0.80              |
| 1:K:35:ARG:HD3   | 1:K:65:PHE:HE2   | 1.43                     | 0.80              |
| 3:P:106:ASN:HB3  | 3:P:109:ILE:CD1  | 2.12                     | 0.80              |
| 3:R:106:ASN:CB   | 3:R:109:ILE:HD11 | 2.11                     | 0.80              |
| 2:B:473:PHE:C    | 2:B:475:ASP:H    | 1.82                     | 0.80              |
| 1:C:430:GLY:HA3  | 1:C:469:GLN:HE21 | 1.44                     | 0.80              |
| 2:J:200:LYS:HB2  | 2:J:203:SER:OG   | 1.81                     | 0.80              |
| 2:J:200:LYS:O    | 2:J:204:ILE:HG13 | 1.80                     | 0.80              |
| 3:O:24:ASP:O     | 3:O:26:ASP:N     | 2.14                     | 0.80              |
| 3:O:34:MET:HB3   | 3:O:35:PRO:HD3   | 1.63                     | 0.80              |
| 3:O:268:ARG:C    | 3:O:269:LEU:HD23 | 2.01                     | 0.80              |
| 4:T:7:LEU:HD21   | 4:T:67:PHE:CD2   | 2.16                     | 0.80              |
| 3:V:268:ARG:C    | 3:V:269:LEU:HD23 | 2.01                     | 0.80              |
| 2:B:208:LEU:HD11 | 2:B:243:ARG:HD2  | 1.63                     | 0.80              |
| 1:C:251:ARG:O    | 1:C:254:ARG:HB3  | 1.81                     | 0.80              |
| 2:F:122:LEU:O    | 2:F:125:PRO:HD2  | 1.82                     | 0.80              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:124:GLU:HB2  | 2:H:125:PRO:HD3  | 1.61                     | 0.80              |
| 2:J:12:LYS:HG2   | 2:J:13:GLY:H     | 1.46                     | 0.80              |
| 2:J:188:ALA:O    | 2:J:190:SER:N    | 2.15                     | 0.80              |
| 1:K:208:MET:HE3  | 1:K:212:PHE:HD1  | 1.47                     | 0.80              |
| 1:K:251:ARG:O    | 1:K:254:ARG:HB3  | 1.81                     | 0.80              |
| 2:L:208:LEU:HD11 | 2:L:243:ARG:HD2  | 1.63                     | 0.80              |
| 2:L:578:PRO:O    | 2:L:582:VAL:HG23 | 1.81                     | 0.80              |
| 3:O:183:VAL:HG13 | 3:O:188:ASN:O    | 1.82                     | 0.80              |
| 3:R:268:ARG:C    | 3:R:269:LEU:HD23 | 2.01                     | 0.80              |
| 1:A:138:LEU:H    | 1:A:138:LEU:CD2  | 1.94                     | 0.80              |
| 1:C:250:LEU:HA   | 1:C:253:LEU:HD12 | 1.62                     | 0.80              |
| 2:H:529:LEU:HD21 | 2:H:537:ALA:HA   | 1.63                     | 0.80              |
| 2:L:175:MET:HE3  | 3:V:124:GLN:HB3  | 1.63                     | 0.80              |
| 3:M:183:VAL:HG13 | 3:M:188:ASN:O    | 1.81                     | 0.80              |
| 3:P:126:THR:HG23 | 3:P:131:LEU:HD13 | 1.63                     | 0.80              |
| 1:E:159:LEU:O    | 1:E:162:VAL:HB   | 1.82                     | 0.80              |
| 1:G:251:ARG:O    | 1:G:254:ARG:HB3  | 1.81                     | 0.80              |
| 2:H:122:LEU:O    | 2:H:125:PRO:HD2  | 1.82                     | 0.80              |
| 1:K:325:ARG:O    | 1:K:328:ALA:HB3  | 1.81                     | 0.80              |
| 2:L:200:LYS:HB2  | 2:L:203:SER:OG   | 1.81                     | 0.80              |
| 3:N:183:VAL:HG13 | 3:N:188:ASN:O    | 1.81                     | 0.80              |
| 2:D:12:LYS:HG2   | 2:D:13:GLY:H     | 1.46                     | 0.80              |
| 2:D:188:ALA:O    | 2:D:190:SER:N    | 2.15                     | 0.80              |
| 1:E:325:ARG:O    | 1:E:328:ALA:HB3  | 1.81                     | 0.80              |
| 2:F:208:LEU:HD11 | 2:F:243:ARG:HD2  | 1.63                     | 0.80              |
| 2:F:362:ALA:HA   | 2:F:370:VAL:HG13 | 1.64                     | 0.80              |
| 1:G:208:MET:HE3  | 1:G:212:PHE:HD1  | 1.47                     | 0.80              |
| 2:H:578:PRO:O    | 2:H:582:VAL:HG23 | 1.81                     | 0.80              |
| 2:J:578:PRO:O    | 2:J:582:VAL:HG23 | 1.81                     | 0.80              |
| 3:M:126:THR:HG23 | 3:M:131:LEU:HD13 | 1.63                     | 0.80              |
| 3:N:269:LEU:HD23 | 3:N:269:LEU:N    | 1.97                     | 0.80              |
| 3:R:34:MET:HB3   | 3:R:35:PRO:HD3   | 1.63                     | 0.80              |
| 3:V:126:THR:HG23 | 3:V:131:LEU:HD13 | 1.63                     | 0.80              |
| 3:V:269:LEU:HD23 | 3:V:269:LEU:N    | 1.97                     | 0.80              |
| 2:B:200:LYS:HB2  | 2:B:203:SER:OG   | 1.81                     | 0.80              |
| 1:E:430:GLY:HA3  | 1:E:469:GLN:HE21 | 1.44                     | 0.80              |
| 2:H:188:ALA:O    | 2:H:190:SER:N    | 2.15                     | 0.80              |
| 1:I:325:ARG:O    | 1:I:328:ALA:HB3  | 1.81                     | 0.80              |
| 3:N:17:ILE:HD13  | 3:N:18:CYS:N     | 1.97                     | 0.80              |
| 4:Q:7:LEU:HD21   | 4:Q:67:PHE:CD2   | 2.16                     | 0.80              |
| 3:R:17:ILE:HD13  | 3:R:18:CYS:N     | 1.97                     | 0.80              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:T:108:GLU:HG3  | 4:T:109:LYS:H    | 1.45                     | 0.80              |
| 4:W:127:SER:HB3  | 4:W:130:SER:CB   | 2.12                     | 0.80              |
| 2:F:477:SER:O    | 2:F:480:VAL:HG12 | 1.80                     | 0.80              |
| 1:K:372:LEU:HD12 | 1:K:372:LEU:N    | 1.97                     | 0.80              |
| 3:N:268:ARG:C    | 3:N:269:LEU:HD23 | 2.01                     | 0.80              |
| 1:A:147:LYS:HA   | 1:A:147:LYS:HE2  | 1.62                     | 0.80              |
| 1:A:159:LEU:O    | 1:A:162:VAL:HB   | 1.82                     | 0.80              |
| 2:B:12:LYS:HG2   | 2:B:13:GLY:H     | 1.46                     | 0.80              |
| 2:D:215:THR:O    | 2:D:218:ALA:N    | 2.15                     | 0.80              |
| 2:D:477:SER:O    | 2:D:480:VAL:HG12 | 1.80                     | 0.80              |
| 1:E:251:ARG:O    | 1:E:254:ARG:HB3  | 1.81                     | 0.80              |
| 2:H:12:LYS:HG2   | 2:H:13:GLY:H     | 1.46                     | 0.80              |
| 1:I:57:HIS:O     | 1:I:60:GLY:N     | 2.15                     | 0.80              |
| 1:I:147:LYS:HA   | 1:I:147:LYS:HE2  | 1.62                     | 0.80              |
| 1:I:208:MET:HE3  | 1:I:212:PHE:HD1  | 1.47                     | 0.80              |
| 2:J:477:SER:O    | 2:J:480:VAL:HG12 | 1.80                     | 0.80              |
| 2:L:122:LEU:O    | 2:L:125:PRO:HD2  | 1.82                     | 0.80              |
| 2:L:188:ALA:O    | 2:L:190:SER:N    | 2.15                     | 0.80              |
| 3:P:17:ILE:HD13  | 3:P:18:CYS:N     | 1.97                     | 0.80              |
| 3:P:183:VAL:HG13 | 3:P:188:ASN:O    | 1.81                     | 0.80              |
| 4:W:7:LEU:HD21   | 4:W:67:PHE:CD2   | 2.17                     | 0.80              |
| 2:B:165:LEU:O    | 2:B:169:ILE:HG13 | 1.82                     | 0.80              |
| 1:C:57:HIS:O     | 1:C:60:GLY:N     | 2.15                     | 0.80              |
| 2:D:165:LEU:O    | 2:D:169:ILE:HG13 | 1.82                     | 0.80              |
| 1:E:138:LEU:H    | 1:E:138:LEU:CD2  | 1.94                     | 0.80              |
| 1:E:208:MET:HE3  | 1:E:212:PHE:HD1  | 1.47                     | 0.80              |
| 1:G:159:LEU:O    | 1:G:162:VAL:HB   | 1.82                     | 0.80              |
| 1:I:372:LEU:HD12 | 1:I:372:LEU:N    | 1.97                     | 0.80              |
| 1:I:498:ILE:HG22 | 1:I:499:GLN:N    | 1.96                     | 0.80              |
| 2:L:134:ASP:O    | 2:L:138:ARG:HG2  | 1.82                     | 0.80              |
| 2:L:165:LEU:O    | 2:L:169:ILE:HG13 | 1.82                     | 0.80              |
| 2:L:529:LEU:HD21 | 2:L:537:ALA:HA   | 1.63                     | 0.80              |
| 4:Q:127:SER:HB3  | 4:Q:130:SER:CB   | 2.12                     | 0.80              |
| 4:U:109:LYS:HA   | 4:U:112:PHE:HD1  | 1.45                     | 0.80              |
| 3:V:106:ASN:HB3  | 3:V:109:ILE:CD1  | 2.12                     | 0.80              |
| 1:A:57:HIS:O     | 1:A:60:GLY:N     | 2.15                     | 0.79              |
| 2:B:188:ALA:O    | 2:B:190:SER:N    | 2.15                     | 0.79              |
| 1:C:147:LYS:HE2  | 1:C:147:LYS:HA   | 1.62                     | 0.79              |
| 1:K:57:HIS:O     | 1:K:60:GLY:N     | 2.15                     | 0.79              |
| 2:L:200:LYS:O    | 2:L:204:ILE:HG13 | 1.80                     | 0.79              |
| 3:O:17:ILE:HD13  | 3:O:18:CYS:N     | 1.97                     | 0.79              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:R:126:THR:HG23 | 3:R:131:LEU:HD13 | 1.63                     | 0.79              |
| 4:X:108:GLU:HG3  | 4:X:109:LYS:H    | 1.44                     | 0.79              |
| 2:B:215:THR:O    | 2:B:218:ALA:N    | 2.15                     | 0.79              |
| 1:C:498:ILE:HG22 | 1:C:499:GLN:N    | 1.96                     | 0.79              |
| 2:D:529:LEU:HD21 | 2:D:537:ALA:HA   | 1.63                     | 0.79              |
| 2:F:134:ASP:O    | 2:F:138:ARG:HG2  | 1.82                     | 0.79              |
| 2:F:200:LYS:O    | 2:F:204:ILE:HG13 | 1.80                     | 0.79              |
| 2:H:165:LEU:O    | 2:H:169:ILE:HG13 | 1.82                     | 0.79              |
| 2:J:169:ILE:HG12 | 2:J:180:ARG:HB3  | 1.65                     | 0.79              |
| 2:J:215:THR:O    | 2:J:218:ALA:N    | 2.15                     | 0.79              |
| 3:O:126:THR:HG23 | 3:O:131:LEU:HD13 | 1.63                     | 0.79              |
| 3:R:24:ASP:O     | 3:R:26:ASP:N     | 2.14                     | 0.79              |
| 4:T:127:SER:HB3  | 4:T:130:SER:CB   | 2.12                     | 0.79              |
| 4:U:127:SER:HB3  | 4:U:130:SER:CB   | 2.12                     | 0.79              |
| 1:A:372:LEU:HD12 | 1:A:372:LEU:N    | 1.97                     | 0.79              |
| 1:C:325:ARG:O    | 1:C:328:ALA:HB3  | 1.81                     | 0.79              |
| 2:H:215:THR:O    | 2:H:218:ALA:N    | 2.15                     | 0.79              |
| 3:O:269:LEU:HD23 | 3:O:269:LEU:N    | 1.97                     | 0.79              |
| 2:B:362:ALA:HA   | 2:B:370:VAL:HG13 | 1.63                     | 0.79              |
| 1:E:372:LEU:HD12 | 1:E:372:LEU:N    | 1.97                     | 0.79              |
| 1:G:138:LEU:H    | 1:G:138:LEU:CD2  | 1.94                     | 0.79              |
| 1:I:159:LEU:O    | 1:I:162:VAL:HB   | 1.82                     | 0.79              |
| 1:K:159:LEU:O    | 1:K:162:VAL:HB   | 1.82                     | 0.79              |
| 3:N:106:ASN:CB   | 3:N:109:ILE:HD11 | 2.11                     | 0.79              |
| 3:O:106:ASN:CB   | 3:O:109:ILE:HD11 | 2.11                     | 0.79              |
| 4:X:7:LEU:HD21   | 4:X:67:PHE:CD2   | 2.16                     | 0.79              |
| 1:A:251:ARG:O    | 1:A:254:ARG:HB3  | 1.81                     | 0.79              |
| 2:B:140:THR:O    | 2:B:143:VAL:HB   | 1.83                     | 0.79              |
| 2:D:134:ASP:O    | 2:D:138:ARG:HG2  | 1.82                     | 0.79              |
| 3:M:17:ILE:HD13  | 3:M:18:CYS:N     | 1.97                     | 0.79              |
| 3:N:24:ASP:O     | 3:N:26:ASP:N     | 2.14                     | 0.79              |
| 3:O:106:ASN:HB3  | 3:O:109:ILE:CD1  | 2.12                     | 0.79              |
| 1:A:416:ARG:HG3  | 1:A:454:TYR:CE1  | 2.18                     | 0.79              |
| 1:C:372:LEU:HD12 | 1:C:372:LEU:N    | 1.97                     | 0.79              |
| 2:F:175:MET:HE3  | 3:O:124:GLN:HB3  | 1.63                     | 0.79              |
| 2:F:188:ALA:O    | 2:F:190:SER:N    | 2.15                     | 0.79              |
| 1:I:251:ARG:O    | 1:I:254:ARG:HB3  | 1.81                     | 0.79              |
| 2:L:215:THR:O    | 2:L:218:ALA:N    | 2.15                     | 0.79              |
| 2:L:362:ALA:HA   | 2:L:370:VAL:HG13 | 1.64                     | 0.79              |
| 3:M:34:MET:HB3   | 3:M:35:PRO:HD3   | 1.63                     | 0.79              |
| 2:B:122:LEU:O    | 2:B:125:PRO:HD2  | 1.82                     | 0.79              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:498:ILE:HG22 | 1:E:499:GLN:N    | 1.96                     | 0.79              |
| 1:G:325:ARG:O    | 1:G:328:ALA:HB3  | 1.81                     | 0.79              |
| 1:K:416:ARG:HG3  | 1:K:454:TYR:CE1  | 2.18                     | 0.79              |
| 2:L:169:ILE:HG12 | 2:L:180:ARG:HB3  | 1.65                     | 0.79              |
| 3:V:106:ASN:CB   | 3:V:109:ILE:HD11 | 2.11                     | 0.79              |
| 1:A:205:SER:O    | 1:A:208:MET:HB2  | 1.83                     | 0.79              |
| 1:E:416:ARG:HG3  | 1:E:454:TYR:CE1  | 2.18                     | 0.79              |
| 1:G:416:ARG:HG3  | 1:G:454:TYR:CE1  | 2.18                     | 0.79              |
| 2:H:134:ASP:O    | 2:H:138:ARG:HG2  | 1.83                     | 0.79              |
| 2:J:134:ASP:O    | 2:J:138:ARG:HG2  | 1.82                     | 0.79              |
| 1:K:205:SER:O    | 1:K:208:MET:HB2  | 1.83                     | 0.79              |
| 3:V:183:VAL:HG13 | 3:V:188:ASN:O    | 1.81                     | 0.79              |
| 4:X:127:SER:HB3  | 4:X:130:SER:CB   | 2.12                     | 0.79              |
| 2:B:175:MET:HE3  | 3:M:124:GLN:HB3  | 1.63                     | 0.79              |
| 1:C:416:ARG:HG3  | 1:C:454:TYR:HE1  | 1.48                     | 0.79              |
| 2:D:473:PHE:C    | 2:D:475:ASP:H    | 1.82                     | 0.79              |
| 2:F:529:LEU:HD21 | 2:F:537:ALA:HA   | 1.63                     | 0.79              |
| 3:P:269:LEU:N    | 3:P:269:LEU:HD23 | 1.97                     | 0.79              |
| 3:V:135:ILE:HD12 | 3:V:135:ILE:O    | 1.83                     | 0.79              |
| 1:C:416:ARG:HG3  | 1:C:454:TYR:CE1  | 2.18                     | 0.79              |
| 2:D:122:LEU:O    | 2:D:125:PRO:HD2  | 1.82                     | 0.79              |
| 1:G:138:LEU:HD22 | 1:G:138:LEU:N    | 1.98                     | 0.79              |
| 1:G:561:GLN:HG2  | 2:H:522:ARG:HH22 | 1.48                     | 0.79              |
| 1:I:138:LEU:H    | 1:I:138:LEU:CD2  | 1.94                     | 0.79              |
| 3:M:24:ASP:O     | 3:M:26:ASP:N     | 2.14                     | 0.79              |
| 4:X:48:SER:HA    | 4:X:59:TYR:CE2   | 2.17                     | 0.79              |
| 1:A:208:MET:HE3  | 1:A:212:PHE:HD1  | 1.47                     | 0.78              |
| 1:C:159:LEU:O    | 1:C:162:VAL:HB   | 1.82                     | 0.78              |
| 2:D:139:LYS:HD3  | 2:D:175:MET:CE   | 2.14                     | 0.78              |
| 1:E:147:LYS:HA   | 1:E:147:LYS:HE2  | 1.62                     | 0.78              |
| 2:J:165:LEU:O    | 2:J:169:ILE:HG13 | 1.82                     | 0.78              |
| 3:R:106:ASN:HB3  | 3:R:109:ILE:CD1  | 2.12                     | 0.78              |
| 3:R:183:VAL:HG13 | 3:R:188:ASN:O    | 1.81                     | 0.78              |
| 4:S:30:LYS:HB2   | 4:S:30:LYS:HZ2   | 1.48                     | 0.78              |
| 3:V:17:ILE:HD13  | 3:V:18:CYS:N     | 1.97                     | 0.78              |
| 2:D:208:LEU:HD11 | 2:D:243:ARG:HD2  | 1.63                     | 0.78              |
| 2:F:12:LYS:HG2   | 2:F:13:GLY:H     | 1.46                     | 0.78              |
| 2:F:139:LYS:HD3  | 2:F:175:MET:CE   | 2.14                     | 0.78              |
| 2:J:140:THR:O    | 2:J:143:VAL:HB   | 1.83                     | 0.78              |
| 3:M:106:ASN:CB   | 3:M:109:ILE:HD11 | 2.11                     | 0.78              |
| 3:N:106:ASN:HB3  | 3:N:109:ILE:CD1  | 2.12                     | 0.78              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:P:24:ASP:O     | 3:P:26:ASP:N     | 2.14                     | 0.78              |
| 3:V:34:MET:HB3   | 3:V:35:PRO:HD3   | 1.63                     | 0.78              |
| 1:A:138:LEU:HD22 | 1:A:138:LEU:N    | 1.98                     | 0.78              |
| 2:B:169:ILE:HG12 | 2:B:180:ARG:HB3  | 1.65                     | 0.78              |
| 2:D:578:PRO:O    | 2:D:582:VAL:HG23 | 1.81                     | 0.78              |
| 1:G:230:GLY:HA3  | 2:J:461:ASN:HD21 | 1.49                     | 0.78              |
| 2:H:208:LEU:HD11 | 2:H:243:ARG:HD2  | 1.63                     | 0.78              |
| 1:I:205:SER:O    | 1:I:208:MET:HB2  | 1.83                     | 0.78              |
| 2:J:175:MET:HE3  | 3:R:124:GLN:HB3  | 1.63                     | 0.78              |
| 2:J:362:ALA:HA   | 2:J:370:VAL:HG13 | 1.63                     | 0.78              |
| 1:K:498:ILE:HG22 | 1:K:499:GLN:N    | 1.96                     | 0.78              |
| 3:M:386:THR:HG22 | 3:M:389:GLY:H    | 1.48                     | 0.78              |
| 3:P:268:ARG:C    | 3:P:269:LEU:HD23 | 2.01                     | 0.78              |
| 1:C:138:LEU:H    | 1:C:138:LEU:CD2  | 1.94                     | 0.78              |
| 2:D:169:ILE:HG12 | 2:D:180:ARG:HB3  | 1.65                     | 0.78              |
| 2:D:175:MET:HE3  | 3:N:124:GLN:HB3  | 1.63                     | 0.78              |
| 2:F:215:THR:O    | 2:F:218:ALA:N    | 2.15                     | 0.78              |
| 1:G:372:LEU:HD12 | 1:G:372:LEU:N    | 1.97                     | 0.78              |
| 2:L:140:THR:O    | 2:L:143:VAL:HB   | 1.83                     | 0.78              |
| 4:S:127:SER:HB3  | 4:S:130:SER:CB   | 2.12                     | 0.78              |
| 3:V:343:TRP:CH2  | 3:V:356:MET:HB2  | 2.19                     | 0.78              |
| 2:B:450:TRP:HB2  | 2:B:483:GLN:CG   | 2.14                     | 0.78              |
| 1:C:561:GLN:HG2  | 2:D:522:ARG:HH22 | 1.48                     | 0.78              |
| 1:E:138:LEU:HD22 | 1:E:138:LEU:N    | 1.98                     | 0.78              |
| 2:J:139:LYS:HD3  | 2:J:175:MET:CE   | 2.14                     | 0.78              |
| 2:L:162:LEU:O    | 2:L:165:LEU:HB2  | 1.84                     | 0.78              |
| 3:M:56:ARG:N     | 3:M:56:ARG:HD2   | 1.99                     | 0.78              |
| 3:N:34:MET:HB3   | 3:N:35:PRO:HD3   | 1.63                     | 0.78              |
| 3:N:118:MET:HB2  | 3:N:123:PRO:HA   | 1.66                     | 0.78              |
| 3:P:56:ARG:HD2   | 3:P:56:ARG:N     | 1.99                     | 0.78              |
| 3:P:135:ILE:HD12 | 3:P:135:ILE:O    | 1.83                     | 0.78              |
| 4:Q:10:ARG:O     | 4:Q:40:LEU:HD22  | 1.84                     | 0.78              |
| 3:R:104:ARG:HA   | 3:R:107:PHE:CE1  | 2.18                     | 0.78              |
| 1:C:208:MET:HE3  | 1:C:212:PHE:HD1  | 1.47                     | 0.78              |
| 2:D:140:THR:O    | 2:D:143:VAL:HB   | 1.83                     | 0.78              |
| 1:E:208:MET:HE3  | 1:E:212:PHE:CD1  | 2.18                     | 0.78              |
| 1:E:236:ASP:OD2  | 1:E:237:VAL:N    | 2.17                     | 0.78              |
| 1:G:205:SER:O    | 1:G:208:MET:HB2  | 1.83                     | 0.78              |
| 2:H:169:ILE:HG12 | 2:H:180:ARG:HB3  | 1.65                     | 0.78              |
| 1:I:416:ARG:HG3  | 1:I:454:TYR:CE1  | 2.18                     | 0.78              |
| 1:I:416:ARG:HG3  | 1:I:454:TYR:HE1  | 1.48                     | 0.78              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:M:104:ARG:HA   | 3:M:107:PHE:CE1  | 2.18                     | 0.78              |
| 3:N:386:THR:HG22 | 3:N:389:GLY:H    | 1.48                     | 0.78              |
| 3:R:118:MET:HB2  | 3:R:123:PRO:HA   | 1.66                     | 0.78              |
| 2:B:466:LEU:H    | 2:B:466:LEU:HD12 | 1.49                     | 0.78              |
| 2:D:347:SER:H    | 2:D:350:ASN:ND2  | 1.82                     | 0.78              |
| 1:E:416:ARG:HG3  | 1:E:454:TYR:HE1  | 1.48                     | 0.78              |
| 2:H:362:ALA:HA   | 2:H:370:VAL:HG13 | 1.64                     | 0.78              |
| 2:H:401:THR:HB   | 2:H:403:VAL:HG23 | 1.66                     | 0.78              |
| 1:K:303:SER:O    | 1:K:307:VAL:HG23 | 1.84                     | 0.78              |
| 3:N:56:ARG:N     | 3:N:56:ARG:HD2   | 1.99                     | 0.78              |
| 3:P:104:ARG:HA   | 3:P:107:PHE:CE1  | 2.18                     | 0.78              |
| 3:R:269:LEU:HD23 | 3:R:269:LEU:N    | 1.97                     | 0.78              |
| 4:W:48:SER:HA    | 4:W:59:TYR:CE2   | 2.17                     | 0.78              |
| 4:W:108:GLU:HG3  | 4:W:109:LYS:H    | 1.44                     | 0.78              |
| 2:B:162:LEU:O    | 2:B:165:LEU:HB2  | 1.84                     | 0.78              |
| 1:C:227:ILE:HD11 | 1:C:274:VAL:HG22 | 1.66                     | 0.78              |
| 1:C:236:ASP:OD2  | 1:C:237:VAL:N    | 2.17                     | 0.78              |
| 2:J:569:THR:HG22 | 2:J:571:ALA:N    | 1.99                     | 0.78              |
| 2:L:12:LYS:HG2   | 2:L:13:GLY:H     | 1.46                     | 0.78              |
| 2:L:401:THR:HB   | 2:L:403:VAL:HG23 | 1.66                     | 0.78              |
| 3:P:386:THR:HG22 | 3:P:389:GLY:H    | 1.48                     | 0.78              |
| 3:R:178:ALA:HB1  | 3:R:415:ASN:HB2  | 1.66                     | 0.78              |
| 3:V:178:ALA:HB1  | 3:V:415:ASN:HB2  | 1.66                     | 0.78              |
| 4:X:71:ILE:HG22  | 4:X:72:GLU:N     | 1.99                     | 0.78              |
| 1:A:236:ASP:OD2  | 1:A:237:VAL:N    | 2.17                     | 0.78              |
| 2:B:134:ASP:O    | 2:B:138:ARG:HG2  | 1.82                     | 0.78              |
| 2:B:139:LYS:HD3  | 2:B:175:MET:CE   | 2.14                     | 0.78              |
| 2:H:162:LEU:O    | 2:H:165:LEU:HB2  | 1.84                     | 0.78              |
| 2:H:569:THR:HG22 | 2:H:571:ALA:N    | 1.99                     | 0.78              |
| 1:K:208:MET:HE3  | 1:K:212:PHE:CD1  | 2.19                     | 0.78              |
| 2:L:450:TRP:HB2  | 2:L:483:GLN:CG   | 2.14                     | 0.78              |
| 2:L:569:THR:HG22 | 2:L:571:ALA:N    | 1.99                     | 0.78              |
| 3:M:106:ASN:HB3  | 3:M:109:ILE:CD1  | 2.12                     | 0.78              |
| 3:M:269:LEU:HD23 | 3:M:269:LEU:N    | 1.97                     | 0.78              |
| 3:R:56:ARG:N     | 3:R:56:ARG:HD2   | 1.99                     | 0.78              |
| 4:U:8:PHE:O      | 4:U:66:TYR:HB2   | 1.84                     | 0.78              |
| 1:A:498:ILE:CG2  | 1:A:499:GLN:H    | 1.97                     | 0.78              |
| 1:C:172:MET:HE3  | 1:C:172:MET:H    | 1.49                     | 0.78              |
| 2:F:104:ALA:HB1  | 2:F:136:TYR:HD2  | 1.49                     | 0.78              |
| 2:F:140:THR:O    | 2:F:143:VAL:HB   | 1.83                     | 0.78              |
| 2:F:165:LEU:O    | 2:F:169:ILE:HG13 | 1.82                     | 0.78              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:J:522:ARG:HG2  | 2:J:526:TYR:HE1  | 1.49                     | 0.78              |
| 1:K:236:ASP:OD2  | 1:K:237:VAL:N    | 2.17                     | 0.78              |
| 3:M:178:ALA:HB1  | 3:M:415:ASN:HB2  | 1.66                     | 0.78              |
| 3:O:104:ARG:HA   | 3:O:107:PHE:CE1  | 2.18                     | 0.78              |
| 3:O:118:MET:HB2  | 3:O:123:PRO:HA   | 1.66                     | 0.78              |
| 3:O:343:TRP:CH2  | 3:O:356:MET:HB2  | 2.19                     | 0.78              |
| 1:A:227:ILE:HD11 | 1:A:274:VAL:HG22 | 1.66                     | 0.77              |
| 2:D:104:ALA:HB1  | 2:D:136:TYR:HD2  | 1.49                     | 0.77              |
| 2:D:162:LEU:O    | 2:D:165:LEU:HB2  | 1.84                     | 0.77              |
| 2:D:569:THR:HG22 | 2:D:571:ALA:N    | 1.99                     | 0.77              |
| 1:E:205:SER:O    | 1:E:208:MET:HB2  | 1.83                     | 0.77              |
| 1:E:561:GLN:HG2  | 2:F:522:ARG:HH22 | 1.48                     | 0.77              |
| 1:G:236:ASP:OD2  | 1:G:237:VAL:N    | 2.17                     | 0.77              |
| 2:H:140:THR:O    | 2:H:143:VAL:HB   | 1.83                     | 0.77              |
| 3:O:135:ILE:HD12 | 3:O:135:ILE:O    | 1.83                     | 0.77              |
| 4:U:71:ILE:HG22  | 4:U:72:GLU:N     | 1.99                     | 0.77              |
| 4:W:10:ARG:O     | 4:W:40:LEU:HD22  | 1.84                     | 0.77              |
| 1:C:303:SER:O    | 1:C:307:VAL:HG23 | 1.84                     | 0.77              |
| 1:E:303:SER:O    | 1:E:307:VAL:HG23 | 1.84                     | 0.77              |
| 2:H:347:SER:H    | 2:H:350:ASN:ND2  | 1.82                     | 0.77              |
| 1:K:100:HIS:HE1  | 1:K:134:MET:HB2  | 1.49                     | 0.77              |
| 3:O:56:ARG:HD2   | 3:O:56:ARG:N     | 1.99                     | 0.77              |
| 4:S:71:ILE:HG22  | 4:S:72:GLU:N     | 1.99                     | 0.77              |
| 4:T:71:ILE:HG22  | 4:T:72:GLU:N     | 1.99                     | 0.77              |
| 4:X:10:ARG:O     | 4:X:40:LEU:HD22  | 1.84                     | 0.77              |
| 2:D:60:THR:HG22  | 2:D:61:ASP:N     | 1.99                     | 0.77              |
| 2:D:401:THR:HB   | 2:D:403:VAL:HG23 | 1.66                     | 0.77              |
| 2:F:162:LEU:O    | 2:F:165:LEU:HB2  | 1.84                     | 0.77              |
| 2:F:466:LEU:H    | 2:F:466:LEU:HD12 | 1.49                     | 0.77              |
| 2:H:450:TRP:HB2  | 2:H:483:GLN:CG   | 2.14                     | 0.77              |
| 2:J:104:ALA:HB1  | 2:J:136:TYR:HD2  | 1.50                     | 0.77              |
| 3:M:343:TRP:CH2  | 3:M:356:MET:HB2  | 2.19                     | 0.77              |
| 3:R:135:ILE:HD12 | 3:R:135:ILE:O    | 1.83                     | 0.77              |
| 3:V:144:THR:HG22 | 3:V:145:GLY:H    | 1.50                     | 0.77              |
| 1:C:138:LEU:HD22 | 1:C:138:LEU:N    | 1.98                     | 0.77              |
| 1:C:205:SER:O    | 1:C:208:MET:HB2  | 1.83                     | 0.77              |
| 1:E:498:ILE:CG2  | 1:E:499:GLN:H    | 1.97                     | 0.77              |
| 2:H:466:LEU:H    | 2:H:466:LEU:HD12 | 1.49                     | 0.77              |
| 1:K:416:ARG:HG3  | 1:K:454:TYR:HE1  | 1.48                     | 0.77              |
| 3:M:135:ILE:O    | 3:M:135:ILE:HD12 | 1.83                     | 0.77              |
| 3:P:185:ALA:C    | 3:P:187:GLY:H    | 1.88                     | 0.77              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:V:104:ARG:HA   | 3:V:107:PHE:CE1  | 2.18                     | 0.77              |
| 2:F:304:ARG:HG2  | 2:F:573:VAL:HG23 | 1.67                     | 0.77              |
| 2:H:139:LYS:HD3  | 2:H:175:MET:CE   | 2.14                     | 0.77              |
| 2:J:347:SER:H    | 2:J:350:ASN:ND2  | 1.82                     | 0.77              |
| 2:L:104:ALA:HB1  | 2:L:136:TYR:HD2  | 1.50                     | 0.77              |
| 2:L:465:LEU:H    | 2:L:465:LEU:HD12 | 1.49                     | 0.77              |
| 3:M:144:THR:HG22 | 3:M:145:GLY:H    | 1.50                     | 0.77              |
| 3:N:104:ARG:HA   | 3:N:107:PHE:CE1  | 2.18                     | 0.77              |
| 3:R:343:TRP:CH2  | 3:R:356:MET:HB2  | 2.19                     | 0.77              |
| 4:X:8:PHE:O      | 4:X:66:TYR:HB2   | 1.84                     | 0.77              |
| 1:G:208:MET:HE3  | 1:G:212:PHE:CD1  | 2.18                     | 0.77              |
| 3:P:252:THR:C    | 3:P:253:ILE:HD12 | 2.05                     | 0.77              |
| 3:P:343:TRP:CH2  | 3:P:356:MET:HB2  | 2.19                     | 0.77              |
| 4:Q:8:PHE:O      | 4:Q:66:TYR:HB2   | 1.84                     | 0.77              |
| 4:T:8:PHE:O      | 4:T:66:TYR:HB2   | 1.84                     | 0.77              |
| 4:T:10:ARG:O     | 4:T:40:LEU:HD22  | 1.84                     | 0.77              |
| 2:F:347:SER:H    | 2:F:350:ASN:ND2  | 1.82                     | 0.77              |
| 1:K:561:GLN:HG2  | 2:L:522:ARG:HH22 | 1.48                     | 0.77              |
| 3:M:118:MET:HB2  | 3:M:123:PRO:HA   | 1.66                     | 0.77              |
| 3:M:409:VAL:HG12 | 3:M:410:ARG:N    | 2.00                     | 0.77              |
| 3:N:343:TRP:CH2  | 3:N:356:MET:HB2  | 2.19                     | 0.77              |
| 3:N:409:VAL:HG12 | 3:N:410:ARG:N    | 2.00                     | 0.77              |
| 3:O:409:VAL:HG12 | 3:O:410:ARG:N    | 2.00                     | 0.77              |
| 4:S:10:ARG:O     | 4:S:40:LEU:HD22  | 1.84                     | 0.77              |
| 2:B:465:LEU:H    | 2:B:465:LEU:HD12 | 1.49                     | 0.77              |
| 2:F:169:ILE:HG12 | 2:F:180:ARG:HB3  | 1.65                     | 0.77              |
| 2:F:450:TRP:HB2  | 2:F:483:GLN:CG   | 2.14                     | 0.77              |
| 2:F:522:ARG:HG2  | 2:F:526:TYR:HE1  | 1.49                     | 0.77              |
| 2:H:347:SER:N    | 2:H:350:ASN:ND2  | 2.33                     | 0.77              |
| 4:Q:71:ILE:HG22  | 4:Q:72:GLU:N     | 1.99                     | 0.77              |
| 3:R:252:THR:C    | 3:R:253:ILE:HD12 | 2.05                     | 0.77              |
| 3:V:56:ARG:N     | 3:V:56:ARG:HD2   | 1.99                     | 0.77              |
| 3:V:118:MET:HB2  | 3:V:123:PRO:HA   | 1.66                     | 0.77              |
| 1:A:309:ALA:O    | 1:A:312:ILE:HB   | 1.85                     | 0.77              |
| 2:B:401:THR:HB   | 2:B:403:VAL:HG23 | 1.66                     | 0.77              |
| 1:G:303:SER:O    | 1:G:307:VAL:HG23 | 1.84                     | 0.77              |
| 1:G:309:ALA:O    | 1:G:312:ILE:HB   | 1.85                     | 0.77              |
| 2:H:60:THR:HG22  | 2:H:61:ASP:N     | 1.99                     | 0.77              |
| 2:H:86:MET:HE2   | 3:R:237:LYS:HB3  | 1.67                     | 0.77              |
| 2:H:326:VAL:HG12 | 2:H:338:LYS:HD2  | 1.67                     | 0.77              |
| 2:J:401:THR:HB   | 2:J:403:VAL:HG23 | 1.66                     | 0.77              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:L:326:VAL:HG12 | 2:L:338:LYS:HD2  | 1.67                     | 0.77              |
| 2:L:466:LEU:H    | 2:L:466:LEU:HD12 | 1.49                     | 0.77              |
| 3:O:178:ALA:HB1  | 3:O:415:ASN:HB2  | 1.66                     | 0.77              |
| 3:P:118:MET:HB2  | 3:P:123:PRO:HA   | 1.66                     | 0.77              |
| 4:U:30:LYS:HZ2   | 4:U:30:LYS:HB2   | 1.50                     | 0.77              |
| 3:V:252:THR:C    | 3:V:253:ILE:HD12 | 2.05                     | 0.77              |
| 4:X:80:THR:O     | 4:X:83:LEU:HB3   | 1.85                     | 0.77              |
| 2:B:569:THR:HG22 | 2:B:571:ALA:N    | 1.99                     | 0.77              |
| 1:I:172:MET:HE3  | 1:I:172:MET:H    | 1.48                     | 0.77              |
| 1:I:227:ILE:HD11 | 1:I:274:VAL:HG22 | 1.66                     | 0.77              |
| 2:J:162:LEU:O    | 2:J:165:LEU:HB2  | 1.84                     | 0.77              |
| 3:N:135:ILE:O    | 3:N:135:ILE:HD12 | 1.83                     | 0.77              |
| 3:R:299:SER:HB3  | 3:R:348:PHE:CE2  | 2.20                     | 0.77              |
| 4:S:8:PHE:O      | 4:S:66:TYR:HB2   | 1.84                     | 0.77              |
| 4:T:8:PHE:HD2    | 4:T:8:PHE:H      | 1.33                     | 0.77              |
| 2:D:450:TRP:HB2  | 2:D:483:GLN:CG   | 2.14                     | 0.76              |
| 2:F:569:THR:HG22 | 2:F:571:ALA:N    | 1.99                     | 0.76              |
| 1:K:138:LEU:HD22 | 1:K:138:LEU:N    | 1.98                     | 0.76              |
| 2:L:139:LYS:HD3  | 2:L:175:MET:CE   | 2.14                     | 0.76              |
| 2:L:143:VAL:HG12 | 2:L:147:LYS:HE3  | 1.67                     | 0.76              |
| 3:M:32:HIS:HD1   | 3:M:52:HIS:CD2   | 2.04                     | 0.76              |
| 3:R:32:HIS:HD1   | 3:R:52:HIS:CD2   | 2.04                     | 0.76              |
| 4:U:80:THR:O     | 4:U:83:LEU:HB3   | 1.85                     | 0.76              |
| 3:V:409:VAL:HG12 | 3:V:410:ARG:N    | 2.00                     | 0.76              |
| 2:D:304:ARG:HG2  | 2:D:573:VAL:HG23 | 1.67                     | 0.76              |
| 2:D:522:ARG:HG2  | 2:D:526:TYR:HE1  | 1.49                     | 0.76              |
| 1:I:138:LEU:HD22 | 1:I:138:LEU:N    | 1.98                     | 0.76              |
| 1:I:236:ASP:OD2  | 1:I:237:VAL:N    | 2.17                     | 0.76              |
| 1:I:561:GLN:HG2  | 2:J:522:ARG:HH22 | 1.48                     | 0.76              |
| 1:K:227:ILE:HD11 | 1:K:274:VAL:HG22 | 1.66                     | 0.76              |
| 3:O:144:THR:HG22 | 3:O:145:GLY:H    | 1.50                     | 0.76              |
| 3:P:409:VAL:HG12 | 3:P:410:ARG:N    | 2.00                     | 0.76              |
| 2:B:569:THR:O    | 2:B:572:SER:HB3  | 1.85                     | 0.76              |
| 1:C:309:ALA:O    | 1:C:312:ILE:HB   | 1.85                     | 0.76              |
| 2:F:85:ILE:O     | 2:F:87:ALA:N     | 2.19                     | 0.76              |
| 1:G:227:ILE:HD11 | 1:G:274:VAL:HG22 | 1.66                     | 0.76              |
| 1:G:562:ARG:NE   | 2:H:522:ARG:HD2  | 2.01                     | 0.76              |
| 2:H:304:ARG:HG2  | 2:H:573:VAL:HG23 | 1.67                     | 0.76              |
| 2:H:465:LEU:H    | 2:H:465:LEU:HD12 | 1.50                     | 0.76              |
| 2:J:450:TRP:HB2  | 2:J:483:GLN:CG   | 2.14                     | 0.76              |
| 2:L:304:ARG:HG2  | 2:L:573:VAL:HG23 | 1.67                     | 0.76              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:O:32:HIS:HD1   | 3:O:52:HIS:CD2   | 2.04                     | 0.76              |
| 3:P:144:THR:HG22 | 3:P:145:GLY:H    | 1.50                     | 0.76              |
| 4:T:80:THR:O     | 4:T:83:LEU:HB3   | 1.85                     | 0.76              |
| 3:V:299:SER:HB3  | 3:V:348:PHE:CE2  | 2.20                     | 0.76              |
| 1:A:303:SER:O    | 1:A:307:VAL:HG23 | 1.84                     | 0.76              |
| 1:A:561:GLN:HG2  | 2:B:522:ARG:HH22 | 1.48                     | 0.76              |
| 2:B:326:VAL:HG12 | 2:B:338:LYS:HD2  | 1.67                     | 0.76              |
| 1:C:498:ILE:CG2  | 1:C:499:GLN:H    | 1.97                     | 0.76              |
| 2:F:326:VAL:HG12 | 2:F:338:LYS:HD2  | 1.67                     | 0.76              |
| 2:J:143:VAL:HG12 | 2:J:147:LYS:HE3  | 1.67                     | 0.76              |
| 3:N:144:THR:HG22 | 3:N:145:GLY:H    | 1.50                     | 0.76              |
| 3:R:409:VAL:HG12 | 3:R:410:ARG:N    | 2.00                     | 0.76              |
| 4:W:80:THR:O     | 4:W:83:LEU:HB3   | 1.85                     | 0.76              |
| 4:W:107:PHE:CD2  | 4:W:108:GLU:N    | 2.53                     | 0.76              |
| 2:D:466:LEU:H    | 2:D:466:LEU:HD12 | 1.49                     | 0.76              |
| 2:D:569:THR:O    | 2:D:572:SER:HB3  | 1.85                     | 0.76              |
| 2:H:85:ILE:O     | 2:H:87:ALA:N     | 2.19                     | 0.76              |
| 2:J:465:LEU:H    | 2:J:465:LEU:HD12 | 1.49                     | 0.76              |
| 3:N:185:ALA:C    | 3:N:187:GLY:H    | 1.88                     | 0.76              |
| 3:N:252:THR:C    | 3:N:253:ILE:HD12 | 2.05                     | 0.76              |
| 3:P:32:HIS:HD1   | 3:P:52:HIS:CD2   | 2.04                     | 0.76              |
| 3:R:386:THR:HG22 | 3:R:389:GLY:H    | 1.48                     | 0.76              |
| 4:U:8:PHE:H      | 4:U:8:PHE:HD2    | 1.34                     | 0.76              |
| 4:U:10:ARG:O     | 4:U:40:LEU:HD22  | 1.84                     | 0.76              |
| 2:B:130:LEU:HD21 | 2:B:141:ALA:CB   | 2.14                     | 0.76              |
| 1:E:562:ARG:NE   | 2:F:522:ARG:HD2  | 2.01                     | 0.76              |
| 2:J:103:ARG:O    | 2:J:107:VAL:HG23 | 1.86                     | 0.76              |
| 2:L:31:LYS:HD3   | 2:L:64:GLU:HG2   | 1.68                     | 0.76              |
| 3:R:144:THR:HG22 | 3:R:145:GLY:H    | 1.50                     | 0.76              |
| 3:R:185:ALA:C    | 3:R:187:GLY:H    | 1.88                     | 0.76              |
| 4:T:11:GLN:NE2   | 4:T:11:GLN:N     | 2.32                     | 0.76              |
| 2:B:60:THR:HG22  | 2:B:61:ASP:N     | 1.99                     | 0.76              |
| 2:D:465:LEU:H    | 2:D:465:LEU:HD12 | 1.49                     | 0.76              |
| 1:E:309:ALA:O    | 1:E:312:ILE:HB   | 1.85                     | 0.76              |
| 1:G:172:MET:HE3  | 1:G:172:MET:H    | 1.49                     | 0.76              |
| 1:I:303:SER:O    | 1:I:307:VAL:HG23 | 1.84                     | 0.76              |
| 1:I:498:ILE:CG2  | 1:I:499:GLN:H    | 1.97                     | 0.76              |
| 1:K:309:ALA:O    | 1:K:312:ILE:HB   | 1.85                     | 0.76              |
| 3:M:252:THR:C    | 3:M:253:ILE:HD12 | 2.05                     | 0.76              |
| 4:Q:48:SER:HA    | 4:Q:59:TYR:CE2   | 2.17                     | 0.76              |
| 4:T:107:PHE:CD2  | 4:T:108:GLU:N    | 2.53                     | 0.76              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:V:185:ALA:O    | 3:V:187:GLY:N    | 2.19                     | 0.76              |
| 4:W:8:PHE:HD2    | 4:W:8:PHE:H      | 1.34                     | 0.76              |
| 2:B:31:LYS:HD3   | 2:B:64:GLU:HG2   | 1.68                     | 0.76              |
| 2:B:85:ILE:O     | 2:B:88:VAL:HG23  | 1.86                     | 0.76              |
| 2:D:85:ILE:O     | 2:D:88:VAL:HG23  | 1.86                     | 0.76              |
| 2:H:104:ALA:HB1  | 2:H:136:TYR:HD2  | 1.49                     | 0.76              |
| 2:J:326:VAL:HG12 | 2:J:338:LYS:HD2  | 1.67                     | 0.76              |
| 2:J:466:LEU:H    | 2:J:466:LEU:HD12 | 1.49                     | 0.76              |
| 1:K:498:ILE:CG2  | 1:K:499:GLN:H    | 1.97                     | 0.76              |
| 4:Q:8:PHE:H      | 4:Q:8:PHE:HD2    | 1.34                     | 0.76              |
| 4:T:48:SER:HA    | 4:T:59:TYR:CE2   | 2.18                     | 0.76              |
| 2:F:401:THR:HB   | 2:F:403:VAL:HG23 | 1.66                     | 0.76              |
| 2:J:31:LYS:HD3   | 2:J:64:GLU:HG2   | 1.68                     | 0.76              |
| 2:J:85:ILE:O     | 2:J:87:ALA:N     | 2.19                     | 0.76              |
| 2:J:85:ILE:O     | 2:J:88:VAL:HG23  | 1.86                     | 0.76              |
| 2:L:103:ARG:O    | 2:L:107:VAL:HG23 | 1.86                     | 0.76              |
| 3:O:252:THR:C    | 3:O:253:ILE:HD12 | 2.05                     | 0.76              |
| 3:O:299:SER:HB3  | 3:O:348:PHE:CE2  | 2.20                     | 0.76              |
| 3:O:386:THR:HG22 | 3:O:389:GLY:H    | 1.48                     | 0.76              |
| 1:A:230:GLY:HA3  | 2:D:461:ASN:ND2  | 2.01                     | 0.76              |
| 1:E:74:ILE:H     | 1:E:74:ILE:HD12  | 1.51                     | 0.76              |
| 2:F:103:ARG:O    | 2:F:107:VAL:HG23 | 1.86                     | 0.76              |
| 2:F:143:VAL:HG12 | 2:F:147:LYS:HE3  | 1.67                     | 0.76              |
| 2:F:148:LEU:HA   | 2:F:151:ILE:CD1  | 2.16                     | 0.76              |
| 1:G:100:HIS:HE1  | 1:G:134:MET:HB2  | 1.49                     | 0.76              |
| 1:K:74:ILE:HD12  | 1:K:74:ILE:H     | 1.51                     | 0.76              |
| 2:L:347:SER:H    | 2:L:350:ASN:ND2  | 1.82                     | 0.76              |
| 2:L:522:ARG:HG2  | 2:L:526:TYR:HE1  | 1.49                     | 0.76              |
| 3:N:32:HIS:HD1   | 3:N:52:HIS:CD2   | 2.04                     | 0.76              |
| 3:N:178:ALA:HB1  | 3:N:415:ASN:HB2  | 1.66                     | 0.76              |
| 3:P:178:ALA:HB1  | 3:P:415:ASN:HB2  | 1.66                     | 0.76              |
| 4:Q:80:THR:O     | 4:Q:83:LEU:HB3   | 1.85                     | 0.76              |
| 1:E:227:ILE:HD11 | 1:E:274:VAL:HG22 | 1.66                     | 0.75              |
| 2:F:465:LEU:H    | 2:F:465:LEU:HD12 | 1.49                     | 0.75              |
| 2:H:148:LEU:HA   | 2:H:151:ILE:CD1  | 2.17                     | 0.75              |
| 2:H:522:ARG:HG2  | 2:H:526:TYR:HE1  | 1.49                     | 0.75              |
| 2:J:60:THR:HG22  | 2:J:61:ASP:N     | 1.99                     | 0.75              |
| 2:J:304:ARG:HG2  | 2:J:573:VAL:HG23 | 1.67                     | 0.75              |
| 1:K:562:ARG:NE   | 2:L:522:ARG:HD2  | 2.01                     | 0.75              |
| 3:M:185:ALA:C    | 3:M:187:GLY:H    | 1.88                     | 0.75              |
| 3:M:299:SER:HB3  | 3:M:348:PHE:CE2  | 2.20                     | 0.75              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:V:32:HIS:HD1   | 3:V:52:HIS:CD2   | 2.04                     | 0.75              |
| 2:D:31:LYS:HD3   | 2:D:64:GLU:HG2   | 1.68                     | 0.75              |
| 1:E:152:TYR:O    | 1:E:155:LYS:HG2  | 1.86                     | 0.75              |
| 1:G:416:ARG:HG3  | 1:G:454:TYR:HE1  | 1.48                     | 0.75              |
| 1:G:498:ILE:CG2  | 1:G:499:GLN:H    | 1.97                     | 0.75              |
| 2:H:85:ILE:O     | 2:H:88:VAL:HG23  | 1.86                     | 0.75              |
| 1:I:309:ALA:O    | 1:I:312:ILE:HB   | 1.85                     | 0.75              |
| 2:J:148:LEU:HA   | 2:J:151:ILE:CD1  | 2.17                     | 0.75              |
| 4:S:11:GLN:H     | 4:S:11:GLN:CD    | 1.90                     | 0.75              |
| 4:X:30:LYS:HZ2   | 4:X:30:LYS:HB2   | 1.50                     | 0.75              |
| 2:B:104:ALA:HB1  | 2:B:136:TYR:HD2  | 1.49                     | 0.75              |
| 2:F:569:THR:O    | 2:F:572:SER:HB3  | 1.85                     | 0.75              |
| 2:H:103:ARG:O    | 2:H:107:VAL:HG23 | 1.86                     | 0.75              |
| 2:J:130:LEU:HD21 | 2:J:141:ALA:CB   | 2.14                     | 0.75              |
| 2:L:347:SER:N    | 2:L:350:ASN:ND2  | 2.33                     | 0.75              |
| 3:P:299:SER:HB3  | 3:P:348:PHE:CE2  | 2.20                     | 0.75              |
| 4:S:80:THR:O     | 4:S:83:LEU:HB3   | 1.85                     | 0.75              |
| 4:S:107:PHE:CD2  | 4:S:108:GLU:N    | 2.53                     | 0.75              |
| 4:W:8:PHE:O      | 4:W:66:TYR:HB2   | 1.84                     | 0.75              |
| 2:B:347:SER:H    | 2:B:350:ASN:ND2  | 1.82                     | 0.75              |
| 2:B:522:ARG:HG2  | 2:B:526:TYR:HE1  | 1.49                     | 0.75              |
| 2:D:51:PHE:HB3   | 2:D:52:PRO:HD3   | 1.68                     | 0.75              |
| 1:I:74:ILE:H     | 1:I:74:ILE:HD12  | 1.51                     | 0.75              |
| 1:I:208:MET:HE3  | 1:I:212:PHE:CD1  | 2.21                     | 0.75              |
| 3:O:185:ALA:O    | 3:O:187:GLY:N    | 2.19                     | 0.75              |
| 4:U:107:PHE:CD2  | 4:U:108:GLU:N    | 2.53                     | 0.75              |
| 3:V:386:THR:HG22 | 3:V:389:GLY:H    | 1.48                     | 0.75              |
| 4:X:107:PHE:CD2  | 4:X:108:GLU:N    | 2.53                     | 0.75              |
| 2:B:145:VAL:HG11 | 2:B:165:LEU:HD11 | 1.69                     | 0.75              |
| 2:B:148:LEU:HA   | 2:B:151:ILE:CD1  | 2.17                     | 0.75              |
| 2:B:347:SER:N    | 2:B:350:ASN:ND2  | 2.33                     | 0.75              |
| 2:D:145:VAL:HG11 | 2:D:165:LEU:HD11 | 1.69                     | 0.75              |
| 2:D:326:VAL:HG12 | 2:D:338:LYS:HD2  | 1.67                     | 0.75              |
| 1:E:27:ILE:HD12  | 1:E:61:TYR:CE2   | 2.22                     | 0.75              |
| 2:F:31:LYS:HD3   | 2:F:64:GLU:HG2   | 1.68                     | 0.75              |
| 1:G:27:ILE:HD12  | 1:G:61:TYR:CE2   | 2.22                     | 0.75              |
| 2:H:31:LYS:HD3   | 2:H:64:GLU:HG2   | 1.68                     | 0.75              |
| 2:J:569:THR:O    | 2:J:572:SER:HB3  | 1.85                     | 0.75              |
| 3:N:173:LEU:HD23 | 3:N:173:LEU:C    | 2.07                     | 0.75              |
| 4:Q:11:GLN:NE2   | 4:Q:11:GLN:N     | 2.32                     | 0.75              |
| 4:S:48:SER:HA    | 4:S:59:TYR:CE2   | 2.17                     | 0.75              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:W:11:GLN:H     | 4:W:11:GLN:CD    | 1.90                     | 0.75              |
| 1:C:208:MET:HE3  | 1:C:212:PHE:CD1  | 2.20                     | 0.75              |
| 2:D:85:ILE:O     | 2:D:87:ALA:N     | 2.19                     | 0.75              |
| 2:D:148:LEU:HA   | 2:D:151:ILE:CD1  | 2.16                     | 0.75              |
| 1:E:430:GLY:HA3  | 1:E:469:GLN:NE2  | 2.01                     | 0.75              |
| 2:H:51:PHE:HB3   | 2:H:52:PRO:HD3   | 1.68                     | 0.75              |
| 2:J:51:PHE:HB3   | 2:J:52:PRO:HD3   | 1.68                     | 0.75              |
| 2:L:85:ILE:O     | 2:L:88:VAL:HG23  | 1.86                     | 0.75              |
| 3:M:9:LEU:HD22   | 3:M:15:VAL:HA    | 1.69                     | 0.75              |
| 3:M:185:ALA:O    | 3:M:187:GLY:N    | 2.19                     | 0.75              |
| 4:Q:107:PHE:CD2  | 4:Q:108:GLU:N    | 2.53                     | 0.75              |
| 3:R:332:VAL:HG22 | 3:R:343:TRP:CD1  | 2.22                     | 0.75              |
| 3:V:9:LEU:HD22   | 3:V:15:VAL:HA    | 1.69                     | 0.75              |
| 3:V:173:LEU:HD23 | 3:V:173:LEU:C    | 2.07                     | 0.75              |
| 1:A:27:ILE:HD12  | 1:A:61:TYR:CE2   | 2.22                     | 0.75              |
| 1:A:416:ARG:HG3  | 1:A:454:TYR:HE1  | 1.48                     | 0.75              |
| 1:A:430:GLY:HA3  | 1:A:469:GLN:NE2  | 2.01                     | 0.75              |
| 1:A:473:VAL:HG23 | 1:A:474:GLN:N    | 2.02                     | 0.75              |
| 2:B:103:ARG:O    | 2:B:107:VAL:HG23 | 1.86                     | 0.75              |
| 1:C:100:HIS:HE1  | 1:C:134:MET:HB2  | 1.49                     | 0.75              |
| 1:I:100:HIS:HE1  | 1:I:134:MET:HB2  | 1.49                     | 0.75              |
| 1:I:562:ARG:NE   | 2:J:522:ARG:HD2  | 2.01                     | 0.75              |
| 3:P:9:LEU:HD22   | 3:P:15:VAL:HA    | 1.69                     | 0.75              |
| 4:Q:16:LEU:HD12  | 4:Q:16:LEU:C     | 2.07                     | 0.75              |
| 3:R:185:ALA:O    | 3:R:187:GLY:N    | 2.19                     | 0.75              |
| 2:B:85:ILE:O     | 2:B:87:ALA:N     | 2.19                     | 0.75              |
| 2:F:347:SER:N    | 2:F:350:ASN:ND2  | 2.33                     | 0.75              |
| 2:J:486:THR:HG22 | 2:J:487:ALA:N    | 2.02                     | 0.75              |
| 1:K:473:VAL:HG23 | 1:K:474:GLN:N    | 2.02                     | 0.75              |
| 2:L:60:THR:HG22  | 2:L:61:ASP:N     | 1.99                     | 0.75              |
| 2:L:145:VAL:HG11 | 2:L:165:LEU:HD11 | 1.69                     | 0.75              |
| 4:X:16:LEU:HD12  | 4:X:16:LEU:C     | 2.07                     | 0.75              |
| 2:D:486:THR:HG22 | 2:D:487:ALA:N    | 2.02                     | 0.75              |
| 2:F:257:LEU:HD11 | 2:F:567:ILE:HG22 | 1.69                     | 0.75              |
| 2:F:310:VAL:HG12 | 2:F:317:LEU:HD21 | 1.69                     | 0.75              |
| 1:G:74:ILE:HD12  | 1:G:74:ILE:H     | 1.51                     | 0.75              |
| 1:G:473:VAL:HG23 | 1:G:474:GLN:N    | 2.02                     | 0.75              |
| 2:H:55:VAL:O     | 2:H:58:MET:HB2   | 1.87                     | 0.75              |
| 2:H:143:VAL:HG12 | 2:H:147:LYS:HE3  | 1.67                     | 0.75              |
| 2:H:569:THR:O    | 2:H:572:SER:HB3  | 1.85                     | 0.75              |
| 2:L:257:LEU:HD11 | 2:L:567:ILE:HG22 | 1.69                     | 0.75              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:P:173:LEU:C    | 3:P:173:LEU:HD23 | 2.07                     | 0.75              |
| 4:Q:11:GLN:H     | 4:Q:11:GLN:CD    | 1.90                     | 0.75              |
| 4:T:11:GLN:H     | 4:T:11:GLN:CD    | 1.90                     | 0.75              |
| 4:T:30:LYS:HZ2   | 4:T:30:LYS:HB2   | 1.50                     | 0.75              |
| 3:V:216:ASP:O    | 3:V:218:VAL:N    | 2.20                     | 0.75              |
| 4:W:71:ILE:HG22  | 4:W:72:GLU:N     | 1.99                     | 0.75              |
| 2:B:143:VAL:HG12 | 2:B:147:LYS:HE3  | 1.67                     | 0.74              |
| 2:B:377:ILE:HG21 | 2:B:395:LEU:HD21 | 1.69                     | 0.74              |
| 2:D:143:VAL:HG12 | 2:D:147:LYS:HE3  | 1.67                     | 0.74              |
| 2:D:377:ILE:HG21 | 2:D:395:LEU:HD21 | 1.69                     | 0.74              |
| 1:E:473:VAL:HG23 | 1:E:474:GLN:N    | 2.02                     | 0.74              |
| 2:F:486:THR:HG22 | 2:F:487:ALA:N    | 2.02                     | 0.74              |
| 1:I:152:TYR:O    | 1:I:155:LYS:HG2  | 1.87                     | 0.74              |
| 1:I:430:GLY:HA3  | 1:I:469:GLN:NE2  | 2.01                     | 0.74              |
| 2:J:145:VAL:HG11 | 2:J:165:LEU:HD11 | 1.69                     | 0.74              |
| 2:J:310:VAL:HG12 | 2:J:317:LEU:HD21 | 1.69                     | 0.74              |
| 1:K:152:TYR:O    | 1:K:155:LYS:HG2  | 1.86                     | 0.74              |
| 2:L:85:ILE:O     | 2:L:87:ALA:N     | 2.19                     | 0.74              |
| 2:L:569:THR:O    | 2:L:572:SER:HB3  | 1.85                     | 0.74              |
| 3:M:216:ASP:O    | 3:M:218:VAL:N    | 2.20                     | 0.74              |
| 3:O:9:LEU:HD22   | 3:O:15:VAL:HA    | 1.69                     | 0.74              |
| 3:P:332:VAL:HG22 | 3:P:343:TRP:CD1  | 2.22                     | 0.74              |
| 1:C:152:TYR:O    | 1:C:155:LYS:HG2  | 1.86                     | 0.74              |
| 1:C:473:VAL:HG23 | 1:C:474:GLN:N    | 2.02                     | 0.74              |
| 1:E:5:ILE:HB     | 1:E:52:LYS:HZ3   | 1.50                     | 0.74              |
| 2:F:60:THR:HG22  | 2:F:61:ASP:N     | 1.99                     | 0.74              |
| 2:L:377:ILE:HG21 | 2:L:395:LEU:HD21 | 1.69                     | 0.74              |
| 3:P:399:GLU:HG3  | 3:P:400:LYS:N    | 2.03                     | 0.74              |
| 3:R:216:ASP:O    | 3:R:218:VAL:N    | 2.20                     | 0.74              |
| 1:C:27:ILE:HD12  | 1:C:61:TYR:CE2   | 2.22                     | 0.74              |
| 2:F:51:PHE:HB3   | 2:F:52:PRO:HD3   | 1.68                     | 0.74              |
| 1:G:152:TYR:O    | 1:G:155:LYS:HG2  | 1.86                     | 0.74              |
| 1:I:22:GLU:O     | 1:I:25:GLU:HB3   | 1.87                     | 0.74              |
| 2:J:257:LEU:HD11 | 2:J:567:ILE:HG22 | 1.69                     | 0.74              |
| 2:L:149:HIS:ND1  | 2:L:187:ILE:HG23 | 2.03                     | 0.74              |
| 3:P:185:ALA:O    | 3:P:187:GLY:N    | 2.19                     | 0.74              |
| 4:Q:50:LEU:HD23  | 4:Q:51:GLU:N     | 2.03                     | 0.74              |
| 4:X:50:LEU:HD23  | 4:X:51:GLU:N     | 2.03                     | 0.74              |
| 2:D:252:ASN:O    | 2:D:255:VAL:HG22 | 1.87                     | 0.74              |
| 1:E:22:GLU:O     | 1:E:25:GLU:HB3   | 1.87                     | 0.74              |
| 2:F:149:HIS:ND1  | 2:F:187:ILE:HG23 | 2.02                     | 0.74              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:377:ILE:HG21 | 2:F:395:LEU:HD21 | 1.69                     | 0.74              |
| 2:H:252:ASN:O    | 2:H:255:VAL:HG22 | 1.87                     | 0.74              |
| 1:I:27:ILE:HD12  | 1:I:61:TYR:CE2   | 2.22                     | 0.74              |
| 1:K:430:GLY:HA3  | 1:K:469:GLN:NE2  | 2.01                     | 0.74              |
| 2:L:55:VAL:O     | 2:L:58:MET:HB2   | 1.87                     | 0.74              |
| 3:N:185:ALA:O    | 3:N:187:GLY:N    | 2.19                     | 0.74              |
| 3:O:173:LEU:HD23 | 3:O:173:LEU:C    | 2.07                     | 0.74              |
| 3:P:131:LEU:O    | 3:P:133:GLU:N    | 2.21                     | 0.74              |
| 3:P:276:LEU:HB3  | 3:P:301:PHE:CZ   | 2.23                     | 0.74              |
| 3:V:276:LEU:HB3  | 3:V:301:PHE:CZ   | 2.23                     | 0.74              |
| 2:B:51:PHE:HB3   | 2:B:52:PRO:HD3   | 1.68                     | 0.74              |
| 2:B:149:HIS:ND1  | 2:B:187:ILE:HG23 | 2.02                     | 0.74              |
| 2:B:304:ARG:HG2  | 2:B:573:VAL:HG23 | 1.67                     | 0.74              |
| 2:B:486:THR:HG22 | 2:B:487:ALA:N    | 2.02                     | 0.74              |
| 2:H:130:LEU:HD21 | 2:H:141:ALA:CB   | 2.14                     | 0.74              |
| 2:B:257:LEU:HD11 | 2:B:567:ILE:HG22 | 1.69                     | 0.74              |
| 2:B:310:VAL:HG12 | 2:B:317:LEU:HD21 | 1.69                     | 0.74              |
| 2:D:103:ARG:O    | 2:D:107:VAL:HG23 | 1.86                     | 0.74              |
| 2:F:85:ILE:O     | 2:F:88:VAL:HG23  | 1.86                     | 0.74              |
| 2:L:148:LEU:HA   | 2:L:151:ILE:CD1  | 2.17                     | 0.74              |
| 2:L:252:ASN:O    | 2:L:255:VAL:HG22 | 1.87                     | 0.74              |
| 3:M:276:LEU:HB3  | 3:M:301:PHE:CZ   | 2.23                     | 0.74              |
| 3:N:216:ASP:O    | 3:N:218:VAL:N    | 2.21                     | 0.74              |
| 3:O:131:LEU:O    | 3:O:133:GLU:N    | 2.21                     | 0.74              |
| 3:O:332:VAL:HG22 | 3:O:343:TRP:CD1  | 2.22                     | 0.74              |
| 3:P:233:LEU:HD12 | 3:P:268:ARG:O    | 1.88                     | 0.74              |
| 3:R:56:ARG:HH11  | 3:R:56:ARG:HG3   | 1.53                     | 0.74              |
| 4:W:50:LEU:HD23  | 4:W:51:GLU:N     | 2.03                     | 0.74              |
| 4:X:8:PHE:HD2    | 4:X:8:PHE:H      | 1.33                     | 0.74              |
| 1:A:74:ILE:H     | 1:A:74:ILE:HD12  | 1.51                     | 0.74              |
| 1:A:152:TYR:O    | 1:A:155:LYS:HG2  | 1.86                     | 0.74              |
| 1:C:430:GLY:HA3  | 1:C:469:GLN:NE2  | 2.01                     | 0.74              |
| 1:C:562:ARG:NE   | 2:D:522:ARG:HD2  | 2.01                     | 0.74              |
| 1:E:293:VAL:HG11 | 1:E:313:LEU:HD21 | 1.70                     | 0.74              |
| 1:K:27:ILE:HD12  | 1:K:61:TYR:CE2   | 2.22                     | 0.74              |
| 2:L:486:THR:HG22 | 2:L:487:ALA:N    | 2.02                     | 0.74              |
| 3:N:332:VAL:HG22 | 3:N:343:TRP:CD1  | 2.22                     | 0.74              |
| 3:R:173:LEU:HD23 | 3:R:173:LEU:C    | 2.07                     | 0.74              |
| 4:U:11:GLN:H     | 4:U:11:GLN:CD    | 1.90                     | 0.74              |
| 4:X:107:PHE:HD2  | 4:X:108:GLU:H    | 1.36                     | 0.74              |
| 1:A:100:HIS:HE1  | 1:A:134:MET:HB2  | 1.49                     | 0.74              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:463:ILE:HD11 | 1:A:476:ALA:HB1  | 1.70                     | 0.74              |
| 2:F:55:VAL:O     | 2:F:58:MET:HB2   | 1.87                     | 0.74              |
| 1:K:22:GLU:O     | 1:K:25:GLU:HB3   | 1.87                     | 0.74              |
| 2:L:51:PHE:HB3   | 2:L:52:PRO:HD3   | 1.68                     | 0.74              |
| 3:M:332:VAL:HG22 | 3:M:343:TRP:CD1  | 2.22                     | 0.74              |
| 3:N:9:LEU:HD22   | 3:N:15:VAL:HA    | 1.69                     | 0.74              |
| 4:S:8:PHE:HD2    | 4:S:8:PHE:H      | 1.33                     | 0.74              |
| 4:U:11:GLN:NE2   | 4:U:11:GLN:N     | 2.32                     | 0.74              |
| 4:U:50:LEU:HD23  | 4:U:51:GLU:N     | 2.03                     | 0.74              |
| 2:B:203:SER:O    | 2:B:206:LYS:HB2  | 1.88                     | 0.74              |
| 2:D:149:HIS:ND1  | 2:D:187:ILE:HG23 | 2.02                     | 0.74              |
| 2:F:169:ILE:HG22 | 2:F:170:SER:N    | 2.03                     | 0.74              |
| 1:G:22:GLU:O     | 1:G:25:GLU:HB3   | 1.87                     | 0.74              |
| 1:G:430:GLY:HA3  | 1:G:469:GLN:NE2  | 2.01                     | 0.74              |
| 1:G:463:ILE:HD11 | 1:G:476:ALA:HB1  | 1.70                     | 0.74              |
| 3:N:233:LEU:HD12 | 3:N:268:ARG:O    | 1.88                     | 0.74              |
| 3:N:276:LEU:HB3  | 3:N:301:PHE:CZ   | 2.22                     | 0.74              |
| 3:V:233:LEU:HD12 | 3:V:268:ARG:O    | 1.88                     | 0.74              |
| 4:W:11:GLN:NE2   | 4:W:11:GLN:N     | 2.32                     | 0.74              |
| 2:B:55:VAL:O     | 2:B:58:MET:HB2   | 1.87                     | 0.74              |
| 1:C:293:VAL:HG11 | 1:C:313:LEU:HD21 | 1.70                     | 0.74              |
| 2:D:215:THR:HB   | 2:D:218:ALA:CB   | 2.18                     | 0.74              |
| 2:H:412:VAL:O    | 2:H:415:LYS:HB3  | 1.88                     | 0.74              |
| 3:R:131:LEU:O    | 3:R:133:GLU:N    | 2.21                     | 0.74              |
| 2:B:252:ASN:O    | 2:B:255:VAL:HG22 | 1.87                     | 0.73              |
| 2:D:55:VAL:O     | 2:D:58:MET:HB2   | 1.87                     | 0.73              |
| 2:F:215:THR:HB   | 2:F:218:ALA:CB   | 2.18                     | 0.73              |
| 2:J:149:HIS:ND1  | 2:J:187:ILE:HG23 | 2.03                     | 0.73              |
| 2:J:381:ALA:HB2  | 2:J:391:CYS:SG   | 2.28                     | 0.73              |
| 2:J:492:PHE:HB2  | 2:J:503:VAL:HG21 | 1.70                     | 0.73              |
| 3:M:131:LEU:O    | 3:M:133:GLU:N    | 2.21                     | 0.73              |
| 3:M:173:LEU:C    | 3:M:173:LEU:HD23 | 2.07                     | 0.73              |
| 3:O:11:LEU:N     | 3:O:11:LEU:CD1   | 2.50                     | 0.73              |
| 3:O:276:LEU:HB3  | 3:O:301:PHE:CZ   | 2.22                     | 0.73              |
| 4:U:48:SER:HA    | 4:U:59:TYR:CE2   | 2.18                     | 0.73              |
| 3:V:332:VAL:HG22 | 3:V:343:TRP:CD1  | 2.22                     | 0.73              |
| 1:A:22:GLU:O     | 1:A:25:GLU:HB3   | 1.87                     | 0.73              |
| 2:B:215:THR:HB   | 2:B:218:ALA:CB   | 2.18                     | 0.73              |
| 1:C:74:ILE:HD12  | 1:C:74:ILE:H     | 1.51                     | 0.73              |
| 2:D:203:SER:O    | 2:D:206:LYS:HB2  | 1.88                     | 0.73              |
| 2:D:412:VAL:O    | 2:D:415:LYS:HB3  | 1.88                     | 0.73              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:492:PHE:HB2  | 2:D:503:VAL:HG21 | 1.70                     | 0.73              |
| 2:F:130:LEU:HD21 | 2:F:141:ALA:CB   | 2.14                     | 0.73              |
| 2:H:257:LEU:HD11 | 2:H:567:ILE:HG22 | 1.69                     | 0.73              |
| 2:H:492:PHE:HB2  | 2:H:503:VAL:HG21 | 1.70                     | 0.73              |
| 3:N:299:SER:HB3  | 3:N:348:PHE:CE2  | 2.20                     | 0.73              |
| 3:V:86:LYS:O     | 3:V:89:GLN:HB3   | 1.88                     | 0.73              |
| 3:V:131:LEU:O    | 3:V:133:GLU:N    | 2.21                     | 0.73              |
| 4:X:11:GLN:H     | 4:X:11:GLN:CD    | 1.90                     | 0.73              |
| 2:B:295:GLU:O    | 2:B:299:GLN:HG3  | 1.89                     | 0.73              |
| 2:B:412:VAL:O    | 2:B:415:LYS:HB3  | 1.88                     | 0.73              |
| 2:D:130:LEU:HD21 | 2:D:141:ALA:CB   | 2.14                     | 0.73              |
| 1:E:19:THR:HG22  | 1:E:21:ALA:H     | 1.54                     | 0.73              |
| 2:H:149:HIS:ND1  | 2:H:187:ILE:HG23 | 2.02                     | 0.73              |
| 2:H:169:ILE:HG22 | 2:H:170:SER:N    | 2.03                     | 0.73              |
| 2:J:55:VAL:O     | 2:J:58:MET:HB2   | 1.87                     | 0.73              |
| 2:J:252:ASN:O    | 2:J:255:VAL:HG22 | 1.87                     | 0.73              |
| 2:J:377:ILE:HG21 | 2:J:395:LEU:HD21 | 1.69                     | 0.73              |
| 2:L:381:ALA:HB2  | 2:L:391:CYS:SG   | 2.28                     | 0.73              |
| 3:N:11:LEU:N     | 3:N:11:LEU:CD1   | 2.50                     | 0.73              |
| 3:N:131:LEU:O    | 3:N:133:GLU:N    | 2.21                     | 0.73              |
| 3:O:56:ARG:HH11  | 3:O:56:ARG:HG3   | 1.53                     | 0.73              |
| 3:O:86:LYS:O     | 3:O:89:GLN:HB3   | 1.88                     | 0.73              |
| 3:V:56:ARG:HH11  | 3:V:56:ARG:HG3   | 1.53                     | 0.73              |
| 1:A:230:GLY:HA3  | 2:D:461:ASN:HD21 | 1.53                     | 0.73              |
| 2:D:310:VAL:HG12 | 2:D:317:LEU:HD21 | 1.69                     | 0.73              |
| 2:D:381:ALA:HB2  | 2:D:391:CYS:SG   | 2.28                     | 0.73              |
| 2:H:381:ALA:HB2  | 2:H:391:CYS:SG   | 2.28                     | 0.73              |
| 1:I:293:VAL:HG11 | 1:I:313:LEU:HD21 | 1.70                     | 0.73              |
| 1:K:463:ILE:HD11 | 1:K:476:ALA:HB1  | 1.70                     | 0.73              |
| 2:L:169:ILE:HG22 | 2:L:170:SER:N    | 2.03                     | 0.73              |
| 3:N:86:LYS:O     | 3:N:89:GLN:HB3   | 1.88                     | 0.73              |
| 3:P:56:ARG:HG3   | 3:P:56:ARG:HH11  | 1.53                     | 0.73              |
| 3:P:306:THR:CG2  | 3:P:349:PRO:HA   | 2.19                     | 0.73              |
| 3:R:9:LEU:HD22   | 3:R:15:VAL:HA    | 1.69                     | 0.73              |
| 1:C:97:GLN:HA    | 1:C:100:HIS:HB3  | 1.70                     | 0.73              |
| 2:F:252:ASN:O    | 2:F:255:VAL:HG22 | 1.87                     | 0.73              |
| 1:I:19:THR:HG22  | 1:I:21:ALA:H     | 1.53                     | 0.73              |
| 1:I:473:VAL:HG23 | 1:I:474:GLN:N    | 2.02                     | 0.73              |
| 2:J:215:THR:HB   | 2:J:218:ALA:CB   | 2.18                     | 0.73              |
| 2:J:564:ILE:O    | 2:J:567:ILE:HG13 | 1.89                     | 0.73              |
| 2:L:295:GLU:O    | 2:L:299:GLN:HG3  | 1.89                     | 0.73              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:O:185:ALA:C    | 3:O:187:GLY:H    | 1.88                     | 0.73              |
| 3:R:276:LEU:HB3  | 3:R:301:PHE:CZ   | 2.23                     | 0.73              |
| 3:V:185:ALA:C    | 3:V:187:GLY:H    | 1.88                     | 0.73              |
| 1:C:270:ILE:HG23 | 1:C:271:LEU:HD22 | 1.70                     | 0.73              |
| 1:C:463:ILE:HD11 | 1:C:476:ALA:HB1  | 1.70                     | 0.73              |
| 2:D:169:ILE:HG22 | 2:D:170:SER:N    | 2.03                     | 0.73              |
| 2:D:564:ILE:O    | 2:D:567:ILE:HG13 | 1.89                     | 0.73              |
| 2:F:145:VAL:HG11 | 2:F:165:LEU:HD11 | 1.69                     | 0.73              |
| 2:F:478:THR:HA   | 2:F:481:GLN:NE2  | 2.04                     | 0.73              |
| 1:G:19:THR:HG22  | 1:G:21:ALA:H     | 1.53                     | 0.73              |
| 1:G:97:GLN:HA    | 1:G:100:HIS:HB3  | 1.70                     | 0.73              |
| 1:G:475:VAL:O    | 1:G:478:TRP:HB3  | 1.89                     | 0.73              |
| 1:K:19:THR:HG22  | 1:K:21:ALA:H     | 1.54                     | 0.73              |
| 2:L:310:VAL:HG12 | 2:L:317:LEU:HD21 | 1.69                     | 0.73              |
| 2:L:564:ILE:O    | 2:L:567:ILE:HG13 | 1.89                     | 0.73              |
| 3:O:216:ASP:O    | 3:O:218:VAL:N    | 2.20                     | 0.73              |
| 3:O:399:GLU:HG3  | 3:O:400:LYS:N    | 2.03                     | 0.73              |
| 3:R:399:GLU:HG3  | 3:R:400:LYS:N    | 2.03                     | 0.73              |
| 4:T:50:LEU:HD23  | 4:T:51:GLU:N     | 2.03                     | 0.73              |
| 1:A:233:PRO:HD2  | 2:D:464:GLU:OE2  | 1.89                     | 0.73              |
| 1:A:293:VAL:HG11 | 1:A:313:LEU:HD21 | 1.70                     | 0.73              |
| 1:A:475:VAL:O    | 1:A:478:TRP:HB3  | 1.89                     | 0.73              |
| 2:B:418:PHE:CE1  | 2:B:425:TYR:HB2  | 2.24                     | 0.73              |
| 1:G:293:VAL:HG11 | 1:G:313:LEU:HD21 | 1.70                     | 0.73              |
| 2:H:100:PRO:HA   | 2:H:103:ARG:HG2  | 1.70                     | 0.73              |
| 2:H:145:VAL:HG11 | 2:H:165:LEU:HD11 | 1.69                     | 0.73              |
| 2:H:564:ILE:O    | 2:H:567:ILE:HG13 | 1.89                     | 0.73              |
| 2:J:100:PRO:HA   | 2:J:103:ARG:HG2  | 1.71                     | 0.73              |
| 1:K:270:ILE:HG23 | 1:K:271:LEU:HD22 | 1.71                     | 0.73              |
| 3:O:233:LEU:HD12 | 3:O:268:ARG:O    | 1.88                     | 0.73              |
| 3:R:233:LEU:HD12 | 3:R:268:ARG:O    | 1.88                     | 0.73              |
| 4:X:76:ASN:O     | 4:X:79:ILE:HG22  | 1.89                     | 0.73              |
| 1:A:208:MET:HE3  | 1:A:212:PHE:CD1  | 2.22                     | 0.73              |
| 2:B:492:PHE:HB2  | 2:B:503:VAL:HG21 | 1.70                     | 0.73              |
| 2:F:100:PRO:HA   | 2:F:103:ARG:HG2  | 1.70                     | 0.73              |
| 2:J:169:ILE:HG22 | 2:J:170:SER:N    | 2.03                     | 0.73              |
| 2:L:478:THR:HA   | 2:L:481:GLN:NE2  | 2.04                     | 0.73              |
| 3:P:86:LYS:O     | 3:P:89:GLN:HB3   | 1.88                     | 0.73              |
| 4:Q:76:ASN:O     | 4:Q:79:ILE:HG22  | 1.89                     | 0.73              |
| 4:W:30:LYS:HB2   | 4:W:30:LYS:HZ2   | 1.53                     | 0.73              |
| 1:A:97:GLN:HA    | 1:A:100:HIS:HB3  | 1.70                     | 0.73              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:270:ILE:HG23 | 1:E:271:LEU:HD22 | 1.71                     | 0.73              |
| 2:F:412:VAL:O    | 2:F:415:LYS:HB3  | 1.88                     | 0.73              |
| 2:F:418:PHE:CE1  | 2:F:425:TYR:HB2  | 2.24                     | 0.73              |
| 2:H:203:SER:O    | 2:H:206:LYS:HB2  | 1.88                     | 0.73              |
| 2:H:478:THR:HA   | 2:H:481:GLN:NE2  | 2.04                     | 0.73              |
| 1:I:97:GLN:HA    | 1:I:100:HIS:HB3  | 1.70                     | 0.73              |
| 1:K:8:ARG:HD2    | 3:P:337:GLU:CB   | 2.19                     | 0.73              |
| 2:L:412:VAL:O    | 2:L:415:LYS:HB3  | 1.88                     | 0.73              |
| 4:U:16:LEU:HD12  | 4:U:16:LEU:C     | 2.07                     | 0.73              |
| 3:V:306:THR:CG2  | 3:V:349:PRO:HA   | 2.19                     | 0.73              |
| 4:W:16:LEU:HD12  | 4:W:16:LEU:C     | 2.07                     | 0.73              |
| 2:F:381:ALA:HB2  | 2:F:391:CYS:SG   | 2.28                     | 0.73              |
| 3:M:233:LEU:HD12 | 3:M:268:ARG:O    | 1.88                     | 0.73              |
| 4:Q:16:LEU:HD13  | 4:Q:111:TYR:CZ   | 2.24                     | 0.73              |
| 4:S:76:ASN:O     | 4:S:79:ILE:HG22  | 1.89                     | 0.73              |
| 2:B:564:ILE:O    | 2:B:567:ILE:HG13 | 1.89                     | 0.72              |
| 1:C:22:GLU:O     | 1:C:25:GLU:HB3   | 1.87                     | 0.72              |
| 2:D:418:PHE:CE1  | 2:D:425:TYR:HB2  | 2.24                     | 0.72              |
| 1:E:100:HIS:HE1  | 1:E:134:MET:HB2  | 1.49                     | 0.72              |
| 2:J:347:SER:N    | 2:J:350:ASN:ND2  | 2.33                     | 0.72              |
| 2:J:418:PHE:CE1  | 2:J:425:TYR:HB2  | 2.24                     | 0.72              |
| 2:J:555:ILE:HG22 | 2:J:556:GLU:N    | 2.04                     | 0.72              |
| 2:L:418:PHE:CE1  | 2:L:425:TYR:HB2  | 2.24                     | 0.72              |
| 2:D:295:GLU:O    | 2:D:299:GLN:HG3  | 1.89                     | 0.72              |
| 2:F:203:SER:O    | 2:F:206:LYS:HB2  | 1.88                     | 0.72              |
| 2:H:215:THR:HB   | 2:H:218:ALA:CB   | 2.18                     | 0.72              |
| 2:H:295:GLU:O    | 2:H:299:GLN:HG3  | 1.89                     | 0.72              |
| 2:H:310:VAL:HG12 | 2:H:317:LEU:HD21 | 1.69                     | 0.72              |
| 2:H:486:THR:HG22 | 2:H:487:ALA:N    | 2.02                     | 0.72              |
| 2:J:147:LYS:HE2  | 3:R:120:PHE:HB2  | 1.72                     | 0.72              |
| 2:J:412:VAL:O    | 2:J:415:LYS:HB3  | 1.88                     | 0.72              |
| 2:L:373:ALA:O    | 2:L:376:ALA:HB3  | 1.89                     | 0.72              |
| 2:L:555:ILE:HG22 | 2:L:556:GLU:N    | 2.04                     | 0.72              |
| 4:U:16:LEU:HD13  | 4:U:111:TYR:CZ   | 2.24                     | 0.72              |
| 4:U:76:ASN:O     | 4:U:79:ILE:HG22  | 1.89                     | 0.72              |
| 2:B:381:ALA:HB2  | 2:B:391:CYS:SG   | 2.28                     | 0.72              |
| 1:C:19:THR:HG22  | 1:C:21:ALA:H     | 1.53                     | 0.72              |
| 2:F:564:ILE:O    | 2:F:567:ILE:HG13 | 1.89                     | 0.72              |
| 1:G:270:ILE:HG23 | 1:G:271:LEU:HD22 | 1.71                     | 0.72              |
| 1:K:57:HIS:O     | 1:K:59:LEU:N     | 2.23                     | 0.72              |
| 2:L:203:SER:O    | 2:L:206:LYS:HB2  | 1.88                     | 0.72              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:L:347:SER:O    | 2:L:351:ILE:HG13 | 1.90                     | 0.72              |
| 2:L:492:PHE:HB2  | 2:L:503:VAL:HG21 | 1.70                     | 0.72              |
| 3:M:56:ARG:HH11  | 3:M:56:ARG:HG3   | 1.53                     | 0.72              |
| 3:M:60:ILE:HD11  | 3:M:67:LEU:HD23  | 1.72                     | 0.72              |
| 4:S:16:LEU:HD12  | 4:S:16:LEU:C     | 2.07                     | 0.72              |
| 4:S:50:LEU:HD23  | 4:S:51:GLU:N     | 2.03                     | 0.72              |
| 2:D:257:LEU:HD11 | 2:D:567:ILE:HG22 | 1.69                     | 0.72              |
| 2:D:347:SER:O    | 2:D:351:ILE:HG13 | 1.90                     | 0.72              |
| 2:F:188:ALA:HB1  | 2:F:195:ASN:HB3  | 1.72                     | 0.72              |
| 2:F:347:SER:O    | 2:F:351:ILE:HG13 | 1.90                     | 0.72              |
| 1:G:57:HIS:O     | 1:G:59:LEU:N     | 2.23                     | 0.72              |
| 2:H:418:PHE:CE1  | 2:H:425:TYR:HB2  | 2.24                     | 0.72              |
| 1:I:475:VAL:O    | 1:I:478:TRP:HB3  | 1.89                     | 0.72              |
| 2:J:347:SER:O    | 2:J:351:ILE:HG13 | 1.90                     | 0.72              |
| 2:J:373:ALA:O    | 2:J:376:ALA:HB3  | 1.89                     | 0.72              |
| 1:K:293:VAL:HG11 | 1:K:313:LEU:HD21 | 1.70                     | 0.72              |
| 1:K:475:VAL:O    | 1:K:478:TRP:HB3  | 1.89                     | 0.72              |
| 2:L:100:PRO:HA   | 2:L:103:ARG:HG2  | 1.70                     | 0.72              |
| 2:L:215:THR:HB   | 2:L:218:ALA:CB   | 2.18                     | 0.72              |
| 3:M:399:GLU:HG3  | 3:M:400:LYS:N    | 2.03                     | 0.72              |
| 3:N:306:THR:CG2  | 3:N:349:PRO:HA   | 2.19                     | 0.72              |
| 3:N:399:GLU:HG3  | 3:N:400:LYS:N    | 2.02                     | 0.72              |
| 3:O:306:THR:CG2  | 3:O:349:PRO:HA   | 2.19                     | 0.72              |
| 3:R:86:LYS:O     | 3:R:89:GLN:HB3   | 1.88                     | 0.72              |
| 3:R:306:THR:CG2  | 3:R:349:PRO:HA   | 2.19                     | 0.72              |
| 3:R:327:THR:HG22 | 3:R:329:VAL:N    | 2.04                     | 0.72              |
| 3:V:327:THR:HG22 | 3:V:329:VAL:N    | 2.04                     | 0.72              |
| 3:V:399:GLU:HG3  | 3:V:400:LYS:N    | 2.02                     | 0.72              |
| 1:E:585:PRO:HG2  | 2:F:524:TYR:CE1  | 2.25                     | 0.72              |
| 2:F:259:ALA:O    | 2:F:262:VAL:HG22 | 1.90                     | 0.72              |
| 4:T:16:LEU:HD13  | 4:T:111:TYR:CZ   | 2.24                     | 0.72              |
| 1:C:475:VAL:O    | 1:C:478:TRP:HB3  | 1.89                     | 0.72              |
| 2:D:420:LYS:C    | 2:D:421:TYR:HD2  | 1.93                     | 0.72              |
| 1:E:475:VAL:O    | 1:E:478:TRP:HB3  | 1.89                     | 0.72              |
| 2:H:570:LEU:HD12 | 3:P:74:ASN:HA    | 1.72                     | 0.72              |
| 2:J:203:SER:O    | 2:J:206:LYS:HB2  | 1.88                     | 0.72              |
| 2:J:295:GLU:O    | 2:J:299:GLN:HG3  | 1.89                     | 0.72              |
| 3:O:60:ILE:HD11  | 3:O:67:LEU:HD23  | 1.72                     | 0.72              |
| 3:P:216:ASP:O    | 3:P:218:VAL:N    | 2.21                     | 0.72              |
| 3:V:60:ILE:HD11  | 3:V:67:LEU:HD23  | 1.72                     | 0.72              |
| 2:B:347:SER:O    | 2:B:351:ILE:HG13 | 1.90                     | 0.72              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:555:ILE:HG22 | 2:B:556:GLU:N    | 2.04                     | 0.72              |
| 1:C:54:LEU:HD22  | 1:C:91:LEU:HD12  | 1.71                     | 0.72              |
| 1:C:531:MET:HE2  | 1:C:581:LEU:HD11 | 1.72                     | 0.72              |
| 2:D:100:PRO:HA   | 2:D:103:ARG:HG2  | 1.70                     | 0.72              |
| 1:E:97:GLN:HA    | 1:E:100:HIS:HB3  | 1.70                     | 0.72              |
| 1:E:463:ILE:HD11 | 1:E:476:ALA:HB1  | 1.70                     | 0.72              |
| 2:J:259:ALA:O    | 2:J:262:VAL:HG22 | 1.90                     | 0.72              |
| 3:N:285:LYS:O    | 3:N:286:HIS:HB2  | 1.90                     | 0.72              |
| 4:T:16:LEU:HD12  | 4:T:16:LEU:C     | 2.07                     | 0.72              |
| 2:F:492:PHE:HB2  | 2:F:503:VAL:HG21 | 1.70                     | 0.72              |
| 2:F:570:LEU:HD12 | 3:O:74:ASN:HA    | 1.72                     | 0.72              |
| 2:H:347:SER:O    | 2:H:351:ILE:HG13 | 1.90                     | 0.72              |
| 1:I:57:HIS:O     | 1:I:59:LEU:N     | 2.23                     | 0.72              |
| 3:M:306:THR:CG2  | 3:M:349:PRO:HA   | 2.19                     | 0.72              |
| 1:A:19:THR:HG22  | 1:A:21:ALA:H     | 1.53                     | 0.72              |
| 1:A:322:LYS:O    | 1:A:323:ASN:C    | 2.27                     | 0.72              |
| 1:C:478:TRP:CZ2  | 1:C:482:GLU:HG3  | 2.25                     | 0.72              |
| 1:G:208:MET:O    | 1:G:212:PHE:HB2  | 1.90                     | 0.72              |
| 2:H:377:ILE:HG21 | 2:H:395:LEU:HD21 | 1.69                     | 0.72              |
| 1:I:270:ILE:HG23 | 1:I:271:LEU:HD22 | 1.70                     | 0.72              |
| 3:M:86:LYS:O     | 3:M:89:GLN:HB3   | 1.88                     | 0.72              |
| 3:P:60:ILE:HD11  | 3:P:67:LEU:HD23  | 1.72                     | 0.72              |
| 4:T:76:ASN:O     | 4:T:79:ILE:HG22  | 1.89                     | 0.72              |
| 4:X:11:GLN:NE2   | 4:X:11:GLN:N     | 2.32                     | 0.72              |
| 4:X:16:LEU:HD13  | 4:X:111:TYR:CZ   | 2.24                     | 0.72              |
| 1:A:585:PRO:HG2  | 2:B:524:TYR:CE1  | 2.25                     | 0.72              |
| 2:B:139:LYS:HD3  | 2:B:175:MET:HE1  | 1.72                     | 0.72              |
| 2:B:420:LYS:C    | 2:B:421:TYR:HD2  | 1.93                     | 0.72              |
| 2:F:373:ALA:O    | 2:F:376:ALA:HB3  | 1.89                     | 0.72              |
| 1:G:54:LEU:HD22  | 1:G:91:LEU:HD12  | 1.71                     | 0.72              |
| 1:G:478:TRP:CZ2  | 1:G:482:GLU:HG3  | 2.25                     | 0.72              |
| 1:I:5:ILE:HB     | 1:I:52:LYS:HZ3   | 1.54                     | 0.72              |
| 1:K:54:LEU:HD22  | 1:K:91:LEU:HD12  | 1.71                     | 0.72              |
| 1:C:583:ARG:HB2  | 2:D:528:ARG:NH1  | 2.05                     | 0.71              |
| 2:D:569:THR:HG22 | 2:D:571:ALA:H    | 1.55                     | 0.71              |
| 1:G:585:PRO:HG2  | 2:H:524:TYR:CE1  | 2.25                     | 0.71              |
| 2:H:569:THR:HG22 | 2:H:571:ALA:H    | 1.55                     | 0.71              |
| 1:I:585:PRO:HG2  | 2:J:524:TYR:CE1  | 2.25                     | 0.71              |
| 2:J:478:THR:HA   | 2:J:481:GLN:NE2  | 2.04                     | 0.71              |
| 2:J:570:LEU:HD12 | 3:R:74:ASN:HA    | 1.72                     | 0.71              |
| 3:M:321:ASP:CG   | 3:M:322:SER:H    | 1.93                     | 0.71              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:285:ALA:CB   | 2:B:286:PRO:HD3  | 2.20                     | 0.71              |
| 2:D:188:ALA:HB1  | 2:D:195:ASN:HB3  | 1.72                     | 0.71              |
| 2:D:259:ALA:O    | 2:D:262:VAL:HG22 | 1.90                     | 0.71              |
| 2:D:478:THR:HA   | 2:D:481:GLN:NE2  | 2.04                     | 0.71              |
| 2:F:522:ARG:O    | 2:F:526:TYR:CD1  | 2.43                     | 0.71              |
| 2:H:452:VAL:HG13 | 2:H:453:GLY:N    | 2.06                     | 0.71              |
| 2:H:522:ARG:O    | 2:H:526:TYR:CD1  | 2.43                     | 0.71              |
| 2:H:569:THR:H    | 2:H:572:SER:HB2  | 1.55                     | 0.71              |
| 1:K:478:TRP:CZ2  | 1:K:482:GLU:HG3  | 2.25                     | 0.71              |
| 2:L:255:VAL:HG23 | 2:L:256:VAL:N    | 2.05                     | 0.71              |
| 3:N:295:VAL:HG23 | 3:N:356:MET:HB3  | 1.72                     | 0.71              |
| 3:N:321:ASP:CG   | 3:N:322:SER:H    | 1.93                     | 0.71              |
| 3:P:11:LEU:N     | 3:P:11:LEU:CD1   | 2.50                     | 0.71              |
| 4:W:10:ARG:NH1   | 4:W:61:ARG:HE    | 1.88                     | 0.71              |
| 4:W:16:LEU:HD13  | 4:W:111:TYR:CZ   | 2.24                     | 0.71              |
| 1:A:54:LEU:HD22  | 1:A:91:LEU:HD12  | 1.71                     | 0.71              |
| 1:A:562:ARG:NE   | 2:B:522:ARG:HD2  | 2.01                     | 0.71              |
| 2:B:47:VAL:HG23  | 2:B:76:TYR:OH    | 1.91                     | 0.71              |
| 2:B:169:ILE:HG22 | 2:B:170:SER:N    | 2.03                     | 0.71              |
| 2:B:493:LEU:C    | 2:B:495:LYS:H    | 1.94                     | 0.71              |
| 1:C:57:HIS:O     | 1:C:59:LEU:N     | 2.23                     | 0.71              |
| 2:F:295:GLU:O    | 2:F:299:GLN:HG3  | 1.89                     | 0.71              |
| 2:J:343:ILE:O    | 2:J:345:LEU:N    | 2.24                     | 0.71              |
| 1:K:322:LYS:O    | 1:K:323:ASN:C    | 2.27                     | 0.71              |
| 3:N:327:THR:HG22 | 3:N:329:VAL:N    | 2.04                     | 0.71              |
| 3:R:60:ILE:HD11  | 3:R:67:LEU:HD23  | 1.72                     | 0.71              |
| 1:A:270:ILE:HG23 | 1:A:271:LEU:HD22 | 1.70                     | 0.71              |
| 2:B:100:PRO:HA   | 2:B:103:ARG:HG2  | 1.71                     | 0.71              |
| 2:B:259:ALA:O    | 2:B:262:VAL:HG22 | 1.90                     | 0.71              |
| 2:B:292:LEU:C    | 2:B:294:ALA:H    | 1.93                     | 0.71              |
| 2:B:569:THR:HG22 | 2:B:571:ALA:H    | 1.55                     | 0.71              |
| 1:C:585:PRO:HG2  | 2:D:524:TYR:CE1  | 2.25                     | 0.71              |
| 2:F:484:LEU:O    | 2:F:488:ILE:HG12 | 1.91                     | 0.71              |
| 1:G:322:LYS:O    | 1:G:323:ASN:C    | 2.27                     | 0.71              |
| 2:J:292:LEU:C    | 2:J:294:ALA:H    | 1.93                     | 0.71              |
| 2:L:47:VAL:HG23  | 2:L:76:TYR:OH    | 1.91                     | 0.71              |
| 2:L:569:THR:HG22 | 2:L:571:ALA:H    | 1.55                     | 0.71              |
| 3:V:295:VAL:HG23 | 3:V:356:MET:HB3  | 1.72                     | 0.71              |
| 4:W:76:ASN:O     | 4:W:79:ILE:HG22  | 1.89                     | 0.71              |
| 1:A:57:HIS:O     | 1:A:59:LEU:N     | 2.23                     | 0.71              |
| 1:E:6:ARG:CD     | 3:M:337:GLU:HG2  | 2.18                     | 0.71              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:J:452:VAL:HG13 | 2:J:453:GLY:N    | 2.06                     | 0.71              |
| 1:K:208:MET:O    | 1:K:212:PHE:HB2  | 1.90                     | 0.71              |
| 2:L:420:LYS:C    | 2:L:421:TYR:HD2  | 1.93                     | 0.71              |
| 2:L:484:LEU:O    | 2:L:488:ILE:HG12 | 1.91                     | 0.71              |
| 3:M:285:LYS:O    | 3:M:286:HIS:HB2  | 1.90                     | 0.71              |
| 3:O:202:VAL:CG1  | 3:O:204:LEU:HG   | 2.21                     | 0.71              |
| 3:O:295:VAL:HG23 | 3:O:356:MET:HB3  | 1.72                     | 0.71              |
| 3:O:327:THR:HG22 | 3:O:329:VAL:N    | 2.04                     | 0.71              |
| 3:R:321:ASP:CG   | 3:R:322:SER:H    | 1.93                     | 0.71              |
| 2:B:188:ALA:HB1  | 2:B:195:ASN:HB3  | 1.72                     | 0.71              |
| 2:B:484:LEU:O    | 2:B:488:ILE:HG12 | 1.91                     | 0.71              |
| 2:D:147:LYS:HE2  | 3:N:120:PHE:HB2  | 1.72                     | 0.71              |
| 2:F:217:TRP:HE3  | 2:F:217:TRP:H    | 1.39                     | 0.71              |
| 2:F:420:LYS:C    | 2:F:421:TYR:HD2  | 1.93                     | 0.71              |
| 1:I:54:LEU:HD22  | 1:I:91:LEU:HD12  | 1.71                     | 0.71              |
| 2:J:217:TRP:HE3  | 2:J:217:TRP:H    | 1.39                     | 0.71              |
| 1:K:97:GLN:HA    | 1:K:100:HIS:HB3  | 1.70                     | 0.71              |
| 2:L:259:ALA:O    | 2:L:262:VAL:HG22 | 1.90                     | 0.71              |
| 4:S:16:LEU:HD13  | 4:S:111:TYR:CZ   | 2.24                     | 0.71              |
| 4:X:127:SER:CB   | 4:X:130:SER:HB2  | 2.21                     | 0.71              |
| 1:A:561:GLN:HG2  | 2:B:522:ARG:NH2  | 2.06                     | 0.71              |
| 2:B:373:ALA:O    | 2:B:376:ALA:HB3  | 1.89                     | 0.71              |
| 2:B:569:THR:H    | 2:B:572:SER:HB2  | 1.55                     | 0.71              |
| 2:D:343:ILE:O    | 2:D:345:LEU:N    | 2.24                     | 0.71              |
| 1:E:57:HIS:O     | 1:E:59:LEU:N     | 2.23                     | 0.71              |
| 2:F:569:THR:H    | 2:F:572:SER:HB2  | 1.55                     | 0.71              |
| 2:H:147:LYS:HE2  | 3:P:120:PHE:HB2  | 1.72                     | 0.71              |
| 1:I:322:LYS:O    | 1:I:323:ASN:C    | 2.27                     | 0.71              |
| 1:I:463:ILE:HD11 | 1:I:476:ALA:HB1  | 1.70                     | 0.71              |
| 2:J:47:VAL:HG23  | 2:J:76:TYR:OH    | 1.91                     | 0.71              |
| 3:M:178:ALA:HA   | 3:M:414:GLN:O    | 1.91                     | 0.71              |
| 3:M:202:VAL:CG1  | 3:M:204:LEU:HG   | 2.21                     | 0.71              |
| 3:N:56:ARG:HH11  | 3:N:56:ARG:HG3   | 1.53                     | 0.71              |
| 3:N:202:VAL:CG1  | 3:N:204:LEU:HG   | 2.21                     | 0.71              |
| 3:P:178:ALA:HA   | 3:P:414:GLN:O    | 1.91                     | 0.71              |
| 3:P:327:THR:HG22 | 3:P:329:VAL:N    | 2.04                     | 0.71              |
| 3:V:321:ASP:CG   | 3:V:322:SER:H    | 1.93                     | 0.71              |
| 1:A:212:PHE:CE2  | 1:A:263:SER:HB3  | 2.26                     | 0.71              |
| 1:A:489:SER:H    | 1:A:500:VAL:HG11 | 1.56                     | 0.71              |
| 1:A:583:ARG:HB2  | 2:B:528:ARG:NH1  | 2.05                     | 0.71              |
| 1:C:208:MET:O    | 1:C:212:PHE:HB2  | 1.90                     | 0.71              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:489:SER:H    | 1:C:500:VAL:HG11 | 1.56                     | 0.71              |
| 2:D:570:LEU:HD12 | 3:N:74:ASN:HA    | 1.72                     | 0.71              |
| 1:E:561:GLN:HG2  | 2:F:522:ARG:NH2  | 2.06                     | 0.71              |
| 1:E:583:ARG:HB2  | 2:F:528:ARG:NH1  | 2.05                     | 0.71              |
| 2:H:139:LYS:HD3  | 2:H:175:MET:HE1  | 1.72                     | 0.71              |
| 2:H:343:ILE:O    | 2:H:345:LEU:N    | 2.24                     | 0.71              |
| 1:I:478:TRP:CZ2  | 1:I:482:GLU:HG3  | 2.25                     | 0.71              |
| 1:K:585:PRO:HG2  | 2:L:524:TYR:CE1  | 2.25                     | 0.71              |
| 2:L:180:ARG:O    | 2:L:183:ALA:HB3  | 1.91                     | 0.71              |
| 2:L:570:LEU:HD12 | 3:V:74:ASN:HA    | 1.72                     | 0.71              |
| 3:N:178:ALA:HA   | 3:N:414:GLN:O    | 1.91                     | 0.71              |
| 3:R:178:ALA:HA   | 3:R:414:GLN:O    | 1.91                     | 0.71              |
| 4:S:127:SER:CB   | 4:S:130:SER:HB2  | 2.21                     | 0.71              |
| 3:V:285:LYS:O    | 3:V:286:HIS:HB2  | 1.90                     | 0.71              |
| 4:W:127:SER:CB   | 4:W:130:SER:HB2  | 2.21                     | 0.71              |
| 2:D:180:ARG:O    | 2:D:183:ALA:HB3  | 1.91                     | 0.71              |
| 2:F:180:ARG:O    | 2:F:183:ALA:HB3  | 1.91                     | 0.71              |
| 1:G:13:THR:HG22  | 1:G:26:MET:HE1   | 1.73                     | 0.71              |
| 1:G:212:PHE:CE2  | 1:G:263:SER:HB3  | 2.26                     | 0.71              |
| 1:G:583:ARG:HB2  | 2:H:528:ARG:NH1  | 2.06                     | 0.71              |
| 2:H:180:ARG:O    | 2:H:183:ALA:HB3  | 1.91                     | 0.71              |
| 2:H:259:ALA:O    | 2:H:262:VAL:HG22 | 1.90                     | 0.71              |
| 1:I:208:MET:O    | 1:I:212:PHE:HB2  | 1.90                     | 0.71              |
| 2:L:188:ALA:HB1  | 2:L:195:ASN:HB3  | 1.72                     | 0.71              |
| 2:L:569:THR:H    | 2:L:572:SER:HB2  | 1.55                     | 0.71              |
| 4:S:10:ARG:NH1   | 4:S:61:ARG:HE    | 1.88                     | 0.71              |
| 3:V:178:ALA:HA   | 3:V:414:GLN:O    | 1.91                     | 0.71              |
| 2:D:347:SER:N    | 2:D:350:ASN:ND2  | 2.33                     | 0.71              |
| 1:I:583:ARG:HB2  | 2:J:528:ARG:NH1  | 2.05                     | 0.71              |
| 2:J:484:LEU:O    | 2:J:488:ILE:HG12 | 1.91                     | 0.71              |
| 2:L:230:MET:HG2  | 2:L:266:PHE:HD2  | 1.56                     | 0.71              |
| 3:O:321:ASP:CG   | 3:O:322:SER:H    | 1.93                     | 0.71              |
| 4:X:10:ARG:NH1   | 4:X:61:ARG:HE    | 1.88                     | 0.71              |
| 2:D:452:VAL:HG13 | 2:D:453:GLY:N    | 2.06                     | 0.70              |
| 2:F:57:CYS:SG    | 2:F:65:LEU:HD11  | 2.31                     | 0.70              |
| 1:G:561:GLN:HG2  | 2:H:522:ARG:NH2  | 2.06                     | 0.70              |
| 2:H:188:ALA:HB1  | 2:H:195:ASN:HB3  | 1.72                     | 0.70              |
| 2:H:292:LEU:C    | 2:H:294:ALA:H    | 1.93                     | 0.70              |
| 2:H:484:LEU:O    | 2:H:488:ILE:HG12 | 1.91                     | 0.70              |
| 2:J:57:CYS:SG    | 2:J:65:LEU:HD11  | 2.31                     | 0.70              |
| 2:J:420:LYS:C    | 2:J:421:TYR:HD2  | 1.93                     | 0.70              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2          | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-----------------|--------------------------|-------------------|
| 2:J:569:THR:HG22 | 2:J:571:ALA:H   | 1.55                     | 0.70              |
| 3:N:60:ILE:HD11  | 3:N:67:LEU:HD23 | 1.72                     | 0.70              |
| 3:O:178:ALA:HA   | 3:O:414:GLN:O   | 1.91                     | 0.70              |
| 3:P:285:LYS:O    | 3:P:286:HIS:HB2 | 1.90                     | 0.70              |
| 3:P:415:ASN:CG   | 3:P:416:GLY:N   | 2.45                     | 0.70              |
| 3:R:295:VAL:HG23 | 3:R:356:MET:HB3 | 1.72                     | 0.70              |
| 4:T:10:ARG:NH1   | 4:T:61:ARG:HE   | 1.88                     | 0.70              |
| 3:V:11:LEU:N     | 3:V:11:LEU:CD1  | 2.50                     | 0.70              |
| 2:D:255:VAL:HG23 | 2:D:256:VAL:N   | 2.05                     | 0.70              |
| 2:D:373:ALA:O    | 2:D:376:ALA:HB3 | 1.89                     | 0.70              |
| 1:E:54:LEU:HD22  | 1:E:91:LEU:HD12 | 1.71                     | 0.70              |
| 1:E:179:THR:HG22 | 1:E:180:LYS:N   | 2.06                     | 0.70              |
| 2:H:420:LYS:C    | 2:H:421:TYR:HD2 | 1.93                     | 0.70              |
| 2:H:555:ILE:HG22 | 2:H:556:GLU:N   | 2.04                     | 0.70              |
| 1:I:97:GLN:O     | 1:I:100:HIS:HB3 | 1.92                     | 0.70              |
| 1:K:179:THR:HG22 | 1:K:180:LYS:N   | 2.06                     | 0.70              |
| 2:L:452:VAL:HG13 | 2:L:453:GLY:N   | 2.06                     | 0.70              |
| 3:M:295:VAL:HG23 | 3:M:356:MET:HB3 | 1.72                     | 0.70              |
| 3:N:415:ASN:CG   | 3:N:416:GLY:N   | 2.45                     | 0.70              |
| 3:O:285:LYS:O    | 3:O:286:HIS:HB2 | 1.90                     | 0.70              |
| 4:Q:108:GLU:HG3  | 4:Q:109:LYS:N   | 2.06                     | 0.70              |
| 4:T:127:SER:CB   | 4:T:130:SER:HB2 | 2.21                     | 0.70              |
| 2:B:343:ILE:O    | 2:B:345:LEU:N   | 2.24                     | 0.70              |
| 2:D:285:ALA:CB   | 2:D:286:PRO:HD3 | 2.20                     | 0.70              |
| 2:D:555:ILE:HG22 | 2:D:556:GLU:N   | 2.04                     | 0.70              |
| 2:F:147:LYS:HE2  | 3:O:120:PHE:HB2 | 1.72                     | 0.70              |
| 2:F:569:THR:HG22 | 2:F:571:ALA:H   | 1.55                     | 0.70              |
| 2:H:405:TYR:HD1  | 2:H:406:VAL:N   | 1.89                     | 0.70              |
| 2:J:180:ARG:O    | 2:J:183:ALA:HB3 | 1.91                     | 0.70              |
| 2:J:230:MET:HG2  | 2:J:266:PHE:HD2 | 1.56                     | 0.70              |
| 2:J:569:THR:H    | 2:J:572:SER:HB2 | 1.55                     | 0.70              |
| 1:K:583:ARG:HB2  | 2:L:528:ARG:NH1 | 2.05                     | 0.70              |
| 2:L:343:ILE:O    | 2:L:345:LEU:N   | 2.24                     | 0.70              |
| 3:M:415:ASN:CG   | 3:M:416:GLY:N   | 2.45                     | 0.70              |
| 3:P:202:VAL:CG1  | 3:P:204:LEU:HG  | 2.21                     | 0.70              |
| 3:P:321:ASP:CG   | 3:P:322:SER:H   | 1.93                     | 0.70              |
| 4:T:108:GLU:HG3  | 4:T:109:LYS:N   | 2.07                     | 0.70              |
| 2:B:478:THR:HA   | 2:B:481:GLN:NE2 | 2.04                     | 0.70              |
| 2:D:47:VAL:HG23  | 2:D:76:TYR:OH   | 1.91                     | 0.70              |
| 1:E:97:GLN:O     | 1:E:100:HIS:HB3 | 1.92                     | 0.70              |
| 1:E:520:SER:HB2  | 1:E:556:ASP:OD1 | 1.91                     | 0.70              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:343:ILE:O    | 2:F:345:LEU:N    | 2.24                     | 0.70              |
| 2:F:493:LEU:C    | 2:F:495:LYS:H    | 1.94                     | 0.70              |
| 2:H:57:CYS:SG    | 2:H:65:LEU:HD11  | 2.31                     | 0.70              |
| 2:H:373:ALA:O    | 2:H:376:ALA:HB3  | 1.89                     | 0.70              |
| 2:L:405:TYR:HD1  | 2:L:406:VAL:N    | 1.89                     | 0.70              |
| 2:L:570:LEU:HD21 | 3:V:75:ALA:HB3   | 1.74                     | 0.70              |
| 3:M:327:THR:HG22 | 3:M:329:VAL:N    | 2.04                     | 0.70              |
| 3:N:65:LEU:HD13  | 3:N:103:ILE:HD11 | 1.73                     | 0.70              |
| 4:S:11:GLN:NE2   | 4:S:11:GLN:N     | 2.32                     | 0.70              |
| 2:B:57:CYS:SG    | 2:B:65:LEU:HD11  | 2.31                     | 0.70              |
| 2:B:180:ARG:O    | 2:B:183:ALA:HB3  | 1.91                     | 0.70              |
| 2:D:351:ILE:HA   | 2:D:354:VAL:HB   | 1.74                     | 0.70              |
| 1:E:478:TRP:CZ2  | 1:E:482:GLU:HG3  | 2.25                     | 0.70              |
| 2:F:285:ALA:HB3  | 2:F:286:PRO:CD   | 2.22                     | 0.70              |
| 2:F:555:ILE:HG22 | 2:F:556:GLU:N    | 2.05                     | 0.70              |
| 1:K:212:PHE:CE2  | 1:K:263:SER:HB3  | 2.26                     | 0.70              |
| 4:Q:10:ARG:NH1   | 4:Q:61:ARG:HE    | 1.88                     | 0.70              |
| 2:B:405:TYR:HD1  | 2:B:406:VAL:N    | 1.89                     | 0.70              |
| 1:E:208:MET:O    | 1:E:212:PHE:HB2  | 1.90                     | 0.70              |
| 1:E:212:PHE:CE2  | 1:E:263:SER:HB3  | 2.26                     | 0.70              |
| 2:F:570:LEU:HD21 | 3:O:75:ALA:HB3   | 1.74                     | 0.70              |
| 1:I:179:THR:HG22 | 1:I:180:LYS:N    | 2.06                     | 0.70              |
| 2:J:405:TYR:HD1  | 2:J:406:VAL:N    | 1.89                     | 0.70              |
| 4:Q:127:SER:CB   | 4:Q:130:SER:HB2  | 2.21                     | 0.70              |
| 1:A:520:SER:HB2  | 1:A:556:ASP:OD1  | 1.91                     | 0.70              |
| 2:B:351:ILE:HA   | 2:B:354:VAL:HB   | 1.74                     | 0.70              |
| 1:C:97:GLN:O     | 1:C:100:HIS:HB3  | 1.92                     | 0.70              |
| 1:C:520:SER:HB2  | 1:C:556:ASP:OD1  | 1.91                     | 0.70              |
| 2:D:118:ILE:HG13 | 2:D:122:LEU:HD22 | 1.74                     | 0.70              |
| 2:F:230:MET:HG2  | 2:F:266:PHE:HD2  | 1.56                     | 0.70              |
| 1:G:97:GLN:O     | 1:G:100:HIS:HB3  | 1.92                     | 0.70              |
| 2:H:106:ALA:O    | 2:H:110:MET:HG2  | 1.92                     | 0.70              |
| 2:H:217:TRP:H    | 2:H:217:TRP:HE3  | 1.39                     | 0.70              |
| 2:H:230:MET:HG2  | 2:H:266:PHE:HD2  | 1.56                     | 0.70              |
| 2:H:351:ILE:HA   | 2:H:354:VAL:HB   | 1.74                     | 0.70              |
| 1:I:567:ASN:C    | 1:I:567:ASN:HD22 | 1.94                     | 0.70              |
| 2:J:106:ALA:O    | 2:J:110:MET:HG2  | 1.92                     | 0.70              |
| 3:R:415:ASN:CG   | 3:R:416:GLY:N    | 2.45                     | 0.70              |
| 4:W:76:ASN:C     | 4:W:76:ASN:ND2   | 2.44                     | 0.70              |
| 2:B:307:ASN:HD21 | 2:B:344:ARG:HH12 | 1.39                     | 0.70              |
| 2:B:570:LEU:HD12 | 3:M:74:ASN:HA    | 1.72                     | 0.70              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:57:CYS:SG    | 2:D:65:LEU:HD11  | 2.31                     | 0.70              |
| 2:D:307:ASN:HD21 | 2:D:344:ARG:HH12 | 1.39                     | 0.70              |
| 1:E:489:SER:H    | 1:E:500:VAL:HG11 | 1.56                     | 0.70              |
| 2:F:47:VAL:HG23  | 2:F:76:TYR:OH    | 1.91                     | 0.70              |
| 2:F:324:PHE:CE2  | 2:F:341:ILE:HG21 | 2.27                     | 0.70              |
| 2:F:452:VAL:HG13 | 2:F:453:GLY:N    | 2.06                     | 0.70              |
| 1:I:531:MET:HE2  | 1:I:581:LEU:HD11 | 1.72                     | 0.70              |
| 2:J:118:ILE:HG13 | 2:J:122:LEU:HD22 | 1.74                     | 0.70              |
| 2:J:324:PHE:CE2  | 2:J:341:ILE:HG21 | 2.27                     | 0.70              |
| 3:P:295:VAL:HG23 | 3:P:356:MET:HB3  | 1.72                     | 0.70              |
| 4:U:10:ARG:NH1   | 4:U:61:ARG:HE    | 1.88                     | 0.70              |
| 4:U:108:GLU:HG3  | 4:U:109:LYS:N    | 2.07                     | 0.70              |
| 1:A:478:TRP:CZ2  | 1:A:482:GLU:HG3  | 2.25                     | 0.70              |
| 2:B:305:ASN:HA   | 2:B:308:LEU:HD12 | 1.74                     | 0.70              |
| 1:C:561:GLN:HG2  | 2:D:522:ARG:NH2  | 2.06                     | 0.70              |
| 2:D:230:MET:HG2  | 2:D:266:PHE:HD2  | 1.56                     | 0.70              |
| 2:D:473:PHE:C    | 2:D:475:ASP:N    | 2.46                     | 0.70              |
| 2:D:493:LEU:C    | 2:D:495:LYS:H    | 1.94                     | 0.70              |
| 1:G:520:SER:HB2  | 1:G:556:ASP:OD1  | 1.91                     | 0.70              |
| 1:G:567:ASN:HD22 | 1:G:567:ASN:C    | 1.94                     | 0.70              |
| 2:H:47:VAL:HG23  | 2:H:76:TYR:OH    | 1.91                     | 0.70              |
| 2:H:50:LEU:O     | 2:H:54:VAL:HG23  | 1.92                     | 0.70              |
| 1:I:520:SER:HB2  | 1:I:556:ASP:OD1  | 1.91                     | 0.70              |
| 2:L:106:ALA:O    | 2:L:110:MET:HG2  | 1.92                     | 0.70              |
| 3:O:65:LEU:HD13  | 3:O:103:ILE:HD11 | 1.73                     | 0.70              |
| 3:R:202:VAL:CG1  | 3:R:204:LEU:HG   | 2.21                     | 0.70              |
| 3:R:285:LYS:O    | 3:R:286:HIS:HB2  | 1.90                     | 0.70              |
| 1:A:208:MET:O    | 1:A:212:PHE:HB2  | 1.90                     | 0.70              |
| 1:C:473:VAL:HG23 | 1:C:474:GLN:H    | 1.57                     | 0.70              |
| 2:D:436:LEU:HD13 | 2:D:436:LEU:C    | 2.12                     | 0.70              |
| 2:D:566:TYR:N    | 2:D:566:TYR:CD1  | 2.60                     | 0.70              |
| 2:F:473:PHE:C    | 2:F:475:ASP:N    | 2.45                     | 0.70              |
| 1:G:489:SER:H    | 1:G:500:VAL:HG11 | 1.56                     | 0.70              |
| 2:H:285:ALA:CB   | 2:H:286:PRO:HD3  | 2.20                     | 0.70              |
| 1:I:561:GLN:HG2  | 2:J:522:ARG:NH2  | 2.06                     | 0.70              |
| 1:K:561:GLN:HG2  | 2:L:522:ARG:NH2  | 2.06                     | 0.70              |
| 2:L:147:LYS:HE2  | 3:V:120:PHE:HB2  | 1.72                     | 0.70              |
| 2:L:285:ALA:CB   | 2:L:286:PRO:HD3  | 2.20                     | 0.70              |
| 2:L:522:ARG:O    | 2:L:526:TYR:CD1  | 2.43                     | 0.70              |
| 3:N:313:HIS:O    | 3:N:376:ILE:HG13 | 1.92                     | 0.70              |
| 4:Q:76:ASN:C     | 4:Q:76:ASN:ND2   | 2.44                     | 0.70              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:V:144:THR:HG22 | 3:V:145:GLY:N    | 2.07                     | 0.70              |
| 3:V:202:VAL:CG1  | 3:V:204:LEU:HG   | 2.21                     | 0.70              |
| 2:B:147:LYS:HE2  | 3:M:120:PHE:HB2  | 1.72                     | 0.69              |
| 2:B:436:LEU:C    | 2:B:436:LEU:HD13 | 2.12                     | 0.69              |
| 2:D:292:LEU:C    | 2:D:294:ALA:H    | 1.93                     | 0.69              |
| 2:F:118:ILE:HG13 | 2:F:122:LEU:HD22 | 1.74                     | 0.69              |
| 2:F:351:ILE:HA   | 2:F:354:VAL:HB   | 1.74                     | 0.69              |
| 1:G:531:MET:HE2  | 1:G:581:LEU:HD11 | 1.73                     | 0.69              |
| 2:J:285:ALA:CB   | 2:J:286:PRO:HD3  | 2.20                     | 0.69              |
| 2:L:436:LEU:HD13 | 2:L:436:LEU:C    | 2.13                     | 0.69              |
| 3:V:313:HIS:O    | 3:V:376:ILE:HG13 | 1.92                     | 0.69              |
| 2:D:217:TRP:H    | 2:D:217:TRP:HE3  | 1.39                     | 0.69              |
| 2:F:50:LEU:O     | 2:F:54:VAL:HG23  | 1.92                     | 0.69              |
| 1:I:212:PHE:CE2  | 1:I:263:SER:HB3  | 2.26                     | 0.69              |
| 2:L:130:LEU:HD21 | 2:L:141:ALA:CB   | 2.14                     | 0.69              |
| 2:L:461:ASN:O    | 2:L:463:ASP:N    | 2.25                     | 0.69              |
| 3:M:384:TYR:HA   | 3:M:411:TYR:HB2  | 1.74                     | 0.69              |
| 3:O:313:HIS:O    | 3:O:376:ILE:HG13 | 1.92                     | 0.69              |
| 4:W:107:PHE:HD2  | 4:W:108:GLU:H    | 1.36                     | 0.69              |
| 2:B:522:ARG:O    | 2:B:526:TYR:CD1  | 2.43                     | 0.69              |
| 1:E:326:TYR:HE1  | 1:E:360:SER:HB3  | 1.57                     | 0.69              |
| 2:F:106:ALA:O    | 2:F:110:MET:HG2  | 1.92                     | 0.69              |
| 2:F:307:ASN:HD21 | 2:F:344:ARG:HH12 | 1.39                     | 0.69              |
| 2:F:405:TYR:HD1  | 2:F:406:VAL:N    | 1.89                     | 0.69              |
| 2:F:436:LEU:C    | 2:F:436:LEU:HD13 | 2.13                     | 0.69              |
| 1:G:574:ASP:O    | 1:G:576:MET:N    | 2.26                     | 0.69              |
| 2:H:324:PHE:CE2  | 2:H:341:ILE:HG21 | 2.27                     | 0.69              |
| 2:H:461:ASN:O    | 2:H:463:ASP:N    | 2.25                     | 0.69              |
| 2:J:351:ILE:HA   | 2:J:354:VAL:HB   | 1.74                     | 0.69              |
| 2:J:522:ARG:O    | 2:J:526:TYR:CD1  | 2.43                     | 0.69              |
| 1:K:326:TYR:HE1  | 1:K:360:SER:HB3  | 1.57                     | 0.69              |
| 1:K:531:MET:CE   | 1:K:581:LEU:HD11 | 2.22                     | 0.69              |
| 3:M:144:THR:HG22 | 3:M:145:GLY:N    | 2.07                     | 0.69              |
| 3:P:144:THR:HG22 | 3:P:145:GLY:N    | 2.07                     | 0.69              |
| 3:R:11:LEU:N     | 3:R:11:LEU:CD1   | 2.50                     | 0.69              |
| 3:R:144:THR:HG22 | 3:R:145:GLY:N    | 2.07                     | 0.69              |
| 3:V:104:ARG:HA   | 3:V:107:PHE:HE1  | 1.57                     | 0.69              |
| 1:A:5:ILE:HB     | 1:A:52:LYS:HZ3   | 1.56                     | 0.69              |
| 1:A:97:GLN:O     | 1:A:100:HIS:HB3  | 1.92                     | 0.69              |
| 2:B:106:ALA:O    | 2:B:110:MET:HG2  | 1.92                     | 0.69              |
| 2:B:217:TRP:HE3  | 2:B:217:TRP:H    | 1.39                     | 0.69              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:570:LEU:HD21 | 3:M:75:ALA:HB3   | 1.74                     | 0.69              |
| 2:D:484:LEU:O    | 2:D:488:ILE:HG12 | 1.91                     | 0.69              |
| 2:D:569:THR:H    | 2:D:572:SER:HB2  | 1.55                     | 0.69              |
| 1:E:377:ASN:HD21 | 1:E:381:MET:HG2  | 1.58                     | 0.69              |
| 2:F:529:LEU:HG   | 2:F:537:ALA:HB2  | 1.75                     | 0.69              |
| 1:G:473:VAL:HG23 | 1:G:474:GLN:H    | 1.57                     | 0.69              |
| 2:L:38:ILE:HG12  | 2:L:39:ALA:H     | 1.57                     | 0.69              |
| 3:M:414:GLN:O    | 3:M:415:ASN:CB   | 2.40                     | 0.69              |
| 3:O:104:ARG:HA   | 3:O:107:PHE:HE1  | 1.57                     | 0.69              |
| 4:T:35:LEU:O     | 4:T:39:VAL:HG23  | 1.93                     | 0.69              |
| 4:X:35:LEU:O     | 4:X:39:VAL:HG23  | 1.93                     | 0.69              |
| 1:A:531:MET:CE   | 1:A:581:LEU:HD11 | 2.22                     | 0.69              |
| 1:A:558:GLU:OE1  | 1:A:558:GLU:HA   | 1.92                     | 0.69              |
| 2:B:452:VAL:HG13 | 2:B:453:GLY:N    | 2.06                     | 0.69              |
| 1:C:5:ILE:HB     | 1:C:52:LYS:HZ3   | 1.56                     | 0.69              |
| 1:C:531:MET:CE   | 1:C:581:LEU:HD11 | 2.23                     | 0.69              |
| 1:C:574:ASP:O    | 1:C:576:MET:N    | 2.26                     | 0.69              |
| 2:D:461:ASN:O    | 2:D:463:ASP:N    | 2.25                     | 0.69              |
| 1:E:567:ASN:C    | 1:E:567:ASN:HD22 | 1.94                     | 0.69              |
| 1:E:574:ASP:O    | 1:E:576:MET:N    | 2.26                     | 0.69              |
| 2:J:307:ASN:HD21 | 2:J:344:ARG:HH12 | 1.39                     | 0.69              |
| 2:J:461:ASN:O    | 2:J:462:ALA:C    | 2.31                     | 0.69              |
| 1:K:97:GLN:O     | 1:K:100:HIS:HB3  | 1.91                     | 0.69              |
| 1:K:489:SER:H    | 1:K:500:VAL:HG11 | 1.56                     | 0.69              |
| 2:L:118:ILE:HG13 | 2:L:122:LEU:HD22 | 1.74                     | 0.69              |
| 3:M:65:LEU:HD13  | 3:M:103:ILE:HD11 | 1.73                     | 0.69              |
| 2:B:118:ILE:HG13 | 2:B:122:LEU:HD22 | 1.74                     | 0.69              |
| 2:B:426:GLU:HA   | 2:B:429:ILE:HD13 | 1.75                     | 0.69              |
| 2:B:473:PHE:C    | 2:B:475:ASP:N    | 2.46                     | 0.69              |
| 1:E:322:LYS:O    | 1:E:323:ASN:C    | 2.27                     | 0.69              |
| 2:F:426:GLU:HA   | 2:F:429:ILE:HD13 | 1.75                     | 0.69              |
| 2:J:461:ASN:O    | 2:J:463:ASP:N    | 2.25                     | 0.69              |
| 1:K:520:SER:HB2  | 1:K:556:ASP:OD1  | 1.91                     | 0.69              |
| 2:L:57:CYS:SG    | 2:L:65:LEU:HD11  | 2.31                     | 0.69              |
| 2:L:493:LEU:C    | 2:L:495:LYS:H    | 1.94                     | 0.69              |
| 3:O:384:TYR:HA   | 3:O:411:TYR:HB2  | 1.74                     | 0.69              |
| 3:P:65:LEU:HD13  | 3:P:103:ILE:HD11 | 1.73                     | 0.69              |
| 3:V:65:LEU:HD13  | 3:V:103:ILE:HD11 | 1.73                     | 0.69              |
| 1:A:567:ASN:C    | 1:A:567:ASN:HD22 | 1.94                     | 0.69              |
| 2:B:230:MET:HG2  | 2:B:266:PHE:HD2  | 1.56                     | 0.69              |
| 1:C:567:ASN:HD22 | 1:C:567:ASN:C    | 1.94                     | 0.69              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:324:PHE:CE2  | 2:D:341:ILE:HG21 | 2.27                     | 0.69              |
| 2:D:529:LEU:HG   | 2:D:537:ALA:HB2  | 1.75                     | 0.69              |
| 1:K:574:ASP:O    | 1:K:576:MET:N    | 2.26                     | 0.69              |
| 2:L:50:LEU:O     | 2:L:54:VAL:HG23  | 1.92                     | 0.69              |
| 2:L:324:PHE:CE2  | 2:L:341:ILE:HG21 | 2.27                     | 0.69              |
| 3:N:144:THR:HG22 | 3:N:145:GLY:N    | 2.07                     | 0.69              |
| 4:S:35:LEU:O     | 4:S:39:VAL:HG23  | 1.93                     | 0.69              |
| 4:S:108:GLU:HG3  | 4:S:109:LYS:N    | 2.07                     | 0.69              |
| 3:V:414:GLN:O    | 3:V:415:ASN:CB   | 2.40                     | 0.69              |
| 1:A:473:VAL:HG23 | 1:A:474:GLN:H    | 1.57                     | 0.69              |
| 2:B:35:LYS:CA    | 2:B:38:ILE:HD11  | 2.22                     | 0.69              |
| 2:B:165:LEU:C    | 2:B:169:ILE:HG13 | 2.13                     | 0.69              |
| 2:B:255:VAL:HG23 | 2:B:256:VAL:N    | 2.05                     | 0.69              |
| 2:B:324:PHE:CE2  | 2:B:341:ILE:HG21 | 2.27                     | 0.69              |
| 2:B:461:ASN:O    | 2:B:463:ASP:N    | 2.25                     | 0.69              |
| 2:B:566:TYR:N    | 2:B:566:TYR:CD1  | 2.60                     | 0.69              |
| 1:C:212:PHE:CE2  | 1:C:263:SER:HB3  | 2.26                     | 0.69              |
| 1:C:326:TYR:HE1  | 1:C:360:SER:HB3  | 1.57                     | 0.69              |
| 1:C:377:ASN:HD21 | 1:C:381:MET:HG2  | 1.58                     | 0.69              |
| 2:D:50:LEU:O     | 2:D:54:VAL:HG23  | 1.92                     | 0.69              |
| 1:E:558:GLU:OE1  | 1:E:558:GLU:HA   | 1.92                     | 0.69              |
| 2:F:38:ILE:HG12  | 2:F:39:ALA:H     | 1.58                     | 0.69              |
| 2:F:461:ASN:O    | 2:F:463:ASP:N    | 2.25                     | 0.69              |
| 2:F:461:ASN:O    | 2:F:462:ALA:C    | 2.31                     | 0.69              |
| 2:F:566:TYR:N    | 2:F:566:TYR:CD1  | 2.60                     | 0.69              |
| 1:G:531:MET:CE   | 1:G:581:LEU:HD11 | 2.22                     | 0.69              |
| 2:H:118:ILE:HG13 | 2:H:122:LEU:HD22 | 1.74                     | 0.69              |
| 2:H:436:LEU:HD13 | 2:H:436:LEU:C    | 2.12                     | 0.69              |
| 2:H:529:LEU:HG   | 2:H:537:ALA:HB2  | 1.75                     | 0.69              |
| 1:I:377:ASN:HD21 | 1:I:381:MET:HG2  | 1.58                     | 0.69              |
| 1:I:489:SER:H    | 1:I:500:VAL:HG11 | 1.56                     | 0.69              |
| 1:I:574:ASP:O    | 1:I:576:MET:N    | 2.26                     | 0.69              |
| 2:J:188:ALA:HB1  | 2:J:195:ASN:HB3  | 1.72                     | 0.69              |
| 2:J:570:LEU:HD21 | 3:R:75:ALA:HB3   | 1.74                     | 0.69              |
| 1:K:473:VAL:HG23 | 1:K:474:GLN:H    | 1.57                     | 0.69              |
| 2:L:305:ASN:HA   | 2:L:308:LEU:HD12 | 1.74                     | 0.69              |
| 2:L:307:ASN:HD21 | 2:L:344:ARG:HH12 | 1.39                     | 0.69              |
| 3:N:104:ARG:HA   | 3:N:107:PHE:HE1  | 1.57                     | 0.69              |
| 3:O:144:THR:HG22 | 3:O:145:GLY:N    | 2.07                     | 0.69              |
| 3:O:414:GLN:O    | 3:O:415:ASN:CB   | 2.40                     | 0.69              |
| 3:P:104:ARG:HA   | 3:P:107:PHE:HE1  | 1.57                     | 0.69              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:R:32:HIS:ND1   | 3:R:52:HIS:NE2   | 2.41                     | 0.69              |
| 3:R:414:GLN:O    | 3:R:415:ASN:CB   | 2.40                     | 0.69              |
| 3:V:384:TYR:HA   | 3:V:411:TYR:HB2  | 1.74                     | 0.69              |
| 4:W:108:GLU:HG3  | 4:W:109:LYS:N    | 2.06                     | 0.69              |
| 4:X:108:GLU:HG3  | 4:X:109:LYS:N    | 2.06                     | 0.69              |
| 2:D:305:ASN:HA   | 2:D:308:LEU:HD12 | 1.74                     | 0.69              |
| 2:F:35:LYS:CA    | 2:F:38:ILE:HD11  | 2.22                     | 0.69              |
| 2:F:285:ALA:CB   | 2:F:286:PRO:HD3  | 2.20                     | 0.69              |
| 2:H:75:ASN:ND2   | 3:P:19:ARG:HH21  | 1.91                     | 0.69              |
| 2:L:165:LEU:C    | 2:L:169:ILE:HG13 | 2.13                     | 0.69              |
| 3:N:376:ILE:HG23 | 3:N:420:LEU:HB2  | 1.75                     | 0.69              |
| 3:N:384:TYR:HA   | 3:N:411:TYR:HB2  | 1.74                     | 0.69              |
| 3:P:414:GLN:O    | 3:P:415:ASN:CB   | 2.40                     | 0.69              |
| 3:R:313:HIS:O    | 3:R:376:ILE:HG13 | 1.92                     | 0.69              |
| 3:R:384:TYR:HA   | 3:R:411:TYR:HB2  | 1.74                     | 0.69              |
| 3:V:376:ILE:HG23 | 3:V:420:LEU:HB2  | 1.75                     | 0.69              |
| 1:A:574:ASP:O    | 1:A:576:MET:N    | 2.26                     | 0.69              |
| 2:B:496:PRO:HB2  | 2:B:499:THR:CG2  | 2.22                     | 0.69              |
| 1:C:322:LYS:O    | 1:C:323:ASN:C    | 2.27                     | 0.69              |
| 2:D:35:LYS:CA    | 2:D:38:ILE:HD11  | 2.23                     | 0.69              |
| 2:D:285:ALA:HB3  | 2:D:286:PRO:CD   | 2.22                     | 0.69              |
| 2:D:405:TYR:HD1  | 2:D:406:VAL:N    | 1.89                     | 0.69              |
| 2:H:285:ALA:HB3  | 2:H:286:PRO:CD   | 2.21                     | 0.69              |
| 2:H:307:ASN:HD21 | 2:H:344:ARG:HH12 | 1.40                     | 0.69              |
| 2:H:566:TYR:N    | 2:H:566:TYR:CD1  | 2.60                     | 0.69              |
| 2:J:50:LEU:O     | 2:J:54:VAL:HG23  | 1.92                     | 0.69              |
| 2:J:436:LEU:C    | 2:J:436:LEU:HD13 | 2.12                     | 0.69              |
| 3:R:278:TRP:CD1  | 3:R:279:ILE:N    | 2.61                     | 0.69              |
| 3:V:32:HIS:ND1   | 3:V:52:HIS:NE2   | 2.41                     | 0.69              |
| 1:A:321:ASP:O    | 1:A:322:LYS:O    | 2.11                     | 0.68              |
| 1:C:179:THR:HG22 | 1:C:180:LYS:N    | 2.07                     | 0.68              |
| 2:D:165:LEU:C    | 2:D:169:ILE:HG13 | 2.13                     | 0.68              |
| 2:D:570:LEU:HD21 | 3:N:75:ALA:HB3   | 1.74                     | 0.68              |
| 1:G:478:TRP:CE3  | 1:G:478:TRP:HA   | 2.29                     | 0.68              |
| 1:G:572:LYS:HG3  | 1:G:573:TYR:CD1  | 2.28                     | 0.68              |
| 2:H:165:LEU:C    | 2:H:169:ILE:HG13 | 2.13                     | 0.68              |
| 1:I:67:GLN:HE21  | 1:I:93:LEU:CD2   | 2.06                     | 0.68              |
| 2:J:75:ASN:ND2   | 3:R:19:ARG:HH21  | 1.91                     | 0.68              |
| 1:K:442:ILE:O    | 1:K:446:THR:HG22 | 1.93                     | 0.68              |
| 2:L:217:TRP:H    | 2:L:217:TRP:HE3  | 1.39                     | 0.68              |
| 3:M:313:HIS:O    | 3:M:376:ILE:HG13 | 1.92                     | 0.68              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:R:21:TYR:CE2   | 3:R:118:MET:HG2  | 2.28                     | 0.68              |
| 4:U:35:LEU:O     | 4:U:39:VAL:HG23  | 1.93                     | 0.68              |
| 1:A:326:TYR:HE1  | 1:A:360:SER:HB3  | 1.57                     | 0.68              |
| 1:A:416:ARG:CG   | 1:A:454:TYR:HE1  | 2.06                     | 0.68              |
| 1:C:572:LYS:HG3  | 1:C:573:TYR:CD1  | 2.29                     | 0.68              |
| 2:D:106:ALA:O    | 2:D:110:MET:HG2  | 1.92                     | 0.68              |
| 1:I:326:TYR:HE1  | 1:I:360:SER:HB3  | 1.57                     | 0.68              |
| 1:I:442:ILE:O    | 1:I:446:THR:HG22 | 1.93                     | 0.68              |
| 2:J:493:LEU:C    | 2:J:495:LYS:H    | 1.94                     | 0.68              |
| 1:K:5:ILE:HB     | 1:K:52:LYS:HZ3   | 1.57                     | 0.68              |
| 1:K:321:ASP:O    | 1:K:322:LYS:O    | 2.11                     | 0.68              |
| 1:K:416:ARG:CG   | 1:K:454:TYR:HE1  | 2.06                     | 0.68              |
| 3:M:104:ARG:HA   | 3:M:107:PHE:HE1  | 1.57                     | 0.68              |
| 3:O:376:ILE:HG23 | 3:O:420:LEU:HB2  | 1.75                     | 0.68              |
| 4:U:76:ASN:C     | 4:U:76:ASN:ND2   | 2.44                     | 0.68              |
| 4:U:127:SER:CB   | 4:U:130:SER:HB2  | 2.21                     | 0.68              |
| 4:X:76:ASN:C     | 4:X:76:ASN:ND2   | 2.44                     | 0.68              |
| 2:B:50:LEU:O     | 2:B:54:VAL:HG23  | 1.92                     | 0.68              |
| 2:B:75:ASN:ND2   | 3:M:19:ARG:HH21  | 1.91                     | 0.68              |
| 2:B:529:LEU:HG   | 2:B:537:ALA:HB2  | 1.75                     | 0.68              |
| 2:D:475:ASP:O    | 2:D:476:GLU:HG3  | 1.93                     | 0.68              |
| 1:G:179:THR:HG22 | 1:G:180:LYS:N    | 2.06                     | 0.68              |
| 1:G:321:ASP:O    | 1:G:322:LYS:O    | 2.11                     | 0.68              |
| 1:I:489:SER:N    | 1:I:500:VAL:HG11 | 2.09                     | 0.68              |
| 2:J:566:TYR:N    | 2:J:566:TYR:CD1  | 2.60                     | 0.68              |
| 1:K:377:ASN:HD21 | 1:K:381:MET:HG2  | 1.58                     | 0.68              |
| 2:L:211:LEU:HD23 | 2:L:222:ILE:HD12 | 1.75                     | 0.68              |
| 3:M:11:LEU:N     | 3:M:11:LEU:CD1   | 2.50                     | 0.68              |
| 3:M:32:HIS:ND1   | 3:M:52:HIS:NE2   | 2.41                     | 0.68              |
| 3:N:414:GLN:O    | 3:N:415:ASN:CB   | 2.40                     | 0.68              |
| 1:A:572:LYS:HG3  | 1:A:573:TYR:CD1  | 2.29                     | 0.68              |
| 2:B:38:ILE:HG12  | 2:B:39:ALA:H     | 1.58                     | 0.68              |
| 1:C:416:ARG:CG   | 1:C:454:TYR:HE1  | 2.06                     | 0.68              |
| 2:D:211:LEU:HD23 | 2:D:222:ILE:HD12 | 1.75                     | 0.68              |
| 1:E:473:VAL:HG23 | 1:E:474:GLN:H    | 1.57                     | 0.68              |
| 2:H:211:LEU:HD23 | 2:H:222:ILE:HD12 | 1.75                     | 0.68              |
| 2:L:223:LEU:HD13 | 2:L:259:ALA:HA   | 1.75                     | 0.68              |
| 2:L:351:ILE:HA   | 2:L:354:VAL:HB   | 1.74                     | 0.68              |
| 3:M:376:ILE:HG23 | 3:M:420:LEU:HB2  | 1.75                     | 0.68              |
| 3:O:401:SER:O    | 3:O:403:TYR:N    | 2.27                     | 0.68              |
| 3:P:21:TYR:CE2   | 3:P:118:MET:HG2  | 2.28                     | 0.68              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:R:65:LEU:HD13  | 3:R:103:ILE:HD11 | 1.73                     | 0.68              |
| 3:R:276:LEU:HB3  | 3:R:301:PHE:HZ   | 1.59                     | 0.68              |
| 3:V:21:TYR:CE2   | 3:V:118:MET:HG2  | 2.28                     | 0.68              |
| 1:A:179:THR:HG22 | 1:A:180:LYS:N    | 2.06                     | 0.68              |
| 1:A:478:TRP:HA   | 1:A:478:TRP:CE3  | 2.29                     | 0.68              |
| 1:C:313:LEU:O    | 1:C:316:PHE:HB2  | 1.94                     | 0.68              |
| 1:E:67:GLN:HE21  | 1:E:93:LEU:CD2   | 2.06                     | 0.68              |
| 1:E:97:GLN:C     | 1:E:100:HIS:HB3  | 2.14                     | 0.68              |
| 1:E:416:ARG:CD   | 1:E:454:TYR:HE1  | 2.07                     | 0.68              |
| 1:E:572:LYS:HG3  | 1:E:573:TYR:CD1  | 2.28                     | 0.68              |
| 2:F:182:ALA:O    | 2:F:183:ALA:C    | 2.32                     | 0.68              |
| 2:F:305:ASN:HA   | 2:F:308:LEU:HD12 | 1.74                     | 0.68              |
| 1:G:377:ASN:HD21 | 1:G:381:MET:HG2  | 1.58                     | 0.68              |
| 2:H:71:LEU:O     | 2:H:74:MET:HB3   | 1.94                     | 0.68              |
| 1:I:572:LYS:HG3  | 1:I:573:TYR:CD1  | 2.29                     | 0.68              |
| 2:J:165:LEU:C    | 2:J:169:ILE:HG13 | 2.13                     | 0.68              |
| 1:K:31:CYS:HB3   | 1:K:56:MET:CE    | 2.24                     | 0.68              |
| 2:L:182:ALA:O    | 2:L:183:ALA:C    | 2.32                     | 0.68              |
| 2:L:432:LEU:HD12 | 2:L:448:MET:HE1  | 1.74                     | 0.68              |
| 3:M:21:TYR:CE2   | 3:M:118:MET:HG2  | 2.28                     | 0.68              |
| 3:N:32:HIS:ND1   | 3:N:52:HIS:NE2   | 2.41                     | 0.68              |
| 3:P:32:HIS:ND1   | 3:P:52:HIS:NE2   | 2.41                     | 0.68              |
| 1:A:442:ILE:O    | 1:A:446:THR:HG22 | 1.93                     | 0.68              |
| 1:A:491:GLN:CG   | 1:G:276:THR:HG22 | 2.23                     | 0.68              |
| 1:C:31:CYS:HB3   | 1:C:56:MET:CE    | 2.24                     | 0.68              |
| 2:D:461:ASN:O    | 2:D:462:ALA:C    | 2.31                     | 0.68              |
| 2:F:165:LEU:C    | 2:F:169:ILE:HG13 | 2.13                     | 0.68              |
| 2:F:292:LEU:C    | 2:F:294:ALA:H    | 1.93                     | 0.68              |
| 1:G:442:ILE:O    | 1:G:446:THR:HG22 | 1.93                     | 0.68              |
| 2:H:475:ASP:O    | 2:H:476:GLU:HG3  | 1.93                     | 0.68              |
| 2:H:566:TYR:N    | 2:H:566:TYR:HD1  | 1.92                     | 0.68              |
| 1:I:31:CYS:HB3   | 1:I:56:MET:CE    | 2.24                     | 0.68              |
| 1:I:473:VAL:HG23 | 1:I:474:GLN:H    | 1.57                     | 0.68              |
| 2:J:321:MET:C    | 2:J:323:VAL:H    | 1.96                     | 0.68              |
| 2:J:473:PHE:C    | 2:J:475:ASP:N    | 2.45                     | 0.68              |
| 1:K:572:LYS:HG3  | 1:K:573:TYR:CD1  | 2.29                     | 0.68              |
| 2:L:75:ASN:ND2   | 3:V:19:ARG:HH21  | 1.91                     | 0.68              |
| 2:L:292:LEU:C    | 2:L:294:ALA:H    | 1.93                     | 0.68              |
| 3:N:21:TYR:CE2   | 3:N:118:MET:HG2  | 2.28                     | 0.68              |
| 4:S:77:GLU:O     | 4:S:80:THR:HB    | 1.94                     | 0.68              |
| 1:A:31:CYS:HB3   | 1:A:56:MET:CE    | 2.24                     | 0.68              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:519:THR:HG22 | 1:A:521:VAL:H    | 1.59                     | 0.68              |
| 2:B:321:MET:C    | 2:B:323:VAL:H    | 1.96                     | 0.68              |
| 1:C:442:ILE:O    | 1:C:446:THR:HG22 | 1.93                     | 0.68              |
| 2:D:12:LYS:HG2   | 2:D:13:GLY:N     | 2.08                     | 0.68              |
| 2:D:223:LEU:HD13 | 2:D:259:ALA:HA   | 1.76                     | 0.68              |
| 2:F:139:LYS:HD3  | 2:F:175:MET:HE1  | 1.75                     | 0.68              |
| 2:H:473:PHE:C    | 2:H:475:ASP:N    | 2.46                     | 0.68              |
| 2:H:570:LEU:HD21 | 3:P:75:ALA:HB3   | 1.74                     | 0.68              |
| 1:I:531:MET:CE   | 1:I:581:LEU:HD11 | 2.23                     | 0.68              |
| 1:K:567:ASN:HD22 | 1:K:567:ASN:C    | 1.94                     | 0.68              |
| 3:N:401:SER:O    | 3:N:403:TYR:N    | 2.27                     | 0.68              |
| 3:O:21:TYR:CE2   | 3:O:118:MET:HG2  | 2.28                     | 0.68              |
| 3:O:415:ASN:CG   | 3:O:416:GLY:N    | 2.45                     | 0.68              |
| 4:U:77:GLU:O     | 4:U:80:THR:HB    | 1.94                     | 0.68              |
| 3:V:401:SER:O    | 3:V:403:TYR:N    | 2.27                     | 0.68              |
| 3:V:415:ASN:CG   | 3:V:416:GLY:N    | 2.45                     | 0.68              |
| 4:X:77:GLU:O     | 4:X:80:THR:HB    | 1.94                     | 0.68              |
| 2:B:104:ALA:HB1  | 2:B:136:TYR:CD2  | 2.29                     | 0.68              |
| 1:C:478:TRP:CE3  | 1:C:478:TRP:HA   | 2.29                     | 0.68              |
| 2:D:321:MET:C    | 2:D:323:VAL:H    | 1.96                     | 0.68              |
| 1:E:187:ASN:HD22 | 1:E:188:HIS:N    | 1.92                     | 0.68              |
| 2:F:71:LEU:O     | 2:F:74:MET:HB3   | 1.94                     | 0.68              |
| 1:G:97:GLN:C     | 1:G:100:HIS:HB3  | 2.14                     | 0.68              |
| 1:I:74:ILE:HG23  | 1:I:86:TYR:CE1   | 2.27                     | 0.68              |
| 1:I:313:LEU:O    | 1:I:316:PHE:HB2  | 1.94                     | 0.68              |
| 2:J:38:ILE:HG12  | 2:J:39:ALA:H     | 1.58                     | 0.68              |
| 2:J:71:LEU:O     | 2:J:74:MET:HB3   | 1.94                     | 0.68              |
| 2:J:305:ASN:HA   | 2:J:308:LEU:HD12 | 1.74                     | 0.68              |
| 2:L:12:LYS:HG2   | 2:L:13:GLY:N     | 2.09                     | 0.68              |
| 2:L:285:ALA:HB3  | 2:L:286:PRO:CD   | 2.22                     | 0.68              |
| 1:A:377:ASN:HD21 | 1:A:381:MET:HG2  | 1.58                     | 0.68              |
| 1:A:416:ARG:CD   | 1:A:454:TYR:HE1  | 2.07                     | 0.68              |
| 1:C:321:ASP:O    | 1:C:322:LYS:O    | 2.11                     | 0.68              |
| 1:C:416:ARG:CD   | 1:C:454:TYR:HE1  | 2.07                     | 0.68              |
| 1:C:519:THR:HG22 | 1:C:521:VAL:H    | 1.59                     | 0.68              |
| 2:D:38:ILE:HG12  | 2:D:39:ALA:H     | 1.57                     | 0.68              |
| 1:E:321:ASP:O    | 1:E:322:LYS:O    | 2.11                     | 0.68              |
| 1:E:531:MET:CE   | 1:E:581:LEU:HD11 | 2.23                     | 0.68              |
| 2:F:12:LYS:HG2   | 2:F:13:GLY:N     | 2.08                     | 0.68              |
| 2:F:215:THR:O    | 2:F:216:GLU:C    | 2.32                     | 0.68              |
| 1:G:187:ASN:HD22 | 1:G:188:HIS:N    | 1.92                     | 0.68              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:38:ILE:HG12  | 2:H:39:ALA:H     | 1.57                     | 0.68              |
| 1:I:416:ARG:CG   | 1:I:454:TYR:HE1  | 2.06                     | 0.68              |
| 2:L:215:THR:O    | 2:L:216:GLU:C    | 2.33                     | 0.68              |
| 3:R:401:SER:O    | 3:R:403:TYR:N    | 2.27                     | 0.68              |
| 3:V:215:ASN:HD22 | 3:V:391:GLN:N    | 1.91                     | 0.68              |
| 2:B:211:LEU:HD23 | 2:B:222:ILE:HD12 | 1.75                     | 0.68              |
| 2:B:215:THR:O    | 2:B:216:GLU:C    | 2.32                     | 0.68              |
| 2:B:566:TYR:N    | 2:B:566:TYR:HD1  | 1.92                     | 0.68              |
| 2:D:323:VAL:HG23 | 2:D:324:PHE:CD1  | 2.23                     | 0.68              |
| 2:D:522:ARG:O    | 2:D:526:TYR:CD1  | 2.43                     | 0.68              |
| 1:E:313:LEU:O    | 1:E:316:PHE:HB2  | 1.94                     | 0.68              |
| 2:F:211:LEU:HD23 | 2:F:222:ILE:HD12 | 1.75                     | 0.68              |
| 1:G:519:THR:HG22 | 1:G:521:VAL:H    | 1.59                     | 0.68              |
| 2:H:104:ALA:HB1  | 2:H:136:TYR:CD2  | 2.29                     | 0.68              |
| 2:H:295:GLU:C    | 2:H:298:PRO:HD2  | 2.14                     | 0.68              |
| 1:I:187:ASN:HD22 | 1:I:188:HIS:N    | 1.92                     | 0.68              |
| 2:J:475:ASP:O    | 2:J:476:GLU:HG3  | 1.93                     | 0.68              |
| 2:J:566:TYR:N    | 2:J:566:TYR:HD1  | 1.92                     | 0.68              |
| 1:K:558:GLU:HA   | 1:K:558:GLU:OE1  | 1.92                     | 0.68              |
| 2:L:566:TYR:N    | 2:L:566:TYR:HD1  | 1.92                     | 0.68              |
| 3:R:215:ASN:HD22 | 3:R:391:GLN:N    | 1.91                     | 0.68              |
| 4:W:79:ILE:HG23  | 4:W:80:THR:N     | 2.09                     | 0.68              |
| 1:C:97:GLN:C     | 1:C:100:HIS:HB3  | 2.14                     | 0.67              |
| 1:C:558:GLU:HA   | 1:C:558:GLU:OE1  | 1.93                     | 0.67              |
| 2:D:104:ALA:HB1  | 2:D:136:TYR:CD2  | 2.29                     | 0.67              |
| 1:E:416:ARG:CG   | 1:E:454:TYR:HE1  | 2.06                     | 0.67              |
| 1:E:531:MET:SD   | 1:E:566:TYR:CD2  | 2.88                     | 0.67              |
| 2:F:223:LEU:HD13 | 2:F:259:ALA:HA   | 1.75                     | 0.67              |
| 1:G:326:TYR:HE1  | 1:G:360:SER:HB3  | 1.57                     | 0.67              |
| 2:H:305:ASN:HA   | 2:H:308:LEU:HD12 | 1.74                     | 0.67              |
| 1:I:83:ARG:HA    | 1:I:121:LEU:HD13 | 1.76                     | 0.67              |
| 3:N:215:ASN:HD22 | 3:N:391:GLN:N    | 1.91                     | 0.67              |
| 3:P:215:ASN:HD22 | 3:P:391:GLN:N    | 1.91                     | 0.67              |
| 3:R:104:ARG:HA   | 3:R:107:PHE:HE1  | 1.57                     | 0.67              |
| 4:U:107:PHE:HD2  | 4:U:108:GLU:H    | 1.36                     | 0.67              |
| 4:W:35:LEU:O     | 4:W:39:VAL:HG23  | 1.93                     | 0.67              |
| 1:A:97:GLN:C     | 1:A:100:HIS:HB3  | 2.14                     | 0.67              |
| 1:A:489:SER:N    | 1:A:500:VAL:HG11 | 2.09                     | 0.67              |
| 1:A:503:ASP:OD2  | 2:J:393:SER:HB2  | 1.95                     | 0.67              |
| 2:B:12:LYS:HG2   | 2:B:13:GLY:N     | 2.08                     | 0.67              |
| 1:C:529:ALA:CA   | 1:C:532:LYS:HG3  | 2.24                     | 0.67              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:75:ASN:ND2   | 3:N:19:ARG:HH21  | 1.91                     | 0.67              |
| 2:D:215:THR:O    | 2:D:216:GLU:C    | 2.32                     | 0.67              |
| 2:F:75:ASN:ND2   | 3:O:19:ARG:HH21  | 1.91                     | 0.67              |
| 2:F:295:GLU:C    | 2:F:298:PRO:HD2  | 2.14                     | 0.67              |
| 2:F:570:LEU:HD23 | 3:O:77:VAL:CG2   | 2.25                     | 0.67              |
| 2:H:461:ASN:O    | 2:H:462:ALA:C    | 2.31                     | 0.67              |
| 2:H:493:LEU:C    | 2:H:495:LYS:H    | 1.94                     | 0.67              |
| 2:H:570:LEU:HD23 | 3:P:77:VAL:CG2   | 2.25                     | 0.67              |
| 1:I:558:GLU:OE1  | 1:I:558:GLU:HA   | 1.92                     | 0.67              |
| 2:J:323:VAL:HG23 | 2:J:324:PHE:CD1  | 2.23                     | 0.67              |
| 2:J:529:LEU:HG   | 2:J:537:ALA:HB2  | 1.75                     | 0.67              |
| 3:M:215:ASN:HD22 | 3:M:391:GLN:N    | 1.91                     | 0.67              |
| 3:P:276:LEU:HB3  | 3:P:301:PHE:HZ   | 1.59                     | 0.67              |
| 4:Q:30:LYS:HA    | 4:Q:30:LYS:HZ1   | 1.58                     | 0.67              |
| 4:T:79:ILE:HG23  | 4:T:80:THR:N     | 2.09                     | 0.67              |
| 4:T:86:ARG:O     | 4:T:89:GLU:HB3   | 1.94                     | 0.67              |
| 1:C:14:ILE:HD12  | 1:C:14:ILE:N     | 2.10                     | 0.67              |
| 1:C:489:SER:N    | 1:C:500:VAL:HG11 | 2.09                     | 0.67              |
| 2:D:570:LEU:HD23 | 3:N:77:VAL:CG2   | 2.25                     | 0.67              |
| 2:F:570:LEU:HD23 | 3:O:77:VAL:HG22  | 1.77                     | 0.67              |
| 1:G:67:GLN:HE21  | 1:G:93:LEU:CD2   | 2.06                     | 0.67              |
| 1:G:83:ARG:HA    | 1:G:121:LEU:HD13 | 1.77                     | 0.67              |
| 2:H:496:PRO:HB2  | 2:H:499:THR:CG2  | 2.22                     | 0.67              |
| 1:K:313:LEU:O    | 1:K:316:PHE:HB2  | 1.94                     | 0.67              |
| 1:K:531:MET:HE1  | 1:K:581:LEU:HD11 | 1.74                     | 0.67              |
| 2:L:426:GLU:HA   | 2:L:429:ILE:HD13 | 1.75                     | 0.67              |
| 2:L:441:GLU:HG2  | 2:L:442:PRO:HD2  | 1.76                     | 0.67              |
| 3:O:380:PHE:HE1  | 3:O:414:GLN:C    | 1.98                     | 0.67              |
| 4:Q:35:LEU:O     | 4:Q:39:VAL:HG23  | 1.93                     | 0.67              |
| 4:Q:107:PHE:HD2  | 4:Q:108:GLU:H    | 1.36                     | 0.67              |
| 2:B:295:GLU:C    | 2:B:298:PRO:HD2  | 2.14                     | 0.67              |
| 2:B:461:ASN:O    | 2:B:462:ALA:C    | 2.31                     | 0.67              |
| 1:E:442:ILE:O    | 1:E:446:THR:HG22 | 1.93                     | 0.67              |
| 1:E:489:SER:N    | 1:E:500:VAL:HG11 | 2.09                     | 0.67              |
| 2:F:475:ASP:O    | 2:F:476:GLU:HG3  | 1.93                     | 0.67              |
| 1:G:68:LEU:O     | 1:G:71:LEU:N     | 2.27                     | 0.67              |
| 1:G:558:GLU:HA   | 1:G:558:GLU:OE1  | 1.93                     | 0.67              |
| 2:H:321:MET:C    | 2:H:323:VAL:H    | 1.96                     | 0.67              |
| 2:J:182:ALA:O    | 2:J:183:ALA:C    | 2.32                     | 0.67              |
| 1:K:8:ARG:HD2    | 3:P:337:GLU:HB3  | 1.77                     | 0.67              |
| 1:K:421:THR:O    | 1:K:424:ARG:HB3  | 1.95                     | 0.67              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:489:SER:N    | 1:K:500:VAL:HG11 | 2.09                     | 0.67              |
| 1:K:529:ALA:CA   | 1:K:532:LYS:HG3  | 2.24                     | 0.67              |
| 2:L:295:GLU:C    | 2:L:298:PRO:HD2  | 2.14                     | 0.67              |
| 2:L:495:LYS:O    | 2:L:496:PRO:C    | 2.31                     | 0.67              |
| 2:L:529:LEU:HG   | 2:L:537:ALA:HB2  | 1.75                     | 0.67              |
| 3:O:215:ASN:HD22 | 3:O:391:GLN:N    | 1.91                     | 0.67              |
| 3:P:313:HIS:O    | 3:P:376:ILE:HG13 | 1.92                     | 0.67              |
| 3:P:384:TYR:HA   | 3:P:411:TYR:HB2  | 1.74                     | 0.67              |
| 4:Q:79:ILE:HG23  | 4:Q:80:THR:N     | 2.09                     | 0.67              |
| 4:T:107:PHE:HD2  | 4:T:108:GLU:H    | 1.36                     | 0.67              |
| 3:V:233:LEU:HD21 | 3:V:236:VAL:CG2  | 2.25                     | 0.67              |
| 2:B:323:VAL:HG23 | 2:B:324:PHE:CD1  | 2.23                     | 0.67              |
| 2:B:570:LEU:HD23 | 3:M:77:VAL:CG2   | 2.25                     | 0.67              |
| 1:C:532:LYS:HB3  | 1:C:536:ARG:HH11 | 1.60                     | 0.67              |
| 2:D:426:GLU:HA   | 2:D:429:ILE:HD13 | 1.75                     | 0.67              |
| 1:E:14:ILE:HD12  | 1:E:14:ILE:N     | 2.10                     | 0.67              |
| 2:F:104:ALA:HB1  | 2:F:136:TYR:CD2  | 2.29                     | 0.67              |
| 2:F:321:MET:C    | 2:F:323:VAL:H    | 1.96                     | 0.67              |
| 2:F:566:TYR:N    | 2:F:566:TYR:HD1  | 1.92                     | 0.67              |
| 1:G:313:LEU:O    | 1:G:316:PHE:HB2  | 1.94                     | 0.67              |
| 1:G:421:THR:O    | 1:G:424:ARG:HB3  | 1.95                     | 0.67              |
| 1:I:321:ASP:O    | 1:I:322:LYS:O    | 2.11                     | 0.67              |
| 2:J:466:LEU:HD12 | 2:J:466:LEU:N    | 2.10                     | 0.67              |
| 1:K:97:GLN:C     | 1:K:100:HIS:HB3  | 2.14                     | 0.67              |
| 1:K:478:TRP:CE3  | 1:K:478:TRP:HA   | 2.28                     | 0.67              |
| 2:L:321:MET:C    | 2:L:323:VAL:H    | 1.96                     | 0.67              |
| 2:L:461:ASN:O    | 2:L:462:ALA:C    | 2.31                     | 0.67              |
| 3:M:380:PHE:HE1  | 3:M:414:GLN:C    | 1.98                     | 0.67              |
| 3:N:233:LEU:HD21 | 3:N:236:VAL:CG2  | 2.25                     | 0.67              |
| 3:N:278:TRP:CD1  | 3:N:279:ILE:N    | 2.61                     | 0.67              |
| 3:O:32:HIS:ND1   | 3:O:52:HIS:NE2   | 2.41                     | 0.67              |
| 3:P:233:LEU:HD21 | 3:P:236:VAL:CG2  | 2.25                     | 0.67              |
| 3:P:401:SER:O    | 3:P:403:TYR:N    | 2.27                     | 0.67              |
| 3:R:376:ILE:HG23 | 3:R:420:LEU:HB2  | 1.75                     | 0.67              |
| 4:S:107:PHE:HD2  | 4:S:108:GLU:H    | 1.36                     | 0.67              |
| 4:U:86:ARG:O     | 4:U:89:GLU:HB3   | 1.94                     | 0.67              |
| 1:A:313:LEU:O    | 1:A:316:PHE:HB2  | 1.94                     | 0.67              |
| 1:A:362:LYS:O    | 1:A:365:ALA:HB3  | 1.94                     | 0.67              |
| 2:B:255:VAL:CG2  | 2:B:256:VAL:H    | 2.06                     | 0.67              |
| 2:B:475:ASP:O    | 2:B:476:GLU:HG3  | 1.93                     | 0.67              |
| 1:C:585:PRO:HG2  | 2:D:524:TYR:CZ   | 2.30                     | 0.67              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:566:TYR:N    | 2:D:566:TYR:HD1  | 1.92                     | 0.67              |
| 1:I:97:GLN:C     | 1:I:100:HIS:HB3  | 2.14                     | 0.67              |
| 1:I:362:LYS:O    | 1:I:365:ALA:HB3  | 1.95                     | 0.67              |
| 1:I:416:ARG:CD   | 1:I:454:TYR:HE1  | 2.07                     | 0.67              |
| 1:I:585:PRO:HG2  | 2:J:524:TYR:CZ   | 2.30                     | 0.67              |
| 2:J:285:ALA:HB3  | 2:J:286:PRO:CD   | 2.22                     | 0.67              |
| 2:J:496:PRO:HB2  | 2:J:499:THR:CG2  | 2.22                     | 0.67              |
| 1:K:187:ASN:HD22 | 1:K:188:HIS:N    | 1.92                     | 0.67              |
| 1:K:351:VAL:O    | 1:K:354:LEU:HG   | 1.95                     | 0.67              |
| 1:K:362:LYS:O    | 1:K:365:ALA:HB3  | 1.95                     | 0.67              |
| 1:K:531:MET:SD   | 1:K:566:TYR:CD2  | 2.88                     | 0.67              |
| 2:L:475:ASP:O    | 2:L:476:GLU:HG3  | 1.93                     | 0.67              |
| 3:O:276:LEU:HB3  | 3:O:301:PHE:HZ   | 1.59                     | 0.67              |
| 2:B:441:GLU:HG2  | 2:B:442:PRO:HD2  | 1.76                     | 0.67              |
| 2:B:466:LEU:HD12 | 2:B:466:LEU:N    | 2.10                     | 0.67              |
| 1:C:351:VAL:O    | 1:C:354:LEU:HG   | 1.95                     | 0.67              |
| 2:D:71:LEU:O     | 2:D:74:MET:HB3   | 1.94                     | 0.67              |
| 2:H:437:ASP:O    | 2:H:439:ASP:N    | 2.28                     | 0.67              |
| 1:I:521:VAL:HG13 | 1:I:522:THR:N    | 2.10                     | 0.67              |
| 2:J:426:GLU:HA   | 2:J:429:ILE:HD13 | 1.75                     | 0.67              |
| 2:L:496:PRO:HB2  | 2:L:499:THR:CG2  | 2.22                     | 0.67              |
| 3:M:401:SER:O    | 3:M:403:TYR:N    | 2.27                     | 0.67              |
| 3:O:117:LEU:HD23 | 3:O:126:THR:HG21 | 1.77                     | 0.67              |
| 4:U:79:ILE:HG23  | 4:U:80:THR:N     | 2.09                     | 0.67              |
| 2:B:71:LEU:O     | 2:B:74:MET:HB3   | 1.94                     | 0.67              |
| 1:E:351:VAL:O    | 1:E:354:LEU:HG   | 1.95                     | 0.67              |
| 1:E:478:TRP:HA   | 1:E:478:TRP:CE3  | 2.29                     | 0.67              |
| 1:G:489:SER:N    | 1:G:500:VAL:HG11 | 2.09                     | 0.67              |
| 2:H:441:GLU:HG2  | 2:H:442:PRO:HD2  | 1.76                     | 0.67              |
| 1:I:14:ILE:HD12  | 1:I:14:ILE:N     | 2.10                     | 0.67              |
| 1:I:421:THR:O    | 1:I:424:ARG:HB3  | 1.95                     | 0.67              |
| 1:I:519:THR:HG22 | 1:I:521:VAL:H    | 1.59                     | 0.67              |
| 2:J:12:LYS:HG2   | 2:J:13:GLY:N     | 2.08                     | 0.67              |
| 2:L:38:ILE:HD13  | 2:L:38:ILE:H     | 1.60                     | 0.67              |
| 3:P:380:PHE:HE1  | 3:P:414:GLN:C    | 1.98                     | 0.67              |
| 3:R:233:LEU:HD21 | 3:R:236:VAL:CG2  | 2.25                     | 0.67              |
| 4:S:79:ILE:HG23  | 4:S:80:THR:N     | 2.09                     | 0.67              |
| 2:D:495:LYS:O    | 2:D:496:PRO:C    | 2.31                     | 0.67              |
| 1:E:31:CYS:HB3   | 1:E:56:MET:CE    | 2.24                     | 0.67              |
| 1:E:359:VAL:O    | 1:E:362:LYS:HB2  | 1.95                     | 0.67              |
| 1:E:531:MET:HE2  | 1:E:581:LEU:HD11 | 1.77                     | 0.67              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:585:PRO:HG2  | 2:F:524:TYR:CZ   | 2.30                     | 0.67              |
| 2:F:255:VAL:HG23 | 2:F:256:VAL:N    | 2.05                     | 0.67              |
| 2:F:437:ASP:O    | 2:F:439:ASP:N    | 2.28                     | 0.67              |
| 1:G:31:CYS:HB3   | 1:G:56:MET:CE    | 2.24                     | 0.67              |
| 2:H:182:ALA:O    | 2:H:183:ALA:C    | 2.32                     | 0.67              |
| 2:H:570:LEU:HD23 | 3:P:77:VAL:HG22  | 1.77                     | 0.67              |
| 1:I:68:LEU:O     | 1:I:71:LEU:N     | 2.27                     | 0.67              |
| 1:I:478:TRP:HA   | 1:I:478:TRP:CE3  | 2.29                     | 0.67              |
| 1:I:529:ALA:CA   | 1:I:532:LYS:HG3  | 2.24                     | 0.67              |
| 2:J:441:GLU:HG2  | 2:J:442:PRO:HD2  | 1.76                     | 0.67              |
| 2:J:570:LEU:HD23 | 3:R:77:VAL:CG2   | 2.25                     | 0.67              |
| 1:K:359:VAL:O    | 1:K:362:LYS:HB2  | 1.95                     | 0.67              |
| 2:L:437:ASP:O    | 2:L:439:ASP:N    | 2.28                     | 0.67              |
| 3:M:233:LEU:HD21 | 3:M:236:VAL:CG2  | 2.25                     | 0.67              |
| 3:N:117:LEU:HD23 | 3:N:126:THR:HG21 | 1.77                     | 0.67              |
| 3:P:376:ILE:HG23 | 3:P:420:LEU:HB2  | 1.75                     | 0.67              |
| 1:A:531:MET:SD   | 1:A:566:TYR:CD2  | 2.88                     | 0.67              |
| 1:C:212:PHE:HE2  | 1:C:263:SER:HB3  | 1.60                     | 0.67              |
| 1:C:567:ASN:C    | 1:C:567:ASN:ND2  | 2.48                     | 0.67              |
| 2:D:295:GLU:C    | 2:D:298:PRO:HD2  | 2.14                     | 0.67              |
| 2:D:441:GLU:HG2  | 2:D:442:PRO:HD2  | 1.76                     | 0.67              |
| 1:E:13:THR:HG22  | 1:E:26:MET:HE1   | 1.77                     | 0.67              |
| 1:E:83:ARG:HA    | 1:E:121:LEU:HD13 | 1.76                     | 0.67              |
| 2:F:466:LEU:HD12 | 2:F:466:LEU:N    | 2.10                     | 0.67              |
| 2:H:223:LEU:HD13 | 2:H:259:ALA:HA   | 1.75                     | 0.67              |
| 2:H:255:VAL:CG2  | 2:H:256:VAL:H    | 2.06                     | 0.67              |
| 1:I:315:ARG:HH11 | 1:I:315:ARG:HG3  | 1.60                     | 0.67              |
| 2:J:295:GLU:C    | 2:J:298:PRO:HD2  | 2.14                     | 0.67              |
| 1:K:67:GLN:HE21  | 1:K:93:LEU:CD2   | 2.06                     | 0.67              |
| 2:L:71:LEU:O     | 2:L:74:MET:HB3   | 1.94                     | 0.67              |
| 4:Q:30:LYS:HZ2   | 4:Q:30:LYS:HB2   | 1.59                     | 0.67              |
| 4:T:77:GLU:O     | 4:T:80:THR:HB    | 1.94                     | 0.67              |
| 4:W:86:ARG:O     | 4:W:89:GLU:HB3   | 1.94                     | 0.67              |
| 4:X:86:ARG:O     | 4:X:89:GLU:HB3   | 1.94                     | 0.67              |
| 1:A:67:GLN:HE21  | 1:A:93:LEU:CD2   | 2.06                     | 0.66              |
| 1:A:83:ARG:HA    | 1:A:121:LEU:HD13 | 1.77                     | 0.66              |
| 1:A:421:THR:O    | 1:A:424:ARG:HB3  | 1.95                     | 0.66              |
| 1:A:529:ALA:CA   | 1:A:532:LYS:HG3  | 2.24                     | 0.66              |
| 2:B:570:LEU:HD23 | 3:M:77:VAL:HG22  | 1.77                     | 0.66              |
| 1:G:351:VAL:O    | 1:G:354:LEU:HG   | 1.95                     | 0.66              |
| 1:G:416:ARG:CD   | 1:G:454:TYR:HE1  | 2.07                     | 0.66              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:521:VAL:HG13 | 1:G:522:THR:N    | 2.10                     | 0.66              |
| 1:G:531:MET:SD   | 1:G:566:TYR:CD2  | 2.88                     | 0.66              |
| 2:H:184:LEU:HA   | 2:H:187:ILE:HD12 | 1.77                     | 0.66              |
| 2:H:426:GLU:HA   | 2:H:429:ILE:HD13 | 1.75                     | 0.66              |
| 1:I:351:VAL:O    | 1:I:354:LEU:HG   | 1.95                     | 0.66              |
| 1:I:531:MET:SD   | 1:I:566:TYR:CD2  | 2.88                     | 0.66              |
| 2:J:211:LEU:HD23 | 2:J:222:ILE:HD12 | 1.75                     | 0.66              |
| 2:J:215:THR:O    | 2:J:216:GLU:C    | 2.32                     | 0.66              |
| 2:J:223:LEU:HD13 | 2:J:259:ALA:HA   | 1.75                     | 0.66              |
| 1:K:14:ILE:HD12  | 1:K:14:ILE:N     | 2.10                     | 0.66              |
| 1:K:68:LEU:O     | 1:K:71:LEU:N     | 2.27                     | 0.66              |
| 1:K:83:ARG:HA    | 1:K:121:LEU:HD13 | 1.77                     | 0.66              |
| 1:K:519:THR:HG22 | 1:K:521:VAL:H    | 1.59                     | 0.66              |
| 1:K:521:VAL:HG13 | 1:K:522:THR:N    | 2.10                     | 0.66              |
| 3:O:233:LEU:HD21 | 3:O:236:VAL:CG2  | 2.25                     | 0.66              |
| 1:A:187:ASN:HD22 | 1:A:188:HIS:N    | 1.92                     | 0.66              |
| 1:A:567:ASN:C    | 1:A:567:ASN:ND2  | 2.48                     | 0.66              |
| 2:B:174:PRO:O    | 2:B:176:VAL:N    | 2.29                     | 0.66              |
| 2:B:285:ALA:HB3  | 2:B:286:PRO:CD   | 2.22                     | 0.66              |
| 1:C:13:THR:HG22  | 1:C:26:MET:HE1   | 1.77                     | 0.66              |
| 1:C:531:MET:SD   | 1:C:566:TYR:CD2  | 2.88                     | 0.66              |
| 2:D:182:ALA:O    | 2:D:183:ALA:C    | 2.32                     | 0.66              |
| 1:E:68:LEU:O     | 1:E:71:LEU:N     | 2.27                     | 0.66              |
| 1:E:315:ARG:HH11 | 1:E:315:ARG:HG3  | 1.60                     | 0.66              |
| 1:E:362:LYS:O    | 1:E:365:ALA:HB3  | 1.95                     | 0.66              |
| 1:E:519:THR:HG22 | 1:E:521:VAL:H    | 1.59                     | 0.66              |
| 1:E:529:ALA:CA   | 1:E:532:LYS:HG3  | 2.24                     | 0.66              |
| 2:F:473:PHE:O    | 2:F:475:ASP:N    | 2.29                     | 0.66              |
| 1:G:362:LYS:O    | 1:G:365:ALA:HB3  | 1.94                     | 0.66              |
| 2:H:12:LYS:HG2   | 2:H:13:GLY:N     | 2.09                     | 0.66              |
| 2:H:491:LEU:HD13 | 2:H:499:THR:CG2  | 2.26                     | 0.66              |
| 2:J:437:ASP:O    | 2:J:439:ASP:N    | 2.28                     | 0.66              |
| 1:K:567:ASN:C    | 1:K:567:ASN:ND2  | 2.48                     | 0.66              |
| 3:M:419:GLN:O    | 3:M:420:LEU:HD23 | 1.95                     | 0.66              |
| 3:V:419:GLN:O    | 3:V:420:LEU:HD23 | 1.95                     | 0.66              |
| 1:A:68:LEU:O     | 1:A:71:LEU:N     | 2.27                     | 0.66              |
| 1:C:359:VAL:O    | 1:C:362:LYS:HB2  | 1.95                     | 0.66              |
| 2:F:123:CYS:O    | 2:F:126:LEU:HB3  | 1.96                     | 0.66              |
| 1:G:14:ILE:HD12  | 1:G:14:ILE:N     | 2.10                     | 0.66              |
| 1:G:74:ILE:HG23  | 1:G:86:TYR:CE1   | 2.27                     | 0.66              |
| 1:G:359:VAL:O    | 1:G:362:LYS:HB2  | 1.95                     | 0.66              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:416:ARG:CG   | 1:G:454:TYR:HE1  | 2.06                     | 0.66              |
| 2:H:38:ILE:HD13  | 2:H:38:ILE:H     | 1.60                     | 0.66              |
| 2:H:466:LEU:HD12 | 2:H:466:LEU:N    | 2.10                     | 0.66              |
| 2:H:495:LYS:O    | 2:H:496:PRO:C    | 2.31                     | 0.66              |
| 1:I:359:VAL:O    | 1:I:362:LYS:HB2  | 1.95                     | 0.66              |
| 2:J:104:ALA:HB1  | 2:J:136:TYR:CD2  | 2.29                     | 0.66              |
| 2:L:466:LEU:HD12 | 2:L:466:LEU:N    | 2.10                     | 0.66              |
| 3:O:279:ILE:HG22 | 3:O:280:GLU:N    | 2.10                     | 0.66              |
| 4:Q:86:ARG:O     | 4:Q:89:GLU:HB3   | 1.94                     | 0.66              |
| 3:R:117:LEU:HD23 | 3:R:126:THR:HG21 | 1.77                     | 0.66              |
| 3:R:245:SER:HB3  | 3:R:252:THR:HB   | 1.77                     | 0.66              |
| 3:R:271:THR:O    | 3:R:273:VAL:HG23 | 1.96                     | 0.66              |
| 4:W:77:GLU:O     | 4:W:80:THR:HB    | 1.94                     | 0.66              |
| 1:A:315:ARG:HH11 | 1:A:315:ARG:HG3  | 1.60                     | 0.66              |
| 1:A:351:VAL:O    | 1:A:354:LEU:HG   | 1.95                     | 0.66              |
| 1:A:532:LYS:HB3  | 1:A:536:ARG:HH11 | 1.60                     | 0.66              |
| 2:B:223:LEU:HD13 | 2:B:259:ALA:HA   | 1.76                     | 0.66              |
| 2:B:473:PHE:O    | 2:B:475:ASP:N    | 2.29                     | 0.66              |
| 2:B:491:LEU:HD13 | 2:B:499:THR:CG2  | 2.25                     | 0.66              |
| 1:C:67:GLN:HE21  | 1:C:93:LEU:CD2   | 2.06                     | 0.66              |
| 1:C:187:ASN:HD22 | 1:C:188:HIS:N    | 1.92                     | 0.66              |
| 1:C:315:ARG:HG3  | 1:C:315:ARG:HH11 | 1.60                     | 0.66              |
| 2:D:437:ASP:O    | 2:D:439:ASP:N    | 2.28                     | 0.66              |
| 2:D:473:PHE:O    | 2:D:475:ASP:N    | 2.29                     | 0.66              |
| 2:D:570:LEU:HD23 | 3:N:77:VAL:HG22  | 1.77                     | 0.66              |
| 1:G:438:VAL:HB   | 1:G:439:PRO:CD   | 2.23                     | 0.66              |
| 2:H:123:CYS:O    | 2:H:126:LEU:HB3  | 1.96                     | 0.66              |
| 1:I:212:PHE:HE2  | 1:I:263:SER:HB3  | 1.60                     | 0.66              |
| 2:J:184:LEU:HA   | 2:J:187:ILE:HD12 | 1.77                     | 0.66              |
| 2:J:491:LEU:HD13 | 2:J:499:THR:CG2  | 2.25                     | 0.66              |
| 2:L:570:LEU:HD23 | 3:V:77:VAL:CG2   | 2.25                     | 0.66              |
| 4:S:86:ARG:O     | 4:S:89:GLU:HB3   | 1.94                     | 0.66              |
| 4:T:86:ARG:O     | 4:T:90:LEU:HD23  | 1.96                     | 0.66              |
| 3:V:271:THR:O    | 3:V:273:VAL:HG23 | 1.96                     | 0.66              |
| 4:X:79:ILE:HG23  | 4:X:80:THR:N     | 2.09                     | 0.66              |
| 2:B:437:ASP:O    | 2:B:439:ASP:N    | 2.28                     | 0.66              |
| 2:D:223:LEU:HA   | 2:D:226:LEU:HG   | 1.77                     | 0.66              |
| 1:E:521:VAL:HG13 | 1:E:522:THR:N    | 2.10                     | 0.66              |
| 1:I:567:ASN:C    | 1:I:567:ASN:ND2  | 2.48                     | 0.66              |
| 2:J:223:LEU:HA   | 2:J:226:LEU:HG   | 1.78                     | 0.66              |
| 1:K:430:GLY:O    | 1:K:432:TYR:N    | 2.29                     | 0.66              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:P:117:LEU:HD23 | 3:P:126:THR:HG21 | 1.77                     | 0.66              |
| 3:P:419:GLN:O    | 3:P:420:LEU:HD23 | 1.95                     | 0.66              |
| 3:R:419:GLN:O    | 3:R:420:LEU:HD23 | 1.95                     | 0.66              |
| 3:V:380:PHE:HE1  | 3:V:414:GLN:C    | 1.98                     | 0.66              |
| 1:A:14:ILE:HD12  | 1:A:14:ILE:N     | 2.10                     | 0.66              |
| 1:C:68:LEU:O     | 1:C:71:LEU:N     | 2.27                     | 0.66              |
| 1:E:74:ILE:HG23  | 1:E:86:TYR:CE1   | 2.27                     | 0.66              |
| 2:F:144:CYS:O    | 2:F:147:LYS:N    | 2.29                     | 0.66              |
| 2:F:495:LYS:O    | 2:F:496:PRO:C    | 2.31                     | 0.66              |
| 2:H:223:LEU:HA   | 2:H:226:LEU:HG   | 1.77                     | 0.66              |
| 2:J:570:LEU:HD23 | 3:R:77:VAL:HG22  | 1.77                     | 0.66              |
| 1:K:416:ARG:CD   | 1:K:454:TYR:HE1  | 2.07                     | 0.66              |
| 2:L:457:GLU:HG3  | 2:L:458:ARG:N    | 2.11                     | 0.66              |
| 3:N:419:GLN:O    | 3:N:420:LEU:HD23 | 1.95                     | 0.66              |
| 3:P:245:SER:HB3  | 3:P:252:THR:HB   | 1.77                     | 0.66              |
| 4:Q:50:LEU:HD23  | 4:Q:51:GLU:C     | 2.16                     | 0.66              |
| 4:U:50:LEU:HD23  | 4:U:51:GLU:C     | 2.16                     | 0.66              |
| 4:W:50:LEU:HD23  | 4:W:51:GLU:C     | 2.16                     | 0.66              |
| 2:B:182:ALA:O    | 2:B:183:ALA:C    | 2.32                     | 0.66              |
| 1:C:83:ARG:HA    | 1:C:121:LEU:HD13 | 1.77                     | 0.66              |
| 1:C:362:LYS:O    | 1:C:365:ALA:HB3  | 1.95                     | 0.66              |
| 1:C:421:THR:O    | 1:C:424:ARG:HB3  | 1.95                     | 0.66              |
| 1:C:430:GLY:O    | 1:C:432:TYR:N    | 2.29                     | 0.66              |
| 1:C:521:VAL:HG13 | 1:C:522:THR:N    | 2.10                     | 0.66              |
| 2:D:38:ILE:HD13  | 2:D:38:ILE:H     | 1.60                     | 0.66              |
| 1:E:283:ASN:O    | 1:E:284:VAL:C    | 2.34                     | 0.66              |
| 2:F:38:ILE:H     | 2:F:38:ILE:HD13  | 1.60                     | 0.66              |
| 1:G:283:ASN:O    | 1:G:284:VAL:C    | 2.34                     | 0.66              |
| 1:G:315:ARG:HG3  | 1:G:315:ARG:HH11 | 1.60                     | 0.66              |
| 2:H:433:CYS:O    | 2:H:434:GLU:C    | 2.34                     | 0.66              |
| 1:K:585:PRO:HG2  | 2:L:524:TYR:CZ   | 2.30                     | 0.66              |
| 2:L:144:CYS:O    | 2:L:147:LYS:N    | 2.29                     | 0.66              |
| 3:N:380:PHE:HE1  | 3:N:414:GLN:C    | 1.98                     | 0.66              |
| 4:Q:77:GLU:O     | 4:Q:80:THR:HB    | 1.94                     | 0.66              |
| 4:U:86:ARG:O     | 4:U:90:LEU:HD23  | 1.96                     | 0.66              |
| 2:B:144:CYS:O    | 2:B:147:LYS:N    | 2.29                     | 0.66              |
| 2:B:298:PRO:O    | 2:B:302:PRO:CD   | 2.40                     | 0.66              |
| 2:D:174:PRO:O    | 2:D:176:VAL:N    | 2.28                     | 0.66              |
| 2:D:433:CYS:O    | 2:D:434:GLU:C    | 2.34                     | 0.66              |
| 2:D:470:LEU:O    | 2:D:472:GLY:N    | 2.29                     | 0.66              |
| 2:D:491:LEU:HD13 | 2:D:499:THR:CG2  | 2.25                     | 0.66              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:368:LEU:O    | 1:E:369:SER:C    | 2.34                     | 0.66              |
| 2:F:174:PRO:O    | 2:F:176:VAL:N    | 2.28                     | 0.66              |
| 2:H:473:PHE:O    | 2:H:475:ASP:N    | 2.29                     | 0.66              |
| 1:I:532:LYS:HB3  | 1:I:536:ARG:HH11 | 1.60                     | 0.66              |
| 2:J:495:LYS:O    | 2:J:496:PRO:C    | 2.31                     | 0.66              |
| 1:K:315:ARG:HG3  | 1:K:315:ARG:HH11 | 1.60                     | 0.66              |
| 3:M:276:LEU:HB3  | 3:M:301:PHE:HZ   | 1.59                     | 0.66              |
| 3:O:271:THR:O    | 3:O:273:VAL:HG23 | 1.96                     | 0.66              |
| 3:V:184:SER:HA   | 3:V:421:ARG:HB2  | 1.78                     | 0.66              |
| 2:F:441:GLU:HG2  | 2:F:442:PRO:HD2  | 1.76                     | 0.66              |
| 1:G:430:GLY:O    | 1:G:432:TYR:N    | 2.29                     | 0.66              |
| 2:J:368:ASP:O    | 2:J:371:ARG:HB3  | 1.96                     | 0.66              |
| 2:J:470:LEU:O    | 2:J:472:GLY:N    | 2.29                     | 0.66              |
| 2:L:341:ILE:O    | 2:L:342:MET:C    | 2.34                     | 0.66              |
| 2:L:491:LEU:HD13 | 2:L:499:THR:CG2  | 2.26                     | 0.66              |
| 3:M:117:LEU:HD23 | 3:M:126:THR:HG21 | 1.77                     | 0.66              |
| 3:P:271:THR:O    | 3:P:273:VAL:HG23 | 1.96                     | 0.66              |
| 4:T:76:ASN:C     | 4:T:76:ASN:ND2   | 2.44                     | 0.66              |
| 4:X:86:ARG:O     | 4:X:90:LEU:HD23  | 1.96                     | 0.66              |
| 1:A:283:ASN:O    | 1:A:284:VAL:C    | 2.34                     | 0.66              |
| 1:A:585:PRO:HG2  | 2:B:524:TYR:CZ   | 2.30                     | 0.66              |
| 2:B:368:ASP:O    | 2:B:371:ARG:HB3  | 1.96                     | 0.66              |
| 1:C:46:ARG:HG2   | 1:C:73:LEU:HD21  | 1.78                     | 0.66              |
| 1:C:97:GLN:CA    | 1:C:100:HIS:HB3  | 2.26                     | 0.66              |
| 1:C:441:LEU:HD23 | 1:C:441:LEU:C    | 2.16                     | 0.66              |
| 2:D:341:ILE:O    | 2:D:342:MET:C    | 2.34                     | 0.66              |
| 2:F:238:GLN:O    | 2:F:242:GLU:HB2  | 1.96                     | 0.66              |
| 1:G:212:PHE:HE2  | 1:G:263:SER:HB3  | 1.61                     | 0.66              |
| 2:H:174:PRO:O    | 2:H:176:VAL:N    | 2.29                     | 0.66              |
| 1:I:283:ASN:O    | 1:I:284:VAL:C    | 2.34                     | 0.66              |
| 2:J:174:PRO:O    | 2:J:176:VAL:N    | 2.29                     | 0.66              |
| 2:J:457:GLU:HG3  | 2:J:458:ARG:N    | 2.11                     | 0.66              |
| 2:J:473:PHE:O    | 2:J:475:ASP:N    | 2.29                     | 0.66              |
| 1:K:441:LEU:HD23 | 1:K:441:LEU:C    | 2.16                     | 0.66              |
| 3:N:276:LEU:HB3  | 3:N:301:PHE:HZ   | 1.59                     | 0.66              |
| 3:P:184:SER:HA   | 3:P:421:ARG:HB2  | 1.78                     | 0.66              |
| 3:R:184:SER:HA   | 3:R:421:ARG:HB2  | 1.78                     | 0.66              |
| 3:V:117:LEU:CD2  | 3:V:126:THR:HG21 | 2.26                     | 0.66              |
| 3:V:278:TRP:CD1  | 3:V:279:ILE:N    | 2.61                     | 0.66              |
| 1:A:368:LEU:O    | 1:A:369:SER:C    | 2.35                     | 0.65              |
| 2:B:38:ILE:H     | 2:B:38:ILE:HD13  | 1.60                     | 0.65              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:341:ILE:O    | 2:B:342:MET:C    | 2.34                     | 0.65              |
| 2:D:368:ASP:O    | 2:D:371:ARG:HB3  | 1.96                     | 0.65              |
| 1:E:212:PHE:HE2  | 1:E:263:SER:HB3  | 1.60                     | 0.65              |
| 1:E:421:THR:O    | 1:E:424:ARG:HB3  | 1.95                     | 0.65              |
| 2:F:433:CYS:O    | 2:F:434:GLU:C    | 2.34                     | 0.65              |
| 2:F:470:LEU:O    | 2:F:472:GLY:N    | 2.29                     | 0.65              |
| 1:G:396:PHE:O    | 1:G:397:LYS:C    | 2.35                     | 0.65              |
| 1:G:585:PRO:HG2  | 2:H:524:TYR:CZ   | 2.30                     | 0.65              |
| 2:H:60:THR:CG2   | 2:H:61:ASP:H     | 2.05                     | 0.65              |
| 2:H:215:THR:O    | 2:H:216:GLU:C    | 2.32                     | 0.65              |
| 2:H:238:GLN:O    | 2:H:242:GLU:HB2  | 1.96                     | 0.65              |
| 1:I:430:GLY:O    | 1:I:432:TYR:N    | 2.29                     | 0.65              |
| 2:L:123:CYS:O    | 2:L:126:LEU:HB3  | 1.96                     | 0.65              |
| 2:L:184:LEU:HA   | 2:L:187:ILE:HD12 | 1.77                     | 0.65              |
| 2:L:223:LEU:HA   | 2:L:226:LEU:HG   | 1.77                     | 0.65              |
| 2:L:368:ASP:O    | 2:L:371:ARG:HB3  | 1.96                     | 0.65              |
| 2:L:470:LEU:O    | 2:L:472:GLY:N    | 2.29                     | 0.65              |
| 3:M:245:SER:HB3  | 3:M:252:THR:HB   | 1.77                     | 0.65              |
| 3:M:416:GLY:C    | 3:M:418:TYR:H    | 2.00                     | 0.65              |
| 3:N:184:SER:HA   | 3:N:421:ARG:HB2  | 1.78                     | 0.65              |
| 3:O:117:LEU:CD2  | 3:O:126:THR:HG21 | 2.27                     | 0.65              |
| 3:R:416:GLY:C    | 3:R:418:TYR:H    | 1.99                     | 0.65              |
| 4:W:86:ARG:O     | 4:W:90:LEU:HD23  | 1.96                     | 0.65              |
| 1:A:13:THR:HG22  | 1:A:26:MET:CE    | 2.27                     | 0.65              |
| 1:A:521:VAL:HG13 | 1:A:522:THR:N    | 2.10                     | 0.65              |
| 2:D:298:PRO:O    | 2:D:302:PRO:CD   | 2.40                     | 0.65              |
| 1:E:396:PHE:O    | 1:E:397:LYS:C    | 2.35                     | 0.65              |
| 2:F:298:PRO:O    | 2:F:302:PRO:CD   | 2.40                     | 0.65              |
| 1:G:46:ARG:HG2   | 1:G:73:LEU:HD21  | 1.78                     | 0.65              |
| 1:G:567:ASN:C    | 1:G:567:ASN:ND2  | 2.48                     | 0.65              |
| 2:H:144:CYS:O    | 2:H:147:LYS:N    | 2.29                     | 0.65              |
| 2:H:341:ILE:O    | 2:H:342:MET:C    | 2.34                     | 0.65              |
| 1:K:97:GLN:CA    | 1:K:100:HIS:HB3  | 2.26                     | 0.65              |
| 2:L:104:ALA:HB1  | 2:L:136:TYR:CD2  | 2.29                     | 0.65              |
| 2:L:299:GLN:C    | 2:L:302:PRO:HG2  | 2.17                     | 0.65              |
| 3:N:414:GLN:O    | 3:N:415:ASN:HB3  | 1.95                     | 0.65              |
| 3:O:184:SER:HA   | 3:O:421:ARG:HB2  | 1.78                     | 0.65              |
| 3:O:414:GLN:O    | 3:O:415:ASN:HB3  | 1.95                     | 0.65              |
| 3:R:117:LEU:CD2  | 3:R:126:THR:HG21 | 2.27                     | 0.65              |
| 3:R:380:PHE:HE1  | 3:R:414:GLN:C    | 1.98                     | 0.65              |
| 4:U:117:PHE:O    | 4:U:124:GLN:HG2  | 1.97                     | 0.65              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:V:117:LEU:HD23 | 3:V:126:THR:HG21 | 1.77                     | 0.65              |
| 3:V:279:ILE:HG22 | 3:V:280:GLU:N    | 2.10                     | 0.65              |
| 1:A:359:VAL:O    | 1:A:362:LYS:HB2  | 1.95                     | 0.65              |
| 1:A:546:LYS:O    | 1:A:550:ILE:HG13 | 1.96                     | 0.65              |
| 2:B:123:CYS:O    | 2:B:126:LEU:HB3  | 1.96                     | 0.65              |
| 2:B:495:LYS:O    | 2:B:496:PRO:C    | 2.31                     | 0.65              |
| 1:C:396:PHE:O    | 1:C:397:LYS:C    | 2.35                     | 0.65              |
| 1:E:404:ILE:O    | 1:E:405:PHE:C    | 2.35                     | 0.65              |
| 2:F:215:THR:HB   | 2:F:218:ALA:HB2  | 1.79                     | 0.65              |
| 1:G:5:ILE:HB     | 1:G:52:LYS:HZ3   | 1.62                     | 0.65              |
| 1:G:13:THR:HG22  | 1:G:26:MET:CE    | 2.27                     | 0.65              |
| 1:G:364:ARG:HH11 | 1:G:364:ARG:HG2  | 1.61                     | 0.65              |
| 1:G:529:ALA:CA   | 1:G:532:LYS:HG3  | 2.24                     | 0.65              |
| 2:H:299:GLN:C    | 2:H:302:PRO:HG2  | 2.17                     | 0.65              |
| 2:H:473:PHE:CG   | 2:H:474:HIS:N    | 2.64                     | 0.65              |
| 1:I:368:LEU:O    | 1:I:369:SER:C    | 2.35                     | 0.65              |
| 1:I:441:LEU:HD23 | 1:I:441:LEU:C    | 2.17                     | 0.65              |
| 2:J:144:CYS:O    | 2:J:147:LYS:N    | 2.29                     | 0.65              |
| 2:L:35:LYS:CA    | 2:L:38:ILE:HD11  | 2.22                     | 0.65              |
| 2:L:555:ILE:CG2  | 2:L:556:GLU:N    | 2.60                     | 0.65              |
| 3:N:279:ILE:HG22 | 3:N:280:GLU:N    | 2.10                     | 0.65              |
| 3:O:416:GLY:C    | 3:O:418:TYR:H    | 2.00                     | 0.65              |
| 3:P:117:LEU:CD2  | 3:P:126:THR:HG21 | 2.27                     | 0.65              |
| 3:P:278:TRP:CD1  | 3:P:279:ILE:N    | 2.61                     | 0.65              |
| 3:P:414:GLN:O    | 3:P:415:ASN:HB3  | 1.95                     | 0.65              |
| 3:R:279:ILE:HG22 | 3:R:280:GLU:N    | 2.10                     | 0.65              |
| 4:S:86:ARG:O     | 4:S:90:LEU:HD23  | 1.96                     | 0.65              |
| 4:X:117:PHE:O    | 4:X:124:GLN:HG2  | 1.97                     | 0.65              |
| 1:A:74:ILE:HG23  | 1:A:86:TYR:CE1   | 2.27                     | 0.65              |
| 1:A:430:GLY:O    | 1:A:432:TYR:N    | 2.29                     | 0.65              |
| 2:D:496:PRO:HB2  | 2:D:499:THR:CG2  | 2.22                     | 0.65              |
| 1:E:97:GLN:CA    | 1:E:100:HIS:HB3  | 2.26                     | 0.65              |
| 1:E:567:ASN:C    | 1:E:567:ASN:ND2  | 2.48                     | 0.65              |
| 2:F:144:CYS:O    | 2:F:145:VAL:C    | 2.35                     | 0.65              |
| 2:F:496:PRO:HB2  | 2:F:499:THR:CG2  | 2.22                     | 0.65              |
| 2:H:215:THR:HB   | 2:H:218:ALA:HB2  | 1.79                     | 0.65              |
| 2:H:470:LEU:O    | 2:H:472:GLY:N    | 2.29                     | 0.65              |
| 1:I:46:ARG:HG2   | 1:I:73:LEU:HD21  | 1.78                     | 0.65              |
| 2:J:473:PHE:CG   | 2:J:474:HIS:N    | 2.64                     | 0.65              |
| 1:K:13:THR:HG22  | 1:K:26:MET:CE    | 2.27                     | 0.65              |
| 1:K:74:ILE:HG23  | 1:K:86:TYR:CE1   | 2.27                     | 0.65              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:N:22:ARG:HG2   | 3:N:23:GLY:H     | 1.62                     | 0.65              |
| 3:O:8:VAL:HG11   | 3:O:103:ILE:HD13 | 1.78                     | 0.65              |
| 3:O:419:GLN:O    | 3:O:420:LEU:HD23 | 1.95                     | 0.65              |
| 4:S:50:LEU:HD23  | 4:S:51:GLU:C     | 2.16                     | 0.65              |
| 4:T:50:LEU:HD23  | 4:T:51:GLU:C     | 2.16                     | 0.65              |
| 3:V:321:ASP:OD1  | 3:V:361:GLY:N    | 2.30                     | 0.65              |
| 4:X:50:LEU:HD23  | 4:X:51:GLU:C     | 2.16                     | 0.65              |
| 2:B:223:LEU:HA   | 2:B:226:LEU:HG   | 1.77                     | 0.65              |
| 2:B:555:ILE:CG2  | 2:B:556:GLU:N    | 2.60                     | 0.65              |
| 2:D:457:GLU:HG3  | 2:D:458:ARG:N    | 2.11                     | 0.65              |
| 2:F:223:LEU:HA   | 2:F:226:LEU:HG   | 1.77                     | 0.65              |
| 2:H:323:VAL:HG23 | 2:H:324:PHE:CD1  | 2.23                     | 0.65              |
| 2:H:368:ASP:O    | 2:H:371:ARG:HB3  | 1.96                     | 0.65              |
| 2:H:370:VAL:O    | 2:H:373:ALA:HB3  | 1.97                     | 0.65              |
| 2:J:123:CYS:O    | 2:J:126:LEU:HB3  | 1.96                     | 0.65              |
| 2:J:203:SER:O    | 2:J:207:LEU:HG   | 1.97                     | 0.65              |
| 2:L:426:GLU:O    | 2:L:428:VAL:N    | 2.30                     | 0.65              |
| 2:L:473:PHE:CG   | 2:L:474:HIS:N    | 2.64                     | 0.65              |
| 2:L:473:PHE:O    | 2:L:475:ASP:N    | 2.29                     | 0.65              |
| 2:L:566:TYR:N    | 2:L:566:TYR:CD1  | 2.60                     | 0.65              |
| 3:M:184:SER:HA   | 3:M:421:ARG:HB2  | 1.78                     | 0.65              |
| 3:N:8:VAL:HG11   | 3:N:103:ILE:HD13 | 1.78                     | 0.65              |
| 3:N:416:GLY:C    | 3:N:418:TYR:H    | 1.99                     | 0.65              |
| 4:Q:86:ARG:O     | 4:Q:90:LEU:HD23  | 1.96                     | 0.65              |
| 3:V:24:ASP:C     | 3:V:26:ASP:H     | 2.00                     | 0.65              |
| 3:V:276:LEU:HB3  | 3:V:301:PHE:HZ   | 1.59                     | 0.65              |
| 2:B:426:GLU:O    | 2:B:428:VAL:N    | 2.30                     | 0.65              |
| 2:B:470:LEU:O    | 2:B:472:GLY:N    | 2.29                     | 0.65              |
| 1:C:146:LEU:O    | 1:C:146:LEU:HD23 | 1.97                     | 0.65              |
| 1:C:546:LYS:O    | 1:C:550:ILE:HG13 | 1.97                     | 0.65              |
| 1:E:283:ASN:OD1  | 1:E:284:VAL:N    | 2.30                     | 0.65              |
| 1:E:430:GLY:O    | 1:E:432:TYR:N    | 2.29                     | 0.65              |
| 2:F:299:GLN:C    | 2:F:302:PRO:HG2  | 2.17                     | 0.65              |
| 2:F:368:ASP:O    | 2:F:371:ARG:HB3  | 1.96                     | 0.65              |
| 2:H:55:VAL:O     | 2:H:58:MET:N     | 2.30                     | 0.65              |
| 1:I:13:THR:HG22  | 1:I:26:MET:CE    | 2.27                     | 0.65              |
| 2:J:55:VAL:O     | 2:J:58:MET:N     | 2.30                     | 0.65              |
| 1:K:283:ASN:OD1  | 1:K:284:VAL:N    | 2.30                     | 0.65              |
| 1:K:364:ARG:HH11 | 1:K:364:ARG:HG2  | 1.61                     | 0.65              |
| 1:K:368:LEU:O    | 1:K:369:SER:C    | 2.34                     | 0.65              |
| 1:K:532:LYS:HB3  | 1:K:536:ARG:HH11 | 1.60                     | 0.65              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:V:245:SER:HB3  | 3:V:252:THR:HB   | 1.77                     | 0.65              |
| 4:W:71:ILE:HG21  | 4:W:75:ASP:HB3   | 1.79                     | 0.65              |
| 1:A:531:MET:HE2  | 1:A:581:LEU:HD11 | 1.77                     | 0.65              |
| 2:B:184:LEU:HA   | 2:B:187:ILE:HD12 | 1.77                     | 0.65              |
| 2:B:370:VAL:O    | 2:B:373:ALA:HB3  | 1.97                     | 0.65              |
| 2:B:405:TYR:CD1  | 2:B:406:VAL:N    | 2.65                     | 0.65              |
| 1:C:364:ARG:HH11 | 1:C:364:ARG:HG2  | 1.61                     | 0.65              |
| 2:D:144:CYS:O    | 2:D:145:VAL:C    | 2.35                     | 0.65              |
| 1:E:46:ARG:HG2   | 1:E:73:LEU:HD21  | 1.78                     | 0.65              |
| 2:F:323:VAL:HG23 | 2:F:324:PHE:CD1  | 2.23                     | 0.65              |
| 2:F:491:LEU:HD13 | 2:F:499:THR:CG2  | 2.25                     | 0.65              |
| 1:G:546:LYS:O    | 1:G:550:ILE:HG13 | 1.97                     | 0.65              |
| 1:I:97:GLN:CA    | 1:I:100:HIS:HB3  | 2.26                     | 0.65              |
| 2:J:35:LYS:CA    | 2:J:38:ILE:HD11  | 2.22                     | 0.65              |
| 2:J:144:CYS:O    | 2:J:145:VAL:C    | 2.35                     | 0.65              |
| 2:J:555:ILE:CG2  | 2:J:556:GLU:N    | 2.60                     | 0.65              |
| 2:L:174:PRO:O    | 2:L:176:VAL:N    | 2.29                     | 0.65              |
| 2:L:370:VAL:O    | 2:L:373:ALA:HB3  | 1.97                     | 0.65              |
| 2:L:405:TYR:CD1  | 2:L:406:VAL:N    | 2.65                     | 0.65              |
| 3:M:278:TRP:CD1  | 3:M:279:ILE:N    | 2.61                     | 0.65              |
| 3:M:409:VAL:HG12 | 3:M:410:ARG:H    | 1.62                     | 0.65              |
| 3:P:279:ILE:HG22 | 3:P:280:GLU:N    | 2.10                     | 0.65              |
| 3:P:416:GLY:C    | 3:P:418:TYR:H    | 1.99                     | 0.65              |
| 4:S:88:VAL:HG23  | 4:S:89:GLU:N     | 2.12                     | 0.65              |
| 4:U:88:VAL:HG23  | 4:U:89:GLU:N     | 2.12                     | 0.65              |
| 1:A:10:LEU:O     | 1:A:14:ILE:HD12  | 1.97                     | 0.65              |
| 2:B:55:VAL:O     | 2:B:58:MET:N     | 2.30                     | 0.65              |
| 2:B:433:CYS:O    | 2:B:434:GLU:C    | 2.34                     | 0.65              |
| 2:D:370:VAL:O    | 2:D:373:ALA:HB3  | 1.97                     | 0.65              |
| 2:D:426:GLU:O    | 2:D:428:VAL:N    | 2.30                     | 0.65              |
| 1:E:546:LYS:O    | 1:E:550:ILE:HG13 | 1.97                     | 0.65              |
| 2:F:457:GLU:HG3  | 2:F:458:ARG:N    | 2.11                     | 0.65              |
| 2:H:144:CYS:O    | 2:H:145:VAL:C    | 2.35                     | 0.65              |
| 2:H:555:ILE:CG2  | 2:H:556:GLU:N    | 2.59                     | 0.65              |
| 1:I:404:ILE:O    | 1:I:405:PHE:C    | 2.35                     | 0.65              |
| 2:J:219:GLN:O    | 2:J:223:LEU:HG   | 1.97                     | 0.65              |
| 2:J:255:VAL:CG2  | 2:J:256:VAL:H    | 2.06                     | 0.65              |
| 2:J:370:VAL:O    | 2:J:373:ALA:HB3  | 1.97                     | 0.65              |
| 1:K:13:THR:HG22  | 1:K:26:MET:HE1   | 1.77                     | 0.65              |
| 1:K:363:ARG:O    | 1:K:364:ARG:C    | 2.35                     | 0.65              |
| 2:L:219:GLN:O    | 2:L:223:LEU:HG   | 1.97                     | 0.65              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:M:22:ARG:HG2   | 3:M:23:GLY:H     | 1.62                     | 0.65              |
| 3:M:117:LEU:CD2  | 3:M:126:THR:HG21 | 2.27                     | 0.65              |
| 3:M:321:ASP:OD1  | 3:M:361:GLY:N    | 2.30                     | 0.65              |
| 3:N:117:LEU:CD2  | 3:N:126:THR:HG21 | 2.26                     | 0.65              |
| 3:R:8:VAL:HG11   | 3:R:103:ILE:HD13 | 1.78                     | 0.65              |
| 3:R:414:GLN:O    | 3:R:415:ASN:HB3  | 1.95                     | 0.65              |
| 4:X:8:PHE:N      | 4:X:8:PHE:CD2    | 2.65                     | 0.65              |
| 4:X:71:ILE:HG21  | 4:X:75:ASP:HB3   | 1.79                     | 0.65              |
| 1:A:441:LEU:HD23 | 1:A:441:LEU:C    | 2.17                     | 0.65              |
| 2:D:123:CYS:O    | 2:D:126:LEU:HB3  | 1.96                     | 0.65              |
| 2:D:144:CYS:O    | 2:D:147:LYS:N    | 2.29                     | 0.65              |
| 2:D:215:THR:HB   | 2:D:218:ALA:HB2  | 1.79                     | 0.65              |
| 1:E:364:ARG:HH11 | 1:E:364:ARG:HG2  | 1.61                     | 0.65              |
| 1:E:441:LEU:HD23 | 1:E:441:LEU:C    | 2.17                     | 0.65              |
| 2:F:31:LYS:CD    | 2:F:64:GLU:HG2   | 2.27                     | 0.65              |
| 2:F:219:GLN:O    | 2:F:223:LEU:HG   | 1.97                     | 0.65              |
| 2:F:255:VAL:CG2  | 2:F:256:VAL:H    | 2.06                     | 0.65              |
| 2:H:35:LYS:CA    | 2:H:38:ILE:HD11  | 2.22                     | 0.65              |
| 2:J:166:LYS:HA   | 2:J:169:ILE:CD1  | 2.27                     | 0.65              |
| 2:J:238:GLN:O    | 2:J:242:GLU:HB2  | 1.96                     | 0.65              |
| 2:J:405:TYR:CD1  | 2:J:406:VAL:N    | 2.65                     | 0.65              |
| 2:J:426:GLU:O    | 2:J:428:VAL:N    | 2.30                     | 0.65              |
| 1:K:146:LEU:O    | 1:K:146:LEU:HD23 | 1.96                     | 0.65              |
| 2:L:304:ARG:O    | 2:L:307:ASN:HB3  | 1.97                     | 0.65              |
| 2:L:570:LEU:HD23 | 3:V:77:VAL:HG22  | 1.77                     | 0.65              |
| 3:M:414:GLN:O    | 3:M:415:ASN:HB3  | 1.95                     | 0.65              |
| 1:A:364:ARG:HH11 | 1:A:364:ARG:HG2  | 1.61                     | 0.65              |
| 2:B:238:GLN:O    | 2:B:242:GLU:HB2  | 1.96                     | 0.65              |
| 2:D:20:ALA:O     | 2:D:22:LEU:N     | 2.30                     | 0.65              |
| 2:D:466:LEU:HD12 | 2:D:466:LEU:N    | 2.10                     | 0.65              |
| 2:F:16:PHE:HZ    | 3:M:416:GLY:HA3  | 1.61                     | 0.65              |
| 2:F:370:VAL:O    | 2:F:373:ALA:HB3  | 1.97                     | 0.65              |
| 1:G:531:MET:SD   | 1:G:566:TYR:HD2  | 2.20                     | 0.65              |
| 1:I:283:ASN:OD1  | 1:I:284:VAL:N    | 2.30                     | 0.65              |
| 1:I:396:PHE:O    | 1:I:397:LYS:C    | 2.35                     | 0.65              |
| 2:J:341:ILE:O    | 2:J:342:MET:C    | 2.34                     | 0.65              |
| 1:K:46:ARG:HG2   | 1:K:73:LEU:HD21  | 1.78                     | 0.65              |
| 1:K:254:ARG:HB2  | 1:K:295:THR:HG23 | 1.79                     | 0.65              |
| 1:K:478:TRP:CH2  | 2:L:521:ASP:OD1  | 2.50                     | 0.65              |
| 4:U:71:ILE:HG21  | 4:U:75:ASP:HB3   | 1.79                     | 0.65              |
| 3:V:416:GLY:C    | 3:V:418:TYR:H    | 2.00                     | 0.65              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:44:THR:HG22  | 1:A:45:TYR:CD1   | 2.32                     | 0.64              |
| 1:A:97:GLN:CA    | 1:A:100:HIS:HB3  | 2.26                     | 0.64              |
| 1:A:370:PHE:O    | 1:A:373:VAL:HG23 | 1.98                     | 0.64              |
| 2:B:148:LEU:H    | 2:B:148:LEU:HD12 | 1.62                     | 0.64              |
| 2:B:299:GLN:C    | 2:B:302:PRO:HG2  | 2.17                     | 0.64              |
| 1:C:10:LEU:O     | 1:C:14:ILE:HD12  | 1.97                     | 0.64              |
| 1:C:368:LEU:O    | 1:C:369:SER:C    | 2.35                     | 0.64              |
| 2:F:166:LYS:HA   | 2:F:169:ILE:CD1  | 2.27                     | 0.64              |
| 2:F:341:ILE:O    | 2:F:342:MET:C    | 2.34                     | 0.64              |
| 1:G:404:ILE:O    | 1:G:405:PHE:C    | 2.35                     | 0.64              |
| 2:H:203:SER:O    | 2:H:207:LEU:HG   | 1.97                     | 0.64              |
| 2:H:426:GLU:O    | 2:H:428:VAL:N    | 2.30                     | 0.64              |
| 1:I:13:THR:HG22  | 1:I:26:MET:HE1   | 1.78                     | 0.64              |
| 2:J:220:ILE:HG22 | 2:J:221:PHE:N    | 2.12                     | 0.64              |
| 1:K:394:PRO:HB2  | 1:K:395:GLU:OE2  | 1.97                     | 0.64              |
| 3:M:271:THR:O    | 3:M:273:VAL:HG23 | 1.96                     | 0.64              |
| 3:N:271:THR:O    | 3:N:273:VAL:HG23 | 1.96                     | 0.64              |
| 3:R:22:ARG:HG2   | 3:R:23:GLY:H     | 1.62                     | 0.64              |
| 4:T:31:MET:HE2   | 4:T:52:TRP:HH2   | 1.62                     | 0.64              |
| 1:C:531:MET:SD   | 1:C:566:TYR:HD2  | 2.21                     | 0.64              |
| 2:D:203:SER:O    | 2:D:207:LEU:HG   | 1.97                     | 0.64              |
| 1:E:13:THR:HG22  | 1:E:26:MET:CE    | 2.27                     | 0.64              |
| 1:E:44:THR:HG22  | 1:E:45:TYR:CD1   | 2.32                     | 0.64              |
| 2:F:304:ARG:O    | 2:F:307:ASN:HB3  | 1.97                     | 0.64              |
| 2:F:555:ILE:CG2  | 2:F:556:GLU:N    | 2.60                     | 0.64              |
| 1:G:478:TRP:CH2  | 2:H:521:ASP:OD1  | 2.50                     | 0.64              |
| 2:H:31:LYS:CD    | 2:H:64:GLU:HG2   | 2.27                     | 0.64              |
| 2:H:220:ILE:HG22 | 2:H:221:PHE:N    | 2.12                     | 0.64              |
| 1:I:478:TRP:CH2  | 2:J:521:ASP:OD1  | 2.50                     | 0.64              |
| 2:J:433:CYS:O    | 2:J:434:GLU:C    | 2.34                     | 0.64              |
| 1:K:489:SER:H    | 1:K:500:VAL:CG1  | 2.11                     | 0.64              |
| 4:Q:71:ILE:HG21  | 4:Q:75:ASP:HB3   | 1.79                     | 0.64              |
| 4:Q:88:VAL:HG23  | 4:Q:89:GLU:N     | 2.12                     | 0.64              |
| 3:R:233:LEU:HD13 | 3:R:269:LEU:HD22 | 1.80                     | 0.64              |
| 1:A:46:ARG:HG2   | 1:A:73:LEU:HD21  | 1.78                     | 0.64              |
| 1:A:146:LEU:O    | 1:A:146:LEU:HD23 | 1.96                     | 0.64              |
| 1:A:396:PHE:O    | 1:A:397:LYS:C    | 2.35                     | 0.64              |
| 2:B:578:PRO:O    | 2:B:582:VAL:HG23 | 1.97                     | 0.64              |
| 1:C:13:THR:HG22  | 1:C:26:MET:CE    | 2.27                     | 0.64              |
| 1:C:283:ASN:OD1  | 1:C:284:VAL:N    | 2.30                     | 0.64              |
| 1:C:363:ARG:O    | 1:C:364:ARG:C    | 2.35                     | 0.64              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:10:LEU:O     | 1:G:14:ILE:HD12  | 1.97                     | 0.64              |
| 1:G:97:GLN:CA    | 1:G:100:HIS:HB3  | 2.26                     | 0.64              |
| 1:G:363:ARG:O    | 1:G:364:ARG:C    | 2.35                     | 0.64              |
| 2:H:405:TYR:CD1  | 2:H:406:VAL:N    | 2.65                     | 0.64              |
| 1:I:135:CYS:CB   | 1:I:164:VAL:HG13 | 2.22                     | 0.64              |
| 1:I:408:ALA:O    | 1:I:412:ALA:HB2  | 1.98                     | 0.64              |
| 1:I:546:LYS:O    | 1:I:550:ILE:HG13 | 1.97                     | 0.64              |
| 2:J:31:LYS:CD    | 2:J:64:GLU:HG2   | 2.27                     | 0.64              |
| 2:J:38:ILE:H     | 2:J:38:ILE:HD13  | 1.60                     | 0.64              |
| 3:M:8:VAL:HG11   | 3:M:103:ILE:HD13 | 1.78                     | 0.64              |
| 3:M:399:GLU:HG3  | 3:M:401:SER:H    | 1.63                     | 0.64              |
| 4:W:117:PHE:O    | 4:W:124:GLN:HG2  | 1.97                     | 0.64              |
| 2:B:144:CYS:O    | 2:B:145:VAL:C    | 2.35                     | 0.64              |
| 2:B:219:GLN:O    | 2:B:223:LEU:HG   | 1.97                     | 0.64              |
| 1:C:283:ASN:O    | 1:C:284:VAL:C    | 2.34                     | 0.64              |
| 1:C:394:PRO:HB2  | 1:C:395:GLU:OE2  | 1.97                     | 0.64              |
| 2:D:31:LYS:CD    | 2:D:64:GLU:HG2   | 2.27                     | 0.64              |
| 2:D:184:LEU:HA   | 2:D:187:ILE:HD12 | 1.77                     | 0.64              |
| 2:D:299:GLN:C    | 2:D:302:PRO:HG2  | 2.17                     | 0.64              |
| 2:D:555:ILE:CG2  | 2:D:556:GLU:N    | 2.60                     | 0.64              |
| 1:E:356:ASP:O    | 1:E:362:LYS:HE2  | 1.98                     | 0.64              |
| 1:E:489:SER:H    | 1:E:500:VAL:CG1  | 2.10                     | 0.64              |
| 2:F:55:VAL:O     | 2:F:58:MET:N     | 2.30                     | 0.64              |
| 2:F:467:GLU:HA   | 2:F:470:LEU:HD23 | 1.80                     | 0.64              |
| 1:G:356:ASP:O    | 1:G:362:LYS:HE2  | 1.98                     | 0.64              |
| 1:G:441:LEU:HD23 | 1:G:441:LEU:C    | 2.17                     | 0.64              |
| 2:H:148:LEU:H    | 2:H:148:LEU:HD12 | 1.62                     | 0.64              |
| 2:H:298:PRO:O    | 2:H:300:TYR:N    | 2.31                     | 0.64              |
| 2:J:35:LYS:HE2   | 3:R:137:GLN:HE21 | 1.63                     | 0.64              |
| 1:K:370:PHE:O    | 1:K:373:VAL:HG23 | 1.98                     | 0.64              |
| 1:K:546:LYS:O    | 1:K:550:ILE:HG13 | 1.96                     | 0.64              |
| 3:O:321:ASP:OD1  | 3:O:361:GLY:N    | 2.30                     | 0.64              |
| 4:Q:117:PHE:O    | 4:Q:124:GLN:HG2  | 1.97                     | 0.64              |
| 3:R:24:ASP:C     | 3:R:26:ASP:H     | 2.00                     | 0.64              |
| 4:S:31:MET:HE2   | 4:S:52:TRP:HH2   | 1.62                     | 0.64              |
| 4:S:76:ASN:ND2   | 4:S:79:ILE:H     | 1.96                     | 0.64              |
| 4:T:71:ILE:HG21  | 4:T:75:ASP:HB3   | 1.79                     | 0.64              |
| 1:A:212:PHE:HE2  | 1:A:263:SER:HB3  | 1.60                     | 0.64              |
| 2:B:31:LYS:CD    | 2:B:64:GLU:HG2   | 2.27                     | 0.64              |
| 2:B:298:PRO:O    | 2:B:300:TYR:N    | 2.31                     | 0.64              |
| 1:C:370:PHE:O    | 1:C:373:VAL:HG23 | 1.98                     | 0.64              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:35:LYS:HE2   | 3:N:137:GLN:HE21 | 1.63                     | 0.64              |
| 2:D:415:LYS:HD2  | 2:D:447:ALA:HB1  | 1.80                     | 0.64              |
| 2:F:20:ALA:O     | 2:F:22:LEU:N     | 2.30                     | 0.64              |
| 2:F:426:GLU:O    | 2:F:428:VAL:N    | 2.30                     | 0.64              |
| 1:G:254:ARG:HB2  | 1:G:295:THR:HG23 | 1.79                     | 0.64              |
| 1:G:394:PRO:HB2  | 1:G:395:GLU:OE2  | 1.98                     | 0.64              |
| 2:H:457:GLU:HG3  | 2:H:458:ARG:N    | 2.11                     | 0.64              |
| 1:I:489:SER:H    | 1:I:500:VAL:CG1  | 2.10                     | 0.64              |
| 2:J:20:ALA:O     | 2:J:22:LEU:N     | 2.30                     | 0.64              |
| 2:J:148:LEU:HD12 | 2:J:148:LEU:H    | 1.62                     | 0.64              |
| 2:J:299:GLN:C    | 2:J:302:PRO:HG2  | 2.17                     | 0.64              |
| 2:J:304:ARG:O    | 2:J:307:ASN:HB3  | 1.97                     | 0.64              |
| 2:J:420:LYS:C    | 2:J:422:PRO:HD3  | 2.18                     | 0.64              |
| 1:K:10:LEU:O     | 1:K:14:ILE:HD12  | 1.97                     | 0.64              |
| 1:K:44:THR:HG22  | 1:K:45:TYR:CD1   | 2.32                     | 0.64              |
| 1:K:532:LYS:HB3  | 1:K:536:ARG:HH12 | 1.62                     | 0.64              |
| 2:L:215:THR:HB   | 2:L:218:ALA:HB2  | 1.79                     | 0.64              |
| 2:L:238:GLN:O    | 2:L:242:GLU:HB2  | 1.97                     | 0.64              |
| 2:L:433:CYS:O    | 2:L:434:GLU:C    | 2.34                     | 0.64              |
| 3:M:233:LEU:HD13 | 3:M:269:LEU:HD22 | 1.80                     | 0.64              |
| 4:T:11:GLN:N     | 4:T:11:GLN:CD    | 2.51                     | 0.64              |
| 4:T:88:VAL:HG23  | 4:T:89:GLU:N     | 2.12                     | 0.64              |
| 4:T:117:PHE:O    | 4:T:124:GLN:HG2  | 1.97                     | 0.64              |
| 3:V:399:GLU:HG3  | 3:V:401:SER:H    | 1.63                     | 0.64              |
| 1:C:482:GLU:OE2  | 1:C:584:MET:HB3  | 1.98                     | 0.64              |
| 2:D:238:GLN:O    | 2:D:242:GLU:HB2  | 1.96                     | 0.64              |
| 2:D:467:GLU:HA   | 2:D:470:LEU:HD23 | 1.80                     | 0.64              |
| 1:E:146:LEU:O    | 1:E:146:LEU:HD23 | 1.96                     | 0.64              |
| 1:E:394:PRO:HB2  | 1:E:395:GLU:OE2  | 1.97                     | 0.64              |
| 1:E:478:TRP:CH2  | 2:F:521:ASP:OD1  | 2.50                     | 0.64              |
| 1:E:482:GLU:OE2  | 1:E:584:MET:HB3  | 1.98                     | 0.64              |
| 2:F:184:LEU:HA   | 2:F:187:ILE:HD12 | 1.77                     | 0.64              |
| 2:F:203:SER:O    | 2:F:207:LEU:HG   | 1.97                     | 0.64              |
| 1:G:146:LEU:O    | 1:G:146:LEU:HD23 | 1.96                     | 0.64              |
| 1:I:531:MET:SD   | 1:I:566:TYR:HD2  | 2.20                     | 0.64              |
| 1:K:531:MET:SD   | 1:K:566:TYR:HD2  | 2.20                     | 0.64              |
| 2:L:260:VAL:HA   | 2:L:263:LEU:HD12 | 1.80                     | 0.64              |
| 3:M:279:ILE:HG22 | 3:M:280:GLU:N    | 2.10                     | 0.64              |
| 3:N:22:ARG:CG    | 3:N:23:GLY:H     | 2.11                     | 0.64              |
| 3:P:8:VAL:HG11   | 3:P:103:ILE:HD13 | 1.78                     | 0.64              |
| 3:P:399:GLU:HG3  | 3:P:401:SER:H    | 1.63                     | 0.64              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:S:71:ILE:HG21  | 4:S:75:ASP:HB3   | 1.79                     | 0.64              |
| 4:X:8:PHE:HD2    | 4:X:8:PHE:N      | 1.96                     | 0.64              |
| 1:A:283:ASN:OD1  | 1:A:284:VAL:N    | 2.30                     | 0.64              |
| 2:B:304:ARG:O    | 2:B:307:ASN:HB3  | 1.97                     | 0.64              |
| 1:C:285:GLY:O    | 1:C:288:ILE:N    | 2.31                     | 0.64              |
| 2:F:298:PRO:O    | 2:F:300:TYR:N    | 2.31                     | 0.64              |
| 2:H:304:ARG:O    | 2:H:307:ASN:HB3  | 1.97                     | 0.64              |
| 2:J:139:LYS:HD3  | 2:J:175:MET:HE1  | 1.78                     | 0.64              |
| 1:K:285:GLY:O    | 1:K:288:ILE:N    | 2.31                     | 0.64              |
| 2:L:148:LEU:H    | 2:L:148:LEU:HD12 | 1.62                     | 0.64              |
| 3:M:24:ASP:C     | 3:M:26:ASP:H     | 2.00                     | 0.64              |
| 3:M:65:LEU:HD11  | 3:M:99:GLU:N     | 2.13                     | 0.64              |
| 3:N:233:LEU:HD13 | 3:N:269:LEU:HD22 | 1.80                     | 0.64              |
| 3:O:65:LEU:HD11  | 3:O:99:GLU:N     | 2.13                     | 0.64              |
| 4:Q:76:ASN:ND2   | 4:Q:79:ILE:H     | 1.96                     | 0.64              |
| 3:R:321:ASP:OD1  | 3:R:361:GLY:N    | 2.30                     | 0.64              |
| 4:T:7:LEU:HD11   | 4:T:67:PHE:CE2   | 2.33                     | 0.64              |
| 3:V:8:VAL:HG11   | 3:V:103:ILE:HD13 | 1.78                     | 0.64              |
| 1:A:478:TRP:CH2  | 2:B:521:ASP:OD1  | 2.50                     | 0.64              |
| 1:A:482:GLU:CB   | 1:A:584:MET:SD   | 2.76                     | 0.64              |
| 2:B:420:LYS:C    | 2:B:422:PRO:HD3  | 2.18                     | 0.64              |
| 1:C:44:THR:HG22  | 1:C:45:TYR:CD1   | 2.32                     | 0.64              |
| 2:D:420:LYS:C    | 2:D:422:PRO:HD3  | 2.18                     | 0.64              |
| 1:E:408:ALA:O    | 1:E:412:ALA:HB2  | 1.98                     | 0.64              |
| 2:F:317:LEU:HD22 | 2:F:317:LEU:N    | 2.13                     | 0.64              |
| 1:G:44:THR:HG22  | 1:G:45:TYR:CD1   | 2.32                     | 0.64              |
| 1:G:51:ALA:O     | 1:G:52:LYS:C     | 2.36                     | 0.64              |
| 1:G:283:ASN:OD1  | 1:G:284:VAL:N    | 2.30                     | 0.64              |
| 1:I:10:LEU:O     | 1:I:14:ILE:HD12  | 1.97                     | 0.64              |
| 1:I:44:THR:HG22  | 1:I:45:TYR:CD1   | 2.32                     | 0.64              |
| 1:I:146:LEU:O    | 1:I:146:LEU:HD23 | 1.96                     | 0.64              |
| 1:K:140:GLY:O    | 1:K:143:GLU:N    | 2.31                     | 0.64              |
| 2:L:31:LYS:CD    | 2:L:64:GLU:HG2   | 2.27                     | 0.64              |
| 3:N:409:VAL:HG12 | 3:N:410:ARG:H    | 1.62                     | 0.64              |
| 3:P:22:ARG:CG    | 3:P:23:GLY:H     | 2.11                     | 0.64              |
| 4:Q:8:PHE:N      | 4:Q:8:PHE:CD2    | 2.65                     | 0.64              |
| 3:R:65:LEU:HD11  | 3:R:99:GLU:N     | 2.13                     | 0.64              |
| 3:V:65:LEU:HD11  | 3:V:99:GLU:N     | 2.13                     | 0.64              |
| 3:V:414:GLN:O    | 3:V:415:ASN:HB3  | 1.95                     | 0.64              |
| 4:X:76:ASN:ND2   | 4:X:79:ILE:H     | 1.96                     | 0.64              |
| 1:A:482:GLU:OE2  | 1:A:584:MET:HB3  | 1.98                     | 0.64              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:20:ALA:O     | 2:B:22:LEU:N     | 2.30                     | 0.64              |
| 1:C:74:ILE:HG23  | 1:C:86:TYR:CE1   | 2.27                     | 0.64              |
| 1:C:478:TRP:CH2  | 2:D:521:ASP:OD1  | 2.50                     | 0.64              |
| 2:D:134:ASP:HB2  | 2:D:137:VAL:HG23 | 1.80                     | 0.64              |
| 2:D:139:LYS:HD3  | 2:D:175:MET:HE1  | 1.78                     | 0.64              |
| 2:D:298:PRO:O    | 2:D:300:TYR:N    | 2.31                     | 0.64              |
| 1:E:370:PHE:O    | 1:E:373:VAL:HG23 | 1.98                     | 0.64              |
| 1:E:449:VAL:HA   | 1:E:452:HIS:NE2  | 2.13                     | 0.64              |
| 1:G:368:LEU:O    | 1:G:369:SER:C    | 2.35                     | 0.64              |
| 1:G:425:VAL:HG13 | 1:G:426:LEU:N    | 2.13                     | 0.64              |
| 2:H:35:LYS:HE2   | 3:P:137:GLN:HE21 | 1.63                     | 0.64              |
| 2:H:219:GLN:O    | 2:H:223:LEU:HG   | 1.97                     | 0.64              |
| 2:J:60:THR:CG2   | 2:J:61:ASP:H     | 2.05                     | 0.64              |
| 2:J:467:GLU:HA   | 2:J:470:LEU:HD23 | 1.80                     | 0.64              |
| 2:L:55:VAL:O     | 2:L:58:MET:N     | 2.30                     | 0.64              |
| 2:L:166:LYS:HA   | 2:L:169:ILE:CD1  | 2.27                     | 0.64              |
| 2:L:415:LYS:HD2  | 2:L:447:ALA:HB1  | 1.80                     | 0.64              |
| 2:L:420:LYS:C    | 2:L:422:PRO:HD3  | 2.18                     | 0.64              |
| 2:L:473:PHE:C    | 2:L:475:ASP:N    | 2.46                     | 0.64              |
| 3:N:24:ASP:C     | 3:N:26:ASP:H     | 2.00                     | 0.64              |
| 3:N:245:SER:HB3  | 3:N:252:THR:HB   | 1.77                     | 0.64              |
| 3:O:245:SER:HB3  | 3:O:252:THR:HB   | 1.77                     | 0.64              |
| 3:P:65:LEU:HD11  | 3:P:99:GLU:N     | 2.13                     | 0.64              |
| 4:S:117:PHE:O    | 4:S:124:GLN:HG2  | 1.97                     | 0.64              |
| 4:T:76:ASN:ND2   | 4:T:79:ILE:H     | 1.96                     | 0.64              |
| 4:U:8:PHE:N      | 4:U:8:PHE:CD2    | 2.65                     | 0.64              |
| 3:V:130:ILE:HG22 | 3:V:130:ILE:O    | 1.98                     | 0.64              |
| 1:A:394:PRO:HB2  | 1:A:395:GLU:OE2  | 1.98                     | 0.64              |
| 2:B:343:ILE:C    | 2:B:345:LEU:H    | 2.02                     | 0.64              |
| 2:B:415:LYS:HD2  | 2:B:447:ALA:HB1  | 1.80                     | 0.64              |
| 2:D:55:VAL:O     | 2:D:58:MET:N     | 2.30                     | 0.64              |
| 1:E:531:MET:SD   | 1:E:566:TYR:HD2  | 2.20                     | 0.64              |
| 2:H:260:VAL:HA   | 2:H:263:LEU:HD12 | 1.80                     | 0.64              |
| 2:H:482:LEU:O    | 2:H:485:LEU:N    | 2.31                     | 0.64              |
| 1:I:140:GLY:O    | 1:I:143:GLU:N    | 2.31                     | 0.64              |
| 2:J:134:ASP:HB2  | 2:J:137:VAL:HG23 | 1.80                     | 0.64              |
| 2:J:215:THR:HB   | 2:J:218:ALA:HB2  | 1.79                     | 0.64              |
| 2:J:255:VAL:HG23 | 2:J:256:VAL:N    | 2.05                     | 0.64              |
| 1:K:408:ALA:O    | 1:K:412:ALA:HB2  | 1.98                     | 0.64              |
| 2:L:20:ALA:O     | 2:L:22:LEU:N     | 2.30                     | 0.64              |
| 2:L:203:SER:O    | 2:L:207:LEU:HG   | 1.97                     | 0.64              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:L:220:ILE:HG22 | 2:L:221:PHE:N    | 2.12                     | 0.64              |
| 4:T:40:LEU:O     | 4:T:42:ARG:N     | 2.31                     | 0.64              |
| 1:A:408:ALA:O    | 1:A:412:ALA:HB2  | 1.98                     | 0.63              |
| 2:B:35:LYS:HE2   | 3:M:137:GLN:HE21 | 1.63                     | 0.63              |
| 2:B:215:THR:HB   | 2:B:218:ALA:HB2  | 1.79                     | 0.63              |
| 1:E:10:LEU:O     | 1:E:14:ILE:HD12  | 1.97                     | 0.63              |
| 1:E:363:ARG:O    | 1:E:364:ARG:C    | 2.35                     | 0.63              |
| 2:F:491:LEU:O    | 2:F:496:PRO:HD2  | 1.99                     | 0.63              |
| 2:H:20:ALA:O     | 2:H:22:LEU:N     | 2.30                     | 0.63              |
| 2:H:467:GLU:HA   | 2:H:470:LEU:HD23 | 1.80                     | 0.63              |
| 1:K:356:ASP:O    | 1:K:362:LYS:HE2  | 1.98                     | 0.63              |
| 3:P:175:VAL:HG12 | 3:P:198:ILE:HG12 | 1.80                     | 0.63              |
| 3:P:321:ASP:OD1  | 3:P:361:GLY:N    | 2.30                     | 0.63              |
| 2:B:60:THR:CG2   | 2:B:61:ASP:H     | 2.05                     | 0.63              |
| 2:B:203:SER:O    | 2:B:207:LEU:HG   | 1.97                     | 0.63              |
| 1:C:51:ALA:O     | 1:C:52:LYS:C     | 2.36                     | 0.63              |
| 1:C:140:GLY:O    | 1:C:143:GLU:N    | 2.31                     | 0.63              |
| 1:C:356:ASP:O    | 1:C:362:LYS:HE2  | 1.98                     | 0.63              |
| 1:C:489:SER:H    | 1:C:500:VAL:CG1  | 2.10                     | 0.63              |
| 2:D:304:ARG:O    | 2:D:307:ASN:HB3  | 1.97                     | 0.63              |
| 1:E:140:GLY:O    | 1:E:143:GLU:N    | 2.31                     | 0.63              |
| 1:G:489:SER:H    | 1:G:500:VAL:CG1  | 2.10                     | 0.63              |
| 2:H:173:ASN:O    | 2:H:174:PRO:O    | 2.17                     | 0.63              |
| 2:H:216:GLU:HB2  | 2:H:217:TRP:CZ3  | 2.33                     | 0.63              |
| 2:H:521:ASP:O    | 2:H:522:ARG:C    | 2.37                     | 0.63              |
| 1:I:44:THR:O     | 1:I:45:TYR:HB2   | 1.99                     | 0.63              |
| 1:I:364:ARG:HH11 | 1:I:364:ARG:HG2  | 1.61                     | 0.63              |
| 1:K:429:ALA:O    | 1:K:431:SER:N    | 2.32                     | 0.63              |
| 3:N:65:LEU:HD11  | 3:N:99:GLU:N     | 2.13                     | 0.63              |
| 3:O:22:ARG:HG2   | 3:O:23:GLY:H     | 1.62                     | 0.63              |
| 3:O:233:LEU:HD13 | 3:O:269:LEU:HD22 | 1.80                     | 0.63              |
| 4:S:8:PHE:HD2    | 4:S:8:PHE:N      | 1.96                     | 0.63              |
| 4:U:7:LEU:HD11   | 4:U:67:PHE:CE2   | 2.33                     | 0.63              |
| 3:V:22:ARG:HG2   | 3:V:23:GLY:H     | 1.62                     | 0.63              |
| 4:W:7:LEU:HD11   | 4:W:67:PHE:CE2   | 2.33                     | 0.63              |
| 4:X:7:LEU:HD11   | 4:X:67:PHE:CE2   | 2.33                     | 0.63              |
| 1:A:99:VAL:CG2   | 1:A:100:HIS:N    | 2.61                     | 0.63              |
| 1:C:425:VAL:HG13 | 1:C:426:LEU:N    | 2.13                     | 0.63              |
| 1:C:451:MET:H    | 1:C:451:MET:CE   | 2.12                     | 0.63              |
| 2:D:148:LEU:H    | 2:D:148:LEU:HD12 | 1.62                     | 0.63              |
| 2:F:148:LEU:H    | 2:F:148:LEU:HD12 | 1.62                     | 0.63              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:44:THR:O     | 1:G:45:TYR:HB2   | 1.99                     | 0.63              |
| 1:G:140:GLY:O    | 1:G:143:GLU:N    | 2.31                     | 0.63              |
| 1:G:482:GLU:OE2  | 1:G:584:MET:HB3  | 1.98                     | 0.63              |
| 1:I:370:PHE:O    | 1:I:373:VAL:HG23 | 1.98                     | 0.63              |
| 1:K:124:CYS:HA   | 4:W:119:MET:SD   | 2.39                     | 0.63              |
| 2:L:144:CYS:O    | 2:L:145:VAL:C    | 2.35                     | 0.63              |
| 2:L:298:PRO:O    | 2:L:300:TYR:N    | 2.31                     | 0.63              |
| 2:L:482:LEU:O    | 2:L:485:LEU:N    | 2.31                     | 0.63              |
| 3:R:130:ILE:HG22 | 3:R:130:ILE:O    | 1.98                     | 0.63              |
| 4:S:7:LEU:HD11   | 4:S:67:PHE:CE2   | 2.33                     | 0.63              |
| 2:B:432:LEU:HD12 | 2:B:448:MET:HE1  | 1.80                     | 0.63              |
| 1:C:429:ALA:O    | 1:C:431:SER:N    | 2.32                     | 0.63              |
| 2:D:482:LEU:O    | 2:D:485:LEU:N    | 2.31                     | 0.63              |
| 2:D:491:LEU:O    | 2:D:496:PRO:HD2  | 1.99                     | 0.63              |
| 1:E:532:LYS:HB3  | 1:E:536:ARG:HH12 | 1.62                     | 0.63              |
| 2:F:521:ASP:O    | 2:F:522:ARG:C    | 2.37                     | 0.63              |
| 1:G:370:PHE:O    | 1:G:373:VAL:HG23 | 1.98                     | 0.63              |
| 1:G:408:ALA:O    | 1:G:412:ALA:HB2  | 1.98                     | 0.63              |
| 2:H:191:HIS:HA   | 2:H:195:ASN:HD21 | 1.64                     | 0.63              |
| 2:H:432:LEU:HD12 | 2:H:448:MET:HE1  | 1.80                     | 0.63              |
| 1:I:429:ALA:O    | 1:I:431:SER:N    | 2.32                     | 0.63              |
| 2:J:148:LEU:HD12 | 2:J:148:LEU:N    | 2.13                     | 0.63              |
| 2:J:343:ILE:C    | 2:J:345:LEU:H    | 2.02                     | 0.63              |
| 1:K:51:ALA:O     | 1:K:52:LYS:C     | 2.36                     | 0.63              |
| 1:K:242:ASP:O    | 1:K:243:PRO:C    | 2.36                     | 0.63              |
| 1:K:283:ASN:O    | 1:K:284:VAL:C    | 2.34                     | 0.63              |
| 1:K:285:GLY:O    | 1:K:288:ILE:HB   | 1.99                     | 0.63              |
| 1:K:482:GLU:OE2  | 1:K:584:MET:HB3  | 1.98                     | 0.63              |
| 2:L:491:LEU:O    | 2:L:496:PRO:HD2  | 1.98                     | 0.63              |
| 3:M:130:ILE:HG22 | 3:M:130:ILE:O    | 1.98                     | 0.63              |
| 3:O:409:VAL:HG12 | 3:O:410:ARG:H    | 1.62                     | 0.63              |
| 4:S:11:GLN:CD    | 4:S:11:GLN:N     | 2.51                     | 0.63              |
| 4:T:8:PHE:N      | 4:T:8:PHE:CD2    | 2.65                     | 0.63              |
| 4:U:40:LEU:O     | 4:U:42:ARG:N     | 2.31                     | 0.63              |
| 3:V:22:ARG:CG    | 3:V:23:GLY:H     | 2.11                     | 0.63              |
| 1:A:489:SER:H    | 1:A:500:VAL:CG1  | 2.10                     | 0.63              |
| 2:B:127:ARG:O    | 2:B:130:LEU:HB2  | 1.99                     | 0.63              |
| 2:B:220:ILE:HG22 | 2:B:221:PHE:N    | 2.12                     | 0.63              |
| 2:B:467:GLU:HA   | 2:B:470:LEU:HD23 | 1.80                     | 0.63              |
| 2:D:219:GLN:O    | 2:D:223:LEU:HG   | 1.97                     | 0.63              |
| 1:E:99:VAL:CG2   | 1:E:100:HIS:N    | 2.61                     | 0.63              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:254:ARG:HB2  | 1:E:295:THR:HG23 | 1.80                     | 0.63              |
| 2:F:415:LYS:HD2  | 2:F:447:ALA:HB1  | 1.80                     | 0.63              |
| 1:G:285:GLY:O    | 1:G:288:ILE:N    | 2.31                     | 0.63              |
| 1:G:285:GLY:O    | 1:G:288:ILE:HB   | 1.99                     | 0.63              |
| 1:I:285:GLY:O    | 1:I:288:ILE:HB   | 1.98                     | 0.63              |
| 1:I:285:GLY:O    | 1:I:288:ILE:N    | 2.31                     | 0.63              |
| 1:I:394:PRO:HB2  | 1:I:395:GLU:OE2  | 1.97                     | 0.63              |
| 2:J:173:ASN:O    | 2:J:174:PRO:O    | 2.17                     | 0.63              |
| 1:K:252:LEU:O    | 1:K:255:ILE:HG22 | 1.98                     | 0.63              |
| 1:K:424:ARG:HH11 | 1:K:424:ARG:HG2  | 1.64                     | 0.63              |
| 1:K:449:VAL:HA   | 1:K:452:HIS:NE2  | 2.13                     | 0.63              |
| 1:K:482:GLU:CB   | 1:K:584:MET:SD   | 2.76                     | 0.63              |
| 2:L:134:ASP:HB2  | 2:L:137:VAL:HG23 | 1.80                     | 0.63              |
| 2:L:216:GLU:HB2  | 2:L:217:TRP:CZ3  | 2.33                     | 0.63              |
| 2:L:255:VAL:CG2  | 2:L:256:VAL:H    | 2.06                     | 0.63              |
| 2:L:473:PHE:CD1  | 2:L:474:HIS:N    | 2.67                     | 0.63              |
| 4:U:76:ASN:ND2   | 4:U:79:ILE:H     | 1.96                     | 0.63              |
| 1:A:252:LEU:O    | 1:A:255:ILE:HG22 | 1.99                     | 0.63              |
| 1:C:252:LEU:O    | 1:C:255:ILE:HG22 | 1.99                     | 0.63              |
| 1:C:271:LEU:HD12 | 1:C:296:ILE:CG1  | 2.29                     | 0.63              |
| 1:C:532:LYS:HB3  | 1:C:536:ARG:HH12 | 1.62                     | 0.63              |
| 2:D:148:LEU:HD12 | 2:D:148:LEU:N    | 2.13                     | 0.63              |
| 1:E:451:MET:H    | 1:E:451:MET:CE   | 2.12                     | 0.63              |
| 1:E:463:ILE:CD1  | 1:E:476:ALA:HB1  | 2.29                     | 0.63              |
| 1:E:580:LEU:O    | 2:F:528:ARG:NH1  | 2.31                     | 0.63              |
| 2:H:343:ILE:C    | 2:H:345:LEU:H    | 2.02                     | 0.63              |
| 2:H:485:LEU:C    | 2:H:485:LEU:HD23 | 2.19                     | 0.63              |
| 1:I:252:LEU:O    | 1:I:255:ILE:HG22 | 1.98                     | 0.63              |
| 1:I:271:LEU:HD12 | 1:I:296:ILE:CG1  | 2.29                     | 0.63              |
| 2:J:298:PRO:O    | 2:J:300:TYR:N    | 2.31                     | 0.63              |
| 2:J:415:LYS:HD2  | 2:J:447:ALA:HB1  | 1.80                     | 0.63              |
| 1:K:99:VAL:CG2   | 1:K:100:HIS:N    | 2.61                     | 0.63              |
| 2:L:127:ARG:O    | 2:L:130:LEU:HB2  | 1.99                     | 0.63              |
| 2:L:173:ASN:O    | 2:L:174:PRO:O    | 2.17                     | 0.63              |
| 3:N:130:ILE:HG22 | 3:N:130:ILE:O    | 1.98                     | 0.63              |
| 4:Q:7:LEU:HD11   | 4:Q:67:PHE:CE2   | 2.33                     | 0.63              |
| 4:Q:11:GLN:N     | 4:Q:11:GLN:CD    | 2.51                     | 0.63              |
| 4:S:40:LEU:O     | 4:S:42:ARG:N     | 2.31                     | 0.63              |
| 4:W:8:PHE:HD2    | 4:W:8:PHE:N      | 1.96                     | 0.63              |
| 4:W:40:LEU:O     | 4:W:42:ARG:N     | 2.31                     | 0.63              |
| 4:X:88:VAL:HG23  | 4:X:89:GLU:N     | 2.12                     | 0.63              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:285:GLY:O    | 1:A:288:ILE:N    | 2.31                     | 0.63              |
| 1:A:425:VAL:HG13 | 1:A:426:LEU:N    | 2.13                     | 0.63              |
| 1:A:438:VAL:HB   | 1:A:439:PRO:CD   | 2.23                     | 0.63              |
| 2:B:473:PHE:CD1  | 2:B:474:HIS:N    | 2.67                     | 0.63              |
| 1:C:99:VAL:CG2   | 1:C:100:HIS:N    | 2.61                     | 0.63              |
| 1:C:242:ASP:O    | 1:C:243:PRO:C    | 2.36                     | 0.63              |
| 1:C:254:ARG:HB2  | 1:C:295:THR:HG23 | 1.79                     | 0.63              |
| 1:C:408:ALA:O    | 1:C:412:ALA:HB2  | 1.98                     | 0.63              |
| 1:C:449:VAL:HA   | 1:C:452:HIS:NE2  | 2.13                     | 0.63              |
| 2:D:173:ASN:O    | 2:D:174:PRO:O    | 2.17                     | 0.63              |
| 2:D:220:ILE:HG22 | 2:D:221:PHE:N    | 2.12                     | 0.63              |
| 2:D:473:PHE:CD1  | 2:D:474:HIS:N    | 2.67                     | 0.63              |
| 1:E:44:THR:O     | 1:E:45:TYR:HB2   | 1.99                     | 0.63              |
| 1:E:242:ASP:O    | 1:E:243:PRO:C    | 2.36                     | 0.63              |
| 2:F:127:ARG:O    | 2:F:130:LEU:HB2  | 1.99                     | 0.63              |
| 2:F:148:LEU:HD12 | 2:F:148:LEU:N    | 2.13                     | 0.63              |
| 2:F:260:VAL:HA   | 2:F:263:LEU:HD12 | 1.80                     | 0.63              |
| 1:G:451:MET:H    | 1:G:451:MET:CE   | 2.12                     | 0.63              |
| 2:H:415:LYS:HD2  | 2:H:447:ALA:HB1  | 1.80                     | 0.63              |
| 1:I:356:ASP:O    | 1:I:362:LYS:HE2  | 1.98                     | 0.63              |
| 2:J:308:LEU:O    | 2:J:311:GLN:HB3  | 1.99                     | 0.63              |
| 2:J:521:ASP:O    | 2:J:522:ARG:C    | 2.37                     | 0.63              |
| 1:K:249:ILE:HG22 | 1:K:253:LEU:HD11 | 1.81                     | 0.63              |
| 4:W:11:GLN:CD    | 4:W:11:GLN:N     | 2.51                     | 0.63              |
| 4:W:16:LEU:HD13  | 4:W:111:TYR:CE1  | 2.34                     | 0.63              |
| 4:X:16:LEU:HD13  | 4:X:111:TYR:CE1  | 2.34                     | 0.63              |
| 4:X:33:ARG:HG2   | 4:X:34:GLU:H     | 1.64                     | 0.63              |
| 4:X:40:LEU:O     | 4:X:42:ARG:N     | 2.31                     | 0.63              |
| 1:A:44:THR:O     | 1:A:45:TYR:HB2   | 1.99                     | 0.63              |
| 1:A:356:ASP:O    | 1:A:362:LYS:HE2  | 1.98                     | 0.63              |
| 1:A:415:LYS:N    | 1:A:415:LYS:CE   | 2.62                     | 0.63              |
| 1:A:429:ALA:O    | 1:A:431:SER:N    | 2.32                     | 0.63              |
| 1:A:449:VAL:HA   | 1:A:452:HIS:NE2  | 2.13                     | 0.63              |
| 1:A:532:LYS:O    | 1:A:536:ARG:HD2  | 1.99                     | 0.63              |
| 2:B:166:LYS:HA   | 2:B:169:ILE:CD1  | 2.27                     | 0.63              |
| 2:B:308:LEU:O    | 2:B:311:GLN:HB3  | 1.99                     | 0.63              |
| 1:C:404:ILE:O    | 1:C:405:PHE:C    | 2.35                     | 0.63              |
| 2:D:308:LEU:O    | 2:D:311:GLN:HB3  | 1.99                     | 0.63              |
| 1:E:271:LEU:HD12 | 1:E:296:ILE:CG1  | 2.29                     | 0.63              |
| 2:F:173:ASN:O    | 2:F:174:PRO:O    | 2.17                     | 0.63              |
| 1:G:482:GLU:CB   | 1:G:584:MET:SD   | 2.76                     | 0.63              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:127:ARG:O    | 2:H:130:LEU:HB2  | 1.99                     | 0.63              |
| 2:H:465:LEU:HD12 | 2:H:465:LEU:N    | 2.14                     | 0.63              |
| 1:I:254:ARG:HB2  | 1:I:295:THR:HG23 | 1.79                     | 0.63              |
| 1:I:449:VAL:HA   | 1:I:452:HIS:NE2  | 2.13                     | 0.63              |
| 2:J:260:VAL:HA   | 2:J:263:LEU:HD12 | 1.80                     | 0.63              |
| 2:J:473:PHE:CD1  | 2:J:474:HIS:N    | 2.67                     | 0.63              |
| 2:J:482:LEU:O    | 2:J:485:LEU:N    | 2.31                     | 0.63              |
| 1:K:404:ILE:O    | 1:K:405:PHE:C    | 2.35                     | 0.63              |
| 3:M:22:ARG:CG    | 3:M:23:GLY:H     | 2.11                     | 0.63              |
| 3:N:92:SER:HB3   | 3:N:98:LEU:HD21  | 1.81                     | 0.63              |
| 4:Q:40:LEU:O     | 4:Q:42:ARG:N     | 2.31                     | 0.63              |
| 3:R:92:SER:HB3   | 3:R:98:LEU:HD21  | 1.81                     | 0.63              |
| 3:V:264:LEU:HD12 | 3:V:264:LEU:O    | 1.99                     | 0.63              |
| 1:A:271:LEU:HD12 | 1:A:296:ILE:CG1  | 2.29                     | 0.63              |
| 1:A:274:VAL:CG1  | 1:A:292:THR:HG21 | 2.29                     | 0.63              |
| 1:A:285:GLY:O    | 1:A:288:ILE:HB   | 1.99                     | 0.63              |
| 1:C:227:ILE:CD1  | 1:C:274:VAL:HG22 | 2.28                     | 0.63              |
| 1:C:566:TYR:O    | 1:C:569:LEU:N    | 2.32                     | 0.63              |
| 1:E:252:LEU:O    | 1:E:255:ILE:HG22 | 1.99                     | 0.63              |
| 1:E:364:ARG:O    | 1:E:365:ALA:C    | 2.37                     | 0.63              |
| 1:E:429:ALA:O    | 1:E:431:SER:N    | 2.32                     | 0.63              |
| 2:F:220:ILE:HG22 | 2:F:221:PHE:N    | 2.12                     | 0.63              |
| 2:F:420:LYS:C    | 2:F:422:PRO:HD3  | 2.18                     | 0.63              |
| 1:G:415:LYS:N    | 1:G:415:LYS:CE   | 2.62                     | 0.63              |
| 1:G:463:ILE:CD1  | 1:G:476:ALA:HB1  | 2.29                     | 0.63              |
| 2:H:148:LEU:HD12 | 2:H:148:LEU:N    | 2.13                     | 0.63              |
| 1:I:227:ILE:CD1  | 1:I:274:VAL:HG22 | 2.28                     | 0.63              |
| 1:I:363:ARG:O    | 1:I:364:ARG:C    | 2.35                     | 0.63              |
| 1:I:463:ILE:CD1  | 1:I:476:ALA:HB1  | 2.29                     | 0.63              |
| 1:I:482:GLU:OE2  | 1:I:584:MET:HB3  | 1.98                     | 0.63              |
| 2:J:485:LEU:HD23 | 2:J:485:LEU:C    | 2.19                     | 0.63              |
| 1:K:396:PHE:O    | 1:K:397:LYS:C    | 2.35                     | 0.63              |
| 3:N:321:ASP:OD1  | 3:N:361:GLY:N    | 2.30                     | 0.63              |
| 3:O:175:VAL:HG12 | 3:O:198:ILE:HG12 | 1.80                     | 0.63              |
| 3:O:278:TRP:CD1  | 3:O:279:ILE:N    | 2.61                     | 0.63              |
| 4:Q:27:GLU:O     | 4:Q:30:LYS:HB3   | 1.99                     | 0.63              |
| 4:U:8:PHE:HD2    | 4:U:8:PHE:N      | 1.96                     | 0.63              |
| 3:V:233:LEU:HD13 | 3:V:269:LEU:HD22 | 1.80                     | 0.63              |
| 4:W:76:ASN:ND2   | 4:W:79:ILE:H     | 1.96                     | 0.63              |
| 4:X:6:LEU:HD12   | 4:X:6:LEU:N      | 2.14                     | 0.63              |
| 2:B:155:MET:H    | 2:B:158:ASP:HB3  | 1.64                     | 0.62              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:216:GLU:HB2  | 2:D:217:TRP:CZ3  | 2.33                     | 0.62              |
| 2:D:260:VAL:HA   | 2:D:263:LEU:HD12 | 1.80                     | 0.62              |
| 2:D:405:TYR:CD1  | 2:D:406:VAL:N    | 2.65                     | 0.62              |
| 1:E:425:VAL:HG13 | 1:E:426:LEU:N    | 2.13                     | 0.62              |
| 1:G:99:VAL:CG2   | 1:G:100:HIS:N    | 2.61                     | 0.62              |
| 1:G:424:ARG:HH11 | 1:G:424:ARG:HG2  | 1.64                     | 0.62              |
| 2:H:134:ASP:HB2  | 2:H:137:VAL:HG23 | 1.80                     | 0.62              |
| 1:I:51:ALA:O     | 1:I:52:LYS:C     | 2.36                     | 0.62              |
| 1:I:99:VAL:CG2   | 1:I:100:HIS:N    | 2.61                     | 0.62              |
| 1:I:580:LEU:O    | 2:J:528:ARG:NH1  | 2.31                     | 0.62              |
| 2:J:155:MET:H    | 2:J:158:ASP:HB3  | 1.64                     | 0.62              |
| 2:J:216:GLU:HB2  | 2:J:217:TRP:CZ3  | 2.33                     | 0.62              |
| 1:K:44:THR:O     | 1:K:45:TYR:HB2   | 1.99                     | 0.62              |
| 1:K:152:TYR:HA   | 1:K:155:LYS:HE2  | 1.81                     | 0.62              |
| 2:L:323:VAL:HG23 | 2:L:324:PHE:CD1  | 2.23                     | 0.62              |
| 2:L:387:SER:CA   | 2:L:390:ARG:HD2  | 2.24                     | 0.62              |
| 2:L:485:LEU:C    | 2:L:485:LEU:HD23 | 2.19                     | 0.62              |
| 3:O:130:ILE:HG22 | 3:O:130:ILE:O    | 1.98                     | 0.62              |
| 3:O:329:VAL:HG21 | 3:O:354:TYR:CD1  | 2.34                     | 0.62              |
| 4:Q:6:LEU:HD12   | 4:Q:6:LEU:N      | 2.14                     | 0.62              |
| 3:R:264:LEU:HD12 | 3:R:264:LEU:O    | 1.99                     | 0.62              |
| 4:T:33:ARG:HG2   | 4:T:34:GLU:H     | 1.64                     | 0.62              |
| 3:V:175:VAL:HG12 | 3:V:198:ILE:HG12 | 1.80                     | 0.62              |
| 3:V:409:VAL:HG12 | 3:V:410:ARG:H    | 1.62                     | 0.62              |
| 4:W:6:LEU:HD12   | 4:W:6:LEU:N      | 2.14                     | 0.62              |
| 4:W:8:PHE:N      | 4:W:8:PHE:CD2    | 2.65                     | 0.62              |
| 4:W:88:VAL:HG23  | 4:W:89:GLU:N     | 2.12                     | 0.62              |
| 4:X:11:GLN:CD    | 4:X:11:GLN:N     | 2.51                     | 0.62              |
| 1:A:378:ILE:HD11 | 1:A:411:TYR:HB3  | 1.81                     | 0.62              |
| 1:A:531:MET:SD   | 1:A:566:TYR:HD2  | 2.20                     | 0.62              |
| 2:B:491:LEU:O    | 2:B:496:PRO:HD2  | 1.99                     | 0.62              |
| 1:C:124:CYS:HA   | 4:T:119:MET:SD   | 2.39                     | 0.62              |
| 1:C:152:TYR:HA   | 1:C:155:LYS:HE2  | 1.81                     | 0.62              |
| 1:C:242:ASP:HB3  | 1:C:245:LEU:HB3  | 1.82                     | 0.62              |
| 1:C:378:ILE:HD11 | 1:C:411:TYR:HB3  | 1.81                     | 0.62              |
| 2:D:155:MET:H    | 2:D:158:ASP:HB3  | 1.64                     | 0.62              |
| 2:F:563:LEU:O    | 2:F:565:CYS:N    | 2.33                     | 0.62              |
| 1:G:242:ASP:O    | 1:G:243:PRO:C    | 2.36                     | 0.62              |
| 1:G:271:LEU:HD12 | 1:G:296:ILE:CG1  | 2.29                     | 0.62              |
| 1:G:378:ILE:HD11 | 1:G:411:TYR:HB3  | 1.81                     | 0.62              |
| 2:H:230:MET:HG2  | 2:H:266:PHE:CD2  | 2.34                     | 0.62              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:308:LEU:O    | 2:H:311:GLN:HB3  | 1.99                     | 0.62              |
| 2:H:420:LYS:C    | 2:H:422:PRO:HD3  | 2.18                     | 0.62              |
| 1:I:249:ILE:HG22 | 1:I:253:LEU:HD11 | 1.81                     | 0.62              |
| 1:I:364:ARG:O    | 1:I:365:ALA:C    | 2.37                     | 0.62              |
| 1:K:479:CYS:O    | 1:K:480:ILE:C    | 2.38                     | 0.62              |
| 2:L:148:LEU:HD12 | 2:L:148:LEU:N    | 2.13                     | 0.62              |
| 2:L:343:ILE:C    | 2:L:345:LEU:H    | 2.02                     | 0.62              |
| 2:L:465:LEU:HD12 | 2:L:465:LEU:N    | 2.14                     | 0.62              |
| 3:M:175:VAL:HG12 | 3:M:198:ILE:HG12 | 1.80                     | 0.62              |
| 3:R:22:ARG:CG    | 3:R:23:GLY:H     | 2.11                     | 0.62              |
| 3:R:399:GLU:HG3  | 3:R:401:SER:H    | 1.62                     | 0.62              |
| 4:X:31:MET:HE2   | 4:X:52:TRP:HH2   | 1.64                     | 0.62              |
| 1:A:404:ILE:O    | 1:A:405:PHE:C    | 2.35                     | 0.62              |
| 1:A:463:ILE:CD1  | 1:A:476:ALA:HB1  | 2.29                     | 0.62              |
| 1:A:566:TYR:O    | 1:A:569:LEU:N    | 2.32                     | 0.62              |
| 2:B:521:ASP:O    | 2:B:522:ARG:C    | 2.37                     | 0.62              |
| 2:B:563:LEU:O    | 2:B:565:CYS:N    | 2.33                     | 0.62              |
| 2:D:343:ILE:C    | 2:D:345:LEU:H    | 2.02                     | 0.62              |
| 2:D:473:PHE:CG   | 2:D:474:HIS:N    | 2.64                     | 0.62              |
| 1:E:51:ALA:O     | 1:E:52:LYS:C     | 2.36                     | 0.62              |
| 1:E:249:ILE:HG22 | 1:E:253:LEU:HD11 | 1.81                     | 0.62              |
| 1:E:285:GLY:O    | 1:E:288:ILE:N    | 2.31                     | 0.62              |
| 2:F:134:ASP:HB2  | 2:F:137:VAL:HG23 | 1.80                     | 0.62              |
| 1:G:6:ARG:O      | 1:G:9:GLU:HB3    | 2.00                     | 0.62              |
| 1:G:429:ALA:O    | 1:G:431:SER:N    | 2.32                     | 0.62              |
| 2:H:307:ASN:HD21 | 2:H:344:ARG:NH1  | 1.97                     | 0.62              |
| 2:H:331:PRO:CD   | 2:H:334:VAL:HG21 | 2.29                     | 0.62              |
| 1:I:124:CYS:HA   | 4:X:119:MET:SD   | 2.39                     | 0.62              |
| 2:J:491:LEU:O    | 2:J:496:PRO:HD2  | 1.99                     | 0.62              |
| 1:K:227:ILE:CD1  | 1:K:274:VAL:HG22 | 2.28                     | 0.62              |
| 2:L:35:LYS:HE2   | 3:V:137:GLN:HE21 | 1.63                     | 0.62              |
| 2:L:307:ASN:HD21 | 2:L:344:ARG:NH1  | 1.97                     | 0.62              |
| 2:L:563:LEU:O    | 2:L:565:CYS:N    | 2.33                     | 0.62              |
| 3:M:194:ILE:HG13 | 3:M:269:LEU:HG   | 1.81                     | 0.62              |
| 3:M:329:VAL:HG21 | 3:M:354:TYR:CD1  | 2.34                     | 0.62              |
| 3:O:112:GLU:OE2  | 3:O:136:THR:HB   | 1.99                     | 0.62              |
| 3:P:22:ARG:HG2   | 3:P:23:GLY:H     | 1.62                     | 0.62              |
| 3:P:177:GLU:O    | 3:P:413:THR:HA   | 2.00                     | 0.62              |
| 3:R:112:GLU:OE2  | 3:R:136:THR:HB   | 1.99                     | 0.62              |
| 3:R:409:VAL:HG12 | 3:R:410:ARG:H    | 1.62                     | 0.62              |
| 4:U:33:ARG:HG2   | 4:U:34:GLU:H     | 1.64                     | 0.62              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:124:CYS:HA   | 4:S:119:MET:SD   | 2.39                     | 0.62              |
| 1:A:242:ASP:O    | 1:A:243:PRO:C    | 2.36                     | 0.62              |
| 2:B:191:HIS:HA   | 2:B:195:ASN:HD21 | 1.64                     | 0.62              |
| 2:B:465:LEU:HD12 | 2:B:465:LEU:N    | 2.14                     | 0.62              |
| 2:B:482:LEU:O    | 2:B:485:LEU:N    | 2.31                     | 0.62              |
| 1:C:285:GLY:O    | 1:C:288:ILE:HB   | 1.99                     | 0.62              |
| 1:C:377:ASN:ND2  | 1:C:381:MET:HG2  | 2.14                     | 0.62              |
| 2:D:230:MET:HG2  | 2:D:266:PHE:CD2  | 2.34                     | 0.62              |
| 1:E:566:TYR:O    | 1:E:569:LEU:N    | 2.32                     | 0.62              |
| 2:F:35:LYS:HE2   | 3:O:137:GLN:HE21 | 1.63                     | 0.62              |
| 2:F:230:MET:HG2  | 2:F:266:PHE:CD2  | 2.34                     | 0.62              |
| 1:G:124:CYS:HA   | 4:Q:119:MET:SD   | 2.39                     | 0.62              |
| 1:G:449:VAL:HA   | 1:G:452:HIS:NE2  | 2.13                     | 0.62              |
| 1:G:479:CYS:O    | 1:G:480:ILE:C    | 2.38                     | 0.62              |
| 2:H:473:PHE:CD1  | 2:H:474:HIS:N    | 2.67                     | 0.62              |
| 1:I:532:LYS:O    | 1:I:536:ARG:HD2  | 1.99                     | 0.62              |
| 2:J:185:SER:O    | 2:J:188:ALA:HB3  | 2.00                     | 0.62              |
| 1:K:532:LYS:O    | 1:K:536:ARG:HD2  | 1.99                     | 0.62              |
| 2:L:432:LEU:HD12 | 2:L:448:MET:CE   | 2.30                     | 0.62              |
| 2:L:467:GLU:HA   | 2:L:470:LEU:HD23 | 1.80                     | 0.62              |
| 3:N:399:GLU:HG3  | 3:N:401:SER:H    | 1.63                     | 0.62              |
| 4:S:16:LEU:HD13  | 4:S:111:TYR:CE1  | 2.34                     | 0.62              |
| 4:S:20:TYR:HD2   | 4:S:121:GLY:N    | 1.98                     | 0.62              |
| 4:T:27:GLU:O     | 4:T:30:LYS:HB3   | 1.99                     | 0.62              |
| 4:U:27:GLU:O     | 4:U:30:LYS:HB3   | 1.99                     | 0.62              |
| 3:V:112:GLU:OE2  | 3:V:136:THR:HB   | 1.99                     | 0.62              |
| 1:A:74:ILE:H     | 1:A:74:ILE:CD1   | 2.13                     | 0.62              |
| 1:A:227:ILE:CD1  | 1:A:274:VAL:HG22 | 2.28                     | 0.62              |
| 2:B:20:ALA:C     | 2:B:22:LEU:H     | 2.03                     | 0.62              |
| 2:B:216:GLU:HB2  | 2:B:217:TRP:CZ3  | 2.33                     | 0.62              |
| 2:B:260:VAL:HA   | 2:B:263:LEU:HD12 | 1.80                     | 0.62              |
| 2:D:432:LEU:HD12 | 2:D:448:MET:CE   | 2.30                     | 0.62              |
| 2:D:563:LEU:O    | 2:D:565:CYS:N    | 2.33                     | 0.62              |
| 1:E:227:ILE:CD1  | 1:E:274:VAL:HG22 | 2.28                     | 0.62              |
| 1:E:264:SER:HA   | 1:E:267:MET:HE2  | 1.81                     | 0.62              |
| 1:E:532:LYS:HB3  | 1:E:536:ARG:HH11 | 1.60                     | 0.62              |
| 1:G:252:LEU:O    | 1:G:255:ILE:HG22 | 1.99                     | 0.62              |
| 2:H:255:VAL:HG23 | 2:H:256:VAL:N    | 2.05                     | 0.62              |
| 2:H:408:GLN:O    | 2:H:409:GLU:C    | 2.38                     | 0.62              |
| 1:I:415:LYS:N    | 1:I:415:LYS:CE   | 2.62                     | 0.62              |
| 2:J:307:ASN:HD21 | 2:J:344:ARG:NH1  | 1.97                     | 0.62              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:J:563:LEU:O    | 2:J:565:CYS:N    | 2.33                     | 0.62              |
| 1:K:135:CYS:CB   | 1:K:164:VAL:HG13 | 2.22                     | 0.62              |
| 1:K:271:LEU:HD12 | 1:K:296:ILE:CG1  | 2.29                     | 0.62              |
| 1:K:378:ILE:HD11 | 1:K:411:TYR:HB3  | 1.81                     | 0.62              |
| 1:K:580:LEU:O    | 2:L:528:ARG:NH1  | 2.31                     | 0.62              |
| 2:L:139:LYS:HD3  | 2:L:175:MET:HE1  | 1.82                     | 0.62              |
| 2:L:191:HIS:HA   | 2:L:195:ASN:HD21 | 1.64                     | 0.62              |
| 3:N:202:VAL:HG13 | 3:N:204:LEU:HG   | 1.81                     | 0.62              |
| 3:O:202:VAL:HG13 | 3:O:204:LEU:HG   | 1.80                     | 0.62              |
| 3:O:399:GLU:HG3  | 3:O:401:SER:H    | 1.63                     | 0.62              |
| 3:P:233:LEU:HD13 | 3:P:269:LEU:HD22 | 1.80                     | 0.62              |
| 3:P:415:ASN:ND2  | 3:P:416:GLY:H    | 1.97                     | 0.62              |
| 3:R:329:VAL:HG21 | 3:R:354:TYR:CD1  | 2.34                     | 0.62              |
| 4:S:27:GLU:O     | 4:S:30:LYS:HB3   | 1.99                     | 0.62              |
| 4:S:108:GLU:CG   | 4:S:109:LYS:H    | 2.13                     | 0.62              |
| 4:T:16:LEU:HD13  | 4:T:111:TYR:CE1  | 2.34                     | 0.62              |
| 4:U:16:LEU:HD13  | 4:U:111:TYR:CE1  | 2.34                     | 0.62              |
| 3:V:92:SER:HB3   | 3:V:98:LEU:HD21  | 1.81                     | 0.62              |
| 4:W:20:TYR:HD2   | 4:W:121:GLY:N    | 1.98                     | 0.62              |
| 1:A:424:ARG:HH11 | 1:A:424:ARG:HG2  | 1.64                     | 0.62              |
| 1:A:453:ALA:O    | 1:A:455:THR:N    | 2.33                     | 0.62              |
| 2:B:173:ASN:O    | 2:B:174:PRO:O    | 2.17                     | 0.62              |
| 2:B:432:LEU:HD12 | 2:B:448:MET:CE   | 2.30                     | 0.62              |
| 1:C:532:LYS:O    | 1:C:536:ARG:HD2  | 1.99                     | 0.62              |
| 2:D:485:LEU:C    | 2:D:485:LEU:HD23 | 2.19                     | 0.62              |
| 2:F:308:LEU:O    | 2:F:311:GLN:HB3  | 1.99                     | 0.62              |
| 2:F:405:TYR:CD1  | 2:F:406:VAL:N    | 2.65                     | 0.62              |
| 2:F:482:LEU:O    | 2:F:485:LEU:N    | 2.31                     | 0.62              |
| 2:F:485:LEU:HD23 | 2:F:485:LEU:C    | 2.19                     | 0.62              |
| 1:G:227:ILE:CD1  | 1:G:274:VAL:HG22 | 2.28                     | 0.62              |
| 1:G:377:ASN:ND2  | 1:G:381:MET:HG2  | 2.14                     | 0.62              |
| 1:I:74:ILE:H     | 1:I:74:ILE:CD1   | 2.13                     | 0.62              |
| 1:I:425:VAL:HG13 | 1:I:426:LEU:N    | 2.13                     | 0.62              |
| 1:I:453:ALA:O    | 1:I:455:THR:N    | 2.33                     | 0.62              |
| 1:K:274:VAL:CG1  | 1:K:292:THR:HG21 | 2.29                     | 0.62              |
| 3:M:415:ASN:ND2  | 3:M:416:GLY:H    | 1.97                     | 0.62              |
| 3:N:329:VAL:HG21 | 3:N:354:TYR:CD1  | 2.34                     | 0.62              |
| 3:P:264:LEU:O    | 3:P:264:LEU:HD12 | 1.99                     | 0.62              |
| 3:R:175:VAL:HG12 | 3:R:198:ILE:HG12 | 1.80                     | 0.62              |
| 3:R:202:VAL:HG13 | 3:R:204:LEU:HG   | 1.81                     | 0.62              |
| 4:U:20:TYR:CD2   | 4:U:121:GLY:N    | 2.67                     | 0.62              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:W:33:ARG:HG2   | 4:W:34:GLU:H     | 1.64                     | 0.62              |
| 1:A:254:ARG:HB2  | 1:A:295:THR:HG23 | 1.79                     | 0.62              |
| 1:A:452:HIS:O    | 1:A:456:VAL:HG23 | 2.00                     | 0.62              |
| 2:B:148:LEU:HD12 | 2:B:148:LEU:N    | 2.13                     | 0.62              |
| 2:B:457:GLU:HG3  | 2:B:458:ARG:N    | 2.11                     | 0.62              |
| 1:C:216:VAL:HB   | 1:C:217:PRO:HD3  | 1.82                     | 0.62              |
| 1:C:452:HIS:O    | 1:C:456:VAL:HG23 | 2.00                     | 0.62              |
| 1:C:463:ILE:CD1  | 1:C:476:ALA:HB1  | 2.29                     | 0.62              |
| 1:E:452:HIS:O    | 1:E:456:VAL:HG23 | 2.00                     | 0.62              |
| 1:E:479:CYS:O    | 1:E:480:ILE:C    | 2.38                     | 0.62              |
| 2:H:49:ALA:O     | 2:H:51:PHE:N     | 2.33                     | 0.62              |
| 2:H:283:LYS:O    | 2:H:287:PRO:HD2  | 2.00                     | 0.62              |
| 1:I:152:TYR:HA   | 1:I:155:LYS:HE2  | 1.81                     | 0.62              |
| 1:I:451:MET:H    | 1:I:451:MET:CE   | 2.12                     | 0.62              |
| 2:J:317:LEU:HD22 | 2:J:317:LEU:N    | 2.13                     | 0.62              |
| 2:J:331:PRO:CD   | 2:J:334:VAL:HG21 | 2.29                     | 0.62              |
| 1:K:212:PHE:HE2  | 1:K:263:SER:HB3  | 1.60                     | 0.62              |
| 1:K:370:PHE:CE1  | 1:K:403:GLY:HA3  | 2.34                     | 0.62              |
| 1:K:463:ILE:CD1  | 1:K:476:ALA:HB1  | 2.29                     | 0.62              |
| 2:L:49:ALA:O     | 2:L:51:PHE:N     | 2.32                     | 0.62              |
| 3:P:24:ASP:C     | 3:P:26:ASP:H     | 2.00                     | 0.62              |
| 3:P:68:VAL:HG12  | 3:P:69:ALA:N     | 2.15                     | 0.62              |
| 4:Q:16:LEU:HD13  | 4:Q:111:TYR:CE1  | 2.34                     | 0.62              |
| 4:S:30:LYS:HZ2   | 4:S:30:LYS:CB    | 2.13                     | 0.62              |
| 4:T:11:GLN:O     | 4:T:13:LYS:N     | 2.32                     | 0.62              |
| 4:U:20:TYR:HD2   | 4:U:121:GLY:N    | 1.98                     | 0.62              |
| 4:X:20:TYR:HD2   | 4:X:121:GLY:N    | 1.98                     | 0.62              |
| 2:B:134:ASP:HB2  | 2:B:137:VAL:HG23 | 1.80                     | 0.62              |
| 2:B:485:LEU:HD23 | 2:B:485:LEU:C    | 2.19                     | 0.62              |
| 2:D:421:TYR:HD2  | 2:D:421:TYR:N    | 1.98                     | 0.62              |
| 1:E:74:ILE:HG13  | 1:E:86:TYR:CD1   | 2.35                     | 0.62              |
| 1:E:124:CYS:HA   | 4:U:119:MET:SD   | 2.39                     | 0.62              |
| 1:E:242:ASP:HB3  | 1:E:245:LEU:HB3  | 1.81                     | 0.62              |
| 1:E:285:GLY:O    | 1:E:288:ILE:HB   | 1.98                     | 0.62              |
| 1:E:377:ASN:ND2  | 1:E:381:MET:HG2  | 2.14                     | 0.62              |
| 2:F:20:ALA:C     | 2:F:22:LEU:H     | 2.03                     | 0.62              |
| 2:F:171:ASP:O    | 2:F:172:SER:C    | 2.38                     | 0.62              |
| 2:F:283:LYS:O    | 2:F:287:PRO:HD2  | 2.00                     | 0.62              |
| 2:F:465:LEU:HD12 | 2:F:465:LEU:N    | 2.14                     | 0.62              |
| 1:G:152:TYR:HA   | 1:G:155:LYS:HE2  | 1.81                     | 0.62              |
| 2:H:486:THR:HG23 | 2:H:490:LYS:HE2  | 1.82                     | 0.62              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:491:LEU:O    | 2:H:496:PRO:HD2  | 1.99                     | 0.62              |
| 2:H:563:LEU:O    | 2:H:565:CYS:N    | 2.33                     | 0.62              |
| 2:J:20:ALA:C     | 2:J:22:LEU:H     | 2.03                     | 0.62              |
| 1:K:453:ALA:O    | 1:K:455:THR:N    | 2.33                     | 0.62              |
| 2:L:569:THR:H    | 2:L:572:SER:CB   | 2.13                     | 0.62              |
| 3:O:264:LEU:O    | 3:O:264:LEU:HD12 | 1.99                     | 0.62              |
| 3:O:415:ASN:ND2  | 3:O:416:GLY:H    | 1.97                     | 0.62              |
| 3:P:329:VAL:HG21 | 3:P:354:TYR:CD1  | 2.34                     | 0.62              |
| 4:Q:20:TYR:HD2   | 4:Q:121:GLY:N    | 1.98                     | 0.62              |
| 4:S:33:ARG:HG2   | 4:S:34:GLU:H     | 1.64                     | 0.62              |
| 3:V:68:VAL:HG12  | 3:V:69:ALA:N     | 2.15                     | 0.62              |
| 1:A:140:GLY:O    | 1:A:143:GLU:N    | 2.31                     | 0.62              |
| 1:A:363:ARG:O    | 1:A:364:ARG:C    | 2.35                     | 0.62              |
| 2:B:230:MET:HG2  | 2:B:266:PHE:CD2  | 2.34                     | 0.62              |
| 1:C:370:PHE:CE1  | 1:C:403:GLY:HA3  | 2.34                     | 0.62              |
| 2:D:307:ASN:HD21 | 2:D:344:ARG:NH1  | 1.97                     | 0.62              |
| 2:D:465:LEU:H    | 2:D:465:LEU:CD1  | 2.13                     | 0.62              |
| 2:D:465:LEU:HD12 | 2:D:465:LEU:N    | 2.14                     | 0.62              |
| 2:F:304:ARG:HG2  | 2:F:573:VAL:CG2  | 2.30                     | 0.62              |
| 1:G:364:ARG:O    | 1:G:365:ALA:C    | 2.37                     | 0.62              |
| 1:I:378:ILE:HD11 | 1:I:411:TYR:HB3  | 1.81                     | 0.62              |
| 2:J:18:LEU:N     | 2:J:18:LEU:HD22  | 2.15                     | 0.62              |
| 2:J:465:LEU:HD12 | 2:J:465:LEU:N    | 2.14                     | 0.62              |
| 1:K:566:TYR:O    | 1:K:569:LEU:N    | 2.32                     | 0.62              |
| 2:L:304:ARG:HG2  | 2:L:573:VAL:HA   | 1.82                     | 0.62              |
| 3:N:175:VAL:HG12 | 3:N:198:ILE:HG12 | 1.80                     | 0.62              |
| 3:P:194:ILE:HG13 | 3:P:269:LEU:HG   | 1.81                     | 0.62              |
| 3:P:202:VAL:HG13 | 3:P:204:LEU:HG   | 1.81                     | 0.62              |
| 3:P:409:VAL:HG12 | 3:P:410:ARG:H    | 1.62                     | 0.62              |
| 3:R:68:VAL:HG12  | 3:R:69:ALA:N     | 2.15                     | 0.62              |
| 3:R:177:GLU:O    | 3:R:413:THR:HA   | 2.00                     | 0.62              |
| 4:S:6:LEU:HD12   | 4:S:6:LEU:N      | 2.14                     | 0.62              |
| 4:U:6:LEU:HD12   | 4:U:6:LEU:N      | 2.14                     | 0.62              |
| 3:V:64:ASN:O     | 3:V:64:ASN:OD1   | 2.18                     | 0.62              |
| 3:V:194:ILE:HG13 | 3:V:269:LEU:HG   | 1.81                     | 0.62              |
| 4:W:20:TYR:CD2   | 4:W:121:GLY:N    | 2.67                     | 0.62              |
| 1:A:242:ASP:HB3  | 1:A:245:LEU:HB3  | 1.81                     | 0.62              |
| 2:B:49:ALA:O     | 2:B:51:PHE:N     | 2.33                     | 0.62              |
| 2:B:283:LYS:O    | 2:B:287:PRO:HD2  | 2.00                     | 0.62              |
| 2:D:49:ALA:O     | 2:D:51:PHE:N     | 2.32                     | 0.62              |
| 2:D:127:ARG:O    | 2:D:130:LEU:HB2  | 1.99                     | 0.62              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:370:PHE:CE1  | 1:E:403:GLY:HA3  | 2.35                     | 0.62              |
| 2:F:12:LYS:CG    | 2:F:13:GLY:H     | 2.13                     | 0.62              |
| 2:F:141:ALA:O    | 2:F:142:ALA:C    | 2.38                     | 0.62              |
| 2:F:307:ASN:HD21 | 2:F:344:ARG:NH1  | 1.97                     | 0.62              |
| 2:F:473:PHE:CD1  | 2:F:474:HIS:N    | 2.67                     | 0.62              |
| 2:F:569:THR:H    | 2:F:572:SER:CB   | 2.13                     | 0.62              |
| 1:G:532:LYS:O    | 1:G:536:ARG:HD2  | 1.99                     | 0.62              |
| 2:H:465:LEU:H    | 2:H:465:LEU:CD1  | 2.13                     | 0.62              |
| 1:I:370:PHE:CE1  | 1:I:403:GLY:HA3  | 2.34                     | 0.62              |
| 1:I:377:ASN:ND2  | 1:I:381:MET:HG2  | 2.15                     | 0.62              |
| 2:J:191:HIS:HA   | 2:J:195:ASN:HD21 | 1.64                     | 0.62              |
| 2:J:411:ILE:O    | 2:J:412:VAL:C    | 2.39                     | 0.62              |
| 1:K:264:SER:HA   | 1:K:267:MET:HE2  | 1.82                     | 0.62              |
| 1:K:425:VAL:HG13 | 1:K:426:LEU:N    | 2.13                     | 0.62              |
| 2:L:155:MET:H    | 2:L:158:ASP:HB3  | 1.64                     | 0.62              |
| 2:L:185:SER:O    | 2:L:188:ALA:HB3  | 2.00                     | 0.62              |
| 3:N:264:LEU:HD12 | 3:N:264:LEU:O    | 1.99                     | 0.62              |
| 3:N:415:ASN:ND2  | 3:N:416:GLY:H    | 1.97                     | 0.62              |
| 3:P:64:ASN:OD1   | 3:P:64:ASN:O     | 2.18                     | 0.62              |
| 3:R:415:ASN:ND2  | 3:R:416:GLY:H    | 1.97                     | 0.62              |
| 4:S:20:TYR:CD2   | 4:S:121:GLY:N    | 2.67                     | 0.62              |
| 4:T:108:GLU:CG   | 4:T:109:LYS:H    | 2.13                     | 0.62              |
| 3:V:177:GLU:O    | 3:V:413:THR:HA   | 2.00                     | 0.62              |
| 1:A:13:THR:O     | 1:A:26:MET:HE1   | 2.00                     | 0.61              |
| 1:A:135:CYS:CB   | 1:A:164:VAL:HG13 | 2.22                     | 0.61              |
| 1:A:216:VAL:HB   | 1:A:217:PRO:HD3  | 1.82                     | 0.61              |
| 2:D:486:THR:HG23 | 2:D:490:LYS:HE2  | 1.82                     | 0.61              |
| 1:G:566:TYR:O    | 1:G:569:LEU:N    | 2.32                     | 0.61              |
| 2:L:164:THR:O    | 2:L:168:LEU:HG   | 2.00                     | 0.61              |
| 3:N:43:GLU:C     | 3:N:45:MET:H     | 2.03                     | 0.61              |
| 4:S:8:PHE:N      | 4:S:8:PHE:CD2    | 2.65                     | 0.61              |
| 4:T:20:TYR:HD2   | 4:T:121:GLY:N    | 1.98                     | 0.61              |
| 4:T:98:VAL:HG22  | 4:T:99:CYS:N     | 2.15                     | 0.61              |
| 3:V:329:VAL:HG21 | 3:V:354:TYR:CD1  | 2.34                     | 0.61              |
| 4:W:27:GLU:O     | 4:W:30:LYS:HB3   | 1.99                     | 0.61              |
| 2:B:304:ARG:HG2  | 2:B:573:VAL:CG2  | 2.30                     | 0.61              |
| 2:B:307:ASN:HD21 | 2:B:344:ARG:NH1  | 1.97                     | 0.61              |
| 1:C:74:ILE:HG13  | 1:C:86:TYR:CD1   | 2.35                     | 0.61              |
| 2:D:171:ASP:O    | 2:D:172:SER:C    | 2.38                     | 0.61              |
| 2:F:343:ILE:C    | 2:F:345:LEU:H    | 2.02                     | 0.61              |
| 1:G:74:ILE:HG13  | 1:G:86:TYR:CD1   | 2.35                     | 0.61              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:99:VAL:HG23  | 1:G:100:HIS:N    | 2.15                     | 0.61              |
| 1:G:249:ILE:HG22 | 1:G:253:LEU:HD11 | 1.81                     | 0.61              |
| 1:G:453:ALA:O    | 1:G:455:THR:N    | 2.33                     | 0.61              |
| 2:H:20:ALA:C     | 2:H:22:LEU:H     | 2.03                     | 0.61              |
| 2:H:185:SER:O    | 2:H:188:ALA:HB3  | 2.00                     | 0.61              |
| 2:H:411:ILE:O    | 2:H:412:VAL:C    | 2.39                     | 0.61              |
| 1:I:74:ILE:HG13  | 1:I:86:TYR:CD1   | 2.35                     | 0.61              |
| 1:I:424:ARG:HH11 | 1:I:424:ARG:HG2  | 1.64                     | 0.61              |
| 2:J:127:ARG:O    | 2:J:130:LEU:HB2  | 1.99                     | 0.61              |
| 2:J:171:ASP:O    | 2:J:172:SER:C    | 2.38                     | 0.61              |
| 2:J:230:MET:HG2  | 2:J:266:PHE:CD2  | 2.34                     | 0.61              |
| 2:J:304:ARG:HG2  | 2:J:573:VAL:HA   | 1.82                     | 0.61              |
| 2:J:421:TYR:HD2  | 2:J:421:TYR:N    | 1.98                     | 0.61              |
| 1:K:174:MET:HG3  | 1:K:175:PHE:CE1  | 2.35                     | 0.61              |
| 1:K:451:MET:CE   | 1:K:451:MET:H    | 2.12                     | 0.61              |
| 2:L:171:ASP:O    | 2:L:172:SER:C    | 2.38                     | 0.61              |
| 2:L:230:MET:HG2  | 2:L:266:PHE:CD2  | 2.34                     | 0.61              |
| 3:M:112:GLU:OE2  | 3:M:136:THR:HB   | 1.99                     | 0.61              |
| 3:M:264:LEU:HD12 | 3:M:264:LEU:O    | 1.99                     | 0.61              |
| 3:O:22:ARG:CG    | 3:O:23:GLY:H     | 2.11                     | 0.61              |
| 4:S:76:ASN:C     | 4:S:76:ASN:ND2   | 2.44                     | 0.61              |
| 4:T:6:LEU:HD12   | 4:T:6:LEU:N      | 2.14                     | 0.61              |
| 4:X:27:GLU:O     | 4:X:30:LYS:HB3   | 1.99                     | 0.61              |
| 4:X:98:VAL:HG22  | 4:X:99:CYS:N     | 2.15                     | 0.61              |
| 1:A:51:ALA:O     | 1:A:52:LYS:C     | 2.36                     | 0.61              |
| 1:A:174:MET:HG3  | 1:A:175:PHE:CE1  | 2.35                     | 0.61              |
| 1:A:580:LEU:O    | 2:B:528:ARG:NH1  | 2.31                     | 0.61              |
| 2:B:141:ALA:HA   | 2:B:144:CYS:HG   | 1.66                     | 0.61              |
| 2:B:486:THR:HG23 | 2:B:490:LYS:HE2  | 1.82                     | 0.61              |
| 1:C:6:ARG:O      | 1:C:9:GLU:HB3    | 2.00                     | 0.61              |
| 2:D:164:THR:O    | 2:D:168:LEU:HG   | 2.00                     | 0.61              |
| 2:D:185:SER:O    | 2:D:188:ALA:HB3  | 2.00                     | 0.61              |
| 2:D:304:ARG:HG2  | 2:D:573:VAL:HA   | 1.83                     | 0.61              |
| 2:D:408:GLN:O    | 2:D:409:GLU:C    | 2.38                     | 0.61              |
| 1:E:6:ARG:O      | 1:E:9:GLU:HB3    | 2.00                     | 0.61              |
| 1:E:424:ARG:HH11 | 1:E:424:ARG:HG2  | 1.64                     | 0.61              |
| 1:E:453:ALA:O    | 1:E:455:THR:N    | 2.33                     | 0.61              |
| 2:F:49:ALA:O     | 2:F:51:PHE:N     | 2.33                     | 0.61              |
| 1:G:532:LYS:HB3  | 1:G:536:ARG:HH11 | 1.60                     | 0.61              |
| 2:J:141:ALA:O    | 2:J:142:ALA:C    | 2.38                     | 0.61              |
| 2:J:164:THR:O    | 2:J:168:LEU:HG   | 2.00                     | 0.61              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:J:215:THR:HB   | 2:J:218:ALA:HB3  | 1.83                     | 0.61              |
| 2:J:486:THR:HG23 | 2:J:490:LYS:HE2  | 1.82                     | 0.61              |
| 1:K:242:ASP:HB3  | 1:K:245:LEU:HB3  | 1.82                     | 0.61              |
| 2:L:283:LYS:O    | 2:L:287:PRO:HD2  | 2.00                     | 0.61              |
| 2:L:411:ILE:O    | 2:L:412:VAL:C    | 2.39                     | 0.61              |
| 3:M:202:VAL:HG13 | 3:M:204:LEU:HG   | 1.81                     | 0.61              |
| 3:M:293:TYR:O    | 3:M:357:ARG:HG3  | 2.01                     | 0.61              |
| 3:N:29:GLU:HG2   | 3:N:55:VAL:HG11  | 1.83                     | 0.61              |
| 3:R:194:ILE:HG13 | 3:R:269:LEU:HG   | 1.82                     | 0.61              |
| 4:S:98:VAL:HG22  | 4:S:99:CYS:N     | 2.15                     | 0.61              |
| 4:T:20:TYR:CD2   | 4:T:121:GLY:N    | 2.67                     | 0.61              |
| 1:A:249:ILE:HG22 | 1:A:253:LEU:HD11 | 1.81                     | 0.61              |
| 1:A:370:PHE:CE1  | 1:A:403:GLY:HA3  | 2.34                     | 0.61              |
| 2:B:171:ASP:O    | 2:B:172:SER:C    | 2.38                     | 0.61              |
| 2:B:421:TYR:HD2  | 2:B:421:TYR:N    | 1.98                     | 0.61              |
| 1:C:44:THR:O     | 1:C:45:TYR:HB2   | 1.99                     | 0.61              |
| 1:C:242:ASP:OD2  | 4:T:126:THR:HG21 | 2.01                     | 0.61              |
| 1:C:415:LYS:N    | 1:C:415:LYS:CE   | 2.62                     | 0.61              |
| 1:C:424:ARG:HH11 | 1:C:424:ARG:HG2  | 1.64                     | 0.61              |
| 2:D:283:LYS:O    | 2:D:287:PRO:HD2  | 2.00                     | 0.61              |
| 1:E:242:ASP:OD2  | 4:U:126:THR:HG21 | 2.01                     | 0.61              |
| 2:F:155:MET:H    | 2:F:158:ASP:HB3  | 1.64                     | 0.61              |
| 2:F:164:THR:O    | 2:F:168:LEU:HG   | 2.00                     | 0.61              |
| 2:F:432:LEU:HD12 | 2:F:448:MET:CE   | 2.30                     | 0.61              |
| 1:G:74:ILE:H     | 1:G:74:ILE:CD1   | 2.13                     | 0.61              |
| 1:I:479:CYS:O    | 1:I:480:ILE:C    | 2.38                     | 0.61              |
| 1:I:532:LYS:HB3  | 1:I:536:ARG:HH12 | 1.62                     | 0.61              |
| 2:J:49:ALA:O     | 2:J:51:PHE:N     | 2.32                     | 0.61              |
| 1:K:74:ILE:H     | 1:K:74:ILE:CD1   | 2.13                     | 0.61              |
| 1:K:364:ARG:O    | 1:K:365:ALA:C    | 2.37                     | 0.61              |
| 2:L:60:THR:CG2   | 2:L:61:ASP:H     | 2.05                     | 0.61              |
| 2:L:141:ALA:O    | 2:L:142:ALA:C    | 2.38                     | 0.61              |
| 2:L:465:LEU:H    | 2:L:465:LEU:CD1  | 2.13                     | 0.61              |
| 3:N:177:GLU:O    | 3:N:413:THR:HA   | 2.00                     | 0.61              |
| 3:P:181:LEU:HD12 | 3:P:418:TYR:CE1  | 2.35                     | 0.61              |
| 3:P:293:TYR:O    | 3:P:357:ARG:HG3  | 2.01                     | 0.61              |
| 4:S:93:LYS:HG2   | 4:S:93:LYS:O     | 2.01                     | 0.61              |
| 4:U:18:LYS:HG3   | 4:U:20:TYR:CE1   | 2.36                     | 0.61              |
| 1:A:188:HIS:O    | 1:A:189:GLY:C    | 2.39                     | 0.61              |
| 1:A:377:ASN:ND2  | 1:A:381:MET:HG2  | 2.14                     | 0.61              |
| 1:A:451:MET:H    | 1:A:451:MET:CE   | 2.12                     | 0.61              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:304:ARG:HG2  | 2:B:573:VAL:HA   | 1.82                     | 0.61              |
| 1:C:453:ALA:O    | 1:C:455:THR:N    | 2.33                     | 0.61              |
| 2:D:521:ASP:O    | 2:D:522:ARG:C    | 2.37                     | 0.61              |
| 1:E:378:ILE:HD11 | 1:E:411:TYR:HB3  | 1.81                     | 0.61              |
| 2:F:216:GLU:HB2  | 2:F:217:TRP:CZ3  | 2.33                     | 0.61              |
| 1:G:370:PHE:CE1  | 1:G:403:GLY:HA3  | 2.35                     | 0.61              |
| 2:H:164:THR:O    | 2:H:168:LEU:HG   | 2.00                     | 0.61              |
| 2:H:421:TYR:HD2  | 2:H:421:TYR:N    | 1.98                     | 0.61              |
| 1:I:242:ASP:OD2  | 4:X:126:THR:HG21 | 2.01                     | 0.61              |
| 1:I:452:HIS:O    | 1:I:456:VAL:HG23 | 2.00                     | 0.61              |
| 1:I:468:SER:O    | 1:I:469:GLN:CB   | 2.42                     | 0.61              |
| 1:I:566:TYR:O    | 1:I:569:LEU:N    | 2.32                     | 0.61              |
| 1:K:6:ARG:O      | 1:K:9:GLU:HB3    | 2.00                     | 0.61              |
| 2:L:421:TYR:N    | 2:L:421:TYR:CD2  | 2.68                     | 0.61              |
| 2:L:521:ASP:O    | 2:L:522:ARG:C    | 2.37                     | 0.61              |
| 3:M:92:SER:HB3   | 3:M:98:LEU:HD21  | 1.81                     | 0.61              |
| 3:N:112:GLU:OE2  | 3:N:136:THR:HB   | 1.99                     | 0.61              |
| 3:N:181:LEU:HD12 | 3:N:418:TYR:CE1  | 2.35                     | 0.61              |
| 3:O:24:ASP:C     | 3:O:26:ASP:H     | 2.00                     | 0.61              |
| 3:O:68:VAL:HG12  | 3:O:69:ALA:N     | 2.15                     | 0.61              |
| 3:P:43:GLU:C     | 3:P:45:MET:H     | 2.03                     | 0.61              |
| 3:P:112:GLU:OE2  | 3:P:136:THR:HB   | 1.99                     | 0.61              |
| 3:R:293:TYR:O    | 3:R:357:ARG:HG3  | 2.01                     | 0.61              |
| 1:A:152:TYR:HA   | 1:A:155:LYS:HE2  | 1.81                     | 0.61              |
| 1:A:479:CYS:O    | 1:A:480:ILE:C    | 2.38                     | 0.61              |
| 2:B:18:LEU:N     | 2:B:18:LEU:HD22  | 2.15                     | 0.61              |
| 2:B:141:ALA:O    | 2:B:142:ALA:C    | 2.38                     | 0.61              |
| 2:B:185:SER:O    | 2:B:188:ALA:HB3  | 2.00                     | 0.61              |
| 2:B:479:GLN:O    | 2:B:482:LEU:HB2  | 2.01                     | 0.61              |
| 2:B:492:PHE:HB2  | 2:B:503:VAL:CG2  | 2.31                     | 0.61              |
| 1:C:364:ARG:O    | 1:C:365:ALA:C    | 2.37                     | 0.61              |
| 1:C:482:GLU:CB   | 1:C:584:MET:SD   | 2.76                     | 0.61              |
| 2:D:47:VAL:O     | 2:D:48:SER:C     | 2.39                     | 0.61              |
| 2:F:486:THR:HG23 | 2:F:490:LYS:HE2  | 1.82                     | 0.61              |
| 1:G:174:MET:HG3  | 1:G:175:PHE:CE1  | 2.35                     | 0.61              |
| 1:G:296:ILE:HD13 | 1:G:305:LEU:HD11 | 1.83                     | 0.61              |
| 2:H:18:LEU:N     | 2:H:18:LEU:HD22  | 2.15                     | 0.61              |
| 2:H:155:MET:H    | 2:H:158:ASP:HB3  | 1.64                     | 0.61              |
| 1:I:176:LEU:O    | 1:I:179:THR:HB   | 2.01                     | 0.61              |
| 1:I:216:VAL:HB   | 1:I:217:PRO:HD3  | 1.82                     | 0.61              |
| 1:I:242:ASP:O    | 1:I:243:PRO:C    | 2.36                     | 0.61              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:J:326:VAL:HG21 | 2:J:369:PHE:HZ   | 1.66                     | 0.61              |
| 2:J:494:LYS:C    | 2:J:496:PRO:CD   | 2.67                     | 0.61              |
| 3:N:64:ASN:O     | 3:N:64:ASN:OD1   | 2.18                     | 0.61              |
| 3:O:92:SER:HB3   | 3:O:98:LEU:HD21  | 1.81                     | 0.61              |
| 3:P:130:ILE:HG22 | 3:P:130:ILE:O    | 1.98                     | 0.61              |
| 4:Q:98:VAL:HG22  | 4:Q:99:CYS:N     | 2.15                     | 0.61              |
| 3:R:50:LEU:N     | 3:R:50:LEU:HD12  | 2.16                     | 0.61              |
| 4:T:18:LYS:HG3   | 4:T:20:TYR:CE1   | 2.36                     | 0.61              |
| 4:W:7:LEU:HD21   | 4:W:67:PHE:CE2   | 2.36                     | 0.61              |
| 4:X:20:TYR:CD2   | 4:X:121:GLY:N    | 2.67                     | 0.61              |
| 1:A:6:ARG:O      | 1:A:9:GLU:HB3    | 2.00                     | 0.61              |
| 1:A:529:ALA:HA   | 1:A:532:LYS:CG   | 2.31                     | 0.61              |
| 2:B:569:THR:H    | 2:B:572:SER:CB   | 2.13                     | 0.61              |
| 1:C:479:CYS:O    | 1:C:480:ILE:C    | 2.38                     | 0.61              |
| 2:D:492:PHE:HB2  | 2:D:503:VAL:CG2  | 2.31                     | 0.61              |
| 1:E:415:LYS:N    | 1:E:415:LYS:CE   | 2.62                     | 0.61              |
| 1:E:532:LYS:O    | 1:E:536:ARG:HD2  | 1.99                     | 0.61              |
| 2:H:281:LEU:HD22 | 2:H:316:ILE:HG12 | 1.83                     | 0.61              |
| 2:H:348:GLN:N    | 2:H:348:GLN:OE1  | 2.34                     | 0.61              |
| 2:H:391:CYS:O    | 2:H:392:VAL:C    | 2.39                     | 0.61              |
| 2:H:432:LEU:HD12 | 2:H:448:MET:CE   | 2.30                     | 0.61              |
| 1:I:581:LEU:C    | 1:I:583:ARG:H    | 2.04                     | 0.61              |
| 2:J:432:LEU:HD12 | 2:J:448:MET:CE   | 2.30                     | 0.61              |
| 1:K:296:ILE:HD13 | 1:K:305:LEU:HD11 | 1.83                     | 0.61              |
| 1:K:377:ASN:ND2  | 1:K:381:MET:HG2  | 2.14                     | 0.61              |
| 2:L:47:VAL:O     | 2:L:48:SER:C     | 2.39                     | 0.61              |
| 3:O:50:LEU:HD11  | 3:O:59:TRP:HE1   | 1.66                     | 0.61              |
| 3:O:50:LEU:HD12  | 3:O:50:LEU:N     | 2.16                     | 0.61              |
| 3:O:293:TYR:O    | 3:O:357:ARG:HG3  | 2.01                     | 0.61              |
| 3:P:50:LEU:HD11  | 3:P:59:TRP:HE1   | 1.66                     | 0.61              |
| 3:P:92:SER:HB3   | 3:P:98:LEU:HD21  | 1.81                     | 0.61              |
| 4:Q:18:LYS:HG3   | 4:Q:20:TYR:CE1   | 2.36                     | 0.61              |
| 4:Q:33:ARG:HG2   | 4:Q:34:GLU:H     | 1.64                     | 0.61              |
| 3:V:415:ASN:ND2  | 3:V:416:GLY:H    | 1.97                     | 0.61              |
| 4:X:108:GLU:CG   | 4:X:109:LYS:H    | 2.13                     | 0.61              |
| 1:A:532:LYS:HB3  | 1:A:536:ARG:HH12 | 1.62                     | 0.61              |
| 2:B:32:GLU:O     | 2:B:35:LYS:HB2   | 2.01                     | 0.61              |
| 1:C:313:LEU:O    | 1:C:316:PHE:N    | 2.33                     | 0.61              |
| 1:C:580:LEU:O    | 2:D:528:ARG:NH1  | 2.31                     | 0.61              |
| 2:D:304:ARG:HG2  | 2:D:573:VAL:CG2  | 2.30                     | 0.61              |
| 2:D:391:CYS:O    | 2:D:392:VAL:C    | 2.39                     | 0.61              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:411:ILE:O    | 2:D:412:VAL:C    | 2.39                     | 0.61              |
| 2:F:185:SER:O    | 2:F:188:ALA:HB3  | 2.00                     | 0.61              |
| 2:F:492:PHE:HB2  | 2:F:503:VAL:CG2  | 2.31                     | 0.61              |
| 1:G:216:VAL:HB   | 1:G:217:PRO:HD3  | 1.82                     | 0.61              |
| 1:G:242:ASP:OD2  | 4:Q:126:THR:HG21 | 2.01                     | 0.61              |
| 1:G:326:TYR:CE1  | 1:G:360:SER:HB3  | 2.36                     | 0.61              |
| 2:H:141:ALA:O    | 2:H:142:ALA:C    | 2.38                     | 0.61              |
| 2:H:171:ASP:O    | 2:H:172:SER:C    | 2.38                     | 0.61              |
| 2:H:204:ILE:HA   | 2:H:207:LEU:HD12 | 1.82                     | 0.61              |
| 2:H:304:ARG:HG2  | 2:H:573:VAL:HA   | 1.82                     | 0.61              |
| 2:H:479:GLN:O    | 2:H:482:LEU:HB2  | 2.01                     | 0.61              |
| 1:I:6:ARG:O      | 1:I:9:GLU:HB3    | 2.00                     | 0.61              |
| 1:I:85:GLY:O     | 1:I:88:GLY:N     | 2.34                     | 0.61              |
| 1:I:174:MET:HG3  | 1:I:175:PHE:CE1  | 2.35                     | 0.61              |
| 2:L:281:LEU:HD22 | 2:L:316:ILE:HG12 | 1.83                     | 0.61              |
| 2:L:308:LEU:O    | 2:L:311:GLN:HB3  | 1.99                     | 0.61              |
| 3:O:29:GLU:HG2   | 3:O:55:VAL:HG11  | 1.82                     | 0.61              |
| 3:R:64:ASN:O     | 3:R:64:ASN:OD1   | 2.18                     | 0.61              |
| 3:V:335:VAL:O    | 3:V:335:VAL:HG23 | 2.01                     | 0.61              |
| 4:W:98:VAL:HG22  | 4:W:99:CYS:N     | 2.16                     | 0.61              |
| 4:X:8:PHE:HD1    | 4:X:36:MET:SD    | 2.24                     | 0.61              |
| 1:A:19:THR:HG22  | 1:A:21:ALA:N     | 2.16                     | 0.61              |
| 2:B:164:THR:O    | 2:B:168:LEU:HG   | 2.00                     | 0.61              |
| 2:B:465:LEU:H    | 2:B:465:LEU:CD1  | 2.13                     | 0.61              |
| 1:C:249:ILE:HG22 | 1:C:253:LEU:HD11 | 1.81                     | 0.61              |
| 2:D:18:LEU:N     | 2:D:18:LEU:HD22  | 2.15                     | 0.61              |
| 2:D:218:ALA:O    | 2:D:219:GLN:C    | 2.39                     | 0.61              |
| 2:D:348:GLN:N    | 2:D:348:GLN:OE1  | 2.34                     | 0.61              |
| 2:D:364:GLU:HA   | 2:D:364:GLU:OE1  | 2.01                     | 0.61              |
| 2:D:421:TYR:N    | 2:D:421:TYR:CD2  | 2.68                     | 0.61              |
| 1:E:152:TYR:HA   | 1:E:155:LYS:HE2  | 1.81                     | 0.61              |
| 1:E:216:VAL:HB   | 1:E:217:PRO:HD3  | 1.81                     | 0.61              |
| 2:F:32:GLU:O     | 2:F:35:LYS:HB2   | 2.01                     | 0.61              |
| 2:F:215:THR:HB   | 2:F:218:ALA:HB3  | 1.83                     | 0.61              |
| 2:F:348:GLN:N    | 2:F:348:GLN:OE1  | 2.34                     | 0.61              |
| 1:G:264:SER:HA   | 1:G:267:MET:HE2  | 1.82                     | 0.61              |
| 1:I:179:THR:HG21 | 1:I:211:HIS:HE1  | 1.66                     | 0.61              |
| 1:I:242:ASP:HB3  | 1:I:245:LEU:HB3  | 1.81                     | 0.61              |
| 2:J:348:GLN:N    | 2:J:348:GLN:OE1  | 2.34                     | 0.61              |
| 1:K:50:VAL:HG21  | 1:K:73:LEU:HD11  | 1.83                     | 0.61              |
| 1:K:74:ILE:HG13  | 1:K:86:TYR:CD1   | 2.35                     | 0.61              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:85:GLY:O     | 1:K:88:GLY:N     | 2.34                     | 0.61              |
| 1:K:326:TYR:CE1  | 1:K:360:SER:HB3  | 2.36                     | 0.61              |
| 2:L:304:ARG:HG2  | 2:L:573:VAL:CG2  | 2.30                     | 0.61              |
| 3:M:177:GLU:O    | 3:M:413:THR:HA   | 2.00                     | 0.61              |
| 3:M:181:LEU:HD12 | 3:M:418:TYR:CE1  | 2.35                     | 0.61              |
| 3:M:384:TYR:CD2  | 3:M:384:TYR:N    | 2.68                     | 0.61              |
| 3:N:335:VAL:HG23 | 3:N:335:VAL:O    | 2.01                     | 0.61              |
| 3:O:329:VAL:HG12 | 3:O:330:GLY:N    | 2.16                     | 0.61              |
| 3:O:335:VAL:O    | 3:O:335:VAL:HG23 | 2.01                     | 0.61              |
| 4:Q:108:GLU:CG   | 4:Q:109:LYS:H    | 2.13                     | 0.61              |
| 4:U:98:VAL:HG22  | 4:U:99:CYS:N     | 2.15                     | 0.61              |
| 3:V:50:LEU:HD12  | 3:V:50:LEU:N     | 2.16                     | 0.61              |
| 4:W:93:LYS:HG2   | 4:W:93:LYS:O     | 2.01                     | 0.61              |
| 4:X:93:LYS:HG2   | 4:X:93:LYS:O     | 2.01                     | 0.61              |
| 2:B:47:VAL:O     | 2:B:48:SER:C     | 2.39                     | 0.61              |
| 2:D:255:VAL:CG2  | 2:D:256:VAL:H    | 2.06                     | 0.61              |
| 2:D:569:THR:H    | 2:D:572:SER:CB   | 2.13                     | 0.61              |
| 1:E:19:THR:HG22  | 1:E:21:ALA:N     | 2.16                     | 0.61              |
| 2:F:191:HIS:HA   | 2:F:195:ASN:HD21 | 1.64                     | 0.61              |
| 2:F:326:VAL:HG21 | 2:F:369:PHE:HZ   | 1.66                     | 0.61              |
| 1:G:176:LEU:O    | 1:G:179:THR:HB   | 2.01                     | 0.61              |
| 1:G:179:THR:HG21 | 1:G:211:HIS:HE1  | 1.66                     | 0.61              |
| 1:G:242:ASP:HB3  | 1:G:245:LEU:HB3  | 1.81                     | 0.61              |
| 2:H:492:PHE:HA   | 2:H:499:THR:HG21 | 1.83                     | 0.61              |
| 2:J:175:MET:CE   | 3:R:124:GLN:HB3  | 2.31                     | 0.61              |
| 2:J:283:LYS:O    | 2:J:287:PRO:HD2  | 2.00                     | 0.61              |
| 2:J:298:PRO:O    | 2:J:302:PRO:CD   | 2.40                     | 0.61              |
| 2:L:421:TYR:HD2  | 2:L:421:TYR:N    | 1.98                     | 0.61              |
| 3:M:50:LEU:HD11  | 3:M:59:TRP:HE1   | 1.66                     | 0.61              |
| 3:M:68:VAL:HG12  | 3:M:69:ALA:N     | 2.15                     | 0.61              |
| 3:M:141:LYS:O    | 3:M:142:LEU:HG   | 2.01                     | 0.61              |
| 3:O:141:LYS:O    | 3:O:142:LEU:HG   | 2.01                     | 0.61              |
| 3:O:177:GLU:O    | 3:O:413:THR:HA   | 2.00                     | 0.61              |
| 3:P:50:LEU:HD12  | 3:P:50:LEU:N     | 2.16                     | 0.61              |
| 3:P:334:TRP:CD1  | 3:P:335:VAL:N    | 2.69                     | 0.61              |
| 4:U:8:PHE:HD1    | 4:U:36:MET:SD    | 2.24                     | 0.61              |
| 1:A:313:LEU:O    | 1:A:316:PHE:N    | 2.33                     | 0.60              |
| 2:B:204:ILE:HA   | 2:B:207:LEU:HD12 | 1.82                     | 0.60              |
| 2:B:338:LYS:O    | 2:B:342:MET:HG3  | 2.01                     | 0.60              |
| 2:F:18:LEU:N     | 2:F:18:LEU:HD22  | 2.15                     | 0.60              |
| 2:F:411:ILE:O    | 2:F:412:VAL:C    | 2.39                     | 0.60              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:452:VAL:CG1  | 2:F:453:GLY:N    | 2.64                     | 0.60              |
| 1:G:216:VAL:O    | 1:G:220:VAL:HG23 | 2.01                     | 0.60              |
| 2:H:364:GLU:HA   | 2:H:364:GLU:OE1  | 2.01                     | 0.60              |
| 2:H:377:ILE:O    | 2:H:380:CYS:HB3  | 2.01                     | 0.60              |
| 2:H:452:VAL:CG1  | 2:H:453:GLY:N    | 2.64                     | 0.60              |
| 2:J:63:LEU:O     | 2:J:64:GLU:C     | 2.40                     | 0.60              |
| 2:J:479:GLN:O    | 2:J:482:LEU:HB2  | 2.01                     | 0.60              |
| 1:K:216:VAL:O    | 1:K:220:VAL:HG23 | 2.01                     | 0.60              |
| 2:L:364:GLU:HA   | 2:L:364:GLU:OE1  | 2.01                     | 0.60              |
| 3:M:335:VAL:HG23 | 3:M:335:VAL:O    | 2.01                     | 0.60              |
| 3:R:43:GLU:C     | 3:R:45:MET:H     | 2.03                     | 0.60              |
| 4:S:7:LEU:HD21   | 4:S:67:PHE:CE2   | 2.36                     | 0.60              |
| 4:S:8:PHE:HD1    | 4:S:36:MET:SD    | 2.24                     | 0.60              |
| 3:V:43:GLU:C     | 3:V:45:MET:H     | 2.03                     | 0.60              |
| 4:X:18:LYS:HG3   | 4:X:20:TYR:CE1   | 2.36                     | 0.60              |
| 1:A:74:ILE:HG13  | 1:A:86:TYR:CD1   | 2.35                     | 0.60              |
| 1:A:85:GLY:O     | 1:A:88:GLY:N     | 2.34                     | 0.60              |
| 1:A:581:LEU:C    | 1:A:583:ARG:H    | 2.04                     | 0.60              |
| 2:B:326:VAL:HG21 | 2:B:369:PHE:HZ   | 1.66                     | 0.60              |
| 1:C:172:MET:H    | 1:C:172:MET:CE   | 2.14                     | 0.60              |
| 2:D:432:LEU:HD12 | 2:D:448:MET:HE1  | 1.82                     | 0.60              |
| 2:D:479:GLN:O    | 2:D:482:LEU:HB2  | 2.01                     | 0.60              |
| 1:E:284:VAL:O    | 1:E:287:ALA:HB3  | 2.01                     | 0.60              |
| 1:E:326:TYR:CE1  | 1:E:360:SER:HB3  | 2.36                     | 0.60              |
| 2:F:465:LEU:H    | 2:F:465:LEU:CD1  | 2.13                     | 0.60              |
| 2:F:479:GLN:O    | 2:F:482:LEU:HB2  | 2.01                     | 0.60              |
| 1:G:188:HIS:O    | 1:G:189:GLY:C    | 2.39                     | 0.60              |
| 1:G:385:LEU:O    | 1:G:388:PHE:HB3  | 2.02                     | 0.60              |
| 1:I:326:TYR:CE1  | 1:I:360:SER:HB3  | 2.36                     | 0.60              |
| 2:J:364:GLU:HA   | 2:J:364:GLU:OE1  | 2.01                     | 0.60              |
| 2:J:421:TYR:N    | 2:J:421:TYR:CD2  | 2.68                     | 0.60              |
| 1:K:97:GLN:HA    | 1:K:100:HIS:CB   | 2.32                     | 0.60              |
| 1:K:284:VAL:O    | 1:K:287:ALA:HB3  | 2.01                     | 0.60              |
| 1:K:415:LYS:N    | 1:K:415:LYS:CE   | 2.62                     | 0.60              |
| 2:L:63:LEU:O     | 2:L:64:GLU:C     | 2.40                     | 0.60              |
| 2:L:139:LYS:HD3  | 2:L:175:MET:HE2  | 1.80                     | 0.60              |
| 3:N:194:ILE:HG13 | 3:N:269:LEU:HG   | 1.82                     | 0.60              |
| 3:P:329:VAL:HG12 | 3:P:330:GLY:N    | 2.16                     | 0.60              |
| 4:Q:7:LEU:HD21   | 4:Q:67:PHE:CE2   | 2.36                     | 0.60              |
| 3:R:329:VAL:HG12 | 3:R:330:GLY:N    | 2.16                     | 0.60              |
| 4:U:11:GLN:O     | 4:U:13:LYS:N     | 2.32                     | 0.60              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:U:30:LYS:O     | 4:U:31:MET:C     | 2.39                     | 0.60              |
| 1:A:242:ASP:OD2  | 4:S:126:THR:HG21 | 2.01                     | 0.60              |
| 2:B:281:LEU:HD22 | 2:B:316:ILE:HG12 | 1.83                     | 0.60              |
| 1:C:174:MET:HG3  | 1:C:175:PHE:CE1  | 2.36                     | 0.60              |
| 1:C:176:LEU:O    | 1:C:179:THR:HB   | 2.01                     | 0.60              |
| 1:C:393:GLU:HA   | 1:C:393:GLU:OE1  | 2.02                     | 0.60              |
| 2:D:32:GLU:O     | 2:D:35:LYS:HB2   | 2.01                     | 0.60              |
| 2:D:452:VAL:CG1  | 2:D:453:GLY:N    | 2.64                     | 0.60              |
| 1:E:85:GLY:O     | 1:E:88:GLY:N     | 2.34                     | 0.60              |
| 1:E:174:MET:HG3  | 1:E:175:PHE:CE1  | 2.35                     | 0.60              |
| 2:F:16:PHE:CZ    | 3:M:416:GLY:HA3  | 2.36                     | 0.60              |
| 2:F:304:ARG:HG2  | 2:F:573:VAL:HA   | 1.82                     | 0.60              |
| 2:F:331:PRO:CD   | 2:F:334:VAL:HG21 | 2.29                     | 0.60              |
| 2:F:492:PHE:HA   | 2:F:499:THR:HG21 | 1.83                     | 0.60              |
| 1:G:172:MET:SD   | 1:G:173:GLU:N    | 2.75                     | 0.60              |
| 1:G:233:PRO:HD2  | 2:J:464:GLU:OE2  | 2.01                     | 0.60              |
| 1:G:540:THR:C    | 1:G:542:ASN:H    | 2.05                     | 0.60              |
| 2:J:377:ILE:O    | 2:J:380:CYS:HB3  | 2.02                     | 0.60              |
| 1:K:438:VAL:HB   | 1:K:439:PRO:CD   | 2.24                     | 0.60              |
| 1:K:452:HIS:O    | 1:K:456:VAL:HG23 | 2.00                     | 0.60              |
| 2:L:18:LEU:N     | 2:L:18:LEU:HD22  | 2.15                     | 0.60              |
| 2:L:218:ALA:O    | 2:L:219:GLN:C    | 2.39                     | 0.60              |
| 2:L:377:ILE:O    | 2:L:380:CYS:HB3  | 2.01                     | 0.60              |
| 3:M:43:GLU:C     | 3:M:45:MET:H     | 2.03                     | 0.60              |
| 3:N:141:LYS:O    | 3:N:142:LEU:HG   | 2.01                     | 0.60              |
| 3:O:64:ASN:O     | 3:O:64:ASN:OD1   | 2.18                     | 0.60              |
| 4:Q:76:ASN:HD21  | 4:Q:79:ILE:H     | 1.50                     | 0.60              |
| 4:T:93:LYS:HG2   | 4:T:93:LYS:O     | 2.01                     | 0.60              |
| 4:U:35:LEU:C     | 4:U:39:VAL:HG23  | 2.22                     | 0.60              |
| 4:W:18:LYS:HG3   | 4:W:20:TYR:CE1   | 2.36                     | 0.60              |
| 1:A:176:LEU:O    | 1:A:179:THR:HB   | 2.01                     | 0.60              |
| 1:A:216:VAL:O    | 1:A:220:VAL:HG23 | 2.01                     | 0.60              |
| 2:B:9:THR:HG22   | 2:B:11:LYS:H     | 1.67                     | 0.60              |
| 2:B:445:ARG:O    | 2:B:446:ALA:C    | 2.40                     | 0.60              |
| 1:C:172:MET:SD   | 1:C:173:GLU:N    | 2.75                     | 0.60              |
| 1:C:565:GLU:CD   | 2:D:526:TYR:HH   | 2.04                     | 0.60              |
| 2:D:338:LYS:O    | 2:D:342:MET:HG3  | 2.01                     | 0.60              |
| 2:D:377:ILE:O    | 2:D:380:CYS:HB3  | 2.01                     | 0.60              |
| 1:E:172:MET:SD   | 1:E:173:GLU:N    | 2.75                     | 0.60              |
| 1:E:296:ILE:HD13 | 1:E:305:LEU:HD11 | 1.83                     | 0.60              |
| 2:F:47:VAL:O     | 2:F:48:SER:C     | 2.39                     | 0.60              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:204:ILE:HA   | 2:F:207:LEU:HD12 | 1.82                     | 0.60              |
| 2:F:218:ALA:O    | 2:F:219:GLN:C    | 2.39                     | 0.60              |
| 2:F:364:GLU:HA   | 2:F:364:GLU:OE1  | 2.01                     | 0.60              |
| 1:G:172:MET:H    | 1:G:172:MET:CE   | 2.14                     | 0.60              |
| 2:H:12:LYS:CG    | 2:H:13:GLY:H     | 2.13                     | 0.60              |
| 2:H:569:THR:H    | 2:H:572:SER:CB   | 2.13                     | 0.60              |
| 1:I:385:LEU:O    | 1:I:388:PHE:HB3  | 2.02                     | 0.60              |
| 2:J:47:VAL:O     | 2:J:48:SER:C     | 2.39                     | 0.60              |
| 2:J:204:ILE:HA   | 2:J:207:LEU:HD12 | 1.82                     | 0.60              |
| 1:K:19:THR:HG22  | 1:K:21:ALA:N     | 2.16                     | 0.60              |
| 2:L:12:LYS:CG    | 2:L:13:GLY:H     | 2.13                     | 0.60              |
| 2:L:338:LYS:O    | 2:L:342:MET:HG3  | 2.01                     | 0.60              |
| 2:L:408:GLN:O    | 2:L:409:GLU:C    | 2.38                     | 0.60              |
| 2:L:522:ARG:HG2  | 2:L:526:TYR:CE1  | 2.35                     | 0.60              |
| 3:M:196:GLY:HA3  | 3:M:267:TYR:CE1  | 2.37                     | 0.60              |
| 3:N:329:VAL:HG12 | 3:N:330:GLY:N    | 2.16                     | 0.60              |
| 3:P:283:ILE:O    | 3:P:284:GLU:HG3  | 2.02                     | 0.60              |
| 3:R:181:LEU:HD12 | 3:R:418:TYR:CE1  | 2.35                     | 0.60              |
| 4:S:35:LEU:C     | 4:S:39:VAL:HG23  | 2.22                     | 0.60              |
| 4:S:85:HIS:O     | 4:S:88:VAL:HG22  | 2.02                     | 0.60              |
| 4:T:7:LEU:HD21   | 4:T:67:PHE:CE2   | 2.36                     | 0.60              |
| 4:T:8:PHE:HD1    | 4:T:36:MET:SD    | 2.24                     | 0.60              |
| 4:T:71:ILE:CG2   | 4:T:72:GLU:N     | 2.65                     | 0.60              |
| 4:U:11:GLN:CD    | 4:U:11:GLN:N     | 2.51                     | 0.60              |
| 4:U:85:HIS:O     | 4:U:88:VAL:HG22  | 2.02                     | 0.60              |
| 3:V:141:LYS:O    | 3:V:142:LEU:HG   | 2.01                     | 0.60              |
| 3:V:181:LEU:HD12 | 3:V:418:TYR:CE1  | 2.35                     | 0.60              |
| 3:V:293:TYR:O    | 3:V:357:ARG:HG3  | 2.01                     | 0.60              |
| 4:X:7:LEU:HD21   | 4:X:67:PHE:CE2   | 2.36                     | 0.60              |
| 4:X:30:LYS:O     | 4:X:31:MET:C     | 2.39                     | 0.60              |
| 2:B:12:LYS:CG    | 2:B:13:GLY:H     | 2.13                     | 0.60              |
| 2:B:407:VAL:O    | 2:B:410:ALA:HB3  | 2.02                     | 0.60              |
| 1:C:85:GLY:O     | 1:C:88:GLY:N     | 2.34                     | 0.60              |
| 2:D:20:ALA:C     | 2:D:22:LEU:H     | 2.03                     | 0.60              |
| 2:D:191:HIS:HA   | 2:D:195:ASN:HD21 | 1.64                     | 0.60              |
| 1:E:179:THR:HG21 | 1:E:211:HIS:HE1  | 1.66                     | 0.60              |
| 1:G:452:HIS:O    | 1:G:456:VAL:HG23 | 2.00                     | 0.60              |
| 2:H:258:SER:O    | 2:H:261:LYS:HB3  | 2.02                     | 0.60              |
| 2:H:492:PHE:HB2  | 2:H:503:VAL:CG2  | 2.31                     | 0.60              |
| 2:J:465:LEU:H    | 2:J:465:LEU:CD1  | 2.13                     | 0.60              |
| 2:L:326:VAL:HG21 | 2:L:369:PHE:HZ   | 1.66                     | 0.60              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:L:452:VAL:CG1  | 2:L:453:GLY:N    | 2.64                     | 0.60              |
| 3:O:194:ILE:HG13 | 3:O:269:LEU:HG   | 1.81                     | 0.60              |
| 3:P:384:TYR:N    | 3:P:384:TYR:CD2  | 2.68                     | 0.60              |
| 4:Q:71:ILE:CG2   | 4:Q:72:GLU:N     | 2.65                     | 0.60              |
| 3:R:141:LYS:O    | 3:R:142:LEU:HG   | 2.01                     | 0.60              |
| 4:T:35:LEU:C     | 4:T:39:VAL:HG23  | 2.22                     | 0.60              |
| 3:V:202:VAL:HG13 | 3:V:204:LEU:HG   | 1.81                     | 0.60              |
| 4:W:30:LYS:HZ1   | 4:W:30:LYS:HA    | 1.66                     | 0.60              |
| 4:W:35:LEU:C     | 4:W:39:VAL:HG23  | 2.22                     | 0.60              |
| 1:A:179:THR:HG21 | 1:A:211:HIS:HE1  | 1.66                     | 0.60              |
| 2:B:348:GLN:N    | 2:B:348:GLN:OE1  | 2.34                     | 0.60              |
| 1:E:97:GLN:HA    | 1:E:100:HIS:CB   | 2.32                     | 0.60              |
| 2:F:281:LEU:HD22 | 2:F:316:ILE:HG12 | 1.83                     | 0.60              |
| 1:G:46:ARG:HG2   | 1:G:73:LEU:CD2   | 2.32                     | 0.60              |
| 1:G:85:GLY:O     | 1:G:88:GLY:N     | 2.34                     | 0.60              |
| 2:H:47:VAL:O     | 2:H:48:SER:C     | 2.39                     | 0.60              |
| 2:H:166:LYS:HA   | 2:H:169:ILE:CD1  | 2.27                     | 0.60              |
| 2:J:12:LYS:CG    | 2:J:13:GLY:H     | 2.13                     | 0.60              |
| 2:J:258:SER:O    | 2:J:261:LYS:HB3  | 2.02                     | 0.60              |
| 2:J:281:LEU:HD22 | 2:J:316:ILE:HG12 | 1.83                     | 0.60              |
| 2:J:304:ARG:HG2  | 2:J:573:VAL:CG2  | 2.30                     | 0.60              |
| 2:J:569:THR:H    | 2:J:572:SER:CB   | 2.13                     | 0.60              |
| 1:K:313:LEU:O    | 1:K:316:PHE:N    | 2.33                     | 0.60              |
| 2:L:258:SER:O    | 2:L:261:LYS:HB3  | 2.02                     | 0.60              |
| 3:M:50:LEU:HD12  | 3:M:50:LEU:N     | 2.16                     | 0.60              |
| 3:M:64:ASN:OD1   | 3:M:64:ASN:O     | 2.18                     | 0.60              |
| 3:N:11:LEU:HD11  | 3:N:64:ASN:OD1   | 2.01                     | 0.60              |
| 3:N:68:VAL:HG12  | 3:N:69:ALA:N     | 2.15                     | 0.60              |
| 3:N:196:GLY:HA3  | 3:N:267:TYR:CE1  | 2.37                     | 0.60              |
| 3:N:293:TYR:O    | 3:N:357:ARG:HG3  | 2.01                     | 0.60              |
| 3:O:283:ILE:O    | 3:O:284:GLU:HG3  | 2.02                     | 0.60              |
| 4:Q:30:LYS:O     | 4:Q:31:MET:C     | 2.39                     | 0.60              |
| 4:S:7:LEU:HB2    | 4:S:16:LEU:HB3   | 1.84                     | 0.60              |
| 4:U:7:LEU:HD21   | 4:U:67:PHE:CE2   | 2.36                     | 0.60              |
| 4:U:108:GLU:CG   | 4:U:109:LYS:H    | 2.13                     | 0.60              |
| 1:A:6:ARG:HD3    | 3:N:337:GLU:HG2  | 1.82                     | 0.60              |
| 1:A:385:LEU:O    | 1:A:388:PHE:HB3  | 2.02                     | 0.60              |
| 2:B:331:PRO:CD   | 2:B:334:VAL:HG21 | 2.29                     | 0.60              |
| 1:C:74:ILE:H     | 1:C:74:ILE:CD1   | 2.13                     | 0.60              |
| 1:C:274:VAL:CG1  | 1:C:292:THR:HG21 | 2.29                     | 0.60              |
| 2:D:281:LEU:HD22 | 2:D:316:ILE:HG12 | 1.83                     | 0.60              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:9:THR:HG22   | 2:F:11:LYS:H     | 1.67                     | 0.60              |
| 2:F:338:LYS:O    | 2:F:342:MET:HG3  | 2.01                     | 0.60              |
| 2:F:421:TYR:CD2  | 2:F:421:TYR:N    | 2.68                     | 0.60              |
| 2:H:32:GLU:O     | 2:H:35:LYS:HB2   | 2.01                     | 0.60              |
| 2:H:304:ARG:HG2  | 2:H:573:VAL:CG2  | 2.30                     | 0.60              |
| 1:I:46:ARG:HG2   | 1:I:73:LEU:CD2   | 2.32                     | 0.60              |
| 1:I:188:HIS:O    | 1:I:189:GLY:C    | 2.39                     | 0.60              |
| 1:I:216:VAL:O    | 1:I:220:VAL:HG23 | 2.01                     | 0.60              |
| 1:I:583:ARG:HB2  | 2:J:528:ARG:CZ   | 2.32                     | 0.60              |
| 2:J:407:VAL:O    | 2:J:410:ALA:HB3  | 2.02                     | 0.60              |
| 1:K:176:LEU:O    | 1:K:179:THR:HB   | 2.01                     | 0.60              |
| 1:K:216:VAL:HB   | 1:K:217:PRO:HD3  | 1.82                     | 0.60              |
| 1:K:389:LEU:HD21 | 1:K:425:VAL:HG23 | 1.84                     | 0.60              |
| 2:L:204:ILE:HA   | 2:L:207:LEU:HD12 | 1.82                     | 0.60              |
| 2:L:217:TRP:CD1  | 3:V:123:PRO:HB2  | 2.37                     | 0.60              |
| 2:L:348:GLN:N    | 2:L:348:GLN:OE1  | 2.34                     | 0.60              |
| 2:L:391:CYS:O    | 2:L:392:VAL:C    | 2.39                     | 0.60              |
| 2:L:445:ARG:O    | 2:L:446:ALA:C    | 2.40                     | 0.60              |
| 3:M:329:VAL:HG12 | 3:M:330:GLY:N    | 2.16                     | 0.60              |
| 3:N:384:TYR:CD2  | 3:N:384:TYR:N    | 2.68                     | 0.60              |
| 3:O:181:LEU:HD12 | 3:O:418:TYR:CE1  | 2.35                     | 0.60              |
| 3:O:334:TRP:CD1  | 3:O:335:VAL:N    | 2.69                     | 0.60              |
| 3:P:11:LEU:HD11  | 3:P:64:ASN:OD1   | 2.01                     | 0.60              |
| 4:Q:8:PHE:HD1    | 4:Q:36:MET:SD    | 2.24                     | 0.60              |
| 3:R:50:LEU:HD11  | 3:R:59:TRP:HE1   | 1.66                     | 0.60              |
| 4:S:18:LYS:HG3   | 4:S:20:TYR:CE1   | 2.36                     | 0.60              |
| 3:V:144:THR:CG2  | 3:V:145:GLY:H    | 2.14                     | 0.60              |
| 3:V:196:GLY:HA3  | 3:V:267:TYR:CE1  | 2.37                     | 0.60              |
| 4:X:71:ILE:CG2   | 4:X:72:GLU:N     | 2.65                     | 0.60              |
| 1:A:99:VAL:HG23  | 1:A:100:HIS:N    | 2.15                     | 0.60              |
| 1:A:284:VAL:O    | 1:A:287:ALA:HB3  | 2.01                     | 0.60              |
| 2:B:367:VAL:O    | 2:B:368:ASP:C    | 2.40                     | 0.60              |
| 2:B:377:ILE:O    | 2:B:380:CYS:HB3  | 2.01                     | 0.60              |
| 1:C:97:GLN:HA    | 1:C:100:HIS:CB   | 2.32                     | 0.60              |
| 1:C:284:VAL:O    | 1:C:287:ALA:HB3  | 2.01                     | 0.60              |
| 2:D:258:SER:O    | 2:D:261:LYS:HB3  | 2.02                     | 0.60              |
| 2:D:367:VAL:O    | 2:D:368:ASP:C    | 2.40                     | 0.60              |
| 2:D:426:GLU:O    | 2:D:429:ILE:HD13 | 2.02                     | 0.60              |
| 1:E:172:MET:H    | 1:E:172:MET:CE   | 2.14                     | 0.60              |
| 1:E:183:LEU:HD12 | 1:E:215:LEU:HD13 | 1.84                     | 0.60              |
| 1:E:188:HIS:O    | 1:E:189:GLY:C    | 2.39                     | 0.60              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:540:THR:C    | 1:E:542:ASN:H    | 2.05                     | 0.60              |
| 1:E:565:GLU:CD   | 2:F:526:TYR:HH   | 2.04                     | 0.60              |
| 2:F:178:ALA:HB2  | 2:F:218:ALA:HB2  | 1.84                     | 0.60              |
| 2:F:408:GLN:O    | 2:F:409:GLU:C    | 2.38                     | 0.60              |
| 2:J:391:CYS:O    | 2:J:392:VAL:C    | 2.39                     | 0.60              |
| 1:K:187:ASN:ND2  | 1:K:187:ASN:C    | 2.55                     | 0.60              |
| 2:L:20:ALA:C     | 2:L:22:LEU:H     | 2.03                     | 0.60              |
| 2:L:298:PRO:O    | 2:L:302:PRO:CD   | 2.40                     | 0.60              |
| 3:N:144:THR:CG2  | 3:N:145:GLY:H    | 2.14                     | 0.60              |
| 3:N:334:TRP:CD1  | 3:N:335:VAL:N    | 2.69                     | 0.60              |
| 3:O:43:GLU:C     | 3:O:45:MET:H     | 2.03                     | 0.60              |
| 4:T:8:PHE:HD2    | 4:T:8:PHE:N      | 1.96                     | 0.60              |
| 4:T:85:HIS:O     | 4:T:88:VAL:HG22  | 2.02                     | 0.60              |
| 3:V:334:TRP:CD1  | 3:V:335:VAL:N    | 2.69                     | 0.60              |
| 4:W:71:ILE:CG2   | 4:W:72:GLU:N     | 2.65                     | 0.60              |
| 4:X:11:GLN:O     | 4:X:13:LYS:N     | 2.32                     | 0.60              |
| 1:A:97:GLN:HA    | 1:A:100:HIS:CB   | 2.32                     | 0.60              |
| 1:A:264:SER:HA   | 1:A:267:MET:HE2  | 1.83                     | 0.60              |
| 1:A:323:ASN:O    | 1:A:324:ILE:C    | 2.40                     | 0.60              |
| 2:B:63:LEU:O     | 2:B:64:GLU:C     | 2.40                     | 0.60              |
| 2:B:408:GLN:O    | 2:B:409:GLU:C    | 2.38                     | 0.60              |
| 2:B:411:ILE:O    | 2:B:412:VAL:C    | 2.39                     | 0.60              |
| 1:C:46:ARG:HG2   | 1:C:73:LEU:CD2   | 2.32                     | 0.60              |
| 1:C:99:VAL:HG23  | 1:C:100:HIS:N    | 2.15                     | 0.60              |
| 1:C:296:ILE:HD13 | 1:C:305:LEU:HD11 | 1.83                     | 0.60              |
| 1:C:389:LEU:HD21 | 1:C:425:VAL:HG23 | 1.84                     | 0.60              |
| 1:C:583:ARG:HB2  | 2:D:528:ARG:CZ   | 2.32                     | 0.60              |
| 2:D:204:ILE:HA   | 2:D:207:LEU:HD12 | 1.82                     | 0.60              |
| 2:D:215:THR:HB   | 2:D:218:ALA:HB3  | 1.82                     | 0.60              |
| 2:D:407:VAL:O    | 2:D:410:ALA:HB3  | 2.02                     | 0.60              |
| 1:E:74:ILE:H     | 1:E:74:ILE:CD1   | 2.13                     | 0.60              |
| 1:E:356:ASP:OD1  | 1:E:357:LEU:N    | 2.35                     | 0.60              |
| 2:H:311:GLN:HG2  | 2:H:555:ILE:HD12 | 1.84                     | 0.60              |
| 2:H:367:VAL:O    | 2:H:368:ASP:C    | 2.41                     | 0.60              |
| 2:H:448:MET:O    | 2:H:451:ILE:HB   | 2.02                     | 0.60              |
| 1:I:172:MET:SD   | 1:I:173:GLU:N    | 2.75                     | 0.60              |
| 1:I:478:TRP:HA   | 1:I:478:TRP:HE3  | 1.67                     | 0.60              |
| 2:J:492:PHE:HB2  | 2:J:503:VAL:CG2  | 2.31                     | 0.60              |
| 1:K:323:ASN:O    | 1:K:324:ILE:C    | 2.40                     | 0.60              |
| 1:K:581:LEU:C    | 1:K:583:ARG:H    | 2.04                     | 0.60              |
| 2:L:9:THR:HG22   | 2:L:11:LYS:H     | 1.66                     | 0.60              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:L:215:THR:HB   | 2:L:218:ALA:HB3  | 1.83                     | 0.60              |
| 2:L:331:PRO:CD   | 2:L:334:VAL:HG21 | 2.29                     | 0.60              |
| 2:L:492:PHE:HB2  | 2:L:503:VAL:CG2  | 2.31                     | 0.60              |
| 2:L:492:PHE:HA   | 2:L:499:THR:HG21 | 1.83                     | 0.60              |
| 2:L:494:LYS:C    | 2:L:496:PRO:CD   | 2.67                     | 0.60              |
| 3:O:321:ASP:CG   | 3:O:322:SER:N    | 2.55                     | 0.60              |
| 3:P:144:THR:CG2  | 3:P:145:GLY:H    | 2.14                     | 0.60              |
| 4:Q:20:TYR:CD2   | 4:Q:121:GLY:N    | 2.67                     | 0.60              |
| 4:Q:35:LEU:C     | 4:Q:39:VAL:HG23  | 2.22                     | 0.60              |
| 4:Q:93:LYS:HG2   | 4:Q:93:LYS:O     | 2.01                     | 0.60              |
| 3:R:11:LEU:HD11  | 3:R:64:ASN:OD1   | 2.01                     | 0.60              |
| 3:R:283:ILE:O    | 3:R:284:GLU:HG3  | 2.02                     | 0.60              |
| 3:R:334:TRP:CD1  | 3:R:335:VAL:N    | 2.69                     | 0.60              |
| 4:S:11:GLN:O     | 4:S:13:LYS:N     | 2.32                     | 0.60              |
| 4:T:30:LYS:O     | 4:T:31:MET:C     | 2.39                     | 0.60              |
| 4:W:85:HIS:O     | 4:W:88:VAL:HG22  | 2.02                     | 0.60              |
| 1:C:19:THR:HG22  | 1:C:21:ALA:N     | 2.16                     | 0.60              |
| 2:D:490:LYS:HG2  | 2:D:542:LEU:HD21 | 1.84                     | 0.60              |
| 1:E:46:ARG:HG2   | 1:E:73:LEU:CD2   | 2.32                     | 0.60              |
| 1:E:99:VAL:HG23  | 1:E:100:HIS:N    | 2.15                     | 0.60              |
| 1:E:176:LEU:O    | 1:E:179:THR:HB   | 2.01                     | 0.60              |
| 1:E:393:GLU:HA   | 1:E:393:GLU:OE1  | 2.02                     | 0.60              |
| 1:G:50:VAL:HG21  | 1:G:73:LEU:HD11  | 1.83                     | 0.60              |
| 1:G:97:GLN:HA    | 1:G:100:HIS:CB   | 2.32                     | 0.60              |
| 1:G:187:ASN:ND2  | 1:G:187:ASN:C    | 2.55                     | 0.60              |
| 2:H:63:LEU:O     | 2:H:64:GLU:C     | 2.40                     | 0.60              |
| 2:H:426:GLU:O    | 2:H:429:ILE:HD13 | 2.02                     | 0.60              |
| 1:I:58:MET:HE1   | 4:X:15:ARG:O     | 2.01                     | 0.60              |
| 1:I:323:ASN:O    | 1:I:324:ILE:C    | 2.40                     | 0.60              |
| 1:I:529:ALA:HA   | 1:I:532:LYS:CG   | 2.31                     | 0.60              |
| 2:J:338:LYS:O    | 2:J:342:MET:HG3  | 2.01                     | 0.60              |
| 2:J:448:MET:O    | 2:J:451:ILE:HB   | 2.02                     | 0.60              |
| 1:K:179:THR:HG21 | 1:K:211:HIS:HE1  | 1.66                     | 0.60              |
| 1:K:242:ASP:OD2  | 4:W:126:THR:HG21 | 2.01                     | 0.60              |
| 1:K:393:GLU:HA   | 1:K:393:GLU:OE1  | 2.02                     | 0.60              |
| 2:L:426:GLU:O    | 2:L:429:ILE:HD13 | 2.02                     | 0.60              |
| 3:M:321:ASP:CG   | 3:M:322:SER:N    | 2.55                     | 0.60              |
| 3:N:50:LEU:HD11  | 3:N:59:TRP:HE1   | 1.66                     | 0.60              |
| 3:P:141:LYS:O    | 3:P:142:LEU:HG   | 2.01                     | 0.60              |
| 4:S:71:ILE:CG2   | 4:S:72:GLU:N     | 2.65                     | 0.60              |
| 3:V:19:ARG:HG3   | 3:V:21:TYR:CE1   | 2.37                     | 0.60              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:215:THR:HB   | 2:B:218:ALA:HB3  | 1.83                     | 0.59              |
| 2:B:426:GLU:O    | 2:B:429:ILE:HD13 | 2.02                     | 0.59              |
| 2:B:452:VAL:CG1  | 2:B:453:GLY:N    | 2.64                     | 0.59              |
| 1:C:581:LEU:C    | 1:C:583:ARG:H    | 2.04                     | 0.59              |
| 2:D:25:ASP:O     | 2:D:26:LYS:C     | 2.41                     | 0.59              |
| 2:D:522:ARG:HG2  | 2:D:526:TYR:CE1  | 2.35                     | 0.59              |
| 2:F:448:MET:O    | 2:F:451:ILE:HB   | 2.02                     | 0.59              |
| 2:H:217:TRP:CD1  | 3:P:123:PRO:HB2  | 2.37                     | 0.59              |
| 2:H:407:VAL:O    | 2:H:410:ALA:HB3  | 2.02                     | 0.59              |
| 2:H:522:ARG:HG2  | 2:H:526:TYR:CE1  | 2.35                     | 0.59              |
| 1:I:97:GLN:HA    | 1:I:100:HIS:CB   | 2.32                     | 0.59              |
| 2:J:9:THR:HG22   | 2:J:11:LYS:H     | 1.67                     | 0.59              |
| 2:J:25:ASP:O     | 2:J:26:LYS:C     | 2.41                     | 0.59              |
| 2:J:139:LYS:HD3  | 2:J:175:MET:HE2  | 1.84                     | 0.59              |
| 2:L:32:GLU:O     | 2:L:35:LYS:HB2   | 2.01                     | 0.59              |
| 2:L:367:VAL:O    | 2:L:368:ASP:C    | 2.40                     | 0.59              |
| 3:M:29:GLU:HG2   | 3:M:55:VAL:HG11  | 1.83                     | 0.59              |
| 3:N:50:LEU:N     | 3:N:50:LEU:HD12  | 2.16                     | 0.59              |
| 3:O:144:THR:CG2  | 3:O:145:GLY:H    | 2.14                     | 0.59              |
| 3:P:29:GLU:HG2   | 3:P:55:VAL:HG11  | 1.82                     | 0.59              |
| 3:R:335:VAL:O    | 3:R:335:VAL:HG23 | 2.01                     | 0.59              |
| 3:R:384:TYR:CD2  | 3:R:384:TYR:N    | 2.68                     | 0.59              |
| 4:T:10:ARG:HD3   | 4:T:61:ARG:HH21  | 1.67                     | 0.59              |
| 3:V:316:VAL:HG22 | 3:V:340:GLU:HA   | 1.84                     | 0.59              |
| 4:W:8:PHE:HD1    | 4:W:36:MET:SD    | 2.24                     | 0.59              |
| 4:W:30:LYS:O     | 4:W:31:MET:C     | 2.39                     | 0.59              |
| 4:X:85:HIS:O     | 4:X:88:VAL:HG22  | 2.01                     | 0.59              |
| 2:B:164:THR:HG22 | 2:B:168:LEU:CD1  | 2.31                     | 0.59              |
| 2:B:218:ALA:O    | 2:B:219:GLN:C    | 2.39                     | 0.59              |
| 1:C:216:VAL:O    | 1:C:220:VAL:HG23 | 2.01                     | 0.59              |
| 1:C:219:LEU:HD13 | 1:C:253:LEU:HD23 | 1.85                     | 0.59              |
| 1:C:356:ASP:OD1  | 1:C:357:LEU:N    | 2.35                     | 0.59              |
| 2:D:12:LYS:CG    | 2:D:13:GLY:H     | 2.13                     | 0.59              |
| 2:D:141:ALA:HA   | 2:D:144:CYS:HG   | 1.66                     | 0.59              |
| 2:D:325:PHE:CZ   | 2:D:357:GLU:HG3  | 2.37                     | 0.59              |
| 2:D:445:ARG:O    | 2:D:446:ALA:C    | 2.40                     | 0.59              |
| 2:D:448:MET:O    | 2:D:451:ILE:HB   | 2.02                     | 0.59              |
| 2:D:566:TYR:O    | 2:D:569:THR:CB   | 2.47                     | 0.59              |
| 1:E:219:LEU:HD13 | 1:E:253:LEU:HD23 | 1.85                     | 0.59              |
| 2:F:63:LEU:O     | 2:F:64:GLU:C     | 2.40                     | 0.59              |
| 2:F:421:TYR:HD2  | 2:F:421:TYR:N    | 1.98                     | 0.59              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:284:VAL:O    | 1:G:287:ALA:HB3  | 2.01                     | 0.59              |
| 1:G:532:LYS:HB3  | 1:G:536:ARG:HH12 | 1.62                     | 0.59              |
| 2:H:325:PHE:CZ   | 2:H:357:GLU:HG3  | 2.37                     | 0.59              |
| 2:H:405:TYR:HD1  | 2:H:406:VAL:H    | 1.47                     | 0.59              |
| 1:I:183:LEU:HD12 | 1:I:215:LEU:HD13 | 1.84                     | 0.59              |
| 1:I:313:LEU:O    | 1:I:316:PHE:N    | 2.33                     | 0.59              |
| 1:I:356:ASP:OD1  | 1:I:357:LEU:N    | 2.35                     | 0.59              |
| 2:J:178:ALA:HB2  | 2:J:218:ALA:HB2  | 1.84                     | 0.59              |
| 1:K:46:ARG:HG2   | 1:K:73:LEU:CD2   | 2.32                     | 0.59              |
| 1:K:356:ASP:OD1  | 1:K:357:LEU:N    | 2.35                     | 0.59              |
| 2:L:486:THR:HG23 | 2:L:490:LYS:HE2  | 1.82                     | 0.59              |
| 3:M:235:ASP:OD2  | 3:M:237:LYS:HE3  | 2.02                     | 0.59              |
| 3:M:415:ASN:CG   | 3:M:416:GLY:H    | 2.05                     | 0.59              |
| 3:N:316:VAL:HG22 | 3:N:340:GLU:HA   | 1.84                     | 0.59              |
| 3:O:11:LEU:HD11  | 3:O:64:ASN:OD1   | 2.01                     | 0.59              |
| 3:O:129:LYS:C    | 3:O:131:LEU:H    | 2.06                     | 0.59              |
| 3:P:235:ASP:OD2  | 3:P:237:LYS:HE3  | 2.02                     | 0.59              |
| 3:P:314:ILE:HB   | 3:P:341:ILE:CG2  | 2.29                     | 0.59              |
| 3:R:29:GLU:HG2   | 3:R:55:VAL:HG11  | 1.83                     | 0.59              |
| 4:S:30:LYS:O     | 4:S:31:MET:C     | 2.39                     | 0.59              |
| 3:V:29:GLU:HG2   | 3:V:55:VAL:HG11  | 1.82                     | 0.59              |
| 4:W:7:LEU:HB2    | 4:W:16:LEU:HB3   | 1.84                     | 0.59              |
| 1:A:364:ARG:O    | 1:A:365:ALA:C    | 2.37                     | 0.59              |
| 2:B:113:ILE:HG22 | 2:B:114:ARG:N    | 2.17                     | 0.59              |
| 2:B:258:SER:O    | 2:B:261:LYS:HB3  | 2.02                     | 0.59              |
| 2:B:311:GLN:NE2  | 2:B:555:ILE:HB   | 2.17                     | 0.59              |
| 2:B:391:CYS:O    | 2:B:392:VAL:C    | 2.39                     | 0.59              |
| 1:C:27:ILE:HG23  | 1:C:56:MET:SD    | 2.43                     | 0.59              |
| 1:C:179:THR:HG21 | 1:C:211:HIS:HE1  | 1.66                     | 0.59              |
| 1:C:540:THR:C    | 1:C:542:ASN:H    | 2.05                     | 0.59              |
| 2:D:178:ALA:HB2  | 2:D:218:ALA:HB2  | 1.84                     | 0.59              |
| 1:E:478:TRP:HA   | 1:E:478:TRP:HE3  | 1.67                     | 0.59              |
| 2:F:258:SER:O    | 2:F:261:LYS:HB3  | 2.02                     | 0.59              |
| 2:H:298:PRO:O    | 2:H:302:PRO:CD   | 2.40                     | 0.59              |
| 2:H:311:GLN:NE2  | 2:H:555:ILE:HB   | 2.17                     | 0.59              |
| 1:I:19:THR:HG22  | 1:I:21:ALA:N     | 2.16                     | 0.59              |
| 1:I:172:MET:H    | 1:I:172:MET:CE   | 2.14                     | 0.59              |
| 1:I:284:VAL:O    | 1:I:287:ALA:HB3  | 2.01                     | 0.59              |
| 2:J:18:LEU:HD22  | 2:J:18:LEU:H     | 1.68                     | 0.59              |
| 2:J:426:GLU:O    | 2:J:429:ILE:HD13 | 2.02                     | 0.59              |
| 2:J:452:VAL:CG1  | 2:J:453:GLY:N    | 2.64                     | 0.59              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:10:LEU:CD1   | 1:K:14:ILE:HD11  | 2.32                     | 0.59              |
| 1:K:27:ILE:HG23  | 1:K:56:MET:SD    | 2.43                     | 0.59              |
| 1:K:172:MET:SD   | 1:K:173:GLU:N    | 2.75                     | 0.59              |
| 1:K:529:ALA:HA   | 1:K:532:LYS:CG   | 2.31                     | 0.59              |
| 1:K:583:ARG:HB2  | 2:L:528:ARG:CZ   | 2.32                     | 0.59              |
| 3:N:19:ARG:HG3   | 3:N:21:TYR:CE1   | 2.37                     | 0.59              |
| 3:N:283:ILE:O    | 3:N:284:GLU:HG3  | 2.02                     | 0.59              |
| 3:O:178:ALA:CB   | 3:O:415:ASN:HB2  | 2.33                     | 0.59              |
| 3:P:19:ARG:HG3   | 3:P:21:TYR:CE1   | 2.37                     | 0.59              |
| 3:P:99:GLU:O     | 3:P:100:GLU:C    | 2.41                     | 0.59              |
| 3:P:321:ASP:CG   | 3:P:322:SER:N    | 2.55                     | 0.59              |
| 3:P:335:VAL:O    | 3:P:335:VAL:HG23 | 2.01                     | 0.59              |
| 3:P:388:SER:OG   | 3:P:390:ILE:HG13 | 2.03                     | 0.59              |
| 4:Q:10:ARG:HD3   | 4:Q:61:ARG:HH21  | 1.67                     | 0.59              |
| 4:T:7:LEU:HB2    | 4:T:16:LEU:HB3   | 1.84                     | 0.59              |
| 3:V:329:VAL:HG12 | 3:V:330:GLY:N    | 2.16                     | 0.59              |
| 4:X:7:LEU:HB2    | 4:X:16:LEU:HB3   | 1.84                     | 0.59              |
| 4:X:35:LEU:C     | 4:X:39:VAL:HG23  | 2.22                     | 0.59              |
| 2:B:369:PHE:O    | 2:B:370:VAL:C    | 2.41                     | 0.59              |
| 2:B:421:TYR:N    | 2:B:421:TYR:CD2  | 2.68                     | 0.59              |
| 2:D:63:LEU:O     | 2:D:64:GLU:C     | 2.40                     | 0.59              |
| 2:D:166:LYS:HA   | 2:D:169:ILE:CD1  | 2.27                     | 0.59              |
| 2:D:331:PRO:CD   | 2:D:334:VAL:HG21 | 2.29                     | 0.59              |
| 2:F:325:PHE:CZ   | 2:F:357:GLU:HG3  | 2.37                     | 0.59              |
| 2:F:441:GLU:HG2  | 2:F:442:PRO:CD   | 2.33                     | 0.59              |
| 1:G:356:ASP:OD1  | 1:G:357:LEU:N    | 2.35                     | 0.59              |
| 1:G:581:LEU:C    | 1:G:583:ARG:H    | 2.04                     | 0.59              |
| 2:H:126:LEU:HD23 | 2:H:127:ARG:N    | 2.18                     | 0.59              |
| 2:H:164:THR:HG22 | 2:H:168:LEU:CD1  | 2.31                     | 0.59              |
| 2:H:300:TYR:O    | 2:H:301:VAL:C    | 2.41                     | 0.59              |
| 2:H:490:LYS:HG2  | 2:H:542:LEU:HD21 | 1.84                     | 0.59              |
| 2:J:32:GLU:O     | 2:J:35:LYS:HB2   | 2.01                     | 0.59              |
| 2:J:218:ALA:O    | 2:J:219:GLN:C    | 2.39                     | 0.59              |
| 2:J:297:GLU:HB3  | 3:R:81:PHE:CD2   | 2.37                     | 0.59              |
| 2:J:432:LEU:HD12 | 2:J:448:MET:HE1  | 1.83                     | 0.59              |
| 3:M:11:LEU:HD11  | 3:M:64:ASN:OD1   | 2.01                     | 0.59              |
| 3:M:283:ILE:O    | 3:M:284:GLU:HG3  | 2.02                     | 0.59              |
| 3:N:129:LYS:C    | 3:N:131:LEU:H    | 2.06                     | 0.59              |
| 3:O:99:GLU:O     | 3:O:100:GLU:C    | 2.41                     | 0.59              |
| 3:R:19:ARG:HG3   | 3:R:21:TYR:CE1   | 2.37                     | 0.59              |
| 3:R:286:HIS:CG   | 3:R:287:SER:H    | 2.20                     | 0.59              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:R:415:ASN:CG   | 3:R:416:GLY:H    | 2.05                     | 0.59              |
| 4:U:71:ILE:CG2   | 4:U:72:GLU:N     | 2.65                     | 0.59              |
| 3:V:388:SER:OG   | 3:V:390:ILE:HG13 | 2.03                     | 0.59              |
| 2:B:364:GLU:HA   | 2:B:364:GLU:OE1  | 2.01                     | 0.59              |
| 2:B:492:PHE:HA   | 2:B:499:THR:HG21 | 1.83                     | 0.59              |
| 1:C:506:LEU:HD12 | 1:C:543:ARG:HD3  | 1.85                     | 0.59              |
| 2:D:141:ALA:O    | 2:D:142:ALA:C    | 2.38                     | 0.59              |
| 1:E:438:VAL:HB   | 1:E:439:PRO:CD   | 2.24                     | 0.59              |
| 2:F:377:ILE:O    | 2:F:380:CYS:HB3  | 2.01                     | 0.59              |
| 1:G:10:LEU:CD1   | 1:G:14:ILE:HD11  | 2.32                     | 0.59              |
| 1:G:11:ILE:O     | 1:G:14:ILE:N     | 2.36                     | 0.59              |
| 1:G:451:MET:H    | 1:G:451:MET:HE2  | 1.67                     | 0.59              |
| 2:H:445:ARG:O    | 2:H:446:ALA:C    | 2.40                     | 0.59              |
| 2:J:217:TRP:CD1  | 3:R:123:PRO:HB2  | 2.37                     | 0.59              |
| 2:J:367:VAL:O    | 2:J:368:ASP:C    | 2.40                     | 0.59              |
| 2:J:490:LYS:HG2  | 2:J:542:LEU:HD21 | 1.84                     | 0.59              |
| 1:K:99:VAL:HG23  | 1:K:100:HIS:N    | 2.15                     | 0.59              |
| 1:K:183:LEU:HD12 | 1:K:215:LEU:HD13 | 1.84                     | 0.59              |
| 2:L:448:MET:O    | 2:L:451:ILE:HB   | 2.02                     | 0.59              |
| 3:N:266:SER:O    | 3:N:267:TYR:HB3  | 2.03                     | 0.59              |
| 3:O:253:ILE:HD12 | 3:O:253:ILE:N    | 2.18                     | 0.59              |
| 3:R:196:GLY:HA3  | 3:R:267:TYR:CE1  | 2.37                     | 0.59              |
| 3:V:62:HIS:O     | 3:V:63:ASN:C     | 2.41                     | 0.59              |
| 4:W:10:ARG:HD3   | 4:W:61:ARG:HH21  | 1.67                     | 0.59              |
| 1:A:7:LEU:O      | 1:A:10:LEU:HB3   | 2.03                     | 0.59              |
| 1:A:219:LEU:HD13 | 1:A:253:LEU:HD23 | 1.85                     | 0.59              |
| 1:A:389:LEU:HD21 | 1:A:425:VAL:HG23 | 1.84                     | 0.59              |
| 2:B:126:LEU:HD23 | 2:B:127:ARG:N    | 2.18                     | 0.59              |
| 2:B:325:PHE:CZ   | 2:B:357:GLU:HG3  | 2.37                     | 0.59              |
| 2:B:448:MET:O    | 2:B:451:ILE:HB   | 2.02                     | 0.59              |
| 1:C:316:PHE:O    | 1:C:319:ASN:N    | 2.35                     | 0.59              |
| 2:D:147:LYS:O    | 2:D:151:ILE:HG13 | 2.03                     | 0.59              |
| 2:D:420:LYS:HB3  | 2:D:421:TYR:CD2  | 2.38                     | 0.59              |
| 1:E:80:THR:HG23  | 4:U:142:GLN:HE21 | 1.67                     | 0.59              |
| 1:E:216:VAL:O    | 1:E:220:VAL:HG23 | 2.01                     | 0.59              |
| 2:F:113:ILE:HG22 | 2:F:114:ARG:N    | 2.17                     | 0.59              |
| 2:F:126:LEU:HD23 | 2:F:127:ARG:N    | 2.18                     | 0.59              |
| 1:G:313:LEU:O    | 1:G:316:PHE:N    | 2.33                     | 0.59              |
| 1:G:393:GLU:HA   | 1:G:393:GLU:OE1  | 2.02                     | 0.59              |
| 1:G:487:LEU:O    | 1:G:487:LEU:HG   | 2.03                     | 0.59              |
| 2:H:113:ILE:HG22 | 2:H:115:VAL:H    | 1.68                     | 0.59              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:7:LEU:O      | 1:I:10:LEU:HB3   | 2.03                     | 0.59              |
| 1:I:393:GLU:HA   | 1:I:393:GLU:OE1  | 2.02                     | 0.59              |
| 1:I:438:VAL:HB   | 1:I:439:PRO:CD   | 2.23                     | 0.59              |
| 1:K:540:THR:C    | 1:K:542:ASN:H    | 2.05                     | 0.59              |
| 2:L:178:ALA:HB2  | 2:L:218:ALA:HB2  | 1.84                     | 0.59              |
| 2:L:311:GLN:HG2  | 2:L:555:ILE:HD12 | 1.84                     | 0.59              |
| 2:L:426:GLU:O    | 2:L:427:SER:C    | 2.41                     | 0.59              |
| 3:N:235:ASP:OD2  | 3:N:237:LYS:HE3  | 2.02                     | 0.59              |
| 3:O:384:TYR:N    | 3:O:384:TYR:CD2  | 2.68                     | 0.59              |
| 3:O:388:SER:OG   | 3:O:390:ILE:HG13 | 2.03                     | 0.59              |
| 3:P:196:GLY:HA3  | 3:P:267:TYR:CE1  | 2.37                     | 0.59              |
| 3:P:316:VAL:HG22 | 3:P:340:GLU:HA   | 1.84                     | 0.59              |
| 4:Q:31:MET:HE2   | 4:Q:52:TRP:HH2   | 1.67                     | 0.59              |
| 3:R:235:ASP:OD2  | 3:R:237:LYS:HE3  | 2.02                     | 0.59              |
| 4:U:93:LYS:HG2   | 4:U:93:LYS:O     | 2.01                     | 0.59              |
| 4:U:100:GLU:O    | 4:U:101:LEU:C    | 2.41                     | 0.59              |
| 4:X:10:ARG:HD3   | 4:X:61:ARG:HH21  | 1.67                     | 0.59              |
| 1:A:46:ARG:HG2   | 1:A:73:LEU:CD2   | 2.32                     | 0.59              |
| 1:A:172:MET:SD   | 1:A:173:GLU:N    | 2.75                     | 0.59              |
| 1:A:356:ASP:OD1  | 1:A:357:LEU:N    | 2.35                     | 0.59              |
| 2:B:494:LYS:C    | 2:B:496:PRO:CD   | 2.67                     | 0.59              |
| 1:C:187:ASN:C    | 1:C:187:ASN:ND2  | 2.55                     | 0.59              |
| 2:D:18:LEU:HD22  | 2:D:18:LEU:H     | 1.68                     | 0.59              |
| 2:D:566:TYR:HE2  | 2:D:578:PRO:HG2  | 1.68                     | 0.59              |
| 1:E:453:ALA:O    | 1:E:457:GLN:HG2  | 2.03                     | 0.59              |
| 2:F:300:TYR:O    | 2:F:301:VAL:C    | 2.41                     | 0.59              |
| 2:F:311:GLN:NE2  | 2:F:555:ILE:HB   | 2.17                     | 0.59              |
| 2:F:367:VAL:O    | 2:F:368:ASP:C    | 2.40                     | 0.59              |
| 2:F:407:VAL:O    | 2:F:410:ALA:HB3  | 2.02                     | 0.59              |
| 2:F:426:GLU:O    | 2:F:429:ILE:HD13 | 2.02                     | 0.59              |
| 2:F:432:LEU:HD12 | 2:F:448:MET:HE1  | 1.83                     | 0.59              |
| 2:F:494:LYS:C    | 2:F:496:PRO:CD   | 2.67                     | 0.59              |
| 1:G:274:VAL:CG1  | 1:G:292:THR:HG21 | 2.29                     | 0.59              |
| 1:G:323:ASN:O    | 1:G:324:ILE:C    | 2.40                     | 0.59              |
| 1:I:50:VAL:HG21  | 1:I:73:LEU:HD11  | 1.84                     | 0.59              |
| 1:I:264:SER:HA   | 1:I:267:MET:HE2  | 1.84                     | 0.59              |
| 1:I:296:ILE:HD13 | 1:I:305:LEU:HD11 | 1.83                     | 0.59              |
| 1:I:453:ALA:O    | 1:I:457:GLN:HG2  | 2.03                     | 0.59              |
| 3:M:286:HIS:CG   | 3:M:287:SER:H    | 2.20                     | 0.59              |
| 3:P:178:ALA:CB   | 3:P:415:ASN:HB2  | 2.33                     | 0.59              |
| 4:Q:11:GLN:O     | 4:Q:13:LYS:N     | 2.32                     | 0.59              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:S:10:ARG:HD3   | 4:S:61:ARG:HH21  | 1.67                     | 0.59              |
| 4:U:10:ARG:HD3   | 4:U:61:ARG:HH21  | 1.67                     | 0.59              |
| 3:V:235:ASP:OD2  | 3:V:237:LYS:HE3  | 2.02                     | 0.59              |
| 4:W:108:GLU:CG   | 4:W:109:LYS:H    | 2.13                     | 0.59              |
| 2:B:67:LYS:O     | 2:B:70:TYR:HB2   | 2.03                     | 0.59              |
| 2:B:113:ILE:HG22 | 2:B:115:VAL:H    | 1.68                     | 0.59              |
| 2:B:178:ALA:HB2  | 2:B:218:ALA:HB2  | 1.84                     | 0.59              |
| 1:C:11:ILE:O     | 1:C:14:ILE:N     | 2.36                     | 0.59              |
| 1:C:50:VAL:HG21  | 1:C:73:LEU:HD11  | 1.83                     | 0.59              |
| 1:C:453:ALA:O    | 1:C:457:GLN:HG2  | 2.03                     | 0.59              |
| 2:D:492:PHE:HA   | 2:D:499:THR:HG21 | 1.84                     | 0.59              |
| 1:E:27:ILE:HG23  | 1:E:56:MET:SD    | 2.43                     | 0.59              |
| 1:G:80:THR:HG23  | 4:Q:142:GLN:HE21 | 1.67                     | 0.59              |
| 1:G:500:VAL:O    | 1:G:500:VAL:HG13 | 2.03                     | 0.59              |
| 2:H:178:ALA:HB2  | 2:H:218:ALA:HB2  | 1.84                     | 0.59              |
| 2:H:385:GLU:C    | 2:H:387:SER:H    | 2.06                     | 0.59              |
| 1:I:80:THR:HG23  | 4:X:142:GLN:HE21 | 1.67                     | 0.59              |
| 1:I:540:THR:C    | 1:I:542:ASN:H    | 2.05                     | 0.59              |
| 2:J:113:ILE:HG22 | 2:J:114:ARG:N    | 2.17                     | 0.59              |
| 2:J:126:LEU:HD23 | 2:J:127:ARG:N    | 2.18                     | 0.59              |
| 2:J:311:GLN:HG2  | 2:J:555:ILE:HD12 | 1.84                     | 0.59              |
| 1:K:372:LEU:HD12 | 1:K:372:LEU:H    | 1.68                     | 0.59              |
| 1:K:385:LEU:O    | 1:K:388:PHE:HB3  | 2.02                     | 0.59              |
| 2:L:18:LEU:HD22  | 2:L:18:LEU:H     | 1.68                     | 0.59              |
| 2:L:407:VAL:O    | 2:L:410:ALA:HB3  | 2.02                     | 0.59              |
| 2:L:420:LYS:HB3  | 2:L:421:TYR:CD2  | 2.38                     | 0.59              |
| 2:L:479:GLN:O    | 2:L:482:LEU:HB2  | 2.01                     | 0.59              |
| 3:M:144:THR:CG2  | 3:M:145:GLY:H    | 2.14                     | 0.59              |
| 3:M:334:TRP:CD1  | 3:M:335:VAL:N    | 2.69                     | 0.59              |
| 3:N:79:LEU:O     | 3:N:82:SER:N     | 2.36                     | 0.59              |
| 3:O:19:ARG:HG3   | 3:O:21:TYR:CE1   | 2.37                     | 0.59              |
| 4:Q:100:GLU:O    | 4:Q:101:LEU:C    | 2.41                     | 0.59              |
| 3:R:99:GLU:O     | 3:R:100:GLU:C    | 2.41                     | 0.59              |
| 3:V:11:LEU:HD11  | 3:V:64:ASN:OD1   | 2.01                     | 0.59              |
| 3:V:129:LYS:C    | 3:V:131:LEU:H    | 2.06                     | 0.59              |
| 3:V:314:ILE:HB   | 3:V:341:ILE:CG2  | 2.29                     | 0.59              |
| 3:V:415:ASN:CG   | 3:V:416:GLY:H    | 2.05                     | 0.59              |
| 1:A:10:LEU:CD1   | 1:A:14:ILE:HD11  | 2.32                     | 0.59              |
| 1:A:183:LEU:HD12 | 1:A:215:LEU:HD13 | 1.84                     | 0.59              |
| 1:A:393:GLU:HA   | 1:A:393:GLU:OE1  | 2.02                     | 0.59              |
| 2:B:18:LEU:HD22  | 2:B:18:LEU:H     | 1.68                     | 0.59              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:25:ASP:O     | 2:B:26:LYS:C     | 2.41                     | 0.59              |
| 1:C:367:GLU:O    | 1:C:370:PHE:HB2  | 2.03                     | 0.59              |
| 2:D:300:TYR:O    | 2:D:301:VAL:C    | 2.41                     | 0.59              |
| 2:D:326:VAL:HG21 | 2:D:369:PHE:HZ   | 1.66                     | 0.59              |
| 2:D:369:PHE:O    | 2:D:370:VAL:C    | 2.41                     | 0.59              |
| 1:E:10:LEU:CD1   | 1:E:14:ILE:HD11  | 2.32                     | 0.59              |
| 1:E:11:ILE:O     | 1:E:14:ILE:N     | 2.36                     | 0.59              |
| 1:E:274:VAL:CG1  | 1:E:292:THR:HG21 | 2.29                     | 0.59              |
| 1:E:487:LEU:O    | 1:E:487:LEU:HG   | 2.03                     | 0.59              |
| 1:E:500:VAL:O    | 1:E:500:VAL:HG13 | 2.03                     | 0.59              |
| 2:F:144:CYS:HA   | 2:F:147:LYS:HD2  | 1.85                     | 0.59              |
| 2:F:426:GLU:O    | 2:F:427:SER:C    | 2.41                     | 0.59              |
| 1:G:19:THR:HG22  | 1:G:21:ALA:N     | 2.16                     | 0.59              |
| 1:G:529:ALA:HA   | 1:G:532:LYS:CG   | 2.31                     | 0.59              |
| 1:G:580:LEU:O    | 2:H:528:ARG:NH1  | 2.31                     | 0.59              |
| 2:H:225:CYS:C    | 2:H:227:GLY:H    | 2.06                     | 0.59              |
| 2:H:482:LEU:O    | 2:H:483:GLN:C    | 2.41                     | 0.59              |
| 1:I:99:VAL:HG23  | 1:I:100:HIS:N    | 2.15                     | 0.59              |
| 2:J:385:GLU:C    | 2:J:387:SER:H    | 2.06                     | 0.59              |
| 2:J:492:PHE:HA   | 2:J:499:THR:HG21 | 1.83                     | 0.59              |
| 2:J:522:ARG:HG2  | 2:J:526:TYR:CE1  | 2.36                     | 0.59              |
| 1:K:11:ILE:O     | 1:K:14:ILE:N     | 2.35                     | 0.59              |
| 1:K:188:HIS:O    | 1:K:189:GLY:C    | 2.39                     | 0.59              |
| 2:L:14:GLU:O     | 2:L:15:ILE:C     | 2.41                     | 0.59              |
| 2:L:113:ILE:HG22 | 2:L:114:ARG:N    | 2.17                     | 0.59              |
| 3:M:316:VAL:HG22 | 3:M:340:GLU:HA   | 1.84                     | 0.59              |
| 3:N:99:GLU:O     | 3:N:100:GLU:C    | 2.41                     | 0.59              |
| 4:Q:85:HIS:O     | 4:Q:88:VAL:HG22  | 2.02                     | 0.59              |
| 3:V:253:ILE:HD12 | 3:V:253:ILE:N    | 2.18                     | 0.59              |
| 3:V:286:HIS:CG   | 3:V:287:SER:H    | 2.20                     | 0.59              |
| 1:A:372:LEU:HD12 | 1:A:372:LEU:H    | 1.68                     | 0.59              |
| 1:C:10:LEU:CD1   | 1:C:14:ILE:HD11  | 2.32                     | 0.59              |
| 1:C:385:LEU:O    | 1:C:388:PHE:HB3  | 2.02                     | 0.59              |
| 1:C:500:VAL:O    | 1:C:500:VAL:HG13 | 2.03                     | 0.59              |
| 2:D:9:THR:HG22   | 2:D:11:LYS:H     | 1.67                     | 0.59              |
| 2:D:175:MET:CE   | 3:N:124:GLN:HB3  | 2.31                     | 0.59              |
| 2:D:217:TRP:CD1  | 3:N:123:PRO:HB2  | 2.37                     | 0.59              |
| 1:E:7:LEU:O      | 1:E:10:LEU:HB3   | 2.03                     | 0.59              |
| 1:E:187:ASN:ND2  | 1:E:187:ASN:C    | 2.55                     | 0.59              |
| 2:F:67:LYS:O     | 2:F:70:TYR:HB2   | 2.03                     | 0.59              |
| 2:F:175:MET:CE   | 3:O:124:GLN:HB3  | 2.31                     | 0.59              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:217:TRP:CD1  | 3:O:123:PRO:HB2  | 2.37                     | 0.59              |
| 2:F:522:ARG:HG2  | 2:F:526:TYR:CE1  | 2.35                     | 0.59              |
| 2:H:9:THR:HG22   | 2:H:11:LYS:H     | 1.67                     | 0.59              |
| 2:H:18:LEU:HD22  | 2:H:18:LEU:H     | 1.68                     | 0.59              |
| 2:H:326:VAL:HG21 | 2:H:369:PHE:HZ   | 1.66                     | 0.59              |
| 2:H:441:GLU:HG2  | 2:H:442:PRO:CD   | 2.33                     | 0.59              |
| 2:J:67:LYS:O     | 2:J:70:TYR:HB2   | 2.03                     | 0.59              |
| 2:J:225:CYS:C    | 2:J:227:GLY:H    | 2.06                     | 0.59              |
| 3:M:253:ILE:HD12 | 3:M:253:ILE:N    | 2.18                     | 0.59              |
| 3:N:286:HIS:CG   | 3:N:287:SER:H    | 2.20                     | 0.59              |
| 3:N:388:SER:OG   | 3:N:390:ILE:HG13 | 2.03                     | 0.59              |
| 3:O:235:ASP:OD2  | 3:O:237:LYS:HE3  | 2.02                     | 0.59              |
| 3:O:314:ILE:HB   | 3:O:341:ILE:CG2  | 2.29                     | 0.59              |
| 3:P:129:LYS:C    | 3:P:131:LEU:H    | 2.06                     | 0.59              |
| 4:Q:83:LEU:O     | 4:Q:86:ARG:HB3   | 2.03                     | 0.59              |
| 3:V:384:TYR:CD2  | 3:V:384:TYR:N    | 2.68                     | 0.59              |
| 4:W:76:ASN:HD21  | 4:W:79:ILE:H     | 1.50                     | 0.59              |
| 1:A:115:THR:HG22 | 1:A:116:GLN:N    | 2.16                     | 0.58              |
| 1:A:190:VAL:O    | 1:A:191:LEU:C    | 2.41                     | 0.58              |
| 1:A:296:ILE:HD13 | 1:A:305:LEU:HD11 | 1.83                     | 0.58              |
| 2:B:429:ILE:HG22 | 2:B:430:ALA:N    | 2.18                     | 0.58              |
| 2:B:521:ASP:C    | 2:B:523:GLY:N    | 2.55                     | 0.58              |
| 1:C:80:THR:HG23  | 4:T:142:GLN:HE21 | 1.68                     | 0.58              |
| 1:C:478:TRP:HA   | 1:C:478:TRP:HE3  | 1.67                     | 0.58              |
| 1:E:115:THR:HG22 | 1:E:116:GLN:N    | 2.16                     | 0.58              |
| 1:E:506:LEU:HD12 | 1:E:543:ARG:HD3  | 1.85                     | 0.58              |
| 1:E:581:LEU:C    | 1:E:583:ARG:H    | 2.04                     | 0.58              |
| 2:H:113:ILE:HG22 | 2:H:114:ARG:N    | 2.17                     | 0.58              |
| 2:H:215:THR:HB   | 2:H:218:ALA:HB3  | 1.82                     | 0.58              |
| 2:H:297:GLU:HB3  | 3:P:81:PHE:CD2   | 2.38                     | 0.58              |
| 2:H:338:LYS:O    | 2:H:342:MET:HG3  | 2.01                     | 0.58              |
| 1:I:10:LEU:CD1   | 1:I:14:ILE:HD11  | 2.32                     | 0.58              |
| 1:I:274:VAL:CG1  | 1:I:292:THR:HG21 | 2.29                     | 0.58              |
| 1:K:367:GLU:O    | 1:K:370:PHE:HB2  | 2.03                     | 0.58              |
| 2:L:126:LEU:HD23 | 2:L:127:ARG:N    | 2.18                     | 0.58              |
| 2:L:136:TYR:CD1  | 3:V:134:PHE:CE2  | 2.91                     | 0.58              |
| 2:L:300:TYR:O    | 2:L:301:VAL:C    | 2.41                     | 0.58              |
| 2:L:311:GLN:NE2  | 2:L:555:ILE:HB   | 2.17                     | 0.58              |
| 2:L:369:PHE:O    | 2:L:370:VAL:C    | 2.41                     | 0.58              |
| 3:N:314:ILE:HB   | 3:N:341:ILE:CG2  | 2.29                     | 0.58              |
| 3:O:415:ASN:CG   | 3:O:416:GLY:H    | 2.05                     | 0.58              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:Q:7:LEU:HB2    | 4:Q:16:LEU:HB3   | 1.84                     | 0.58              |
| 3:R:321:ASP:CG   | 3:R:322:SER:N    | 2.55                     | 0.58              |
| 3:R:388:SER:OG   | 3:R:390:ILE:HG13 | 2.03                     | 0.58              |
| 3:V:50:LEU:HD11  | 3:V:59:TRP:HE1   | 1.66                     | 0.58              |
| 4:W:83:LEU:O     | 4:W:86:ARG:HB3   | 2.03                     | 0.58              |
| 4:X:7:LEU:HD23   | 4:X:66:TYR:O     | 2.03                     | 0.58              |
| 4:X:30:LYS:HZ2   | 4:X:30:LYS:CB    | 2.16                     | 0.58              |
| 1:A:11:ILE:O     | 1:A:14:ILE:N     | 2.36                     | 0.58              |
| 1:A:13:THR:HG22  | 1:A:26:MET:HE3   | 1.85                     | 0.58              |
| 1:A:400:CYS:O    | 1:A:401:ALA:C    | 2.42                     | 0.58              |
| 2:B:225:CYS:C    | 2:B:227:GLY:H    | 2.06                     | 0.58              |
| 2:B:490:LYS:HG2  | 2:B:542:LEU:HD21 | 1.84                     | 0.58              |
| 1:C:183:LEU:HD12 | 1:C:215:LEU:HD13 | 1.84                     | 0.58              |
| 2:D:126:LEU:HD23 | 2:D:127:ARG:N    | 2.18                     | 0.58              |
| 2:D:311:GLN:NE2  | 2:D:555:ILE:HB   | 2.17                     | 0.58              |
| 1:E:50:VAL:HG21  | 1:E:73:LEU:HD11  | 1.83                     | 0.58              |
| 2:F:297:GLU:HB3  | 3:O:81:PHE:CD2   | 2.38                     | 0.58              |
| 1:G:372:LEU:HD12 | 1:G:372:LEU:H    | 1.68                     | 0.58              |
| 1:G:453:ALA:O    | 1:G:457:GLN:HG2  | 2.03                     | 0.58              |
| 2:H:147:LYS:O    | 2:H:151:ILE:HG13 | 2.03                     | 0.58              |
| 2:H:218:ALA:O    | 2:H:219:GLN:C    | 2.39                     | 0.58              |
| 1:I:115:THR:HG22 | 1:I:116:GLN:N    | 2.16                     | 0.58              |
| 2:J:482:LEU:O    | 2:J:483:GLN:C    | 2.41                     | 0.58              |
| 1:K:190:VAL:O    | 1:K:191:LEU:C    | 2.42                     | 0.58              |
| 1:K:478:TRP:HA   | 1:K:478:TRP:HE3  | 1.67                     | 0.58              |
| 3:R:144:THR:CG2  | 3:R:145:GLY:H    | 2.14                     | 0.58              |
| 3:R:185:ALA:C    | 3:R:187:GLY:N    | 2.57                     | 0.58              |
| 4:U:7:LEU:HB2    | 4:U:16:LEU:HB3   | 1.84                     | 0.58              |
| 3:V:283:ILE:O    | 3:V:284:GLU:HG3  | 2.02                     | 0.58              |
| 4:X:76:ASN:HD21  | 4:X:79:ILE:H     | 1.50                     | 0.58              |
| 4:X:83:LEU:O     | 4:X:86:ARG:HB3   | 2.03                     | 0.58              |
| 1:A:27:ILE:HG23  | 1:A:56:MET:SD    | 2.43                     | 0.58              |
| 1:A:50:VAL:HG21  | 1:A:73:LEU:HD11  | 1.83                     | 0.58              |
| 1:A:187:ASN:ND2  | 1:A:187:ASN:C    | 2.55                     | 0.58              |
| 2:B:175:MET:CE   | 3:M:124:GLN:HB3  | 2.31                     | 0.58              |
| 2:B:297:GLU:HB3  | 3:M:81:PHE:CD2   | 2.38                     | 0.58              |
| 1:C:188:HIS:O    | 1:C:189:GLY:C    | 2.39                     | 0.58              |
| 2:D:385:GLU:C    | 2:D:387:SER:H    | 2.06                     | 0.58              |
| 1:E:385:LEU:O    | 1:E:388:PHE:HB3  | 2.02                     | 0.58              |
| 2:F:18:LEU:HD22  | 2:F:18:LEU:H     | 1.68                     | 0.58              |
| 1:G:583:ARG:HB2  | 2:H:528:ARG:CZ   | 2.32                     | 0.58              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:14:GLU:O     | 2:H:15:ILE:C     | 2.42                     | 0.58              |
| 2:H:144:CYS:HA   | 2:H:147:LYS:HD2  | 1.85                     | 0.58              |
| 2:H:420:LYS:HB3  | 2:H:421:TYR:CD2  | 2.38                     | 0.58              |
| 2:H:521:ASP:C    | 2:H:523:GLY:N    | 2.55                     | 0.58              |
| 1:I:27:ILE:HG23  | 1:I:56:MET:SD    | 2.43                     | 0.58              |
| 1:I:154:ARG:HH21 | 1:I:182:LEU:CD2  | 2.16                     | 0.58              |
| 2:J:136:TYR:CD1  | 3:R:134:PHE:CE2  | 2.91                     | 0.58              |
| 2:J:144:CYS:HA   | 2:J:147:LYS:HD2  | 1.85                     | 0.58              |
| 2:J:300:TYR:O    | 2:J:301:VAL:C    | 2.41                     | 0.58              |
| 2:J:429:ILE:HG22 | 2:J:430:ALA:N    | 2.18                     | 0.58              |
| 1:K:274:VAL:HG11 | 1:K:292:THR:CG2  | 2.32                     | 0.58              |
| 1:K:500:VAL:O    | 1:K:500:VAL:HG13 | 2.03                     | 0.58              |
| 2:L:25:ASP:O     | 2:L:26:LYS:C     | 2.41                     | 0.58              |
| 2:L:175:MET:CE   | 3:V:124:GLN:HB3  | 2.31                     | 0.58              |
| 2:L:317:LEU:HD22 | 2:L:317:LEU:N    | 2.13                     | 0.58              |
| 3:O:77:VAL:O     | 3:O:78:SER:C     | 2.42                     | 0.58              |
| 3:O:196:GLY:HA3  | 3:O:267:TYR:CE1  | 2.37                     | 0.58              |
| 3:O:266:SER:O    | 3:O:267:TYR:HB3  | 2.03                     | 0.58              |
| 3:P:4:SER:HB3    | 3:P:22:ARG:HB3   | 1.85                     | 0.58              |
| 4:T:79:ILE:CG2   | 4:T:80:THR:N     | 2.66                     | 0.58              |
| 4:T:83:LEU:O     | 4:T:86:ARG:HB3   | 2.03                     | 0.58              |
| 4:W:7:LEU:HD23   | 4:W:66:TYR:O     | 2.03                     | 0.58              |
| 1:A:453:ALA:O    | 1:A:457:GLN:HG2  | 2.03                     | 0.58              |
| 1:C:68:LEU:CG    | 1:C:69:GLU:H     | 2.08                     | 0.58              |
| 2:D:297:GLU:HB3  | 3:N:81:PHE:CD2   | 2.38                     | 0.58              |
| 2:D:482:LEU:O    | 2:D:483:GLN:C    | 2.41                     | 0.58              |
| 1:E:400:CYS:O    | 1:E:401:ALA:C    | 2.42                     | 0.58              |
| 2:F:385:GLU:C    | 2:F:387:SER:H    | 2.06                     | 0.58              |
| 2:F:405:TYR:HD1  | 2:F:406:VAL:H    | 1.47                     | 0.58              |
| 2:F:420:LYS:HB3  | 2:F:421:TYR:CD2  | 2.38                     | 0.58              |
| 2:F:445:ARG:O    | 2:F:446:ALA:C    | 2.40                     | 0.58              |
| 1:G:316:PHE:O    | 1:G:319:ASN:N    | 2.35                     | 0.58              |
| 2:H:175:MET:CE   | 3:P:124:GLN:HB3  | 2.31                     | 0.58              |
| 1:I:187:ASN:ND2  | 1:I:187:ASN:C    | 2.55                     | 0.58              |
| 2:J:113:ILE:HG22 | 2:J:115:VAL:H    | 1.68                     | 0.58              |
| 1:K:453:ALA:O    | 1:K:457:GLN:HG2  | 2.03                     | 0.58              |
| 2:L:164:THR:HG22 | 2:L:168:LEU:CD1  | 2.31                     | 0.58              |
| 2:L:385:GLU:C    | 2:L:387:SER:H    | 2.06                     | 0.58              |
| 2:L:490:LYS:HG2  | 2:L:542:LEU:HD21 | 1.84                     | 0.58              |
| 3:M:388:SER:OG   | 3:M:390:ILE:HG13 | 2.03                     | 0.58              |
| 3:N:62:HIS:O     | 3:N:63:ASN:C     | 2.41                     | 0.58              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:N:334:TRP:CE2  | 3:N:336:PRO:HG3  | 2.39                     | 0.58              |
| 3:O:316:VAL:HG22 | 3:O:340:GLU:HA   | 1.84                     | 0.58              |
| 3:P:79:LEU:O     | 3:P:82:SER:N     | 2.36                     | 0.58              |
| 4:Q:7:LEU:HD23   | 4:Q:66:TYR:O     | 2.03                     | 0.58              |
| 3:R:79:LEU:O     | 3:R:82:SER:N     | 2.36                     | 0.58              |
| 4:U:31:MET:HE2   | 4:U:52:TRP:HH2   | 1.69                     | 0.58              |
| 4:U:76:ASN:HD21  | 4:U:79:ILE:H     | 1.50                     | 0.58              |
| 3:V:79:LEU:O     | 3:V:82:SER:N     | 2.36                     | 0.58              |
| 4:W:11:GLN:O     | 4:W:13:LYS:N     | 2.32                     | 0.58              |
| 4:W:31:MET:HE2   | 4:W:52:TRP:HH2   | 1.67                     | 0.58              |
| 4:X:79:ILE:CG2   | 4:X:80:THR:N     | 2.66                     | 0.58              |
| 1:A:80:THR:HG23  | 4:S:142:GLN:HE21 | 1.68                     | 0.58              |
| 2:B:415:LYS:HD2  | 2:B:447:ALA:CB   | 2.34                     | 0.58              |
| 1:C:7:LEU:O      | 1:C:10:LEU:HB3   | 2.03                     | 0.58              |
| 2:D:211:LEU:HD11 | 2:D:223:LEU:HD21 | 1.86                     | 0.58              |
| 2:D:494:LYS:C    | 2:D:496:PRO:CD   | 2.67                     | 0.58              |
| 1:E:154:ARG:HH21 | 1:E:182:LEU:CD2  | 2.16                     | 0.58              |
| 2:F:257:LEU:HD11 | 2:F:568:GLY:N    | 2.19                     | 0.58              |
| 2:F:391:CYS:O    | 2:F:392:VAL:C    | 2.39                     | 0.58              |
| 2:F:566:TYR:HE2  | 2:F:578:PRO:HG2  | 1.68                     | 0.58              |
| 1:G:367:GLU:O    | 1:G:370:PHE:HB2  | 2.03                     | 0.58              |
| 1:G:389:LEU:HD21 | 1:G:425:VAL:HG23 | 1.84                     | 0.58              |
| 1:G:468:SER:O    | 1:G:469:GLN:CB   | 2.42                     | 0.58              |
| 1:G:470:GLN:O    | 1:G:471:PRO:C    | 2.42                     | 0.58              |
| 2:H:69:VAL:O     | 2:H:72:TYR:HB3   | 2.04                     | 0.58              |
| 2:H:426:GLU:O    | 2:H:427:SER:C    | 2.41                     | 0.58              |
| 1:I:500:VAL:O    | 1:I:500:VAL:HG13 | 2.03                     | 0.58              |
| 2:J:147:LYS:O    | 2:J:151:ILE:HG13 | 2.03                     | 0.58              |
| 2:J:408:GLN:O    | 2:J:409:GLU:C    | 2.38                     | 0.58              |
| 2:J:420:LYS:HB3  | 2:J:421:TYR:CD2  | 2.38                     | 0.58              |
| 1:K:396:PHE:N    | 1:K:396:PHE:CD1  | 2.71                     | 0.58              |
| 2:L:566:TYR:O    | 2:L:572:SER:HB2  | 2.03                     | 0.58              |
| 3:N:253:ILE:HD12 | 3:N:253:ILE:N    | 2.18                     | 0.58              |
| 3:O:9:LEU:CD2    | 3:O:15:VAL:HA    | 2.34                     | 0.58              |
| 4:Q:107:PHE:O    | 4:Q:108:GLU:C    | 2.42                     | 0.58              |
| 4:Q:129:LYS:O    | 4:Q:130:SER:C    | 2.42                     | 0.58              |
| 3:R:9:LEU:CD2    | 3:R:15:VAL:HA    | 2.34                     | 0.58              |
| 3:R:266:SER:O    | 3:R:267:TYR:HB3  | 2.03                     | 0.58              |
| 4:S:7:LEU:HD23   | 4:S:66:TYR:O     | 2.03                     | 0.58              |
| 4:U:7:LEU:HD23   | 4:U:66:TYR:O     | 2.03                     | 0.58              |
| 4:X:15:ARG:NH1   | 4:X:104:ILE:HD13 | 2.19                     | 0.58              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:389:LEU:HA   | 1:A:392:CYS:SG   | 2.44                     | 0.58              |
| 1:A:411:TYR:H    | 1:A:411:TYR:HD1  | 1.52                     | 0.58              |
| 1:A:500:VAL:O    | 1:A:500:VAL:HG13 | 2.03                     | 0.58              |
| 1:A:583:ARG:HB2  | 2:B:528:ARG:CZ   | 2.32                     | 0.58              |
| 2:B:441:GLU:HG2  | 2:B:442:PRO:CD   | 2.33                     | 0.58              |
| 2:B:522:ARG:HG2  | 2:B:526:TYR:CE1  | 2.36                     | 0.58              |
| 2:B:566:TYR:O    | 2:B:572:SER:HB2  | 2.04                     | 0.58              |
| 1:C:154:ARG:HH21 | 1:C:182:LEU:CD2  | 2.16                     | 0.58              |
| 2:D:14:GLU:O     | 2:D:15:ILE:C     | 2.42                     | 0.58              |
| 1:E:323:ASN:O    | 1:E:324:ILE:C    | 2.40                     | 0.58              |
| 1:E:583:ARG:HB2  | 2:F:528:ARG:CZ   | 2.32                     | 0.58              |
| 2:F:25:ASP:O     | 2:F:26:LYS:C     | 2.41                     | 0.58              |
| 2:F:566:TYR:O    | 2:F:572:SER:HB2  | 2.04                     | 0.58              |
| 1:G:7:LEU:O      | 1:G:10:LEU:HB3   | 2.03                     | 0.58              |
| 1:G:389:LEU:HA   | 1:G:392:CYS:SG   | 2.44                     | 0.58              |
| 2:H:25:ASP:O     | 2:H:26:LYS:C     | 2.41                     | 0.58              |
| 1:I:411:TYR:HD1  | 1:I:411:TYR:H    | 1.52                     | 0.58              |
| 1:I:473:VAL:CG2  | 1:I:474:GLN:H    | 2.17                     | 0.58              |
| 1:I:482:GLU:CB   | 1:I:584:MET:SD   | 2.76                     | 0.58              |
| 2:J:69:VAL:O     | 2:J:72:TYR:HB3   | 2.04                     | 0.58              |
| 2:J:311:GLN:NE2  | 2:J:555:ILE:HB   | 2.17                     | 0.58              |
| 2:J:441:GLU:HG2  | 2:J:442:PRO:CD   | 2.33                     | 0.58              |
| 2:J:566:TYR:O    | 2:J:572:SER:HB2  | 2.03                     | 0.58              |
| 2:L:147:LYS:O    | 2:L:151:ILE:HG13 | 2.03                     | 0.58              |
| 2:L:325:PHE:CZ   | 2:L:357:GLU:HG3  | 2.37                     | 0.58              |
| 3:M:79:LEU:O     | 3:M:82:SER:N     | 2.36                     | 0.58              |
| 3:M:178:ALA:CB   | 3:M:415:ASN:HB2  | 2.33                     | 0.58              |
| 3:P:77:VAL:O     | 3:P:78:SER:C     | 2.42                     | 0.58              |
| 4:Q:99:CYS:SG    | 4:Q:100:GLU:N    | 2.77                     | 0.58              |
| 3:R:235:ASP:OD1  | 3:R:236:VAL:N    | 2.36                     | 0.58              |
| 3:R:334:TRP:CE2  | 3:R:336:PRO:HG3  | 2.38                     | 0.58              |
| 4:S:15:ARG:NH1   | 4:S:104:ILE:HD13 | 2.19                     | 0.58              |
| 4:S:79:ILE:CG2   | 4:S:80:THR:N     | 2.66                     | 0.58              |
| 4:S:99:CYS:SG    | 4:S:100:GLU:N    | 2.77                     | 0.58              |
| 4:T:76:ASN:HD21  | 4:T:79:ILE:H     | 1.50                     | 0.58              |
| 3:V:4:SER:HB3    | 3:V:22:ARG:HB3   | 1.85                     | 0.58              |
| 3:V:178:ALA:CB   | 3:V:415:ASN:HB2  | 2.33                     | 0.58              |
| 4:W:100:GLU:O    | 4:W:101:LEU:C    | 2.41                     | 0.58              |
| 4:X:100:GLU:O    | 4:X:101:LEU:C    | 2.41                     | 0.58              |
| 1:A:540:THR:C    | 1:A:542:ASN:H    | 2.05                     | 0.58              |
| 1:A:561:GLN:CG   | 2:B:522:ARG:NH2  | 2.67                     | 0.58              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:14:GLU:O     | 2:B:15:ILE:C     | 2.42                     | 0.58              |
| 2:B:217:TRP:CD1  | 3:M:123:PRO:HB2  | 2.37                     | 0.58              |
| 2:B:300:TYR:O    | 2:B:301:VAL:C    | 2.41                     | 0.58              |
| 2:B:426:GLU:O    | 2:B:427:SER:C    | 2.41                     | 0.58              |
| 1:C:326:TYR:CE1  | 1:C:360:SER:HB3  | 2.36                     | 0.58              |
| 1:C:487:LEU:O    | 1:C:487:LEU:HG   | 2.03                     | 0.58              |
| 1:E:367:GLU:O    | 1:E:370:PHE:HB2  | 2.03                     | 0.58              |
| 1:E:389:LEU:HA   | 1:E:392:CYS:SG   | 2.44                     | 0.58              |
| 2:F:113:ILE:HG22 | 2:F:115:VAL:H    | 1.68                     | 0.58              |
| 2:F:311:GLN:HG2  | 2:F:555:ILE:HD12 | 1.84                     | 0.58              |
| 1:G:183:LEU:HD12 | 1:G:215:LEU:HD13 | 1.84                     | 0.58              |
| 1:G:473:VAL:CG2  | 1:G:474:GLN:H    | 2.17                     | 0.58              |
| 1:G:506:LEU:HD12 | 1:G:543:ARG:HD3  | 1.85                     | 0.58              |
| 1:G:527:LEU:O    | 1:G:528:THR:C    | 2.42                     | 0.58              |
| 2:H:136:TYR:CD1  | 3:P:134:PHE:CE2  | 2.91                     | 0.58              |
| 1:I:389:LEU:HD21 | 1:I:425:VAL:HG23 | 1.84                     | 0.58              |
| 1:I:470:GLN:O    | 1:I:471:PRO:C    | 2.42                     | 0.58              |
| 1:I:521:VAL:CG1  | 1:I:522:THR:N    | 2.67                     | 0.58              |
| 2:J:16:PHE:O     | 2:J:17:GLU:C     | 2.42                     | 0.58              |
| 2:J:325:PHE:CZ   | 2:J:357:GLU:HG3  | 2.37                     | 0.58              |
| 2:J:426:GLU:O    | 2:J:427:SER:C    | 2.41                     | 0.58              |
| 1:K:154:ARG:HH21 | 1:K:182:LEU:CD2  | 2.16                     | 0.58              |
| 1:K:400:CYS:O    | 1:K:401:ALA:C    | 2.42                     | 0.58              |
| 1:K:506:LEU:HD12 | 1:K:543:ARG:HD3  | 1.85                     | 0.58              |
| 2:L:144:CYS:HA   | 2:L:147:LYS:HD2  | 1.85                     | 0.58              |
| 2:L:225:CYS:C    | 2:L:227:GLY:H    | 2.06                     | 0.58              |
| 3:M:4:SER:HB3    | 3:M:22:ARG:HB3   | 1.85                     | 0.58              |
| 3:M:334:TRP:CE2  | 3:M:336:PRO:HG3  | 2.38                     | 0.58              |
| 3:N:4:SER:HB3    | 3:N:22:ARG:HB3   | 1.85                     | 0.58              |
| 3:N:178:ALA:CB   | 3:N:415:ASN:HB2  | 2.33                     | 0.58              |
| 3:P:409:VAL:CG1  | 3:P:410:ARG:N    | 2.67                     | 0.58              |
| 3:R:62:HIS:O     | 3:R:63:ASN:C     | 2.41                     | 0.58              |
| 3:R:399:GLU:HG2  | 3:R:401:SER:OG   | 2.04                     | 0.58              |
| 4:S:83:LEU:O     | 4:S:86:ARG:HB3   | 2.03                     | 0.58              |
| 3:V:235:ASP:OD1  | 3:V:236:VAL:N    | 2.36                     | 0.58              |
| 1:A:154:ARG:HH21 | 1:A:182:LEU:CD2  | 2.16                     | 0.58              |
| 2:B:257:LEU:HD11 | 2:B:568:GLY:N    | 2.19                     | 0.58              |
| 2:B:311:GLN:HG2  | 2:B:555:ILE:HD12 | 1.84                     | 0.58              |
| 1:C:190:VAL:O    | 1:C:191:LEU:C    | 2.42                     | 0.58              |
| 1:C:389:LEU:HA   | 1:C:392:CYS:SG   | 2.44                     | 0.58              |
| 1:C:442:ILE:HD11 | 1:C:475:VAL:HG13 | 1.86                     | 0.58              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:521:VAL:CG1  | 1:C:522:THR:N    | 2.67                     | 0.58              |
| 1:C:527:LEU:O    | 1:C:528:THR:C    | 2.42                     | 0.58              |
| 1:C:561:GLN:CG   | 2:D:522:ARG:NH2  | 2.67                     | 0.58              |
| 2:D:136:TYR:CD1  | 3:N:134:PHE:CE2  | 2.91                     | 0.58              |
| 1:E:187:ASN:ND2  | 1:E:188:HIS:N    | 2.52                     | 0.58              |
| 1:E:389:LEU:HD21 | 1:E:425:VAL:HG23 | 1.84                     | 0.58              |
| 2:F:429:ILE:HG22 | 2:F:430:ALA:N    | 2.18                     | 0.58              |
| 1:G:400:CYS:O    | 1:G:401:ALA:C    | 2.42                     | 0.58              |
| 1:I:11:ILE:O     | 1:I:14:ILE:N     | 2.36                     | 0.58              |
| 1:I:487:LEU:O    | 1:I:487:LEU:HG   | 2.03                     | 0.58              |
| 2:J:211:LEU:HD11 | 2:J:223:LEU:HD21 | 1.86                     | 0.58              |
| 2:J:566:TYR:O    | 2:J:569:THR:CB   | 2.47                     | 0.58              |
| 1:K:80:THR:HG23  | 4:W:142:GLN:HE21 | 1.68                     | 0.58              |
| 2:L:113:ILE:HG22 | 2:L:115:VAL:H    | 1.68                     | 0.58              |
| 2:L:441:GLU:HG2  | 2:L:442:PRO:CD   | 2.33                     | 0.58              |
| 2:L:446:ALA:HA   | 2:L:480:VAL:HG23 | 1.86                     | 0.58              |
| 2:L:570:LEU:HD11 | 3:V:75:ALA:H     | 1.69                     | 0.58              |
| 3:M:9:LEU:CD2    | 3:M:15:VAL:HA    | 2.34                     | 0.58              |
| 3:M:19:ARG:HG3   | 3:M:21:TYR:CE1   | 2.37                     | 0.58              |
| 3:O:79:LEU:O     | 3:O:82:SER:N     | 2.36                     | 0.58              |
| 3:R:253:ILE:HD12 | 3:R:253:ILE:N    | 2.18                     | 0.58              |
| 4:T:15:ARG:NH1   | 4:T:104:ILE:HD13 | 2.19                     | 0.58              |
| 1:A:326:TYR:CE1  | 1:A:360:SER:HB3  | 2.36                     | 0.58              |
| 1:A:367:GLU:O    | 1:A:370:PHE:HB2  | 2.03                     | 0.58              |
| 2:B:136:TYR:CD1  | 3:M:134:PHE:CE2  | 2.91                     | 0.58              |
| 2:B:147:LYS:O    | 2:B:151:ILE:HG13 | 2.03                     | 0.58              |
| 2:B:486:THR:CG2  | 2:B:487:ALA:N    | 2.67                     | 0.58              |
| 2:B:566:TYR:HE2  | 2:B:578:PRO:HG2  | 1.68                     | 0.58              |
| 1:C:470:GLN:O    | 1:C:471:PRO:C    | 2.42                     | 0.58              |
| 2:D:164:THR:HG22 | 2:D:168:LEU:CD1  | 2.31                     | 0.58              |
| 2:D:225:CYS:C    | 2:D:227:GLY:H    | 2.06                     | 0.58              |
| 1:E:470:GLN:O    | 1:E:471:PRO:C    | 2.42                     | 0.58              |
| 2:F:136:TYR:CD1  | 3:O:134:PHE:CE2  | 2.91                     | 0.58              |
| 1:G:27:ILE:HG23  | 1:G:56:MET:SD    | 2.43                     | 0.58              |
| 1:G:154:ARG:HH21 | 1:G:182:LEU:CD2  | 2.16                     | 0.58              |
| 1:G:350:ILE:HD13 | 1:G:368:LEU:HD21 | 1.86                     | 0.58              |
| 1:I:396:PHE:N    | 1:I:396:PHE:CD1  | 2.71                     | 0.58              |
| 1:K:219:LEU:HD13 | 1:K:253:LEU:HD23 | 1.84                     | 0.58              |
| 2:L:486:THR:CG2  | 2:L:487:ALA:N    | 2.67                     | 0.58              |
| 2:L:566:TYR:HE2  | 2:L:578:PRO:HG2  | 1.68                     | 0.58              |
| 3:N:77:VAL:O     | 3:N:78:SER:C     | 2.42                     | 0.58              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:N:409:VAL:CG1  | 3:N:410:ARG:N    | 2.67                     | 0.58              |
| 3:O:62:HIS:O     | 3:O:63:ASN:C     | 2.41                     | 0.58              |
| 3:O:334:TRP:CE2  | 3:O:336:PRO:HG3  | 2.38                     | 0.58              |
| 3:P:334:TRP:CE2  | 3:P:336:PRO:HG3  | 2.38                     | 0.58              |
| 4:S:22:ALA:O     | 4:S:23:THR:OG1   | 2.22                     | 0.58              |
| 4:S:83:LEU:O     | 4:S:86:ARG:N     | 2.37                     | 0.58              |
| 4:U:129:LYS:O    | 4:U:130:SER:C    | 2.42                     | 0.58              |
| 1:A:58:MET:HE1   | 4:S:15:ARG:O     | 2.03                     | 0.58              |
| 1:A:270:ILE:HG23 | 1:A:271:LEU:N    | 2.19                     | 0.58              |
| 1:A:527:LEU:O    | 1:A:528:THR:C    | 2.42                     | 0.58              |
| 2:B:211:LEU:HD11 | 2:B:223:LEU:HD21 | 1.86                     | 0.58              |
| 1:C:270:ILE:HG23 | 1:C:271:LEU:N    | 2.19                     | 0.58              |
| 2:D:67:LYS:O     | 2:D:70:TYR:HB2   | 2.03                     | 0.58              |
| 2:D:139:LYS:HD3  | 2:D:175:MET:HE2  | 1.84                     | 0.58              |
| 2:D:426:GLU:O    | 2:D:427:SER:C    | 2.41                     | 0.58              |
| 1:E:96:ARG:O     | 1:E:99:VAL:HG22  | 2.04                     | 0.58              |
| 1:E:434:ARG:HG3  | 1:E:436:ASP:OD1  | 2.04                     | 0.58              |
| 1:E:473:VAL:CG2  | 1:E:474:GLN:H    | 2.17                     | 0.58              |
| 1:E:529:ALA:HA   | 1:E:532:LYS:CG   | 2.31                     | 0.58              |
| 2:F:16:PHE:O     | 2:F:17:GLU:C     | 2.42                     | 0.58              |
| 2:F:38:ILE:HG12  | 2:F:39:ALA:N     | 2.19                     | 0.58              |
| 2:F:69:VAL:O     | 2:F:72:TYR:HB3   | 2.04                     | 0.58              |
| 2:F:147:LYS:O    | 2:F:151:ILE:HG13 | 2.03                     | 0.58              |
| 2:F:490:LYS:HG2  | 2:F:542:LEU:HD21 | 1.84                     | 0.58              |
| 1:G:194:SER:O    | 1:G:197:LEU:HB3  | 2.04                     | 0.58              |
| 1:G:521:VAL:CG1  | 1:G:522:THR:N    | 2.67                     | 0.58              |
| 2:H:55:VAL:C     | 2:H:57:CYS:H     | 2.07                     | 0.58              |
| 2:H:175:MET:O    | 2:H:178:ALA:HB3  | 2.04                     | 0.58              |
| 1:I:219:LEU:HD13 | 1:I:253:LEU:HD23 | 1.85                     | 0.58              |
| 1:I:560:GLN:O    | 1:I:561:GLN:C    | 2.43                     | 0.58              |
| 2:J:369:PHE:O    | 2:J:370:VAL:C    | 2.41                     | 0.58              |
| 1:K:527:LEU:O    | 1:K:528:THR:C    | 2.42                     | 0.58              |
| 2:L:67:LYS:O     | 2:L:70:TYR:HB2   | 2.03                     | 0.58              |
| 2:L:175:MET:O    | 2:L:178:ALA:HB3  | 2.04                     | 0.58              |
| 2:L:211:LEU:HD11 | 2:L:223:LEU:HD21 | 1.86                     | 0.58              |
| 2:L:466:LEU:H    | 2:L:466:LEU:CD1  | 2.17                     | 0.58              |
| 3:M:185:ALA:C    | 3:M:187:GLY:N    | 2.57                     | 0.58              |
| 3:M:409:VAL:CG1  | 3:M:410:ARG:N    | 2.67                     | 0.58              |
| 3:N:5:ALA:HB3    | 3:N:70:THR:HB    | 1.86                     | 0.58              |
| 3:N:131:LEU:O    | 3:N:134:PHE:N    | 2.34                     | 0.58              |
| 3:P:62:HIS:O     | 3:P:63:ASN:C     | 2.41                     | 0.58              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:P:312:ILE:HB   | 3:P:343:TRP:HB3  | 1.86                     | 0.58              |
| 4:S:76:ASN:HD21  | 4:S:79:ILE:H     | 1.50                     | 0.58              |
| 4:S:107:PHE:O    | 4:S:108:GLU:C    | 2.42                     | 0.58              |
| 3:V:99:GLU:O     | 3:V:100:GLU:C    | 2.41                     | 0.58              |
| 1:A:187:ASN:ND2  | 1:A:188:HIS:N    | 2.52                     | 0.57              |
| 1:A:194:SER:O    | 1:A:197:LEU:HB3  | 2.04                     | 0.57              |
| 1:A:274:VAL:HG11 | 1:A:292:THR:CG2  | 2.32                     | 0.57              |
| 1:C:135:CYS:CB   | 1:C:164:VAL:HG13 | 2.22                     | 0.57              |
| 1:C:323:ASN:O    | 1:C:324:ILE:C    | 2.40                     | 0.57              |
| 1:C:434:ARG:HG3  | 1:C:436:ASP:OD1  | 2.04                     | 0.57              |
| 2:D:69:VAL:O     | 2:D:72:TYR:HB3   | 2.04                     | 0.57              |
| 2:D:113:ILE:HG22 | 2:D:115:VAL:H    | 1.68                     | 0.57              |
| 2:D:570:LEU:HD11 | 3:N:75:ALA:H     | 1.69                     | 0.57              |
| 1:E:451:MET:O    | 1:E:452:HIS:C    | 2.42                     | 0.57              |
| 1:E:519:THR:HG22 | 1:E:520:SER:N    | 2.19                     | 0.57              |
| 1:E:561:GLN:CG   | 2:F:522:ARG:NH2  | 2.67                     | 0.57              |
| 2:F:225:CYS:C    | 2:F:227:GLY:H    | 2.06                     | 0.57              |
| 2:F:570:LEU:HD11 | 3:O:75:ALA:H     | 1.69                     | 0.57              |
| 1:G:219:LEU:HD13 | 1:G:253:LEU:HD23 | 1.84                     | 0.57              |
| 2:H:211:LEU:HD11 | 2:H:223:LEU:HD21 | 1.86                     | 0.57              |
| 1:I:187:ASN:ND2  | 1:I:188:HIS:N    | 2.52                     | 0.57              |
| 1:I:506:LEU:HD12 | 1:I:543:ARG:HD3  | 1.85                     | 0.57              |
| 2:J:14:GLU:O     | 2:J:15:ILE:C     | 2.42                     | 0.57              |
| 2:J:415:LYS:HD2  | 2:J:447:ALA:CB   | 2.34                     | 0.57              |
| 2:J:570:LEU:HD11 | 3:R:75:ALA:H     | 1.69                     | 0.57              |
| 1:K:194:SER:O    | 1:K:197:LEU:HB3  | 2.04                     | 0.57              |
| 3:M:5:ALA:HB3    | 3:M:70:THR:HB    | 1.86                     | 0.57              |
| 3:M:99:GLU:O     | 3:M:100:GLU:C    | 2.41                     | 0.57              |
| 3:M:399:GLU:HG2  | 3:M:401:SER:OG   | 2.04                     | 0.57              |
| 3:N:376:ILE:HG22 | 3:N:420:LEU:O    | 2.04                     | 0.57              |
| 3:O:235:ASP:OD1  | 3:O:236:VAL:N    | 2.36                     | 0.57              |
| 3:O:399:GLU:HG2  | 3:O:401:SER:OG   | 2.04                     | 0.57              |
| 3:P:9:LEU:CD2    | 3:P:15:VAL:HA    | 2.34                     | 0.57              |
| 3:R:178:ALA:CB   | 3:R:415:ASN:HB2  | 2.33                     | 0.57              |
| 3:R:316:VAL:HG22 | 3:R:340:GLU:HA   | 1.84                     | 0.57              |
| 4:S:5:MET:HG3    | 4:S:68:CYS:O     | 2.04                     | 0.57              |
| 4:S:106:ASN:O    | 4:S:107:PHE:C    | 2.43                     | 0.57              |
| 4:U:30:LYS:HZ2   | 4:U:30:LYS:CB    | 2.16                     | 0.57              |
| 4:U:79:ILE:CG2   | 4:U:80:THR:N     | 2.66                     | 0.57              |
| 3:V:376:ILE:HG22 | 3:V:420:LEU:O    | 2.04                     | 0.57              |
| 3:V:399:GLU:HG2  | 3:V:401:SER:OG   | 2.04                     | 0.57              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:396:PHE:N    | 1:A:396:PHE:CD1  | 2.71                     | 0.57              |
| 1:A:491:GLN:HB3  | 1:G:276:THR:O    | 2.04                     | 0.57              |
| 2:B:355:LEU:O    | 2:B:356:ALA:C    | 2.43                     | 0.57              |
| 2:B:420:LYS:HB3  | 2:B:421:TYR:CD2  | 2.38                     | 0.57              |
| 1:C:96:ARG:O     | 1:C:99:VAL:HG22  | 2.04                     | 0.57              |
| 2:D:311:GLN:HG2  | 2:D:555:ILE:HD12 | 1.84                     | 0.57              |
| 1:E:313:LEU:O    | 1:E:316:PHE:N    | 2.33                     | 0.57              |
| 1:E:442:ILE:HD11 | 1:E:475:VAL:HG13 | 1.86                     | 0.57              |
| 2:F:482:LEU:O    | 2:F:483:GLN:C    | 2.41                     | 0.57              |
| 1:G:96:ARG:O     | 1:G:99:VAL:HG22  | 2.04                     | 0.57              |
| 1:G:451:MET:O    | 1:G:452:HIS:C    | 2.42                     | 0.57              |
| 1:I:368:LEU:O    | 1:I:371:ALA:N    | 2.38                     | 0.57              |
| 1:I:442:ILE:HD11 | 1:I:475:VAL:HG13 | 1.86                     | 0.57              |
| 2:J:175:MET:O    | 2:J:178:ALA:HB3  | 2.04                     | 0.57              |
| 2:J:355:LEU:O    | 2:J:356:ALA:C    | 2.42                     | 0.57              |
| 2:J:466:LEU:H    | 2:J:466:LEU:CD1  | 2.17                     | 0.57              |
| 1:K:270:ILE:HG23 | 1:K:271:LEU:N    | 2.19                     | 0.57              |
| 1:K:389:LEU:HA   | 1:K:392:CYS:SG   | 2.44                     | 0.57              |
| 1:K:463:ILE:HD11 | 1:K:476:ALA:CB   | 2.34                     | 0.57              |
| 2:L:55:VAL:C     | 2:L:57:CYS:H     | 2.07                     | 0.57              |
| 2:L:415:LYS:HD2  | 2:L:447:ALA:CB   | 2.34                     | 0.57              |
| 3:M:77:VAL:O     | 3:M:78:SER:C     | 2.42                     | 0.57              |
| 3:M:235:ASP:OD1  | 3:M:236:VAL:N    | 2.36                     | 0.57              |
| 3:N:399:GLU:HG2  | 3:N:401:SER:OG   | 2.04                     | 0.57              |
| 3:N:415:ASN:CG   | 3:N:416:GLY:H    | 2.06                     | 0.57              |
| 3:P:5:ALA:HB3    | 3:P:70:THR:HB    | 1.86                     | 0.57              |
| 3:P:415:ASN:CG   | 3:P:416:GLY:H    | 2.05                     | 0.57              |
| 4:Q:79:ILE:CG2   | 4:Q:80:THR:N     | 2.66                     | 0.57              |
| 4:T:5:MET:HG3    | 4:T:68:CYS:O     | 2.04                     | 0.57              |
| 4:U:83:LEU:O     | 4:U:86:ARG:N     | 2.37                     | 0.57              |
| 3:V:266:SER:O    | 3:V:267:TYR:HB3  | 2.03                     | 0.57              |
| 3:V:334:TRP:CE2  | 3:V:336:PRO:HG3  | 2.38                     | 0.57              |
| 4:W:5:MET:HG3    | 4:W:68:CYS:O     | 2.04                     | 0.57              |
| 1:A:172:MET:H    | 1:A:172:MET:CE   | 2.14                     | 0.57              |
| 1:A:313:LEU:N    | 1:A:313:LEU:HD23 | 2.20                     | 0.57              |
| 1:A:350:ILE:HD13 | 1:A:368:LEU:HD21 | 1.86                     | 0.57              |
| 1:A:521:VAL:CG1  | 1:A:522:THR:N    | 2.67                     | 0.57              |
| 1:C:473:VAL:CG2  | 1:C:474:GLN:H    | 2.17                     | 0.57              |
| 2:D:486:THR:CG2  | 2:D:487:ALA:N    | 2.67                     | 0.57              |
| 1:E:482:GLU:CB   | 1:E:584:MET:SD   | 2.76                     | 0.57              |
| 1:E:521:VAL:CG1  | 1:E:522:THR:N    | 2.67                     | 0.57              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:527:LEU:O    | 1:E:528:THR:C    | 2.42                     | 0.57              |
| 1:G:473:VAL:CG2  | 1:G:474:GLN:N    | 2.68                     | 0.57              |
| 2:H:67:LYS:O     | 2:H:70:TYR:HB2   | 2.03                     | 0.57              |
| 2:H:421:TYR:N    | 2:H:421:TYR:CD2  | 2.68                     | 0.57              |
| 2:H:566:TYR:HE2  | 2:H:578:PRO:HG2  | 1.68                     | 0.57              |
| 1:I:96:ARG:O     | 1:I:99:VAL:HG22  | 2.04                     | 0.57              |
| 1:I:270:ILE:HG23 | 1:I:271:LEU:N    | 2.19                     | 0.57              |
| 1:I:313:LEU:N    | 1:I:313:LEU:HD23 | 2.20                     | 0.57              |
| 1:I:344:GLN:HE21 | 1:I:374:ASN:HD22 | 1.53                     | 0.57              |
| 1:I:367:GLU:O    | 1:I:370:PHE:HB2  | 2.03                     | 0.57              |
| 1:I:473:VAL:CG2  | 1:I:474:GLN:N    | 2.68                     | 0.57              |
| 2:J:566:TYR:HE2  | 2:J:578:PRO:HG2  | 1.68                     | 0.57              |
| 1:K:7:LEU:O      | 1:K:10:LEU:HB3   | 2.03                     | 0.57              |
| 1:K:368:LEU:O    | 1:K:371:ALA:N    | 2.38                     | 0.57              |
| 2:L:69:VAL:O     | 2:L:72:TYR:HB3   | 2.04                     | 0.57              |
| 2:L:297:GLU:HB3  | 3:V:81:PHE:CD2   | 2.38                     | 0.57              |
| 3:M:17:ILE:HD13  | 3:M:17:ILE:C     | 2.25                     | 0.57              |
| 3:N:235:ASP:OD1  | 3:N:236:VAL:N    | 2.37                     | 0.57              |
| 3:P:162:GLU:HG3  | 3:P:163:GLY:H    | 1.69                     | 0.57              |
| 3:P:253:ILE:HD12 | 3:P:253:ILE:N    | 2.18                     | 0.57              |
| 4:T:100:GLU:O    | 4:T:101:LEU:C    | 2.41                     | 0.57              |
| 4:U:61:ARG:HH11  | 4:U:61:ARG:HG2   | 1.70                     | 0.57              |
| 4:U:83:LEU:O     | 4:U:86:ARG:HB3   | 2.03                     | 0.57              |
| 4:U:99:CYS:SG    | 4:U:100:GLU:N    | 2.77                     | 0.57              |
| 3:V:321:ASP:CG   | 3:V:322:SER:N    | 2.55                     | 0.57              |
| 3:V:409:VAL:CG1  | 3:V:410:ARG:N    | 2.67                     | 0.57              |
| 4:W:79:ILE:CG2   | 4:W:80:THR:N     | 2.66                     | 0.57              |
| 1:C:400:CYS:O    | 1:C:401:ALA:C    | 2.42                     | 0.57              |
| 2:D:60:THR:CG2   | 2:D:61:ASP:H     | 2.05                     | 0.57              |
| 2:D:415:LYS:HD2  | 2:D:447:ALA:CB   | 2.34                     | 0.57              |
| 1:E:190:VAL:O    | 1:E:191:LEU:C    | 2.41                     | 0.57              |
| 1:E:270:ILE:HG23 | 1:E:271:LEU:N    | 2.19                     | 0.57              |
| 2:F:139:LYS:O    | 2:F:142:ALA:HB3  | 2.05                     | 0.57              |
| 2:F:175:MET:O    | 2:F:178:ALA:HB3  | 2.04                     | 0.57              |
| 2:H:466:LEU:H    | 2:H:466:LEU:CD1  | 2.17                     | 0.57              |
| 1:I:190:VAL:O    | 1:I:191:LEU:C    | 2.42                     | 0.57              |
| 1:I:194:SER:O    | 1:I:197:LEU:HB3  | 2.04                     | 0.57              |
| 2:J:257:LEU:HD11 | 2:J:568:GLY:N    | 2.19                     | 0.57              |
| 1:K:254:ARG:O    | 1:K:299:ILE:HD11 | 2.05                     | 0.57              |
| 1:K:487:LEU:O    | 1:K:487:LEU:HG   | 2.03                     | 0.57              |
| 1:K:521:VAL:CG1  | 1:K:522:THR:N    | 2.67                     | 0.57              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:L:482:LEU:O    | 2:L:483:GLN:C    | 2.41                     | 0.57              |
| 3:O:5:ALA:HB3    | 3:O:70:THR:HB    | 1.86                     | 0.57              |
| 3:P:286:HIS:CG   | 3:P:287:SER:H    | 2.20                     | 0.57              |
| 3:P:376:ILE:HG22 | 3:P:420:LEU:O    | 2.05                     | 0.57              |
| 4:Q:15:ARG:NH1   | 4:Q:104:ILE:HD13 | 2.19                     | 0.57              |
| 3:R:390:ILE:HG22 | 3:R:391:GLN:N    | 2.19                     | 0.57              |
| 4:U:15:ARG:NH1   | 4:U:104:ILE:HD13 | 2.19                     | 0.57              |
| 4:U:106:ASN:O    | 4:U:107:PHE:C    | 2.43                     | 0.57              |
| 4:W:83:LEU:O     | 4:W:86:ARG:N     | 2.37                     | 0.57              |
| 4:W:106:ASN:O    | 4:W:107:PHE:C    | 2.43                     | 0.57              |
| 4:X:99:CYS:SG    | 4:X:100:GLU:N    | 2.77                     | 0.57              |
| 1:A:168:VAL:HG12 | 1:A:168:VAL:O    | 2.05                     | 0.57              |
| 1:A:434:ARG:HG3  | 1:A:436:ASP:OD1  | 2.04                     | 0.57              |
| 1:A:506:LEU:HD12 | 1:A:543:ARG:HD3  | 1.85                     | 0.57              |
| 2:B:139:LYS:O    | 2:B:142:ALA:HB3  | 2.05                     | 0.57              |
| 1:C:463:ILE:HD11 | 1:C:476:ALA:CB   | 2.34                     | 0.57              |
| 2:D:257:LEU:HD11 | 2:D:568:GLY:N    | 2.19                     | 0.57              |
| 2:D:317:LEU:HD22 | 2:D:317:LEU:N    | 2.13                     | 0.57              |
| 2:D:446:ALA:HA   | 2:D:480:VAL:HG23 | 1.86                     | 0.57              |
| 1:E:344:GLN:HE21 | 1:E:374:ASN:HD22 | 1.53                     | 0.57              |
| 1:E:473:VAL:CG2  | 1:E:474:GLN:N    | 2.67                     | 0.57              |
| 2:F:387:SER:HA   | 2:F:390:ARG:CD   | 2.26                     | 0.57              |
| 2:F:415:LYS:HD2  | 2:F:447:ALA:CB   | 2.34                     | 0.57              |
| 2:F:486:THR:CG2  | 2:F:487:ALA:N    | 2.67                     | 0.57              |
| 1:G:430:GLY:HA2  | 1:G:433:VAL:HG23 | 1.87                     | 0.57              |
| 1:G:463:ILE:HD11 | 1:G:476:ALA:CB   | 2.34                     | 0.57              |
| 2:H:446:ALA:HA   | 2:H:480:VAL:HG23 | 1.86                     | 0.57              |
| 2:H:566:TYR:O    | 2:H:572:SER:HB2  | 2.04                     | 0.57              |
| 1:I:74:ILE:HD12  | 1:I:74:ILE:N     | 2.19                     | 0.57              |
| 1:I:254:ARG:O    | 1:I:299:ILE:HD11 | 2.05                     | 0.57              |
| 1:I:389:LEU:HA   | 1:I:392:CYS:SG   | 2.44                     | 0.57              |
| 1:I:519:THR:HG22 | 1:I:520:SER:N    | 2.19                     | 0.57              |
| 2:J:445:ARG:O    | 2:J:446:ALA:C    | 2.40                     | 0.57              |
| 1:K:96:ARG:O     | 1:K:99:VAL:HG22  | 2.04                     | 0.57              |
| 1:K:103:MET:HA   | 1:K:103:MET:CE   | 2.35                     | 0.57              |
| 1:K:344:GLN:HE21 | 1:K:374:ASN:HD22 | 1.53                     | 0.57              |
| 1:K:561:GLN:CG   | 2:L:522:ARG:NH2  | 2.67                     | 0.57              |
| 2:L:38:ILE:HG12  | 2:L:39:ALA:N     | 2.19                     | 0.57              |
| 2:L:355:LEU:O    | 2:L:356:ALA:C    | 2.43                     | 0.57              |
| 3:M:125:THR:O    | 3:M:126:THR:OG1  | 2.22                     | 0.57              |
| 3:M:376:ILE:HG22 | 3:M:420:LEU:O    | 2.05                     | 0.57              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:M:390:ILE:HG22 | 3:M:391:GLN:N    | 2.19                     | 0.57              |
| 3:O:278:TRP:O    | 3:O:279:ILE:HG13 | 2.05                     | 0.57              |
| 3:O:390:ILE:HG22 | 3:O:391:GLN:N    | 2.19                     | 0.57              |
| 3:R:4:SER:HB3    | 3:R:22:ARG:HB3   | 1.85                     | 0.57              |
| 4:S:61:ARG:HH11  | 4:S:61:ARG:HG2   | 1.70                     | 0.57              |
| 4:T:7:LEU:HD23   | 4:T:66:TYR:O     | 2.03                     | 0.57              |
| 4:T:30:LYS:HZ2   | 4:T:30:LYS:CB    | 2.16                     | 0.57              |
| 4:X:106:ASN:O    | 4:X:107:PHE:C    | 2.43                     | 0.57              |
| 1:A:463:ILE:HD11 | 1:A:476:ALA:CB   | 2.34                     | 0.57              |
| 1:A:519:THR:HG22 | 1:A:520:SER:N    | 2.19                     | 0.57              |
| 2:B:191:HIS:HA   | 2:B:195:ASN:HD22 | 1.70                     | 0.57              |
| 1:C:115:THR:HG22 | 1:C:116:GLN:N    | 2.17                     | 0.57              |
| 2:D:38:ILE:HG12  | 2:D:39:ALA:N     | 2.19                     | 0.57              |
| 2:D:387:SER:HA   | 2:D:390:ARG:CD   | 2.26                     | 0.57              |
| 2:D:441:GLU:HG2  | 2:D:442:PRO:CD   | 2.33                     | 0.57              |
| 2:D:487:ALA:O    | 2:D:488:ILE:C    | 2.43                     | 0.57              |
| 1:E:103:MET:CE   | 1:E:103:MET:HA   | 2.34                     | 0.57              |
| 1:E:366:MET:O    | 1:E:367:GLU:C    | 2.43                     | 0.57              |
| 1:E:396:PHE:N    | 1:E:396:PHE:CD1  | 2.71                     | 0.57              |
| 2:F:141:ALA:HA   | 2:F:144:CYS:HG   | 1.69                     | 0.57              |
| 1:G:74:ILE:HD12  | 1:G:74:ILE:N     | 2.19                     | 0.57              |
| 2:H:257:LEU:HD11 | 2:H:568:GLY:N    | 2.19                     | 0.57              |
| 2:H:316:ILE:HB   | 2:H:317:LEU:HD13 | 1.87                     | 0.57              |
| 2:H:369:PHE:O    | 2:H:370:VAL:C    | 2.41                     | 0.57              |
| 2:H:429:ILE:HG22 | 2:H:430:ALA:N    | 2.18                     | 0.57              |
| 1:I:451:MET:O    | 1:I:452:HIS:C    | 2.42                     | 0.57              |
| 1:K:524:GLY:O    | 1:K:526:ALA:N    | 2.38                     | 0.57              |
| 3:M:129:LYS:C    | 3:M:131:LEU:H    | 2.06                     | 0.57              |
| 3:M:266:SER:O    | 3:M:267:TYR:HB3  | 2.03                     | 0.57              |
| 3:N:9:LEU:CD2    | 3:N:15:VAL:HA    | 2.34                     | 0.57              |
| 3:P:235:ASP:OD1  | 3:P:236:VAL:N    | 2.36                     | 0.57              |
| 4:Q:22:ALA:O     | 4:Q:23:THR:OG1   | 2.22                     | 0.57              |
| 4:Q:106:ASN:O    | 4:Q:107:PHE:C    | 2.43                     | 0.57              |
| 4:U:107:PHE:O    | 4:U:108:GLU:C    | 2.42                     | 0.57              |
| 4:W:107:PHE:O    | 4:W:108:GLU:C    | 2.42                     | 0.57              |
| 1:A:254:ARG:O    | 1:A:299:ILE:HD11 | 2.05                     | 0.57              |
| 1:A:368:LEU:O    | 1:A:371:ALA:N    | 2.38                     | 0.57              |
| 1:A:473:VAL:CG2  | 1:A:474:GLN:H    | 2.17                     | 0.57              |
| 2:B:45:LYS:HG2   | 2:B:46:ASP:H     | 1.70                     | 0.57              |
| 2:B:55:VAL:C     | 2:B:57:CYS:H     | 2.07                     | 0.57              |
| 2:B:316:ILE:HB   | 2:B:317:LEU:HD13 | 1.87                     | 0.57              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:473:VAL:CG2  | 1:C:474:GLN:N    | 2.67                     | 0.57              |
| 1:C:529:ALA:HA   | 1:C:532:LYS:CG   | 2.31                     | 0.57              |
| 2:D:429:ILE:HG22 | 2:D:430:ALA:N    | 2.18                     | 0.57              |
| 1:E:194:SER:O    | 1:E:197:LEU:HB3  | 2.04                     | 0.57              |
| 1:E:424:ARG:HG2  | 1:E:424:ARG:NH1  | 2.20                     | 0.57              |
| 2:F:566:TYR:O    | 2:F:569:THR:CB   | 2.47                     | 0.57              |
| 1:G:53:LEU:O     | 1:G:56:MET:HB2   | 2.05                     | 0.57              |
| 1:G:368:LEU:O    | 1:G:371:ALA:N    | 2.38                     | 0.57              |
| 1:G:434:ARG:HG3  | 1:G:436:ASP:OD1  | 2.04                     | 0.57              |
| 1:I:53:LEU:O     | 1:I:56:MET:HB2   | 2.05                     | 0.57              |
| 1:I:250:LEU:HA   | 1:I:253:LEU:CD1  | 2.35                     | 0.57              |
| 1:I:424:ARG:HG2  | 1:I:424:ARG:NH1  | 2.20                     | 0.57              |
| 1:K:350:ILE:HD13 | 1:K:368:LEU:HD21 | 1.86                     | 0.57              |
| 1:K:544:ILE:HG22 | 1:K:545:LYS:N    | 2.20                     | 0.57              |
| 3:M:62:HIS:O     | 3:M:63:ASN:C     | 2.41                     | 0.57              |
| 3:O:4:SER:HB3    | 3:O:22:ARG:HB3   | 1.85                     | 0.57              |
| 3:P:266:SER:O    | 3:P:267:TYR:HB3  | 2.03                     | 0.57              |
| 3:P:390:ILE:HG22 | 3:P:391:GLN:N    | 2.19                     | 0.57              |
| 4:Q:52:TRP:O     | 4:Q:53:ARG:C     | 2.43                     | 0.57              |
| 3:R:77:VAL:O     | 3:R:78:SER:C     | 2.42                     | 0.57              |
| 3:R:129:LYS:C    | 3:R:131:LEU:H    | 2.06                     | 0.57              |
| 4:T:22:ALA:O     | 4:T:23:THR:OG1   | 2.22                     | 0.57              |
| 4:U:5:MET:HG3    | 4:U:68:CYS:O     | 2.04                     | 0.57              |
| 3:V:5:ALA:HB3    | 3:V:70:THR:HB    | 1.86                     | 0.57              |
| 3:V:185:ALA:C    | 3:V:187:GLY:N    | 2.57                     | 0.57              |
| 4:X:52:TRP:O     | 4:X:53:ARG:C     | 2.43                     | 0.57              |
| 4:X:107:PHE:O    | 4:X:108:GLU:C    | 2.42                     | 0.57              |
| 1:A:442:ILE:HD11 | 1:A:475:VAL:HG13 | 1.86                     | 0.57              |
| 1:A:473:VAL:CG2  | 1:A:474:GLN:N    | 2.67                     | 0.57              |
| 2:B:16:PHE:O     | 2:B:17:GLU:C     | 2.42                     | 0.57              |
| 2:B:31:LYS:CE    | 2:B:64:GLU:HG2   | 2.35                     | 0.57              |
| 2:B:38:ILE:HG12  | 2:B:39:ALA:N     | 2.19                     | 0.57              |
| 2:B:144:CYS:HA   | 2:B:147:LYS:HD2  | 1.85                     | 0.57              |
| 2:B:385:GLU:C    | 2:B:387:SER:H    | 2.06                     | 0.57              |
| 2:B:473:PHE:CG   | 2:B:474:HIS:N    | 2.64                     | 0.57              |
| 2:B:491:LEU:HD13 | 2:B:499:THR:HG22 | 1.87                     | 0.57              |
| 1:C:267:MET:HE1  | 1:C:299:ILE:HD13 | 1.85                     | 0.57              |
| 1:C:289:LEU:O    | 1:C:290:TYR:C    | 2.43                     | 0.57              |
| 1:C:313:LEU:HD23 | 1:C:313:LEU:N    | 2.20                     | 0.57              |
| 1:C:350:ILE:HD13 | 1:C:368:LEU:HD21 | 1.86                     | 0.57              |
| 1:C:366:MET:O    | 1:C:367:GLU:C    | 2.43                     | 0.57              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:451:MET:O    | 1:C:452:HIS:C    | 2.42                     | 0.57              |
| 1:C:508:ILE:HD12 | 1:C:508:ILE:N    | 2.20                     | 0.57              |
| 2:D:55:VAL:C     | 2:D:57:CYS:H     | 2.07                     | 0.57              |
| 2:D:113:ILE:HG22 | 2:D:114:ARG:N    | 2.17                     | 0.57              |
| 2:D:316:ILE:HB   | 2:D:317:LEU:HD13 | 1.87                     | 0.57              |
| 2:D:466:LEU:H    | 2:D:466:LEU:CD1  | 2.17                     | 0.57              |
| 1:E:368:LEU:O    | 1:E:371:ALA:N    | 2.38                     | 0.57              |
| 1:G:131:SER:O    | 1:G:132:SER:C    | 2.43                     | 0.57              |
| 1:G:313:LEU:HD23 | 1:G:313:LEU:N    | 2.19                     | 0.57              |
| 1:G:344:GLN:HE21 | 1:G:374:ASN:HD22 | 1.53                     | 0.57              |
| 1:G:396:PHE:N    | 1:G:396:PHE:CD1  | 2.71                     | 0.57              |
| 1:I:131:SER:O    | 1:I:132:SER:C    | 2.43                     | 0.57              |
| 1:I:434:ARG:HG3  | 1:I:436:ASP:OD1  | 2.04                     | 0.57              |
| 2:J:31:LYS:CE    | 2:J:64:GLU:HG2   | 2.35                     | 0.57              |
| 2:J:45:LYS:HG2   | 2:J:46:ASP:H     | 1.70                     | 0.57              |
| 2:L:16:PHE:O     | 2:L:17:GLU:C     | 2.42                     | 0.57              |
| 2:L:429:ILE:HG22 | 2:L:430:ALA:N    | 2.18                     | 0.57              |
| 3:M:390:ILE:HG22 | 3:M:391:GLN:H    | 1.70                     | 0.57              |
| 3:O:376:ILE:HG22 | 3:O:420:LEU:O    | 2.04                     | 0.57              |
| 3:O:409:VAL:CG1  | 3:O:410:ARG:N    | 2.67                     | 0.57              |
| 3:R:17:ILE:HD13  | 3:R:17:ILE:C     | 2.25                     | 0.57              |
| 4:S:129:LYS:O    | 4:S:130:SER:C    | 2.42                     | 0.57              |
| 4:T:106:ASN:O    | 4:T:107:PHE:C    | 2.43                     | 0.57              |
| 3:V:312:ILE:HB   | 3:V:343:TRP:HB3  | 1.86                     | 0.57              |
| 4:W:15:ARG:NH1   | 4:W:104:ILE:HD13 | 2.19                     | 0.57              |
| 4:W:99:CYS:SG    | 4:W:100:GLU:N    | 2.77                     | 0.57              |
| 1:A:478:TRP:HA   | 1:A:478:TRP:HE3  | 1.67                     | 0.57              |
| 2:B:39:ALA:O     | 2:B:41:MET:N     | 2.38                     | 0.57              |
| 2:B:69:VAL:O     | 2:B:72:TYR:HB3   | 2.04                     | 0.57              |
| 1:C:129:MET:O    | 1:C:130:GLY:C    | 2.44                     | 0.57              |
| 1:C:187:ASN:ND2  | 1:C:188:HIS:N    | 2.52                     | 0.57              |
| 1:C:372:LEU:HD12 | 1:C:372:LEU:H    | 1.68                     | 0.57              |
| 1:C:396:PHE:N    | 1:C:396:PHE:CD1  | 2.71                     | 0.57              |
| 1:C:424:ARG:HG2  | 1:C:424:ARG:NH1  | 2.20                     | 0.57              |
| 2:D:16:PHE:O     | 2:D:17:GLU:C     | 2.42                     | 0.57              |
| 2:D:144:CYS:HA   | 2:D:147:LYS:HD2  | 1.85                     | 0.57              |
| 2:D:175:MET:O    | 2:D:178:ALA:HB3  | 2.04                     | 0.57              |
| 2:D:566:TYR:O    | 2:D:572:SER:HB2  | 2.03                     | 0.57              |
| 1:E:53:LEU:O     | 1:E:56:MET:HB2   | 2.05                     | 0.57              |
| 1:E:168:VAL:HG12 | 1:E:168:VAL:O    | 2.05                     | 0.57              |
| 1:E:313:LEU:N    | 1:E:313:LEU:HD23 | 2.19                     | 0.57              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:211:LEU:HD11 | 2:F:223:LEU:HD21 | 1.86                     | 0.57              |
| 2:F:316:ILE:HB   | 2:F:317:LEU:HD13 | 1.87                     | 0.57              |
| 2:F:521:ASP:C    | 2:F:523:GLY:N    | 2.55                     | 0.57              |
| 1:G:58:MET:HE1   | 4:Q:15:ARG:O     | 2.04                     | 0.57              |
| 1:G:129:MET:O    | 1:G:130:GLY:C    | 2.44                     | 0.57              |
| 1:G:190:VAL:O    | 1:G:191:LEU:C    | 2.41                     | 0.57              |
| 1:G:413:PRO:HD2  | 1:G:417:TRP:CE3  | 2.40                     | 0.57              |
| 2:H:143:VAL:O    | 2:H:144:CYS:C    | 2.43                     | 0.57              |
| 2:H:486:THR:CG2  | 2:H:487:ALA:N    | 2.67                     | 0.57              |
| 2:H:566:TYR:O    | 2:H:569:THR:CB   | 2.47                     | 0.57              |
| 1:I:55:TYR:O     | 1:I:56:MET:C     | 2.43                     | 0.57              |
| 1:I:283:ASN:CG   | 1:I:284:VAL:N    | 2.58                     | 0.57              |
| 1:I:350:ILE:HD13 | 1:I:368:LEU:HD21 | 1.86                     | 0.57              |
| 1:I:413:PRO:HD2  | 1:I:417:TRP:CE3  | 2.40                     | 0.57              |
| 1:I:561:GLN:CG   | 2:J:522:ARG:NH2  | 2.67                     | 0.57              |
| 1:K:313:LEU:HD23 | 1:K:313:LEU:N    | 2.20                     | 0.57              |
| 1:K:430:GLY:HA2  | 1:K:433:VAL:HG23 | 1.87                     | 0.57              |
| 1:K:434:ARG:HG3  | 1:K:436:ASP:OD1  | 2.04                     | 0.57              |
| 1:K:442:ILE:HD11 | 1:K:475:VAL:HG13 | 1.86                     | 0.57              |
| 2:L:139:LYS:O    | 2:L:142:ALA:HB3  | 2.05                     | 0.57              |
| 2:L:569:THR:O    | 2:L:572:SER:CB   | 2.53                     | 0.57              |
| 3:O:63:ASN:O     | 3:O:64:ASN:HB3   | 2.05                     | 0.57              |
| 3:P:390:ILE:HG22 | 3:P:391:GLN:H    | 1.70                     | 0.57              |
| 3:R:63:ASN:O     | 3:R:64:ASN:HB3   | 2.05                     | 0.57              |
| 4:S:100:GLU:O    | 4:S:101:LEU:C    | 2.41                     | 0.57              |
| 3:V:9:LEU:CD2    | 3:V:15:VAL:HA    | 2.34                     | 0.57              |
| 3:V:77:VAL:O     | 3:V:78:SER:C     | 2.42                     | 0.57              |
| 3:V:390:ILE:HG22 | 3:V:391:GLN:N    | 2.19                     | 0.57              |
| 4:X:61:ARG:HH11  | 4:X:61:ARG:HG2   | 1.70                     | 0.57              |
| 1:A:283:ASN:CG   | 1:A:284:VAL:N    | 2.59                     | 0.57              |
| 2:B:143:VAL:O    | 2:B:144:CYS:C    | 2.43                     | 0.57              |
| 1:C:194:SER:O    | 1:C:197:LEU:HB3  | 2.04                     | 0.57              |
| 1:C:524:GLY:O    | 1:C:526:ALA:N    | 2.38                     | 0.57              |
| 1:C:560:GLN:O    | 1:C:561:GLN:C    | 2.43                     | 0.57              |
| 1:E:131:SER:O    | 1:E:132:SER:C    | 2.43                     | 0.57              |
| 1:E:135:CYS:CB   | 1:E:164:VAL:HG13 | 2.22                     | 0.57              |
| 1:E:283:ASN:CG   | 1:E:284:VAL:N    | 2.59                     | 0.57              |
| 1:E:430:GLY:HA2  | 1:E:433:VAL:HG23 | 1.87                     | 0.57              |
| 1:E:524:GLY:O    | 1:E:526:ALA:N    | 2.38                     | 0.57              |
| 1:E:560:GLN:O    | 1:E:561:GLN:C    | 2.43                     | 0.57              |
| 2:F:491:LEU:HD13 | 2:F:499:THR:HG22 | 1.87                     | 0.57              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:519:THR:HG22 | 1:G:520:SER:N    | 2.19                     | 0.57              |
| 2:H:38:ILE:HG12  | 2:H:39:ALA:N     | 2.19                     | 0.57              |
| 2:H:491:LEU:HD13 | 2:H:499:THR:HG22 | 1.87                     | 0.57              |
| 2:H:494:LYS:C    | 2:H:496:PRO:CD   | 2.67                     | 0.57              |
| 2:H:570:LEU:HD11 | 3:P:75:ALA:H     | 1.69                     | 0.57              |
| 1:I:372:LEU:HD12 | 1:I:372:LEU:H    | 1.68                     | 0.57              |
| 1:I:524:GLY:O    | 1:I:526:ALA:N    | 2.38                     | 0.57              |
| 2:J:39:ALA:O     | 2:J:41:MET:N     | 2.38                     | 0.57              |
| 2:J:88:VAL:HG11  | 2:J:121:TYR:HD2  | 1.69                     | 0.57              |
| 2:J:139:LYS:O    | 2:J:142:ALA:HB3  | 2.05                     | 0.57              |
| 2:J:143:VAL:O    | 2:J:144:CYS:C    | 2.43                     | 0.57              |
| 2:J:486:THR:CG2  | 2:J:487:ALA:N    | 2.67                     | 0.57              |
| 1:K:187:ASN:ND2  | 1:K:188:HIS:N    | 2.52                     | 0.57              |
| 2:L:39:ALA:O     | 2:L:41:MET:N     | 2.38                     | 0.57              |
| 2:L:316:ILE:HB   | 2:L:317:LEU:HD13 | 1.87                     | 0.57              |
| 3:N:17:ILE:HD13  | 3:N:17:ILE:C     | 2.25                     | 0.57              |
| 3:O:185:ALA:C    | 3:O:187:GLY:N    | 2.57                     | 0.57              |
| 3:O:286:HIS:CG   | 3:O:287:SER:H    | 2.20                     | 0.57              |
| 3:P:48:PRO:O     | 3:P:49:ILE:HD13  | 2.05                     | 0.57              |
| 3:P:278:TRP:O    | 3:P:279:ILE:HG13 | 2.05                     | 0.57              |
| 3:R:312:ILE:HB   | 3:R:343:TRP:HB3  | 1.86                     | 0.57              |
| 3:R:390:ILE:HG22 | 3:R:391:GLN:H    | 1.70                     | 0.57              |
| 3:V:48:PRO:O     | 3:V:49:ILE:HD13  | 2.05                     | 0.57              |
| 3:V:162:GLU:HG3  | 3:V:163:GLY:H    | 1.69                     | 0.57              |
| 1:A:344:GLN:HE21 | 1:A:374:ASN:HD22 | 1.53                     | 0.56              |
| 1:A:470:GLN:O    | 1:A:471:PRO:C    | 2.42                     | 0.56              |
| 2:B:256:VAL:O    | 2:B:260:VAL:HG23 | 2.05                     | 0.56              |
| 2:B:446:ALA:HA   | 2:B:480:VAL:HG23 | 1.86                     | 0.56              |
| 2:B:569:THR:O    | 2:B:572:SER:CB   | 2.53                     | 0.56              |
| 1:C:103:MET:HA   | 1:C:103:MET:CE   | 2.35                     | 0.56              |
| 1:C:430:GLY:HA2  | 1:C:433:VAL:HG23 | 1.87                     | 0.56              |
| 2:D:569:THR:O    | 2:D:572:SER:CB   | 2.53                     | 0.56              |
| 1:E:413:PRO:HD2  | 1:E:417:TRP:CE3  | 2.40                     | 0.56              |
| 2:F:45:LYS:HG2   | 2:F:46:ASP:H     | 1.70                     | 0.56              |
| 2:F:100:PRO:O    | 2:F:101:LEU:C    | 2.43                     | 0.56              |
| 2:F:521:ASP:O    | 2:F:523:GLY:N    | 2.38                     | 0.56              |
| 1:G:187:ASN:ND2  | 1:G:188:HIS:N    | 2.52                     | 0.56              |
| 1:G:561:GLN:CG   | 2:H:522:ARG:NH2  | 2.67                     | 0.56              |
| 2:H:31:LYS:CE    | 2:H:64:GLU:HG2   | 2.35                     | 0.56              |
| 2:H:355:LEU:O    | 2:H:356:ALA:C    | 2.43                     | 0.56              |
| 1:I:446:THR:HG23 | 1:I:447:ASN:H    | 1.70                     | 0.56              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:J:38:ILE:HG12  | 2:J:39:ALA:N     | 2.19                     | 0.56              |
| 2:J:164:THR:HG22 | 2:J:168:LEU:CD1  | 2.31                     | 0.56              |
| 2:J:256:VAL:O    | 2:J:260:VAL:HG23 | 2.05                     | 0.56              |
| 2:J:569:THR:CG2  | 2:J:570:LEU:N    | 2.68                     | 0.56              |
| 1:K:473:VAL:CG2  | 1:K:474:GLN:H    | 2.17                     | 0.56              |
| 1:K:560:GLN:O    | 1:K:561:GLN:C    | 2.43                     | 0.56              |
| 2:L:257:LEU:HD11 | 2:L:568:GLY:N    | 2.19                     | 0.56              |
| 2:L:389:GLU:O    | 2:L:390:ARG:C    | 2.44                     | 0.56              |
| 3:M:162:GLU:HG3  | 3:M:163:GLY:H    | 1.69                     | 0.56              |
| 3:M:314:ILE:HB   | 3:M:341:ILE:CG2  | 2.29                     | 0.56              |
| 3:N:390:ILE:HG22 | 3:N:391:GLN:N    | 2.19                     | 0.56              |
| 3:O:390:ILE:HG22 | 3:O:391:GLN:H    | 1.70                     | 0.56              |
| 3:P:399:GLU:HG2  | 3:P:401:SER:OG   | 2.04                     | 0.56              |
| 4:Q:5:MET:HG3    | 4:Q:68:CYS:O     | 2.04                     | 0.56              |
| 4:Q:90:LEU:CD2   | 4:Q:90:LEU:H     | 2.18                     | 0.56              |
| 4:S:52:TRP:O     | 4:S:53:ARG:C     | 2.43                     | 0.56              |
| 3:V:25:VAL:HG12  | 3:V:25:VAL:O     | 2.05                     | 0.56              |
| 3:V:278:TRP:O    | 3:V:279:ILE:HG13 | 2.05                     | 0.56              |
| 4:X:129:LYS:O    | 4:X:130:SER:C    | 2.42                     | 0.56              |
| 1:A:71:LEU:CA    | 1:A:74:ILE:HD13  | 2.29                     | 0.56              |
| 1:A:478:TRP:CH2  | 1:A:532:LYS:NZ   | 2.73                     | 0.56              |
| 1:A:519:THR:HB   | 1:A:521:VAL:HG12 | 1.87                     | 0.56              |
| 1:A:524:GLY:O    | 1:A:526:ALA:N    | 2.38                     | 0.56              |
| 2:B:175:MET:O    | 2:B:178:ALA:HB3  | 2.04                     | 0.56              |
| 2:B:492:PHE:CB   | 2:B:503:VAL:HG21 | 2.35                     | 0.56              |
| 1:C:131:SER:O    | 1:C:132:SER:C    | 2.43                     | 0.56              |
| 1:C:368:LEU:O    | 1:C:371:ALA:N    | 2.38                     | 0.56              |
| 1:C:519:THR:HB   | 1:C:521:VAL:HG12 | 1.87                     | 0.56              |
| 2:D:355:LEU:O    | 2:D:356:ALA:C    | 2.43                     | 0.56              |
| 2:F:55:VAL:C     | 2:F:57:CYS:H     | 2.07                     | 0.56              |
| 2:F:446:ALA:HA   | 2:F:480:VAL:HG23 | 1.86                     | 0.56              |
| 2:F:488:ILE:HG22 | 2:F:503:VAL:HG22 | 1.87                     | 0.56              |
| 1:G:411:TYR:H    | 1:G:411:TYR:HD1  | 1.52                     | 0.56              |
| 2:H:16:PHE:O     | 2:H:17:GLU:C     | 2.42                     | 0.56              |
| 2:H:569:THR:CG2  | 2:H:570:LEU:N    | 2.68                     | 0.56              |
| 2:J:55:VAL:C     | 2:J:57:CYS:H     | 2.07                     | 0.56              |
| 2:J:126:LEU:O    | 2:J:127:ARG:C    | 2.43                     | 0.56              |
| 1:K:468:SER:O    | 1:K:469:GLN:CB   | 2.42                     | 0.56              |
| 2:L:126:LEU:O    | 2:L:127:ARG:C    | 2.43                     | 0.56              |
| 3:R:48:PRO:O     | 3:R:49:ILE:HD13  | 2.05                     | 0.56              |
| 4:T:107:PHE:O    | 4:T:108:GLU:C    | 2.42                     | 0.56              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:103:MET:CE   | 1:A:103:MET:HA   | 2.34                     | 0.56              |
| 1:A:413:PRO:HD2  | 1:A:417:TRP:CE3  | 2.40                     | 0.56              |
| 1:A:451:MET:O    | 1:A:452:HIS:C    | 2.42                     | 0.56              |
| 1:A:487:LEU:O    | 1:A:487:LEU:HG   | 2.03                     | 0.56              |
| 1:A:508:ILE:HD12 | 1:A:508:ILE:N    | 2.20                     | 0.56              |
| 2:B:134:ASP:HB2  | 2:B:137:VAL:CG2  | 2.36                     | 0.56              |
| 2:B:487:ALA:O    | 2:B:488:ILE:C    | 2.43                     | 0.56              |
| 1:C:113:HIS:CD2  | 1:C:115:THR:H    | 2.23                     | 0.56              |
| 1:C:197:LEU:C    | 1:C:197:LEU:HD13 | 2.26                     | 0.56              |
| 1:C:389:LEU:CD2  | 1:C:425:VAL:HG23 | 2.36                     | 0.56              |
| 1:C:413:PRO:HD2  | 1:C:417:TRP:CE3  | 2.40                     | 0.56              |
| 1:C:446:THR:HG23 | 1:C:447:ASN:H    | 1.70                     | 0.56              |
| 2:D:31:LYS:CE    | 2:D:64:GLU:HG2   | 2.35                     | 0.56              |
| 2:D:39:ALA:O     | 2:D:41:MET:N     | 2.38                     | 0.56              |
| 2:D:298:PRO:O    | 2:D:299:GLN:C    | 2.44                     | 0.56              |
| 2:D:491:LEU:HD13 | 2:D:499:THR:HG21 | 1.87                     | 0.56              |
| 2:D:492:PHE:CB   | 2:D:503:VAL:HG21 | 2.35                     | 0.56              |
| 2:D:569:THR:CG2  | 2:D:570:LEU:N    | 2.68                     | 0.56              |
| 1:E:113:HIS:CD2  | 1:E:115:THR:H    | 2.23                     | 0.56              |
| 1:E:254:ARG:O    | 1:E:299:ILE:HD11 | 2.05                     | 0.56              |
| 1:E:316:PHE:O    | 1:E:319:ASN:N    | 2.35                     | 0.56              |
| 1:E:446:THR:HG23 | 1:E:447:ASN:H    | 1.70                     | 0.56              |
| 2:F:14:GLU:O     | 2:F:15:ILE:C     | 2.41                     | 0.56              |
| 2:F:18:LEU:H     | 2:F:18:LEU:CD2   | 2.19                     | 0.56              |
| 2:F:39:ALA:O     | 2:F:41:MET:N     | 2.38                     | 0.56              |
| 2:F:99:ASN:O     | 2:F:100:PRO:C    | 2.44                     | 0.56              |
| 2:F:126:LEU:O    | 2:F:127:ARG:C    | 2.43                     | 0.56              |
| 2:F:129:CYS:O    | 2:F:132:ASP:HB2  | 2.06                     | 0.56              |
| 2:F:143:VAL:O    | 2:F:144:CYS:C    | 2.43                     | 0.56              |
| 2:F:492:PHE:CB   | 2:F:503:VAL:HG21 | 2.35                     | 0.56              |
| 2:F:569:THR:CG2  | 2:F:570:LEU:N    | 2.68                     | 0.56              |
| 1:G:197:LEU:C    | 1:G:197:LEU:HD13 | 2.26                     | 0.56              |
| 1:G:289:LEU:O    | 1:G:290:TYR:C    | 2.43                     | 0.56              |
| 1:G:442:ILE:HD11 | 1:G:475:VAL:HG13 | 1.86                     | 0.56              |
| 1:G:478:TRP:HA   | 1:G:478:TRP:HE3  | 1.67                     | 0.56              |
| 2:H:256:VAL:O    | 2:H:260:VAL:HG23 | 2.05                     | 0.56              |
| 2:H:415:LYS:HD2  | 2:H:447:ALA:CB   | 2.34                     | 0.56              |
| 2:H:521:ASP:O    | 2:H:523:GLY:N    | 2.38                     | 0.56              |
| 1:I:13:THR:O     | 1:I:26:MET:HE1   | 2.06                     | 0.56              |
| 1:I:103:MET:CE   | 1:I:103:MET:HA   | 2.35                     | 0.56              |
| 1:I:129:MET:O    | 1:I:130:GLY:C    | 2.44                     | 0.56              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:353:CYS:O    | 1:I:356:ASP:N    | 2.39                     | 0.56              |
| 1:I:508:ILE:HD12 | 1:I:508:ILE:N    | 2.20                     | 0.56              |
| 1:I:544:ILE:HG22 | 1:I:545:LYS:N    | 2.20                     | 0.56              |
| 2:J:18:LEU:H     | 2:J:18:LEU:CD2   | 2.19                     | 0.56              |
| 2:J:191:HIS:HA   | 2:J:195:ASN:HD22 | 1.70                     | 0.56              |
| 2:J:521:ASP:O    | 2:J:523:GLY:N    | 2.38                     | 0.56              |
| 1:K:53:LEU:O     | 1:K:56:MET:HB2   | 2.05                     | 0.56              |
| 1:K:74:ILE:HD12  | 1:K:74:ILE:N     | 2.19                     | 0.56              |
| 1:K:131:SER:O    | 1:K:132:SER:C    | 2.43                     | 0.56              |
| 1:K:150:ASN:O    | 1:K:151:SER:C    | 2.44                     | 0.56              |
| 1:K:168:VAL:O    | 1:K:168:VAL:HG12 | 2.05                     | 0.56              |
| 1:K:197:LEU:C    | 1:K:197:LEU:HD13 | 2.26                     | 0.56              |
| 1:K:478:TRP:CH2  | 1:K:532:LYS:NZ   | 2.73                     | 0.56              |
| 2:L:143:VAL:O    | 2:L:144:CYS:C    | 2.43                     | 0.56              |
| 2:L:256:VAL:O    | 2:L:260:VAL:HG23 | 2.05                     | 0.56              |
| 2:L:302:PRO:O    | 2:L:303:LEU:C    | 2.44                     | 0.56              |
| 3:M:63:ASN:O     | 3:M:64:ASN:HB3   | 2.05                     | 0.56              |
| 3:M:95:PHE:CB    | 3:M:141:LYS:HA   | 2.36                     | 0.56              |
| 3:M:131:LEU:O    | 3:M:134:PHE:N    | 2.34                     | 0.56              |
| 3:M:325:PHE:CD2  | 3:M:325:PHE:N    | 2.72                     | 0.56              |
| 3:N:321:ASP:CG   | 3:N:322:SER:N    | 2.55                     | 0.56              |
| 4:Q:18:LYS:HG3   | 4:Q:20:TYR:HE1   | 1.71                     | 0.56              |
| 3:R:25:VAL:O     | 3:R:25:VAL:HG12  | 2.05                     | 0.56              |
| 3:R:323:PRO:HB3  | 3:R:325:PHE:CE2  | 2.41                     | 0.56              |
| 4:T:16:LEU:CD1   | 4:T:111:TYR:CZ   | 2.89                     | 0.56              |
| 4:T:52:TRP:O     | 4:T:53:ARG:C     | 2.43                     | 0.56              |
| 4:T:114:LEU:C    | 4:T:114:LEU:HD23 | 2.26                     | 0.56              |
| 3:V:390:ILE:HG22 | 3:V:391:GLN:H    | 1.70                     | 0.56              |
| 4:W:52:TRP:O     | 4:W:53:ARG:C     | 2.43                     | 0.56              |
| 4:W:111:TYR:O    | 4:W:112:PHE:C    | 2.44                     | 0.56              |
| 4:W:129:LYS:O    | 4:W:130:SER:C    | 2.42                     | 0.56              |
| 4:X:5:MET:HG3    | 4:X:68:CYS:O     | 2.04                     | 0.56              |
| 1:A:267:MET:O    | 1:A:269:ASP:N    | 2.39                     | 0.56              |
| 1:A:366:MET:O    | 1:A:367:GLU:C    | 2.43                     | 0.56              |
| 1:A:389:LEU:CD2  | 1:A:425:VAL:HG23 | 2.36                     | 0.56              |
| 1:A:424:ARG:HG2  | 1:A:424:ARG:NH1  | 2.20                     | 0.56              |
| 1:A:560:GLN:O    | 1:A:561:GLN:C    | 2.43                     | 0.56              |
| 2:B:343:ILE:C    | 2:B:345:LEU:N    | 2.59                     | 0.56              |
| 2:B:582:VAL:O    | 2:B:584:GLY:N    | 2.38                     | 0.56              |
| 1:C:103:MET:HA   | 1:C:103:MET:HE3  | 1.87                     | 0.56              |
| 2:D:41:MET:HE3   | 2:D:47:VAL:HG21  | 1.87                     | 0.56              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:99:ASN:O     | 2:D:100:PRO:C    | 2.44                     | 0.56              |
| 2:D:306:ILE:O    | 2:D:309:ILE:HB   | 2.06                     | 0.56              |
| 1:E:122:ALA:O    | 1:E:123:LEU:C    | 2.44                     | 0.56              |
| 2:F:91:PHE:O     | 2:F:94:ASP:N     | 2.38                     | 0.56              |
| 2:F:161:PHE:HA   | 2:F:164:THR:OG1  | 2.05                     | 0.56              |
| 2:F:298:PRO:O    | 2:F:299:GLN:C    | 2.44                     | 0.56              |
| 2:H:126:LEU:O    | 2:H:127:ARG:C    | 2.43                     | 0.56              |
| 2:H:337:GLU:O    | 2:H:341:ILE:HD13 | 2.06                     | 0.56              |
| 1:I:519:THR:HB   | 1:I:521:VAL:HG12 | 1.87                     | 0.56              |
| 1:I:533:LEU:HB3  | 1:I:537:PHE:CE1  | 2.41                     | 0.56              |
| 2:J:37:VAL:O     | 2:J:38:ILE:C     | 2.43                     | 0.56              |
| 2:J:488:ILE:HG22 | 2:J:503:VAL:HG22 | 1.87                     | 0.56              |
| 1:K:58:MET:HE1   | 4:W:15:ARG:O     | 2.06                     | 0.56              |
| 1:K:172:MET:H    | 1:K:172:MET:CE   | 2.14                     | 0.56              |
| 1:K:312:ILE:O    | 1:K:315:ARG:HB3  | 2.06                     | 0.56              |
| 1:K:366:MET:O    | 1:K:367:GLU:C    | 2.43                     | 0.56              |
| 2:L:45:LYS:HG2   | 2:L:46:ASP:H     | 1.70                     | 0.56              |
| 2:L:409:GLU:O    | 2:L:410:ALA:C    | 2.44                     | 0.56              |
| 2:L:569:THR:CG2  | 2:L:570:LEU:N    | 2.68                     | 0.56              |
| 3:M:278:TRP:O    | 3:M:279:ILE:HG13 | 2.05                     | 0.56              |
| 3:M:337:GLU:O    | 3:M:338:ASN:HB2  | 2.05                     | 0.56              |
| 3:N:312:ILE:HB   | 3:N:343:TRP:HB3  | 1.86                     | 0.56              |
| 3:N:323:PRO:HB3  | 3:N:325:PHE:CE2  | 2.41                     | 0.56              |
| 3:P:323:PRO:HB3  | 3:P:325:PHE:CE2  | 2.41                     | 0.56              |
| 4:Q:111:TYR:O    | 4:Q:112:PHE:C    | 2.44                     | 0.56              |
| 4:U:16:LEU:CD1   | 4:U:111:TYR:CZ   | 2.89                     | 0.56              |
| 4:U:52:TRP:O     | 4:U:53:ARG:C     | 2.43                     | 0.56              |
| 1:A:153:LEU:HD23 | 1:A:153:LEU:N    | 2.21                     | 0.56              |
| 1:A:430:GLY:HA2  | 1:A:433:VAL:HG23 | 1.87                     | 0.56              |
| 1:A:533:LEU:HB3  | 1:A:537:PHE:CE1  | 2.41                     | 0.56              |
| 2:B:337:GLU:O    | 2:B:341:ILE:HD13 | 2.06                     | 0.56              |
| 1:C:168:VAL:HG12 | 1:C:168:VAL:O    | 2.05                     | 0.56              |
| 1:C:519:THR:HG22 | 1:C:520:SER:N    | 2.19                     | 0.56              |
| 1:C:544:ILE:HG22 | 1:C:545:LYS:N    | 2.20                     | 0.56              |
| 2:D:256:VAL:O    | 2:D:260:VAL:HG23 | 2.05                     | 0.56              |
| 1:E:71:LEU:CA    | 1:E:74:ILE:HD13  | 2.29                     | 0.56              |
| 2:F:256:VAL:O    | 2:F:260:VAL:HG23 | 2.05                     | 0.56              |
| 2:F:369:PHE:O    | 2:F:370:VAL:C    | 2.41                     | 0.56              |
| 1:G:150:ASN:O    | 1:G:151:SER:C    | 2.44                     | 0.56              |
| 1:G:250:LEU:HA   | 1:G:253:LEU:CD1  | 2.34                     | 0.56              |
| 1:G:267:MET:O    | 1:G:269:ASP:N    | 2.39                     | 0.56              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:424:ARG:HG2  | 1:G:424:ARG:NH1  | 2.20                     | 0.56              |
| 1:G:445:ILE:CD1  | 1:G:455:THR:HG21 | 2.36                     | 0.56              |
| 1:G:446:THR:HG23 | 1:G:447:ASN:H    | 1.70                     | 0.56              |
| 1:G:519:THR:HB   | 1:G:521:VAL:HG12 | 1.87                     | 0.56              |
| 2:H:139:LYS:O    | 2:H:142:ALA:HB3  | 2.05                     | 0.56              |
| 2:H:161:PHE:HA   | 2:H:164:THR:OG1  | 2.05                     | 0.56              |
| 1:I:168:VAL:HG12 | 1:I:168:VAL:O    | 2.05                     | 0.56              |
| 1:I:463:ILE:HD11 | 1:I:476:ALA:CB   | 2.34                     | 0.56              |
| 2:J:446:ALA:HA   | 2:J:480:VAL:HG23 | 1.86                     | 0.56              |
| 2:J:569:THR:O    | 2:J:572:SER:CB   | 2.53                     | 0.56              |
| 1:K:191:LEU:O    | 1:K:195:VAL:HG23 | 2.06                     | 0.56              |
| 1:K:267:MET:O    | 1:K:269:ASP:N    | 2.39                     | 0.56              |
| 1:K:424:ARG:HG2  | 1:K:424:ARG:NH1  | 2.20                     | 0.56              |
| 1:K:470:GLN:O    | 1:K:471:PRO:C    | 2.42                     | 0.56              |
| 1:K:508:ILE:HD12 | 1:K:508:ILE:N    | 2.20                     | 0.56              |
| 2:L:491:LEU:HD13 | 2:L:499:THR:HG22 | 1.87                     | 0.56              |
| 2:L:491:LEU:HD13 | 2:L:499:THR:HG21 | 1.88                     | 0.56              |
| 3:M:312:ILE:HB   | 3:M:343:TRP:HB3  | 1.86                     | 0.56              |
| 3:N:125:THR:O    | 3:N:126:THR:OG1  | 2.22                     | 0.56              |
| 3:O:48:PRO:O     | 3:O:49:ILE:HD13  | 2.05                     | 0.56              |
| 3:O:131:LEU:O    | 3:O:134:PHE:N    | 2.34                     | 0.56              |
| 3:V:63:ASN:O     | 3:V:64:ASN:HB3   | 2.05                     | 0.56              |
| 1:A:122:ALA:O    | 1:A:123:LEU:C    | 2.44                     | 0.56              |
| 1:A:157:ALA:O    | 1:A:158:ALA:C    | 2.44                     | 0.56              |
| 2:B:302:PRO:O    | 2:B:303:LEU:C    | 2.44                     | 0.56              |
| 2:B:317:LEU:HD22 | 2:B:317:LEU:N    | 2.13                     | 0.56              |
| 2:B:409:GLU:O    | 2:B:410:ALA:C    | 2.44                     | 0.56              |
| 2:B:466:LEU:H    | 2:B:466:LEU:CD1  | 2.17                     | 0.56              |
| 2:B:521:ASP:O    | 2:B:523:GLY:N    | 2.38                     | 0.56              |
| 1:C:191:LEU:O    | 1:C:195:VAL:HG23 | 2.06                     | 0.56              |
| 1:C:254:ARG:O    | 1:C:299:ILE:HD11 | 2.05                     | 0.56              |
| 2:D:521:ASP:O    | 2:D:523:GLY:N    | 2.38                     | 0.56              |
| 1:E:13:THR:O     | 1:E:26:MET:HE1   | 2.06                     | 0.56              |
| 1:E:350:ILE:HD13 | 1:E:368:LEU:HD21 | 1.86                     | 0.56              |
| 1:E:508:ILE:N    | 1:E:508:ILE:HD12 | 2.20                     | 0.56              |
| 2:F:139:LYS:HD3  | 2:F:175:MET:HE2  | 1.87                     | 0.56              |
| 2:F:337:GLU:O    | 2:F:341:ILE:HD13 | 2.06                     | 0.56              |
| 2:F:466:LEU:H    | 2:F:466:LEU:CD1  | 2.17                     | 0.56              |
| 1:G:191:LEU:O    | 1:G:195:VAL:HG23 | 2.06                     | 0.56              |
| 2:H:488:ILE:HG22 | 2:H:503:VAL:HG22 | 1.87                     | 0.56              |
| 2:H:492:PHE:CB   | 2:H:503:VAL:HG21 | 2.35                     | 0.56              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:49:ASN:O     | 1:I:50:VAL:C     | 2.44                     | 0.56              |
| 2:J:134:ASP:HB2  | 2:J:137:VAL:CG2  | 2.36                     | 0.56              |
| 1:K:55:TYR:O     | 1:K:56:MET:C     | 2.44                     | 0.56              |
| 1:K:71:LEU:CA    | 1:K:74:ILE:HD13  | 2.29                     | 0.56              |
| 1:K:413:PRO:HD2  | 1:K:417:TRP:CE3  | 2.40                     | 0.56              |
| 2:L:134:ASP:HB2  | 2:L:137:VAL:CG2  | 2.36                     | 0.56              |
| 2:L:337:GLU:O    | 2:L:341:ILE:HD13 | 2.06                     | 0.56              |
| 3:P:17:ILE:HD13  | 3:P:17:ILE:C     | 2.25                     | 0.56              |
| 3:R:376:ILE:HG22 | 3:R:420:LEU:O    | 2.05                     | 0.56              |
| 4:S:16:LEU:CD1   | 4:S:111:TYR:CZ   | 2.89                     | 0.56              |
| 4:W:61:ARG:HH11  | 4:W:61:ARG:HG2   | 1.70                     | 0.56              |
| 1:A:197:LEU:HD13 | 1:A:197:LEU:C    | 2.26                     | 0.56              |
| 1:A:289:LEU:O    | 1:A:290:TYR:C    | 2.43                     | 0.56              |
| 2:B:177:VAL:O    | 2:B:181:VAL:HG23 | 2.06                     | 0.56              |
| 2:B:482:LEU:O    | 2:B:483:GLN:C    | 2.41                     | 0.56              |
| 1:C:274:VAL:HG11 | 1:C:292:THR:CG2  | 2.32                     | 0.56              |
| 2:D:45:LYS:HG2   | 2:D:46:ASP:H     | 1.70                     | 0.56              |
| 2:D:139:LYS:O    | 2:D:142:ALA:HB3  | 2.05                     | 0.56              |
| 2:F:347:SER:CA   | 2:F:350:ASN:HD22 | 2.19                     | 0.56              |
| 1:G:49:ASN:O     | 1:G:50:VAL:C     | 2.44                     | 0.56              |
| 1:G:103:MET:HA   | 1:G:103:MET:CE   | 2.34                     | 0.56              |
| 1:G:175:PHE:O    | 1:G:176:LEU:C    | 2.44                     | 0.56              |
| 1:G:270:ILE:HG23 | 1:G:271:LEU:N    | 2.19                     | 0.56              |
| 1:G:544:ILE:HG22 | 1:G:545:LYS:N    | 2.20                     | 0.56              |
| 2:H:129:CYS:O    | 2:H:132:ASP:HB2  | 2.06                     | 0.56              |
| 2:H:487:ALA:O    | 2:H:488:ILE:C    | 2.43                     | 0.56              |
| 1:I:150:ASN:O    | 1:I:151:SER:C    | 2.44                     | 0.56              |
| 1:I:289:LEU:O    | 1:I:290:TYR:C    | 2.43                     | 0.56              |
| 1:I:312:ILE:O    | 1:I:315:ARG:HB3  | 2.06                     | 0.56              |
| 1:I:389:LEU:CD2  | 1:I:425:VAL:HG23 | 2.36                     | 0.56              |
| 2:J:324:PHE:HE2  | 2:J:341:ILE:HG21 | 1.70                     | 0.56              |
| 1:K:115:THR:HG22 | 1:K:116:GLN:N    | 2.16                     | 0.56              |
| 1:K:445:ILE:CD1  | 1:K:455:THR:HG21 | 2.36                     | 0.56              |
| 2:L:100:PRO:O    | 2:L:101:LEU:C    | 2.43                     | 0.56              |
| 2:L:488:ILE:HG22 | 2:L:503:VAL:HG22 | 1.87                     | 0.56              |
| 3:N:174:ASP:N    | 3:N:174:ASP:OD2  | 2.39                     | 0.56              |
| 3:O:337:GLU:O    | 3:O:338:ASN:HB2  | 2.05                     | 0.56              |
| 4:Q:114:LEU:HD23 | 4:Q:114:LEU:C    | 2.26                     | 0.56              |
| 3:R:131:LEU:C    | 3:R:133:GLU:H    | 2.09                     | 0.56              |
| 3:R:162:GLU:HG3  | 3:R:163:GLY:H    | 1.69                     | 0.56              |
| 4:T:83:LEU:O     | 4:T:86:ARG:N     | 2.37                     | 0.56              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:T:99:CYS:SG    | 4:T:100:GLU:N    | 2.77                     | 0.56              |
| 3:V:17:ILE:HD13  | 3:V:17:ILE:C     | 2.25                     | 0.56              |
| 4:X:16:LEU:CD1   | 4:X:111:TYR:CZ   | 2.89                     | 0.56              |
| 4:X:71:ILE:HG22  | 4:X:72:GLU:H     | 1.71                     | 0.56              |
| 4:X:114:LEU:C    | 4:X:114:LEU:HD23 | 2.26                     | 0.56              |
| 1:A:74:ILE:HD12  | 1:A:74:ILE:N     | 2.19                     | 0.56              |
| 1:A:96:ARG:O     | 1:A:99:VAL:HG22  | 2.04                     | 0.56              |
| 1:A:445:ILE:CD1  | 1:A:455:THR:HG21 | 2.36                     | 0.56              |
| 1:A:589:LYS:HG2  | 1:A:590:VAL:N    | 2.21                     | 0.56              |
| 2:B:18:LEU:H     | 2:B:18:LEU:CD2   | 2.19                     | 0.56              |
| 2:B:85:ILE:C     | 2:B:87:ALA:H     | 2.10                     | 0.56              |
| 1:C:54:LEU:O     | 1:C:57:HIS:HB3   | 2.06                     | 0.56              |
| 1:C:157:ALA:O    | 1:C:158:ALA:C    | 2.44                     | 0.56              |
| 2:D:88:VAL:HG11  | 2:D:121:TYR:HD2  | 1.69                     | 0.56              |
| 2:D:100:PRO:O    | 2:D:101:LEU:C    | 2.43                     | 0.56              |
| 2:D:129:CYS:O    | 2:D:132:ASP:HB2  | 2.06                     | 0.56              |
| 2:D:177:VAL:O    | 2:D:181:VAL:HG23 | 2.06                     | 0.56              |
| 2:D:461:ASN:HB3  | 2:D:465:LEU:HD11 | 1.88                     | 0.56              |
| 2:F:491:LEU:HD13 | 2:F:499:THR:HG21 | 1.88                     | 0.56              |
| 1:G:135:CYS:CB   | 1:G:164:VAL:HG13 | 2.22                     | 0.56              |
| 1:G:560:GLN:O    | 1:G:561:GLN:C    | 2.43                     | 0.56              |
| 1:I:267:MET:O    | 1:I:269:ASP:N    | 2.39                     | 0.56              |
| 1:I:316:PHE:O    | 1:I:319:ASN:N    | 2.35                     | 0.56              |
| 1:I:366:MET:O    | 1:I:367:GLU:C    | 2.43                     | 0.56              |
| 2:J:100:PRO:O    | 2:J:101:LEU:C    | 2.44                     | 0.56              |
| 2:J:161:PHE:HA   | 2:J:164:THR:OG1  | 2.05                     | 0.56              |
| 1:K:8:ARG:HD2    | 3:P:337:GLU:HB2  | 1.88                     | 0.56              |
| 1:K:446:THR:HG23 | 1:K:447:ASN:H    | 1.70                     | 0.56              |
| 1:K:460:TYR:HA   | 1:K:463:ILE:HD12 | 1.88                     | 0.56              |
| 2:L:37:VAL:O     | 2:L:38:ILE:C     | 2.43                     | 0.56              |
| 2:L:177:VAL:O    | 2:L:181:VAL:HG23 | 2.06                     | 0.56              |
| 2:L:325:PHE:CE2  | 2:L:357:GLU:HG3  | 2.41                     | 0.56              |
| 2:L:343:ILE:C    | 2:L:345:LEU:N    | 2.59                     | 0.56              |
| 3:R:5:ALA:HB3    | 3:R:70:THR:HB    | 1.86                     | 0.56              |
| 4:S:90:LEU:CD2   | 4:S:90:LEU:H     | 2.18                     | 0.56              |
| 4:T:33:ARG:CG    | 4:T:34:GLU:H     | 2.19                     | 0.56              |
| 4:T:71:ILE:HG22  | 4:T:72:GLU:H     | 1.71                     | 0.56              |
| 3:V:95:PHE:CB    | 3:V:141:LYS:HA   | 2.36                     | 0.56              |
| 4:X:129:LYS:HB3  | 4:X:133:LYS:HE3  | 1.88                     | 0.56              |
| 2:B:91:PHE:O     | 2:B:94:ASP:N     | 2.38                     | 0.56              |
| 2:B:325:PHE:CE2  | 2:B:357:GLU:HG3  | 2.41                     | 0.56              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:491:LEU:HD13 | 2:B:499:THR:HG21 | 1.88                     | 0.56              |
| 1:C:13:THR:O     | 1:C:26:MET:HE1   | 2.06                     | 0.56              |
| 1:C:172:MET:N    | 1:C:172:MET:CE   | 2.68                     | 0.56              |
| 1:C:350:ILE:HD13 | 1:C:368:LEU:CD2  | 2.36                     | 0.56              |
| 2:D:37:VAL:O     | 2:D:38:ILE:C     | 2.43                     | 0.56              |
| 2:D:143:VAL:O    | 2:D:144:CYS:C    | 2.43                     | 0.56              |
| 1:E:150:ASN:O    | 1:E:151:SER:C    | 2.44                     | 0.56              |
| 1:E:250:LEU:HA   | 1:E:253:LEU:CD1  | 2.34                     | 0.56              |
| 2:F:134:ASP:HB2  | 2:F:137:VAL:CG2  | 2.36                     | 0.56              |
| 2:F:177:VAL:O    | 2:F:181:VAL:HG23 | 2.06                     | 0.56              |
| 2:F:351:ILE:O    | 2:F:352:ALA:C    | 2.44                     | 0.56              |
| 2:F:409:GLU:O    | 2:F:410:ALA:C    | 2.44                     | 0.56              |
| 1:G:54:LEU:O     | 1:G:57:HIS:HB3   | 2.06                     | 0.56              |
| 1:G:254:ARG:O    | 1:G:299:ILE:HD11 | 2.05                     | 0.56              |
| 1:G:478:TRP:CH2  | 1:G:532:LYS:NZ   | 2.73                     | 0.56              |
| 2:H:177:VAL:O    | 2:H:181:VAL:HG23 | 2.06                     | 0.56              |
| 2:H:262:VAL:HG23 | 2:H:263:LEU:N    | 2.21                     | 0.56              |
| 1:I:122:ALA:O    | 1:I:123:LEU:C    | 2.44                     | 0.56              |
| 1:I:430:GLY:HA2  | 1:I:433:VAL:HG23 | 1.87                     | 0.56              |
| 2:J:387:SER:CA   | 2:J:390:ARG:HD2  | 2.25                     | 0.56              |
| 2:J:491:LEU:HD13 | 2:J:499:THR:HG22 | 1.87                     | 0.56              |
| 1:K:122:ALA:O    | 1:K:123:LEU:C    | 2.44                     | 0.56              |
| 1:K:154:ARG:HH21 | 1:K:182:LEU:HD22 | 1.71                     | 0.56              |
| 1:K:289:LEU:O    | 1:K:290:TYR:C    | 2.43                     | 0.56              |
| 1:K:451:MET:H    | 1:K:451:MET:HE2  | 1.68                     | 0.56              |
| 1:K:519:THR:HG22 | 1:K:520:SER:N    | 2.19                     | 0.56              |
| 2:L:298:PRO:O    | 2:L:299:GLN:C    | 2.44                     | 0.56              |
| 2:L:324:PHE:HE2  | 2:L:341:ILE:HG21 | 1.70                     | 0.56              |
| 2:L:521:ASP:O    | 2:L:523:GLY:N    | 2.38                     | 0.56              |
| 2:L:521:ASP:C    | 2:L:523:GLY:N    | 2.55                     | 0.56              |
| 3:N:63:ASN:O     | 3:N:64:ASN:HB3   | 2.05                     | 0.56              |
| 3:O:25:VAL:HG12  | 3:O:25:VAL:O     | 2.05                     | 0.56              |
| 3:O:162:GLU:HG3  | 3:O:163:GLY:H    | 1.69                     | 0.56              |
| 3:O:312:ILE:HB   | 3:O:343:TRP:HB3  | 1.86                     | 0.56              |
| 3:P:131:LEU:C    | 3:P:133:GLU:H    | 2.09                     | 0.56              |
| 3:P:245:SER:HB2  | 3:P:252:THR:HB   | 1.88                     | 0.56              |
| 3:R:337:GLU:O    | 3:R:338:ASN:HB2  | 2.05                     | 0.56              |
| 4:S:129:LYS:HB3  | 4:S:133:LYS:HE3  | 1.88                     | 0.56              |
| 4:T:61:ARG:HH11  | 4:T:61:ARG:HG2   | 1.70                     | 0.56              |
| 4:T:111:TYR:O    | 4:T:112:PHE:C    | 2.44                     | 0.56              |
| 4:W:90:LEU:CD2   | 4:W:90:LEU:H     | 2.18                     | 0.56              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:X:18:LYS:HG3   | 4:X:20:TYR:HE1   | 1.71                     | 0.56              |
| 1:A:446:THR:HG23 | 1:A:447:ASN:H    | 1.70                     | 0.56              |
| 1:A:460:TYR:HA   | 1:A:463:ILE:HD12 | 1.88                     | 0.56              |
| 2:B:306:ILE:O    | 2:B:309:ILE:HB   | 2.06                     | 0.56              |
| 2:B:389:GLU:O    | 2:B:390:ARG:C    | 2.44                     | 0.56              |
| 1:C:267:MET:O    | 1:C:269:ASP:N    | 2.39                     | 0.56              |
| 2:D:18:LEU:H     | 2:D:18:LEU:CD2   | 2.19                     | 0.56              |
| 2:D:113:ILE:HD12 | 2:D:113:ILE:N    | 2.21                     | 0.56              |
| 2:D:126:LEU:O    | 2:D:127:ARG:C    | 2.43                     | 0.56              |
| 2:D:131:LYS:O    | 2:D:132:ASP:O    | 2.24                     | 0.56              |
| 2:D:521:ASP:C    | 2:D:523:GLY:N    | 2.55                     | 0.56              |
| 1:E:53:LEU:O     | 1:E:54:LEU:C     | 2.44                     | 0.56              |
| 1:E:55:TYR:O     | 1:E:56:MET:C     | 2.44                     | 0.56              |
| 1:E:197:LEU:HD13 | 1:E:197:LEU:C    | 2.26                     | 0.56              |
| 1:E:478:TRP:CH2  | 1:E:532:LYS:NZ   | 2.73                     | 0.56              |
| 1:E:519:THR:HB   | 1:E:521:VAL:HG12 | 1.87                     | 0.56              |
| 1:E:589:LYS:HG2  | 1:E:590:VAL:N    | 2.21                     | 0.56              |
| 2:F:306:ILE:O    | 2:F:309:ILE:HB   | 2.06                     | 0.56              |
| 2:F:343:ILE:C    | 2:F:345:LEU:N    | 2.59                     | 0.56              |
| 2:F:461:ASN:HB3  | 2:F:465:LEU:HD11 | 1.88                     | 0.56              |
| 2:F:464:GLU:HG3  | 2:F:465:LEU:HD12 | 1.88                     | 0.56              |
| 1:G:115:THR:HG22 | 1:G:116:GLN:N    | 2.17                     | 0.56              |
| 1:G:122:ALA:O    | 1:G:123:LEU:C    | 2.44                     | 0.56              |
| 1:G:153:LEU:N    | 1:G:153:LEU:HD23 | 2.20                     | 0.56              |
| 1:G:283:ASN:CG   | 1:G:284:VAL:N    | 2.59                     | 0.56              |
| 1:G:389:LEU:CD2  | 1:G:425:VAL:HG23 | 2.36                     | 0.56              |
| 2:H:39:ALA:O     | 2:H:41:MET:N     | 2.38                     | 0.56              |
| 2:H:45:LYS:HG2   | 2:H:46:ASP:H     | 1.70                     | 0.56              |
| 1:I:344:GLN:HE21 | 1:I:374:ASN:ND2  | 2.04                     | 0.56              |
| 2:J:389:GLU:O    | 2:J:390:ARG:C    | 2.44                     | 0.56              |
| 1:K:113:HIS:CD2  | 1:K:115:THR:H    | 2.24                     | 0.56              |
| 1:K:340:HIS:O    | 1:K:343:VAL:HG22 | 2.06                     | 0.56              |
| 2:L:31:LYS:CE    | 2:L:64:GLU:HG2   | 2.35                     | 0.56              |
| 2:L:99:ASN:O     | 2:L:100:PRO:C    | 2.44                     | 0.56              |
| 3:M:131:LEU:C    | 3:M:133:GLU:H    | 2.09                     | 0.56              |
| 3:M:323:PRO:HB3  | 3:M:325:PHE:CE2  | 2.41                     | 0.56              |
| 3:N:48:PRO:O     | 3:N:49:ILE:HD13  | 2.05                     | 0.56              |
| 3:R:95:PHE:CB    | 3:R:141:LYS:HA   | 2.36                     | 0.56              |
| 3:R:125:THR:O    | 3:R:126:THR:OG1  | 2.22                     | 0.56              |
| 3:R:278:TRP:O    | 3:R:279:ILE:HG13 | 2.05                     | 0.56              |
| 3:R:325:PHE:CD2  | 3:R:325:PHE:N    | 2.72                     | 0.56              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:S:111:TYR:O    | 4:S:112:PHE:C    | 2.44                     | 0.56              |
| 3:V:34:MET:HB3   | 3:V:35:PRO:CD    | 2.35                     | 0.56              |
| 3:V:125:THR:CG2  | 3:V:126:THR:N    | 2.69                     | 0.56              |
| 3:V:337:GLU:O    | 3:V:338:ASN:HB2  | 2.05                     | 0.56              |
| 4:W:114:LEU:HD23 | 4:W:114:LEU:C    | 2.26                     | 0.56              |
| 4:W:129:LYS:HB3  | 4:W:133:LYS:HE3  | 1.88                     | 0.56              |
| 1:A:53:LEU:O     | 1:A:56:MET:HB2   | 2.05                     | 0.55              |
| 1:A:113:HIS:CD2  | 1:A:115:THR:H    | 2.23                     | 0.55              |
| 1:A:179:THR:HG21 | 1:A:211:HIS:CE1  | 2.42                     | 0.55              |
| 1:A:353:CYS:O    | 1:A:356:ASP:N    | 2.39                     | 0.55              |
| 1:A:544:ILE:HG22 | 1:A:545:LYS:N    | 2.20                     | 0.55              |
| 1:C:122:ALA:O    | 1:C:123:LEU:C    | 2.44                     | 0.55              |
| 1:C:264:SER:HA   | 1:C:267:MET:HE2  | 1.87                     | 0.55              |
| 1:C:468:SER:O    | 1:C:469:GLN:CB   | 2.42                     | 0.55              |
| 2:D:134:ASP:HB2  | 2:D:137:VAL:CG2  | 2.36                     | 0.55              |
| 2:D:161:PHE:HA   | 2:D:164:THR:OG1  | 2.05                     | 0.55              |
| 2:D:464:GLU:HG3  | 2:D:465:LEU:HD12 | 1.88                     | 0.55              |
| 1:E:340:HIS:O    | 1:E:343:VAL:HG22 | 2.06                     | 0.55              |
| 1:E:463:ILE:HD11 | 1:E:476:ALA:CB   | 2.34                     | 0.55              |
| 1:G:168:VAL:O    | 1:G:168:VAL:HG12 | 2.05                     | 0.55              |
| 1:G:366:MET:O    | 1:G:367:GLU:C    | 2.43                     | 0.55              |
| 2:H:18:LEU:H     | 2:H:18:LEU:CD2   | 2.19                     | 0.55              |
| 2:H:92:VAL:HA    | 2:H:95:CYS:SG    | 2.46                     | 0.55              |
| 2:H:100:PRO:O    | 2:H:101:LEU:C    | 2.44                     | 0.55              |
| 2:H:347:SER:CA   | 2:H:350:ASN:HD22 | 2.19                     | 0.55              |
| 2:H:461:ASN:HB3  | 2:H:465:LEU:HD11 | 1.88                     | 0.55              |
| 2:H:491:LEU:CD1  | 2:H:492:PHE:N    | 2.66                     | 0.55              |
| 1:I:157:ALA:O    | 1:I:158:ALA:C    | 2.44                     | 0.55              |
| 1:I:372:LEU:N    | 1:I:372:LEU:CD1  | 2.69                     | 0.55              |
| 2:J:92:VAL:HA    | 2:J:95:CYS:SG    | 2.47                     | 0.55              |
| 2:J:99:ASN:O     | 2:J:100:PRO:C    | 2.44                     | 0.55              |
| 2:J:113:ILE:HD12 | 2:J:113:ILE:N    | 2.21                     | 0.55              |
| 2:J:351:ILE:O    | 2:J:352:ALA:C    | 2.45                     | 0.55              |
| 2:J:464:GLU:HG3  | 2:J:465:LEU:HD12 | 1.88                     | 0.55              |
| 1:K:54:LEU:O     | 1:K:57:HIS:HB3   | 2.06                     | 0.55              |
| 1:K:153:LEU:N    | 1:K:153:LEU:HD23 | 2.21                     | 0.55              |
| 1:K:316:PHE:O    | 1:K:319:ASN:N    | 2.35                     | 0.55              |
| 2:L:18:LEU:H     | 2:L:18:LEU:CD2   | 2.19                     | 0.55              |
| 2:L:492:PHE:CB   | 2:L:503:VAL:HG21 | 2.35                     | 0.55              |
| 3:M:25:VAL:HG12  | 3:M:25:VAL:O     | 2.05                     | 0.55              |
| 3:M:48:PRO:O     | 3:M:49:ILE:HD13  | 2.05                     | 0.55              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:N:337:GLU:O    | 3:N:338:ASN:HB2  | 2.05                     | 0.55              |
| 3:O:95:PHE:CB    | 3:O:141:LYS:HA   | 2.36                     | 0.55              |
| 3:O:131:LEU:C    | 3:O:133:GLU:H    | 2.09                     | 0.55              |
| 3:P:25:VAL:HG12  | 3:P:25:VAL:O     | 2.05                     | 0.55              |
| 3:P:63:ASN:O     | 3:P:64:ASN:HB3   | 2.05                     | 0.55              |
| 3:P:106:ASN:HB3  | 3:P:109:ILE:CG1  | 2.37                     | 0.55              |
| 3:P:131:LEU:O    | 3:P:134:PHE:N    | 2.34                     | 0.55              |
| 4:Q:5:MET:C      | 4:Q:6:LEU:HD12   | 2.27                     | 0.55              |
| 4:S:114:LEU:HD23 | 4:S:114:LEU:C    | 2.26                     | 0.55              |
| 4:U:53:ARG:O     | 4:U:54:ASP:HB3   | 2.07                     | 0.55              |
| 4:W:33:ARG:CG    | 4:W:34:GLU:H     | 2.19                     | 0.55              |
| 1:A:49:ASN:O     | 1:A:50:VAL:C     | 2.44                     | 0.55              |
| 1:A:51:ALA:O     | 1:A:54:LEU:N     | 2.40                     | 0.55              |
| 1:A:129:MET:O    | 1:A:130:GLY:C    | 2.44                     | 0.55              |
| 1:A:191:LEU:O    | 1:A:195:VAL:HG23 | 2.06                     | 0.55              |
| 2:B:37:VAL:O     | 2:B:38:ILE:C     | 2.43                     | 0.55              |
| 2:B:569:THR:CG2  | 2:B:570:LEU:N    | 2.68                     | 0.55              |
| 2:B:570:LEU:HD11 | 3:M:75:ALA:H     | 1.69                     | 0.55              |
| 1:C:460:TYR:HA   | 1:C:463:ILE:HD12 | 1.88                     | 0.55              |
| 1:C:478:TRP:CH2  | 1:C:532:LYS:NZ   | 2.73                     | 0.55              |
| 1:C:533:LEU:HB3  | 1:C:537:PHE:CE1  | 2.41                     | 0.55              |
| 2:D:85:ILE:C     | 2:D:87:ALA:H     | 2.09                     | 0.55              |
| 2:D:325:PHE:CE2  | 2:D:357:GLU:HG3  | 2.41                     | 0.55              |
| 2:D:389:GLU:O    | 2:D:390:ARG:C    | 2.44                     | 0.55              |
| 2:D:491:LEU:HD13 | 2:D:499:THR:HG22 | 1.87                     | 0.55              |
| 1:E:153:LEU:HD23 | 1:E:153:LEU:N    | 2.20                     | 0.55              |
| 1:E:312:ILE:O    | 1:E:315:ARG:HB3  | 2.06                     | 0.55              |
| 1:E:346:HIS:O    | 1:E:347:ARG:C    | 2.45                     | 0.55              |
| 1:E:350:ILE:HD13 | 1:E:368:LEU:CD2  | 2.36                     | 0.55              |
| 1:E:411:TYR:HD1  | 1:E:411:TYR:H    | 1.52                     | 0.55              |
| 2:F:28:GLU:HA    | 2:F:28:GLU:OE2   | 2.07                     | 0.55              |
| 2:F:85:ILE:C     | 2:F:87:ALA:H     | 2.10                     | 0.55              |
| 2:F:389:GLU:O    | 2:F:390:ARG:C    | 2.44                     | 0.55              |
| 2:F:569:THR:O    | 2:F:572:SER:CB   | 2.53                     | 0.55              |
| 1:G:113:HIS:CD2  | 1:G:115:THR:H    | 2.23                     | 0.55              |
| 1:G:344:GLN:HE21 | 1:G:374:ASN:ND2  | 2.04                     | 0.55              |
| 1:G:508:ILE:HD12 | 1:G:508:ILE:N    | 2.20                     | 0.55              |
| 2:H:85:ILE:C     | 2:H:87:ALA:H     | 2.10                     | 0.55              |
| 2:H:131:LYS:O    | 2:H:132:ASP:O    | 2.24                     | 0.55              |
| 2:H:491:LEU:HD13 | 2:H:499:THR:HG21 | 1.88                     | 0.55              |
| 1:I:267:MET:HE1  | 1:I:299:ILE:HD13 | 1.88                     | 0.55              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:400:CYS:O    | 1:I:401:ALA:C    | 2.42                     | 0.55              |
| 2:J:75:ASN:ND2   | 3:R:19:ARG:NH2   | 2.54                     | 0.55              |
| 2:J:409:GLU:O    | 2:J:410:ALA:C    | 2.44                     | 0.55              |
| 2:J:487:ALA:O    | 2:J:488:ILE:C    | 2.43                     | 0.55              |
| 1:K:179:THR:HG21 | 1:K:211:HIS:CE1  | 2.42                     | 0.55              |
| 1:K:283:ASN:CG   | 1:K:284:VAL:N    | 2.59                     | 0.55              |
| 1:K:346:HIS:O    | 1:K:347:ARG:C    | 2.45                     | 0.55              |
| 2:L:92:VAL:HA    | 2:L:95:CYS:SG    | 2.46                     | 0.55              |
| 2:L:487:ALA:O    | 2:L:488:ILE:C    | 2.43                     | 0.55              |
| 3:N:56:ARG:N     | 3:N:56:ARG:CD    | 2.69                     | 0.55              |
| 3:N:162:GLU:HG3  | 3:N:163:GLY:H    | 1.69                     | 0.55              |
| 3:N:245:SER:HB2  | 3:N:252:THR:HB   | 1.88                     | 0.55              |
| 3:O:106:ASN:HB3  | 3:O:109:ILE:CG1  | 2.37                     | 0.55              |
| 3:O:323:PRO:HB3  | 3:O:325:PHE:CE2  | 2.41                     | 0.55              |
| 3:O:325:PHE:N    | 3:O:325:PHE:CD2  | 2.72                     | 0.55              |
| 3:P:56:ARG:N     | 3:P:56:ARG:CD    | 2.69                     | 0.55              |
| 4:Q:129:LYS:HB3  | 4:Q:133:LYS:HE3  | 1.88                     | 0.55              |
| 3:R:314:ILE:HB   | 3:R:341:ILE:CG2  | 2.29                     | 0.55              |
| 4:U:114:LEU:HD23 | 4:U:114:LEU:C    | 2.26                     | 0.55              |
| 3:V:323:PRO:HB3  | 3:V:325:PHE:CE2  | 2.41                     | 0.55              |
| 1:A:54:LEU:O     | 1:A:57:HIS:HB3   | 2.06                     | 0.55              |
| 1:A:312:ILE:O    | 1:A:315:ARG:HB3  | 2.06                     | 0.55              |
| 1:A:340:HIS:O    | 1:A:343:VAL:HG22 | 2.06                     | 0.55              |
| 1:A:565:GLU:CD   | 2:B:526:TYR:HH   | 2.09                     | 0.55              |
| 2:B:92:VAL:HA    | 2:B:95:CYS:SG    | 2.47                     | 0.55              |
| 2:B:131:LYS:O    | 2:B:132:ASP:O    | 2.24                     | 0.55              |
| 2:B:161:PHE:HA   | 2:B:164:THR:OG1  | 2.05                     | 0.55              |
| 1:C:53:LEU:O     | 1:C:56:MET:HB2   | 2.05                     | 0.55              |
| 1:C:344:GLN:HE21 | 1:C:374:ASN:HD22 | 1.53                     | 0.55              |
| 2:D:92:VAL:HA    | 2:D:95:CYS:SG    | 2.47                     | 0.55              |
| 1:E:176:LEU:HB3  | 1:E:177:PRO:HD3  | 1.89                     | 0.55              |
| 2:F:31:LYS:CE    | 2:F:64:GLU:HG2   | 2.35                     | 0.55              |
| 2:F:113:ILE:HD12 | 2:F:113:ILE:N    | 2.22                     | 0.55              |
| 2:F:325:PHE:CE2  | 2:F:357:GLU:HG3  | 2.41                     | 0.55              |
| 2:F:355:LEU:O    | 2:F:356:ALA:C    | 2.43                     | 0.55              |
| 2:F:387:SER:CA   | 2:F:390:ARG:HD2  | 2.25                     | 0.55              |
| 1:G:372:LEU:N    | 1:G:372:LEU:CD1  | 2.69                     | 0.55              |
| 1:G:524:GLY:O    | 1:G:526:ALA:N    | 2.38                     | 0.55              |
| 2:H:75:ASN:ND2   | 3:P:19:ARG:NH2   | 2.54                     | 0.55              |
| 2:H:86:MET:HE1   | 3:R:237:LYS:HB3  | 1.86                     | 0.55              |
| 2:H:99:ASN:O     | 2:H:100:PRO:C    | 2.44                     | 0.55              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:34:ILE:O     | 1:I:37:SER:HB3   | 2.07                     | 0.55              |
| 2:J:28:GLU:HA    | 2:J:28:GLU:OE2   | 2.07                     | 0.55              |
| 2:J:129:CYS:O    | 2:J:132:ASP:HB2  | 2.06                     | 0.55              |
| 2:J:316:ILE:HB   | 2:J:317:LEU:HD13 | 1.87                     | 0.55              |
| 2:J:414:ILE:O    | 2:J:417:ILE:HB   | 2.07                     | 0.55              |
| 1:K:129:MET:O    | 1:K:130:GLY:C    | 2.44                     | 0.55              |
| 1:K:589:LYS:HG2  | 1:K:590:VAL:N    | 2.21                     | 0.55              |
| 2:L:28:GLU:OE2   | 2:L:28:GLU:HA    | 2.07                     | 0.55              |
| 2:L:161:PHE:HA   | 2:L:164:THR:OG1  | 2.05                     | 0.55              |
| 3:N:25:VAL:O     | 3:N:25:VAL:HG12  | 2.05                     | 0.55              |
| 3:O:179:VAL:H    | 3:O:415:ASN:CB   | 2.20                     | 0.55              |
| 3:P:95:PHE:CB    | 3:P:141:LYS:HA   | 2.36                     | 0.55              |
| 3:P:212:LEU:HD12 | 3:P:213:GLY:N    | 2.21                     | 0.55              |
| 3:P:267:TYR:CD2  | 3:P:269:LEU:HD21 | 2.41                     | 0.55              |
| 4:Q:16:LEU:CD1   | 4:Q:111:TYR:CZ   | 2.89                     | 0.55              |
| 4:Q:61:ARG:HH11  | 4:Q:61:ARG:HG2   | 1.70                     | 0.55              |
| 3:R:11:LEU:H     | 3:R:11:LEU:CD1   | 1.98                     | 0.55              |
| 4:S:5:MET:C      | 4:S:6:LEU:HD12   | 2.27                     | 0.55              |
| 4:T:53:ARG:O     | 4:T:54:ASP:HB3   | 2.07                     | 0.55              |
| 4:T:90:LEU:CD2   | 4:T:90:LEU:H     | 2.18                     | 0.55              |
| 4:T:129:LYS:O    | 4:T:130:SER:C    | 2.42                     | 0.55              |
| 1:A:150:ASN:O    | 1:A:151:SER:C    | 2.44                     | 0.55              |
| 2:B:321:MET:C    | 2:B:323:VAL:N    | 2.60                     | 0.55              |
| 1:C:49:ASN:O     | 1:C:50:VAL:C     | 2.44                     | 0.55              |
| 1:C:344:GLN:HE21 | 1:C:374:ASN:ND2  | 2.04                     | 0.55              |
| 1:E:129:MET:O    | 1:E:130:GLY:C    | 2.44                     | 0.55              |
| 1:E:544:ILE:HG22 | 1:E:545:LYS:N    | 2.20                     | 0.55              |
| 2:F:75:ASN:ND2   | 3:O:19:ARG:NH2   | 2.54                     | 0.55              |
| 1:G:179:THR:HG21 | 1:G:211:HIS:CE1  | 2.41                     | 0.55              |
| 2:H:28:GLU:OE2   | 2:H:28:GLU:HA    | 2.07                     | 0.55              |
| 2:H:134:ASP:HB2  | 2:H:137:VAL:CG2  | 2.36                     | 0.55              |
| 2:H:298:PRO:O    | 2:H:299:GLN:C    | 2.44                     | 0.55              |
| 2:H:343:ILE:C    | 2:H:345:LEU:N    | 2.59                     | 0.55              |
| 2:H:389:GLU:O    | 2:H:390:ARG:C    | 2.44                     | 0.55              |
| 2:H:484:LEU:HD23 | 2:H:484:LEU:C    | 2.27                     | 0.55              |
| 1:I:197:LEU:HD13 | 1:I:197:LEU:C    | 2.26                     | 0.55              |
| 1:I:350:ILE:HD13 | 1:I:368:LEU:CD2  | 2.36                     | 0.55              |
| 1:K:350:ILE:HD13 | 1:K:368:LEU:CD2  | 2.36                     | 0.55              |
| 1:K:473:VAL:CG2  | 1:K:474:GLN:N    | 2.67                     | 0.55              |
| 2:L:113:ILE:HD12 | 2:L:113:ILE:N    | 2.21                     | 0.55              |
| 3:M:267:TYR:CD2  | 3:M:269:LEU:HD21 | 2.41                     | 0.55              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:M:408:TRP:N    | 3:M:408:TRP:CD1  | 2.74                     | 0.55              |
| 3:N:267:TYR:CD2  | 3:N:269:LEU:HD21 | 2.42                     | 0.55              |
| 3:N:390:ILE:HG22 | 3:N:391:GLN:H    | 1.70                     | 0.55              |
| 3:O:17:ILE:HD13  | 3:O:17:ILE:C     | 2.25                     | 0.55              |
| 3:R:79:LEU:O     | 3:R:80:VAL:C     | 2.45                     | 0.55              |
| 3:V:56:ARG:N     | 3:V:56:ARG:CD    | 2.70                     | 0.55              |
| 3:V:212:LEU:HD12 | 3:V:213:GLY:N    | 2.21                     | 0.55              |
| 4:X:33:ARG:CG    | 4:X:34:GLU:H     | 2.19                     | 0.55              |
| 1:A:350:ILE:HD13 | 1:A:368:LEU:CD2  | 2.36                     | 0.55              |
| 1:A:350:ILE:HG21 | 1:A:368:LEU:HD22 | 1.88                     | 0.55              |
| 1:A:491:GLN:CB   | 1:G:276:THR:HG22 | 2.36                     | 0.55              |
| 2:B:113:ILE:HD12 | 2:B:113:ILE:N    | 2.21                     | 0.55              |
| 2:B:129:CYS:O    | 2:B:132:ASP:HB2  | 2.06                     | 0.55              |
| 1:C:312:ILE:O    | 1:C:315:ARG:HB3  | 2.06                     | 0.55              |
| 1:C:445:ILE:CD1  | 1:C:455:THR:HG21 | 2.36                     | 0.55              |
| 2:D:20:ALA:C     | 2:D:22:LEU:N     | 2.60                     | 0.55              |
| 2:D:537:ALA:O    | 2:D:540:VAL:HB   | 2.07                     | 0.55              |
| 2:F:347:SER:H    | 2:F:350:ASN:HB2  | 1.72                     | 0.55              |
| 2:F:487:ALA:O    | 2:F:488:ILE:C    | 2.43                     | 0.55              |
| 1:G:312:ILE:O    | 1:G:315:ARG:HB3  | 2.06                     | 0.55              |
| 2:H:20:ALA:C     | 2:H:22:LEU:N     | 2.60                     | 0.55              |
| 2:H:37:VAL:O     | 2:H:38:ILE:C     | 2.44                     | 0.55              |
| 2:H:339:LEU:O    | 2:H:341:ILE:N    | 2.40                     | 0.55              |
| 2:H:537:ALA:O    | 2:H:540:VAL:HB   | 2.07                     | 0.55              |
| 1:I:153:LEU:HD23 | 1:I:153:LEU:N    | 2.21                     | 0.55              |
| 1:I:191:LEU:O    | 1:I:195:VAL:HG23 | 2.06                     | 0.55              |
| 2:J:306:ILE:O    | 2:J:309:ILE:HB   | 2.06                     | 0.55              |
| 2:J:325:PHE:CE2  | 2:J:357:GLU:HG3  | 2.41                     | 0.55              |
| 2:J:492:PHE:CB   | 2:J:503:VAL:HG21 | 2.35                     | 0.55              |
| 1:K:157:ALA:O    | 1:K:158:ALA:C    | 2.44                     | 0.55              |
| 1:K:353:CYS:O    | 1:K:356:ASP:N    | 2.39                     | 0.55              |
| 1:K:389:LEU:CD2  | 1:K:425:VAL:HG23 | 2.36                     | 0.55              |
| 1:K:451:MET:O    | 1:K:452:HIS:C    | 2.42                     | 0.55              |
| 1:K:519:THR:HB   | 1:K:521:VAL:HG12 | 1.87                     | 0.55              |
| 3:M:125:THR:CG2  | 3:M:126:THR:N    | 2.69                     | 0.55              |
| 3:O:83:PHE:O     | 3:O:86:LYS:HB2   | 2.07                     | 0.55              |
| 3:P:8:VAL:O      | 3:P:16:LEU:CB    | 2.54                     | 0.55              |
| 3:P:34:MET:HB3   | 3:P:35:PRO:CD    | 2.35                     | 0.55              |
| 3:R:131:LEU:O    | 3:R:134:PHE:N    | 2.34                     | 0.55              |
| 3:R:179:VAL:H    | 3:R:415:ASN:CB   | 2.20                     | 0.55              |
| 3:R:233:LEU:CD1  | 3:R:269:LEU:HD22 | 2.37                     | 0.55              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:T:18:LYS:HG3   | 4:T:20:TYR:HE1   | 1.71                     | 0.55              |
| 4:U:18:LYS:HG3   | 4:U:20:TYR:HE1   | 1.71                     | 0.55              |
| 4:W:53:ARG:O     | 4:W:54:ASP:HB3   | 2.07                     | 0.55              |
| 4:X:90:LEU:CD2   | 4:X:90:LEU:H     | 2.18                     | 0.55              |
| 1:A:34:ILE:O     | 1:A:37:SER:HB3   | 2.07                     | 0.55              |
| 1:C:75:ALA:O     | 1:C:76:SER:O     | 2.25                     | 0.55              |
| 1:C:150:ASN:O    | 1:C:151:SER:C    | 2.44                     | 0.55              |
| 1:C:176:LEU:HB3  | 1:C:177:PRO:HD3  | 1.89                     | 0.55              |
| 1:C:179:THR:HG21 | 1:C:211:HIS:CE1  | 2.41                     | 0.55              |
| 1:C:350:ILE:HG21 | 1:C:368:LEU:HD22 | 1.88                     | 0.55              |
| 1:C:372:LEU:N    | 1:C:372:LEU:CD1  | 2.69                     | 0.55              |
| 2:D:262:VAL:HG23 | 2:D:263:LEU:N    | 2.21                     | 0.55              |
| 1:E:289:LEU:O    | 1:E:290:TYR:C    | 2.43                     | 0.55              |
| 1:E:344:GLN:HE21 | 1:E:374:ASN:ND2  | 2.04                     | 0.55              |
| 1:E:350:ILE:HG21 | 1:E:368:LEU:HD22 | 1.88                     | 0.55              |
| 1:E:389:LEU:CD2  | 1:E:425:VAL:HG23 | 2.36                     | 0.55              |
| 1:E:460:TYR:HA   | 1:E:463:ILE:HD12 | 1.88                     | 0.55              |
| 1:E:533:LEU:HB3  | 1:E:537:PHE:CE1  | 2.41                     | 0.55              |
| 2:F:262:VAL:HG23 | 2:F:263:LEU:N    | 2.21                     | 0.55              |
| 2:F:339:LEU:O    | 2:F:341:ILE:N    | 2.40                     | 0.55              |
| 1:G:51:ALA:O     | 1:G:54:LEU:N     | 2.40                     | 0.55              |
| 1:G:154:ARG:HH21 | 1:G:182:LEU:HD22 | 1.71                     | 0.55              |
| 1:G:157:ALA:O    | 1:G:158:ALA:C    | 2.44                     | 0.55              |
| 1:G:430:GLY:CA   | 1:G:433:VAL:HG23 | 2.36                     | 0.55              |
| 2:H:414:ILE:O    | 2:H:417:ILE:HB   | 2.07                     | 0.55              |
| 1:I:53:LEU:O     | 1:I:54:LEU:C     | 2.44                     | 0.55              |
| 1:I:75:ALA:O     | 1:I:76:SER:O     | 2.25                     | 0.55              |
| 1:I:445:ILE:CD1  | 1:I:455:THR:HG21 | 2.36                     | 0.55              |
| 1:I:478:TRP:CH2  | 1:I:532:LYS:NZ   | 2.73                     | 0.55              |
| 1:K:13:THR:O     | 1:K:26:MET:HE1   | 2.06                     | 0.55              |
| 2:L:75:ASN:ND2   | 3:V:19:ARG:NH2   | 2.54                     | 0.55              |
| 2:L:85:ILE:C     | 2:L:87:ALA:H     | 2.09                     | 0.55              |
| 2:L:484:LEU:HD23 | 2:L:484:LEU:C    | 2.27                     | 0.55              |
| 3:N:10:ASP:O     | 3:N:11:LEU:C     | 2.45                     | 0.55              |
| 3:P:79:LEU:O     | 3:P:80:VAL:C     | 2.45                     | 0.55              |
| 4:S:33:ARG:CG    | 4:S:34:GLU:H     | 2.19                     | 0.55              |
| 4:S:83:LEU:C     | 4:S:83:LEU:HD12  | 2.27                     | 0.55              |
| 4:S:84:ILE:O     | 4:S:87:TYR:N     | 2.40                     | 0.55              |
| 4:T:5:MET:C      | 4:T:6:LEU:HD12   | 2.27                     | 0.55              |
| 4:U:111:TYR:O    | 4:U:112:PHE:C    | 2.44                     | 0.55              |
| 4:U:129:LYS:HB3  | 4:U:133:LYS:HE3  | 1.88                     | 0.55              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:V:267:TYR:CD2  | 3:V:269:LEU:HD21 | 2.42                     | 0.55              |
| 4:W:18:LYS:HG3   | 4:W:20:TYR:HE1   | 1.71                     | 0.55              |
| 4:W:71:ILE:HG22  | 4:W:72:GLU:H     | 1.71                     | 0.55              |
| 1:A:55:TYR:O     | 1:A:56:MET:C     | 2.44                     | 0.55              |
| 2:B:262:VAL:HG23 | 2:B:263:LEU:N    | 2.21                     | 0.55              |
| 2:B:301:VAL:HB   | 2:B:302:PRO:CD   | 2.37                     | 0.55              |
| 2:B:339:LEU:O    | 2:B:341:ILE:N    | 2.40                     | 0.55              |
| 1:C:153:LEU:N    | 1:C:153:LEU:HD23 | 2.21                     | 0.55              |
| 1:C:283:ASN:CG   | 1:C:284:VAL:N    | 2.59                     | 0.55              |
| 1:C:589:LYS:HG2  | 1:C:590:VAL:N    | 2.21                     | 0.55              |
| 2:D:91:PHE:O     | 2:D:94:ASP:N     | 2.38                     | 0.55              |
| 2:D:337:GLU:O    | 2:D:341:ILE:HD13 | 2.06                     | 0.55              |
| 2:D:484:LEU:HD23 | 2:D:484:LEU:C    | 2.27                     | 0.55              |
| 1:G:267:MET:O    | 1:G:270:ILE:HG22 | 2.07                     | 0.55              |
| 2:H:34:VAL:O     | 2:H:38:ILE:HD13  | 2.07                     | 0.55              |
| 2:H:325:PHE:CE2  | 2:H:357:GLU:HG3  | 2.41                     | 0.55              |
| 1:I:71:LEU:CA    | 1:I:74:ILE:HD13  | 2.29                     | 0.55              |
| 1:I:340:HIS:O    | 1:I:343:VAL:HG22 | 2.06                     | 0.55              |
| 2:J:298:PRO:O    | 2:J:299:GLN:C    | 2.44                     | 0.55              |
| 2:J:537:ALA:O    | 2:J:540:VAL:HB   | 2.07                     | 0.55              |
| 1:K:533:LEU:HB3  | 1:K:537:PHE:CE1  | 2.41                     | 0.55              |
| 2:L:34:VAL:O     | 2:L:38:ILE:HD13  | 2.07                     | 0.55              |
| 2:L:91:PHE:O     | 2:L:94:ASP:N     | 2.38                     | 0.55              |
| 2:L:129:CYS:O    | 2:L:132:ASP:HB2  | 2.06                     | 0.55              |
| 3:M:83:PHE:O     | 3:M:86:LYS:HB2   | 2.07                     | 0.55              |
| 3:M:233:LEU:CD1  | 3:M:269:LEU:HD22 | 2.37                     | 0.55              |
| 3:N:79:LEU:O     | 3:N:80:VAL:C     | 2.45                     | 0.55              |
| 3:N:278:TRP:O    | 3:N:279:ILE:HG13 | 2.05                     | 0.55              |
| 3:P:125:THR:CG2  | 3:P:126:THR:N    | 2.69                     | 0.55              |
| 3:P:337:GLU:O    | 3:P:338:ASN:HB2  | 2.05                     | 0.55              |
| 4:Q:83:LEU:O     | 4:Q:86:ARG:N     | 2.37                     | 0.55              |
| 4:Q:90:LEU:O     | 4:Q:91:LEU:C     | 2.45                     | 0.55              |
| 3:R:125:THR:CG2  | 3:R:126:THR:N    | 2.69                     | 0.55              |
| 3:V:10:ASP:O     | 3:V:11:LEU:C     | 2.45                     | 0.55              |
| 3:V:106:ASN:HB3  | 3:V:109:ILE:CG1  | 2.37                     | 0.55              |
| 3:V:179:VAL:H    | 3:V:415:ASN:CB   | 2.20                     | 0.55              |
| 4:X:30:LYS:HZ1   | 4:X:30:LYS:HA    | 1.71                     | 0.55              |
| 4:X:53:ARG:O     | 4:X:54:ASP:HB3   | 2.07                     | 0.55              |
| 1:A:344:GLN:HE21 | 1:A:374:ASN:ND2  | 2.04                     | 0.55              |
| 2:B:126:LEU:O    | 2:B:127:ARG:C    | 2.43                     | 0.55              |
| 2:B:298:PRO:O    | 2:B:299:GLN:C    | 2.44                     | 0.55              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:347:SER:H    | 2:B:350:ASN:HB2  | 1.72                     | 0.55              |
| 2:B:429:ILE:O    | 2:B:432:LEU:CB   | 2.55                     | 0.55              |
| 2:B:461:ASN:HB3  | 2:B:465:LEU:HD11 | 1.88                     | 0.55              |
| 2:B:537:ALA:O    | 2:B:540:VAL:HB   | 2.07                     | 0.55              |
| 2:D:28:GLU:OE2   | 2:D:28:GLU:HA    | 2.07                     | 0.55              |
| 2:D:75:ASN:ND2   | 3:N:19:ARG:NH2   | 2.54                     | 0.55              |
| 2:D:124:GLU:HB2  | 2:D:125:PRO:CD   | 2.36                     | 0.55              |
| 2:D:323:VAL:HG23 | 2:D:324:PHE:N    | 2.22                     | 0.55              |
| 2:D:347:SER:H    | 2:D:350:ASN:HB2  | 1.72                     | 0.55              |
| 2:D:409:GLU:O    | 2:D:410:ALA:C    | 2.44                     | 0.55              |
| 2:D:429:ILE:O    | 2:D:432:LEU:CB   | 2.55                     | 0.55              |
| 1:E:49:ASN:O     | 1:E:50:VAL:C     | 2.44                     | 0.55              |
| 1:E:154:ARG:HH21 | 1:E:182:LEU:HD22 | 1.71                     | 0.55              |
| 1:E:157:ALA:O    | 1:E:160:CYS:HB2  | 2.07                     | 0.55              |
| 1:E:179:THR:HG21 | 1:E:211:HIS:CE1  | 2.41                     | 0.55              |
| 1:E:190:VAL:HG12 | 1:E:194:SER:OG   | 2.07                     | 0.55              |
| 1:E:274:VAL:HG11 | 1:E:292:THR:CG2  | 2.32                     | 0.55              |
| 1:E:445:ILE:CD1  | 1:E:455:THR:HG21 | 2.36                     | 0.55              |
| 2:F:131:LYS:O    | 2:F:132:ASP:O    | 2.24                     | 0.55              |
| 2:F:414:ILE:O    | 2:F:417:ILE:HB   | 2.07                     | 0.55              |
| 1:G:34:ILE:O     | 1:G:37:SER:HB3   | 2.07                     | 0.55              |
| 1:G:176:LEU:HB3  | 1:G:177:PRO:HD3  | 1.89                     | 0.55              |
| 1:G:504:GLU:O    | 1:G:508:ILE:HD13 | 2.07                     | 0.55              |
| 1:G:533:LEU:HB3  | 1:G:537:PHE:CE1  | 2.41                     | 0.55              |
| 1:G:589:LYS:HG2  | 1:G:590:VAL:N    | 2.21                     | 0.55              |
| 2:H:91:PHE:O     | 2:H:94:ASP:N     | 2.38                     | 0.55              |
| 2:H:301:VAL:HB   | 2:H:302:PRO:CD   | 2.37                     | 0.55              |
| 2:H:306:ILE:O    | 2:H:309:ILE:HB   | 2.06                     | 0.55              |
| 1:I:113:HIS:CD2  | 1:I:115:THR:H    | 2.23                     | 0.55              |
| 1:I:430:GLY:CA   | 1:I:433:VAL:HG23 | 2.37                     | 0.55              |
| 2:J:131:LYS:O    | 2:J:132:ASP:O    | 2.24                     | 0.55              |
| 2:J:177:VAL:O    | 2:J:181:VAL:HG23 | 2.06                     | 0.55              |
| 2:J:484:LEU:C    | 2:J:484:LEU:HD23 | 2.27                     | 0.55              |
| 1:K:49:ASN:O     | 1:K:50:VAL:C     | 2.44                     | 0.55              |
| 1:K:250:LEU:HA   | 1:K:253:LEU:CD1  | 2.35                     | 0.55              |
| 1:K:504:GLU:O    | 1:K:508:ILE:HD13 | 2.07                     | 0.55              |
| 2:L:131:LYS:O    | 2:L:132:ASP:O    | 2.24                     | 0.55              |
| 2:L:510:ALA:CB   | 2:L:519:LEU:HD11 | 2.34                     | 0.55              |
| 2:L:537:ALA:O    | 2:L:540:VAL:HB   | 2.07                     | 0.55              |
| 3:M:179:VAL:H    | 3:M:415:ASN:CB   | 2.20                     | 0.55              |
| 3:N:34:MET:HB3   | 3:N:35:PRO:CD    | 2.35                     | 0.55              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:N:95:PHE:CB    | 3:N:141:LYS:HA   | 2.36                     | 0.55              |
| 3:O:62:HIS:NE2   | 3:O:98:LEU:HD23  | 2.22                     | 0.55              |
| 3:O:125:THR:O    | 3:O:126:THR:OG1  | 2.22                     | 0.55              |
| 3:O:310:VAL:HG22 | 3:O:311:GLU:N    | 2.21                     | 0.55              |
| 4:Q:53:ARG:O     | 4:Q:54:ASP:HB3   | 2.07                     | 0.55              |
| 3:R:106:ASN:HB3  | 3:R:109:ILE:CG1  | 2.37                     | 0.55              |
| 3:R:212:LEU:HD12 | 3:R:213:GLY:N    | 2.22                     | 0.55              |
| 3:R:409:VAL:CG1  | 3:R:410:ARG:N    | 2.67                     | 0.55              |
| 4:U:5:MET:C      | 4:U:6:LEU:HD12   | 2.27                     | 0.55              |
| 4:U:83:LEU:C     | 4:U:83:LEU:HD12  | 2.27                     | 0.55              |
| 4:U:84:ILE:O     | 4:U:87:TYR:N     | 2.40                     | 0.55              |
| 4:U:90:LEU:H     | 4:U:90:LEU:CD2   | 2.18                     | 0.55              |
| 4:X:5:MET:C      | 4:X:6:LEU:HD12   | 2.27                     | 0.55              |
| 1:A:154:ARG:HH21 | 1:A:182:LEU:HD22 | 1.71                     | 0.55              |
| 1:A:267:MET:O    | 1:A:270:ILE:HG22 | 2.07                     | 0.55              |
| 1:C:51:ALA:O     | 1:C:54:LEU:N     | 2.40                     | 0.55              |
| 2:D:34:VAL:O     | 2:D:38:ILE:HD13  | 2.07                     | 0.55              |
| 2:D:339:LEU:O    | 2:D:341:ILE:N    | 2.40                     | 0.55              |
| 2:D:343:ILE:C    | 2:D:345:LEU:N    | 2.59                     | 0.55              |
| 1:E:51:ALA:O     | 1:E:54:LEU:N     | 2.40                     | 0.55              |
| 1:E:267:MET:O    | 1:E:269:ASP:N    | 2.39                     | 0.55              |
| 1:E:470:GLN:HB2  | 1:E:471:PRO:CD   | 2.34                     | 0.55              |
| 2:F:429:ILE:O    | 2:F:432:LEU:CB   | 2.55                     | 0.55              |
| 1:G:190:VAL:HG12 | 1:G:194:SER:OG   | 2.07                     | 0.55              |
| 1:G:340:HIS:O    | 1:G:343:VAL:HG22 | 2.06                     | 0.55              |
| 1:G:460:TYR:HA   | 1:G:463:ILE:HD12 | 1.88                     | 0.55              |
| 2:H:317:LEU:HD22 | 2:H:317:LEU:N    | 2.13                     | 0.55              |
| 2:H:449:ILE:HG22 | 2:H:450:TRP:N    | 2.22                     | 0.55              |
| 1:I:589:LYS:HG2  | 1:I:590:VAL:N    | 2.21                     | 0.55              |
| 2:J:262:VAL:HG23 | 2:J:263:LEU:N    | 2.21                     | 0.55              |
| 2:J:347:SER:CA   | 2:J:350:ASN:HD22 | 2.19                     | 0.55              |
| 2:L:323:VAL:HG23 | 2:L:324:PHE:N    | 2.22                     | 0.55              |
| 3:M:56:ARG:HG3   | 3:M:56:ARG:NH1   | 2.21                     | 0.55              |
| 3:M:76:CYS:HB2   | 3:M:79:LEU:HD12  | 1.89                     | 0.55              |
| 3:N:62:HIS:NE2   | 3:N:98:LEU:HD23  | 2.22                     | 0.55              |
| 3:N:91:PHE:O     | 3:N:94:TYR:N     | 2.40                     | 0.55              |
| 3:N:408:TRP:N    | 3:N:408:TRP:CD1  | 2.75                     | 0.55              |
| 3:O:212:LEU:HD12 | 3:O:213:GLY:N    | 2.22                     | 0.55              |
| 3:O:233:LEU:CD1  | 3:O:269:LEU:HD22 | 2.37                     | 0.55              |
| 3:O:267:TYR:CD2  | 3:O:269:LEU:HD21 | 2.42                     | 0.55              |
| 3:P:310:VAL:HG22 | 3:P:311:GLU:N    | 2.21                     | 0.55              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:Q:33:ARG:CG    | 4:Q:34:GLU:H     | 2.19                     | 0.55              |
| 3:R:56:ARG:HG3   | 3:R:56:ARG:NH1   | 2.21                     | 0.55              |
| 4:T:83:LEU:C     | 4:T:83:LEU:HD12  | 2.27                     | 0.55              |
| 4:U:33:ARG:CG    | 4:U:34:GLU:H     | 2.19                     | 0.55              |
| 3:V:310:VAL:HG22 | 3:V:311:GLU:N    | 2.21                     | 0.55              |
| 3:V:408:TRP:N    | 3:V:408:TRP:CD1  | 2.75                     | 0.55              |
| 4:X:84:ILE:O     | 4:X:87:TYR:N     | 2.40                     | 0.55              |
| 1:A:316:PHE:O    | 1:A:319:ASN:N    | 2.35                     | 0.55              |
| 1:C:267:MET:O    | 1:C:270:ILE:HG22 | 2.07                     | 0.55              |
| 1:C:430:GLY:CA   | 1:C:433:VAL:HG23 | 2.37                     | 0.55              |
| 2:D:347:SER:CA   | 2:D:350:ASN:HD22 | 2.19                     | 0.55              |
| 2:D:488:ILE:HG22 | 2:D:503:VAL:HG22 | 1.87                     | 0.55              |
| 1:E:254:ARG:HB2  | 1:E:295:THR:OG1  | 2.07                     | 0.55              |
| 1:E:285:GLY:O    | 1:E:286:ASN:C    | 2.45                     | 0.55              |
| 1:E:504:GLU:O    | 1:E:508:ILE:HD13 | 2.07                     | 0.55              |
| 1:G:53:LEU:O     | 1:G:54:LEU:C     | 2.44                     | 0.55              |
| 1:G:157:ALA:O    | 1:G:160:CYS:HB2  | 2.07                     | 0.55              |
| 1:G:350:ILE:HD13 | 1:G:368:LEU:CD2  | 2.36                     | 0.55              |
| 2:H:351:ILE:O    | 2:H:352:ALA:C    | 2.44                     | 0.55              |
| 2:H:429:ILE:O    | 2:H:432:LEU:CB   | 2.55                     | 0.55              |
| 1:I:333:LEU:HD12 | 1:I:368:LEU:HD12 | 1.89                     | 0.55              |
| 1:I:527:LEU:O    | 1:I:528:THR:C    | 2.42                     | 0.55              |
| 2:J:85:ILE:C     | 2:J:87:ALA:H     | 2.10                     | 0.55              |
| 2:J:333:TYR:HD1  | 2:J:334:VAL:N    | 2.05                     | 0.55              |
| 1:K:267:MET:O    | 1:K:270:ILE:HG22 | 2.07                     | 0.55              |
| 1:K:350:ILE:HG21 | 1:K:368:LEU:HD22 | 1.88                     | 0.55              |
| 1:K:430:GLY:CA   | 1:K:433:VAL:HG23 | 2.37                     | 0.55              |
| 3:M:62:HIS:NE2   | 3:M:98:LEU:HD23  | 2.22                     | 0.55              |
| 3:M:106:ASN:HB3  | 3:M:109:ILE:CG1  | 2.37                     | 0.55              |
| 3:N:131:LEU:C    | 3:N:133:GLU:H    | 2.09                     | 0.55              |
| 3:N:310:VAL:HG22 | 3:N:311:GLU:N    | 2.21                     | 0.55              |
| 3:O:10:ASP:O     | 3:O:11:LEU:C     | 2.45                     | 0.55              |
| 3:O:125:THR:CG2  | 3:O:126:THR:N    | 2.69                     | 0.55              |
| 4:S:18:LYS:HG3   | 4:S:20:TYR:HE1   | 1.71                     | 0.55              |
| 3:V:91:PHE:O     | 3:V:94:TYR:N     | 2.40                     | 0.55              |
| 4:W:16:LEU:CD1   | 4:W:111:TYR:CZ   | 2.89                     | 0.55              |
| 1:A:131:SER:O    | 1:A:132:SER:C    | 2.43                     | 0.54              |
| 1:A:175:PHE:O    | 1:A:176:LEU:C    | 2.44                     | 0.54              |
| 2:B:75:ASN:ND2   | 3:M:19:ARG:NH2   | 2.54                     | 0.54              |
| 2:B:323:VAL:HG23 | 2:B:324:PHE:N    | 2.22                     | 0.54              |
| 2:B:488:ILE:HG22 | 2:B:503:VAL:HG22 | 1.87                     | 0.54              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:574:TYR:O    | 2:B:575:HIS:HB2  | 2.08                     | 0.54              |
| 1:C:8:ARG:O      | 1:C:9:GLU:C      | 2.45                     | 0.54              |
| 1:C:190:VAL:HG12 | 1:C:194:SER:OG   | 2.07                     | 0.54              |
| 2:D:302:PRO:O    | 2:D:303:LEU:C    | 2.44                     | 0.54              |
| 1:E:353:CYS:O    | 1:E:356:ASP:N    | 2.39                     | 0.54              |
| 2:F:16:PHE:HZ    | 3:M:416:GLY:CA   | 2.20                     | 0.54              |
| 2:F:37:VAL:O     | 2:F:38:ILE:C     | 2.44                     | 0.54              |
| 2:F:484:LEU:C    | 2:F:484:LEU:HD23 | 2.27                     | 0.54              |
| 2:F:537:ALA:O    | 2:F:540:VAL:HB   | 2.07                     | 0.54              |
| 1:G:8:ARG:O      | 1:G:9:GLU:C      | 2.45                     | 0.54              |
| 1:G:75:ALA:O     | 1:G:76:SER:O     | 2.25                     | 0.54              |
| 1:G:363:ARG:O    | 1:G:366:MET:N    | 2.41                     | 0.54              |
| 1:G:467:TYR:OH   | 1:G:511:SER:HB2  | 2.07                     | 0.54              |
| 1:G:552:GLY:O    | 1:G:560:GLN:HG3  | 2.08                     | 0.54              |
| 2:H:113:ILE:HD12 | 2:H:113:ILE:N    | 2.21                     | 0.54              |
| 2:H:582:VAL:O    | 2:H:584:GLY:N    | 2.40                     | 0.54              |
| 1:I:8:ARG:O      | 1:I:9:GLU:C      | 2.45                     | 0.54              |
| 1:I:175:PHE:O    | 1:I:176:LEU:C    | 2.44                     | 0.54              |
| 1:I:274:VAL:HG11 | 1:I:292:THR:CG2  | 2.32                     | 0.54              |
| 1:I:460:TYR:HA   | 1:I:463:ILE:HD12 | 1.88                     | 0.54              |
| 1:I:565:GLU:CD   | 2:J:526:TYR:HH   | 2.09                     | 0.54              |
| 2:J:339:LEU:O    | 2:J:341:ILE:N    | 2.40                     | 0.54              |
| 2:J:449:ILE:HG22 | 2:J:450:TRP:N    | 2.22                     | 0.54              |
| 1:K:51:ALA:O     | 1:K:54:LEU:N     | 2.40                     | 0.54              |
| 1:K:333:LEU:HD12 | 1:K:368:LEU:HD12 | 1.89                     | 0.54              |
| 1:K:363:ARG:O    | 1:K:366:MET:N    | 2.41                     | 0.54              |
| 1:K:552:GLY:O    | 1:K:560:GLN:HG3  | 2.07                     | 0.54              |
| 2:L:20:ALA:C     | 2:L:22:LEU:N     | 2.60                     | 0.54              |
| 2:L:582:VAL:O    | 2:L:584:GLY:N    | 2.40                     | 0.54              |
| 3:M:56:ARG:N     | 3:M:56:ARG:CD    | 2.70                     | 0.54              |
| 3:M:397:ILE:HD13 | 3:M:405:ALA:HB3  | 1.89                     | 0.54              |
| 3:N:76:CYS:HB2   | 3:N:79:LEU:HD12  | 1.89                     | 0.54              |
| 3:N:106:ASN:HB3  | 3:N:109:ILE:CG1  | 2.37                     | 0.54              |
| 3:O:76:CYS:HB2   | 3:O:79:LEU:HD12  | 1.89                     | 0.54              |
| 3:O:408:TRP:CD1  | 3:O:408:TRP:N    | 2.74                     | 0.54              |
| 3:P:76:CYS:HB2   | 3:P:79:LEU:HD12  | 1.89                     | 0.54              |
| 3:P:397:ILE:HD13 | 3:P:405:ALA:HB3  | 1.89                     | 0.54              |
| 3:R:91:PHE:O     | 3:R:94:TYR:N     | 2.40                     | 0.54              |
| 4:U:86:ARG:O     | 4:U:89:GLU:CB    | 2.56                     | 0.54              |
| 3:V:62:HIS:NE2   | 3:V:98:LEU:HD23  | 2.22                     | 0.54              |
| 3:V:131:LEU:C    | 3:V:133:GLU:H    | 2.09                     | 0.54              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:W:83:LEU:C     | 4:W:83:LEU:HD12  | 2.27                     | 0.54              |
| 4:W:84:ILE:O     | 4:W:87:TYR:N     | 2.40                     | 0.54              |
| 4:W:90:LEU:O     | 4:W:91:LEU:C     | 2.45                     | 0.54              |
| 4:X:90:LEU:O     | 4:X:91:LEU:C     | 2.45                     | 0.54              |
| 1:A:467:TYR:OH   | 1:A:511:SER:HB2  | 2.08                     | 0.54              |
| 2:B:28:GLU:HA    | 2:B:28:GLU:OE2   | 2.07                     | 0.54              |
| 2:B:333:TYR:CD2  | 3:M:48:PRO:HD3   | 2.42                     | 0.54              |
| 1:C:55:TYR:O     | 1:C:56:MET:C     | 2.44                     | 0.54              |
| 1:C:175:PHE:O    | 1:C:176:LEU:C    | 2.44                     | 0.54              |
| 1:C:193:THR:O    | 1:C:194:SER:C    | 2.46                     | 0.54              |
| 1:C:363:ARG:O    | 1:C:366:MET:N    | 2.40                     | 0.54              |
| 2:D:183:ALA:O    | 2:D:187:ILE:HG13 | 2.08                     | 0.54              |
| 2:D:301:VAL:HB   | 2:D:302:PRO:CD   | 2.37                     | 0.54              |
| 2:D:333:TYR:CD2  | 3:N:48:PRO:HD3   | 2.42                     | 0.54              |
| 2:D:333:TYR:HD1  | 2:D:334:VAL:N    | 2.05                     | 0.54              |
| 1:E:467:TYR:OH   | 1:E:511:SER:HB2  | 2.08                     | 0.54              |
| 2:F:92:VAL:HA    | 2:F:95:CYS:SG    | 2.47                     | 0.54              |
| 1:I:51:ALA:O     | 1:I:54:LEU:N     | 2.40                     | 0.54              |
| 1:I:179:THR:HG21 | 1:I:211:HIS:CE1  | 2.42                     | 0.54              |
| 1:I:552:GLY:O    | 1:I:560:GLN:HG3  | 2.07                     | 0.54              |
| 2:J:333:TYR:CD2  | 3:R:48:PRO:HD3   | 2.42                     | 0.54              |
| 2:J:429:ILE:O    | 2:J:432:LEU:CB   | 2.55                     | 0.54              |
| 1:K:176:LEU:HB3  | 1:K:177:PRO:HD3  | 1.89                     | 0.54              |
| 1:K:193:THR:O    | 1:K:194:SER:C    | 2.46                     | 0.54              |
| 1:K:344:GLN:HE21 | 1:K:374:ASN:ND2  | 2.04                     | 0.54              |
| 1:K:479:CYS:O    | 1:K:483:TYR:N    | 2.31                     | 0.54              |
| 2:L:128:LYS:O    | 2:L:130:LEU:N    | 2.41                     | 0.54              |
| 2:L:306:ILE:O    | 2:L:309:ILE:HB   | 2.06                     | 0.54              |
| 3:M:212:LEU:HD12 | 3:M:213:GLY:N    | 2.21                     | 0.54              |
| 3:N:83:PHE:O     | 3:N:86:LYS:HB2   | 2.07                     | 0.54              |
| 3:N:212:LEU:HD12 | 3:N:213:GLY:N    | 2.22                     | 0.54              |
| 3:N:233:LEU:CD1  | 3:N:269:LEU:HD22 | 2.37                     | 0.54              |
| 3:O:91:PHE:O     | 3:O:94:TYR:N     | 2.40                     | 0.54              |
| 3:P:185:ALA:C    | 3:P:187:GLY:N    | 2.57                     | 0.54              |
| 4:Q:74:GLN:O     | 4:Q:74:GLN:HG2   | 2.08                     | 0.54              |
| 4:Q:84:ILE:O     | 4:Q:87:TYR:N     | 2.40                     | 0.54              |
| 4:Q:86:ARG:O     | 4:Q:89:GLU:CB    | 2.56                     | 0.54              |
| 4:T:90:LEU:O     | 4:T:91:LEU:C     | 2.45                     | 0.54              |
| 2:B:88:VAL:HG11  | 2:B:121:TYR:HD2  | 1.69                     | 0.54              |
| 2:B:183:ALA:O    | 2:B:187:ILE:HG13 | 2.07                     | 0.54              |
| 2:B:464:GLU:HG3  | 2:B:465:LEU:HD12 | 1.88                     | 0.54              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:67:GLN:NE2   | 1:C:93:LEU:HD23  | 2.17                     | 0.54              |
| 1:C:366:MET:SD   | 1:C:400:CYS:SG   | 3.06                     | 0.54              |
| 1:C:504:GLU:O    | 1:C:508:ILE:HD13 | 2.07                     | 0.54              |
| 2:D:39:ALA:C     | 2:D:41:MET:N     | 2.61                     | 0.54              |
| 2:D:128:LYS:O    | 2:D:130:LEU:N    | 2.41                     | 0.54              |
| 2:D:262:VAL:O    | 2:D:266:PHE:HD1  | 1.90                     | 0.54              |
| 2:D:414:ILE:O    | 2:D:417:ILE:HB   | 2.07                     | 0.54              |
| 2:D:582:VAL:O    | 2:D:584:GLY:N    | 2.40                     | 0.54              |
| 1:E:8:ARG:HD2    | 3:M:337:GLU:CB   | 2.37                     | 0.54              |
| 1:E:157:ALA:O    | 1:E:158:ALA:C    | 2.44                     | 0.54              |
| 1:E:372:LEU:HD12 | 1:E:372:LEU:H    | 1.68                     | 0.54              |
| 1:E:430:GLY:CA   | 1:E:433:VAL:HG23 | 2.37                     | 0.54              |
| 2:F:85:ILE:C     | 2:F:87:ALA:N     | 2.60                     | 0.54              |
| 2:F:333:TYR:CD2  | 3:O:48:PRO:HD3   | 2.42                     | 0.54              |
| 2:F:582:VAL:O    | 2:F:584:GLY:N    | 2.40                     | 0.54              |
| 1:G:172:MET:N    | 1:G:172:MET:CE   | 2.68                     | 0.54              |
| 2:H:333:TYR:CD2  | 3:P:48:PRO:HD3   | 2.42                     | 0.54              |
| 2:H:464:GLU:HG3  | 2:H:465:LEU:HD12 | 1.88                     | 0.54              |
| 2:H:492:PHE:CG   | 2:H:503:VAL:HG21 | 2.43                     | 0.54              |
| 1:I:350:ILE:HG21 | 1:I:368:LEU:HD22 | 1.88                     | 0.54              |
| 2:J:409:GLU:O    | 2:J:412:VAL:HB   | 2.08                     | 0.54              |
| 2:J:461:ASN:HB3  | 2:J:465:LEU:HD11 | 1.88                     | 0.54              |
| 2:J:491:LEU:HD13 | 2:J:499:THR:HG21 | 1.88                     | 0.54              |
| 1:K:190:VAL:HG12 | 1:K:194:SER:OG   | 2.07                     | 0.54              |
| 2:L:339:LEU:O    | 2:L:341:ILE:N    | 2.40                     | 0.54              |
| 3:N:179:VAL:H    | 3:N:415:ASN:CB   | 2.20                     | 0.54              |
| 3:N:325:PHE:CD1  | 3:N:332:VAL:HB   | 2.43                     | 0.54              |
| 3:O:79:LEU:O     | 3:O:80:VAL:C     | 2.45                     | 0.54              |
| 3:O:118:MET:HB2  | 3:O:123:PRO:CA   | 2.38                     | 0.54              |
| 3:P:10:ASP:O     | 3:P:11:LEU:C     | 2.45                     | 0.54              |
| 3:P:325:PHE:N    | 3:P:325:PHE:CD2  | 2.72                     | 0.54              |
| 3:V:325:PHE:CD1  | 3:V:332:VAL:HB   | 2.43                     | 0.54              |
| 4:W:5:MET:C      | 4:W:6:LEU:HD12   | 2.27                     | 0.54              |
| 4:W:22:ALA:O     | 4:W:23:THR:OG1   | 2.22                     | 0.54              |
| 1:A:254:ARG:HB2  | 1:A:295:THR:OG1  | 2.07                     | 0.54              |
| 1:A:430:GLY:CA   | 1:A:433:VAL:HG23 | 2.37                     | 0.54              |
| 1:A:491:GLN:HB2  | 1:G:276:THR:HG23 | 1.90                     | 0.54              |
| 2:B:333:TYR:HD1  | 2:B:334:VAL:N    | 2.05                     | 0.54              |
| 2:B:347:SER:CA   | 2:B:350:ASN:HD22 | 2.19                     | 0.54              |
| 1:C:361:ILE:O    | 1:C:362:LYS:C    | 2.46                     | 0.54              |
| 1:C:411:TYR:H    | 1:C:411:TYR:HD1  | 1.52                     | 0.54              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:449:VAL:HG13 | 1:C:452:HIS:NE2  | 2.23                     | 0.54              |
| 1:E:191:LEU:O    | 1:E:195:VAL:HG23 | 2.06                     | 0.54              |
| 2:F:262:VAL:O    | 2:F:266:PHE:HD1  | 1.90                     | 0.54              |
| 2:F:574:TYR:O    | 2:F:575:HIS:HB2  | 2.08                     | 0.54              |
| 1:G:55:TYR:O     | 1:G:56:MET:C     | 2.44                     | 0.54              |
| 1:G:254:ARG:HB2  | 1:G:295:THR:OG1  | 2.07                     | 0.54              |
| 1:G:333:LEU:HD12 | 1:G:368:LEU:HD12 | 1.89                     | 0.54              |
| 1:G:366:MET:SD   | 1:G:400:CYS:SG   | 3.06                     | 0.54              |
| 2:H:56:ASN:N     | 2:H:56:ASN:HD22  | 2.06                     | 0.54              |
| 2:H:85:ILE:C     | 2:H:87:ALA:N     | 2.61                     | 0.54              |
| 2:H:262:VAL:O    | 2:H:266:PHE:HD1  | 1.90                     | 0.54              |
| 2:J:85:ILE:C     | 2:J:87:ALA:N     | 2.60                     | 0.54              |
| 2:J:492:PHE:CG   | 2:J:503:VAL:HG21 | 2.43                     | 0.54              |
| 1:K:157:ALA:O    | 1:K:160:CYS:HB2  | 2.07                     | 0.54              |
| 1:K:366:MET:SD   | 1:K:400:CYS:SG   | 3.06                     | 0.54              |
| 2:L:263:LEU:HD13 | 2:L:284:LEU:HD11 | 1.90                     | 0.54              |
| 2:L:333:TYR:CD2  | 3:V:48:PRO:HD3   | 2.42                     | 0.54              |
| 3:M:79:LEU:O     | 3:M:80:VAL:C     | 2.45                     | 0.54              |
| 3:M:91:PHE:O     | 3:M:94:TYR:N     | 2.40                     | 0.54              |
| 3:M:276:LEU:N    | 3:M:418:TYR:OH   | 2.40                     | 0.54              |
| 3:M:325:PHE:CD1  | 3:M:332:VAL:HB   | 2.43                     | 0.54              |
| 3:N:125:THR:CG2  | 3:N:126:THR:N    | 2.69                     | 0.54              |
| 3:O:34:MET:HB3   | 3:O:35:PRO:CD    | 2.35                     | 0.54              |
| 3:O:276:LEU:N    | 3:O:418:TYR:OH   | 2.40                     | 0.54              |
| 3:P:56:ARG:HG3   | 3:P:56:ARG:NH1   | 2.21                     | 0.54              |
| 3:P:91:PHE:O     | 3:P:94:TYR:N     | 2.40                     | 0.54              |
| 3:P:168:LYS:HE3  | 3:P:170:GLU:CD   | 2.28                     | 0.54              |
| 4:Q:109:LYS:HA   | 4:Q:112:PHE:CD1  | 2.35                     | 0.54              |
| 3:R:267:TYR:CD2  | 3:R:269:LEU:HD21 | 2.42                     | 0.54              |
| 3:R:397:ILE:HD13 | 3:R:405:ALA:HB3  | 1.89                     | 0.54              |
| 1:A:31:CYS:HB3   | 1:A:56:MET:HE1   | 1.88                     | 0.54              |
| 1:A:504:GLU:O    | 1:A:508:ILE:HD13 | 2.07                     | 0.54              |
| 2:B:566:TYR:O    | 2:B:569:THR:CB   | 2.47                     | 0.54              |
| 1:C:157:ALA:O    | 1:C:160:CYS:HB2  | 2.07                     | 0.54              |
| 1:E:34:ILE:O     | 1:E:37:SER:HB3   | 2.07                     | 0.54              |
| 1:E:54:LEU:O     | 1:E:57:HIS:HB3   | 2.06                     | 0.54              |
| 1:E:75:ALA:O     | 1:E:76:SER:O     | 2.25                     | 0.54              |
| 1:E:449:VAL:HG13 | 1:E:452:HIS:NE2  | 2.23                     | 0.54              |
| 1:E:451:MET:H    | 1:E:451:MET:HE2  | 1.72                     | 0.54              |
| 2:F:183:ALA:O    | 2:F:187:ILE:HG13 | 2.07                     | 0.54              |
| 2:F:207:LEU:O    | 2:F:210:ALA:HB3  | 2.08                     | 0.54              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:410:ALA:O    | 2:F:411:ILE:C    | 2.46                     | 0.54              |
| 1:G:193:THR:O    | 1:G:194:SER:C    | 2.46                     | 0.54              |
| 1:G:346:HIS:O    | 1:G:347:ARG:C    | 2.45                     | 0.54              |
| 1:G:437:ALA:O    | 1:G:438:VAL:C    | 2.46                     | 0.54              |
| 2:H:138:ARG:O    | 2:H:139:LYS:C    | 2.46                     | 0.54              |
| 2:H:191:HIS:HA   | 2:H:195:ASN:HD22 | 1.70                     | 0.54              |
| 2:H:321:MET:C    | 2:H:323:VAL:N    | 2.60                     | 0.54              |
| 1:I:513:LEU:HD12 | 1:I:513:LEU:N    | 2.23                     | 0.54              |
| 2:J:105:LEU:HA   | 2:J:108:ARG:HG2  | 1.90                     | 0.54              |
| 2:J:337:GLU:O    | 2:J:341:ILE:HD13 | 2.06                     | 0.54              |
| 2:J:347:SER:H    | 2:J:350:ASN:HB2  | 1.72                     | 0.54              |
| 1:K:8:ARG:O      | 1:K:9:GLU:C      | 2.45                     | 0.54              |
| 1:K:53:LEU:O     | 1:K:54:LEU:C     | 2.44                     | 0.54              |
| 2:L:347:SER:H    | 2:L:350:ASN:HB2  | 1.72                     | 0.54              |
| 2:L:464:GLU:HG3  | 2:L:465:LEU:HD12 | 1.88                     | 0.54              |
| 3:M:34:MET:HB3   | 3:M:35:PRO:CD    | 2.35                     | 0.54              |
| 3:N:325:PHE:CD2  | 3:N:325:PHE:N    | 2.72                     | 0.54              |
| 3:O:397:ILE:HD13 | 3:O:405:ALA:HB3  | 1.89                     | 0.54              |
| 3:P:125:THR:O    | 3:P:126:THR:OG1  | 2.22                     | 0.54              |
| 3:R:34:MET:HB3   | 3:R:35:PRO:CD    | 2.35                     | 0.54              |
| 3:R:325:PHE:CD1  | 3:R:332:VAL:HB   | 2.43                     | 0.54              |
| 4:S:86:ARG:O     | 4:S:89:GLU:CB    | 2.56                     | 0.54              |
| 4:T:59:TYR:HA    | 4:T:67:PHE:O     | 2.08                     | 0.54              |
| 4:T:84:ILE:O     | 4:T:87:TYR:N     | 2.40                     | 0.54              |
| 4:W:59:TYR:HA    | 4:W:67:PHE:O     | 2.08                     | 0.54              |
| 1:A:157:ALA:O    | 1:A:160:CYS:HB2  | 2.07                     | 0.54              |
| 1:A:190:VAL:HG12 | 1:A:194:SER:OG   | 2.07                     | 0.54              |
| 1:A:442:ILE:CD1  | 1:A:475:VAL:HG13 | 2.38                     | 0.54              |
| 2:B:99:ASN:O     | 2:B:100:PRO:C    | 2.44                     | 0.54              |
| 2:B:262:VAL:O    | 2:B:266:PHE:HD1  | 1.90                     | 0.54              |
| 2:B:387:SER:HA   | 2:B:390:ARG:CD   | 2.26                     | 0.54              |
| 2:B:484:LEU:C    | 2:B:484:LEU:HD23 | 2.27                     | 0.54              |
| 1:C:340:HIS:O    | 1:C:343:VAL:HG22 | 2.06                     | 0.54              |
| 2:D:225:CYS:C    | 2:D:227:GLY:N    | 2.61                     | 0.54              |
| 2:D:410:ALA:O    | 2:D:411:ILE:C    | 2.46                     | 0.54              |
| 2:F:34:VAL:O     | 2:F:38:ILE:HD13  | 2.07                     | 0.54              |
| 2:F:60:THR:CG2   | 2:F:61:ASP:H     | 2.05                     | 0.54              |
| 2:F:148:LEU:HA   | 2:F:151:ILE:HG13 | 1.90                     | 0.54              |
| 2:F:492:PHE:CG   | 2:F:503:VAL:HG21 | 2.43                     | 0.54              |
| 1:G:442:ILE:CD1  | 1:G:475:VAL:HG13 | 2.38                     | 0.54              |
| 2:H:183:ALA:O    | 2:H:187:ILE:HG13 | 2.07                     | 0.54              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:333:TYR:HD1  | 2:H:334:VAL:N    | 2.05                     | 0.54              |
| 2:H:347:SER:H    | 2:H:350:ASN:HB2  | 1.72                     | 0.54              |
| 1:I:154:ARG:HH21 | 1:I:182:LEU:HD22 | 1.71                     | 0.54              |
| 1:I:438:VAL:CB   | 1:I:439:PRO:HD3  | 2.28                     | 0.54              |
| 1:I:455:THR:O    | 1:I:456:VAL:C    | 2.46                     | 0.54              |
| 2:J:301:VAL:HB   | 2:J:302:PRO:CD   | 2.37                     | 0.54              |
| 2:J:323:VAL:HG23 | 2:J:324:PHE:N    | 2.22                     | 0.54              |
| 2:J:582:VAL:O    | 2:J:584:GLY:N    | 2.40                     | 0.54              |
| 1:K:455:THR:O    | 1:K:456:VAL:C    | 2.46                     | 0.54              |
| 2:L:85:ILE:C     | 2:L:87:ALA:N     | 2.60                     | 0.54              |
| 2:L:470:LEU:O    | 2:L:471:ASP:C    | 2.46                     | 0.54              |
| 2:L:480:VAL:O    | 2:L:481:GLN:C    | 2.46                     | 0.54              |
| 3:M:416:GLY:O    | 3:M:418:TYR:N    | 2.41                     | 0.54              |
| 3:P:233:LEU:CD1  | 3:P:269:LEU:HD22 | 2.37                     | 0.54              |
| 4:Q:59:TYR:HA    | 4:Q:67:PHE:O     | 2.08                     | 0.54              |
| 4:T:50:LEU:HB3   | 4:T:57:VAL:CG2   | 2.38                     | 0.54              |
| 3:V:79:LEU:O     | 3:V:80:VAL:C     | 2.45                     | 0.54              |
| 4:X:86:ARG:O     | 4:X:89:GLU:CB    | 2.56                     | 0.54              |
| 4:X:109:LYS:HA   | 4:X:112:PHE:CD1  | 2.35                     | 0.54              |
| 1:A:193:THR:O    | 1:A:194:SER:C    | 2.46                     | 0.54              |
| 1:A:285:GLY:O    | 1:A:286:ASN:C    | 2.45                     | 0.54              |
| 1:A:449:VAL:HG13 | 1:A:452:HIS:NE2  | 2.23                     | 0.54              |
| 1:A:470:GLN:HB2  | 1:A:471:PRO:CD   | 2.34                     | 0.54              |
| 1:A:552:GLY:O    | 1:A:560:GLN:HG3  | 2.07                     | 0.54              |
| 2:B:105:LEU:HA   | 2:B:108:ARG:HG2  | 1.89                     | 0.54              |
| 1:C:159:LEU:HB2  | 4:T:119:MET:HE1  | 1.89                     | 0.54              |
| 1:C:285:GLY:O    | 1:C:286:ASN:C    | 2.45                     | 0.54              |
| 1:C:467:TYR:OH   | 1:C:511:SER:HB2  | 2.08                     | 0.54              |
| 2:D:263:LEU:HD13 | 2:D:284:LEU:HD11 | 1.90                     | 0.54              |
| 2:D:302:PRO:O    | 2:D:305:ASN:N    | 2.41                     | 0.54              |
| 2:D:321:MET:C    | 2:D:323:VAL:N    | 2.60                     | 0.54              |
| 1:E:175:PHE:O    | 1:E:176:LEU:C    | 2.44                     | 0.54              |
| 2:F:105:LEU:HA   | 2:F:108:ARG:HG2  | 1.90                     | 0.54              |
| 2:H:387:SER:HA   | 2:H:390:ARG:CD   | 2.26                     | 0.54              |
| 2:H:409:GLU:O    | 2:H:412:VAL:HB   | 2.08                     | 0.54              |
| 2:H:569:THR:O    | 2:H:572:SER:CB   | 2.53                     | 0.54              |
| 1:I:176:LEU:HB3  | 1:I:177:PRO:HD3  | 1.89                     | 0.54              |
| 1:I:267:MET:O    | 1:I:270:ILE:HG22 | 2.07                     | 0.54              |
| 2:J:20:ALA:C     | 2:J:22:LEU:N     | 2.60                     | 0.54              |
| 2:J:521:ASP:C    | 2:J:523:GLY:N    | 2.55                     | 0.54              |
| 1:K:175:PHE:O    | 1:K:176:LEU:C    | 2.44                     | 0.54              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:533:LEU:O    | 1:K:536:ARG:N    | 2.40                     | 0.54              |
| 2:L:343:ILE:HG22 | 2:L:344:ARG:N    | 2.23                     | 0.54              |
| 2:L:566:TYR:O    | 2:L:569:THR:CB   | 2.47                     | 0.54              |
| 3:P:325:PHE:CD1  | 3:P:332:VAL:HB   | 2.43                     | 0.54              |
| 4:Q:71:ILE:HG22  | 4:Q:72:GLU:H     | 1.71                     | 0.54              |
| 4:S:53:ARG:O     | 4:S:54:ASP:HB3   | 2.07                     | 0.54              |
| 4:S:74:GLN:HG2   | 4:S:74:GLN:O     | 2.08                     | 0.54              |
| 4:X:83:LEU:C     | 4:X:83:LEU:HD12  | 2.27                     | 0.54              |
| 1:A:8:ARG:O      | 1:A:9:GLU:C      | 2.45                     | 0.54              |
| 2:B:56:ASN:N     | 2:B:56:ASN:HD22  | 2.06                     | 0.54              |
| 2:B:480:VAL:O    | 2:B:481:GLN:C    | 2.46                     | 0.54              |
| 2:B:492:PHE:CG   | 2:B:503:VAL:HG21 | 2.43                     | 0.54              |
| 1:C:34:ILE:O     | 1:C:37:SER:HB3   | 2.07                     | 0.54              |
| 1:C:154:ARG:HH21 | 1:C:182:LEU:HD22 | 1.71                     | 0.54              |
| 1:C:437:ALA:O    | 1:C:438:VAL:C    | 2.46                     | 0.54              |
| 2:D:207:LEU:O    | 2:D:210:ALA:HB3  | 2.08                     | 0.54              |
| 2:D:387:SER:CA   | 2:D:390:ARG:HD2  | 2.25                     | 0.54              |
| 2:D:480:VAL:O    | 2:D:481:GLN:C    | 2.46                     | 0.54              |
| 1:E:8:ARG:O      | 1:E:9:GLU:C      | 2.45                     | 0.54              |
| 1:E:437:ALA:O    | 1:E:438:VAL:C    | 2.46                     | 0.54              |
| 2:F:324:PHE:HE2  | 2:F:341:ILE:HG21 | 1.70                     | 0.54              |
| 2:F:333:TYR:HD1  | 2:F:334:VAL:N    | 2.05                     | 0.54              |
| 2:F:493:LEU:HD13 | 2:F:538:LYS:HA   | 1.90                     | 0.54              |
| 2:F:510:ALA:CB   | 2:F:519:LEU:HD11 | 2.34                     | 0.54              |
| 2:H:323:VAL:HG23 | 2:H:324:PHE:N    | 2.22                     | 0.54              |
| 2:H:343:ILE:HG22 | 2:H:344:ARG:N    | 2.23                     | 0.54              |
| 2:H:493:LEU:HD13 | 2:H:538:LYS:HA   | 1.90                     | 0.54              |
| 1:I:54:LEU:O     | 1:I:57:HIS:HB3   | 2.06                     | 0.54              |
| 1:I:346:HIS:O    | 1:I:347:ARG:C    | 2.45                     | 0.54              |
| 2:J:19:LYS:O     | 2:J:22:LEU:HB3   | 2.08                     | 0.54              |
| 2:J:148:LEU:HA   | 2:J:151:ILE:HG13 | 1.90                     | 0.54              |
| 2:J:207:LEU:O    | 2:J:210:ALA:HB3  | 2.08                     | 0.54              |
| 2:J:216:GLU:HB2  | 2:J:217:TRP:HE3  | 1.66                     | 0.54              |
| 2:J:491:LEU:CD1  | 2:J:492:PHE:N    | 2.66                     | 0.54              |
| 2:L:19:LYS:O     | 2:L:22:LEU:HB3   | 2.08                     | 0.54              |
| 2:L:41:MET:HE3   | 2:L:47:VAL:HG21  | 1.88                     | 0.54              |
| 2:L:183:ALA:O    | 2:L:187:ILE:HG13 | 2.07                     | 0.54              |
| 2:L:302:PRO:O    | 2:L:305:ASN:N    | 2.41                     | 0.54              |
| 2:L:347:SER:CA   | 2:L:350:ASN:HD22 | 2.19                     | 0.54              |
| 2:L:414:ILE:O    | 2:L:417:ILE:HB   | 2.07                     | 0.54              |
| 3:M:10:ASP:O     | 3:M:11:LEU:C     | 2.45                     | 0.54              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:N:118:MET:HB2  | 3:N:123:PRO:CA   | 2.38                     | 0.54              |
| 3:O:277:ILE:N    | 3:O:418:TYR:OH   | 2.40                     | 0.54              |
| 3:P:62:HIS:NE2   | 3:P:98:LEU:HD23  | 2.22                     | 0.54              |
| 3:P:416:GLY:O    | 3:P:418:TYR:N    | 2.41                     | 0.54              |
| 4:Q:83:LEU:C     | 4:Q:83:LEU:HD12  | 2.27                     | 0.54              |
| 4:S:90:LEU:O     | 4:S:91:LEU:C     | 2.45                     | 0.54              |
| 4:T:86:ARG:O     | 4:T:89:GLU:CB    | 2.56                     | 0.54              |
| 4:U:30:LYS:HA    | 4:U:30:LYS:HZ1   | 1.72                     | 0.54              |
| 3:V:233:LEU:CD1  | 3:V:269:LEU:HD22 | 2.37                     | 0.54              |
| 3:V:397:ILE:HD13 | 3:V:405:ALA:HB3  | 1.89                     | 0.54              |
| 4:W:50:LEU:HB3   | 4:W:57:VAL:CG2   | 2.38                     | 0.54              |
| 4:W:86:ARG:O     | 4:W:89:GLU:CB    | 2.56                     | 0.54              |
| 1:A:491:GLN:HB2  | 1:G:276:THR:CG2  | 2.38                     | 0.54              |
| 2:B:20:ALA:C     | 2:B:22:LEU:N     | 2.60                     | 0.54              |
| 2:B:34:VAL:O     | 2:B:38:ILE:HD13  | 2.07                     | 0.54              |
| 2:B:100:PRO:O    | 2:B:101:LEU:C    | 2.44                     | 0.54              |
| 2:B:211:LEU:HD13 | 2:B:247:ARG:HD2  | 1.90                     | 0.54              |
| 2:B:410:ALA:O    | 2:B:411:ILE:C    | 2.46                     | 0.54              |
| 2:B:573:VAL:HG13 | 2:B:574:TYR:N    | 2.23                     | 0.54              |
| 1:C:442:ILE:CD1  | 1:C:475:VAL:HG13 | 2.38                     | 0.54              |
| 1:C:470:GLN:HB2  | 1:C:471:PRO:CD   | 2.34                     | 0.54              |
| 1:C:513:LEU:HD12 | 1:C:513:LEU:N    | 2.23                     | 0.54              |
| 1:E:6:ARG:CZ     | 3:M:336:PRO:HB2  | 2.38                     | 0.54              |
| 1:E:267:MET:O    | 1:E:270:ILE:HG22 | 2.07                     | 0.54              |
| 1:E:552:GLY:O    | 1:E:560:GLN:HG3  | 2.07                     | 0.54              |
| 2:F:301:VAL:HB   | 2:F:302:PRO:CD   | 2.37                     | 0.54              |
| 2:F:302:PRO:O    | 2:F:305:ASN:N    | 2.41                     | 0.54              |
| 1:G:38:PHE:CD1   | 1:G:69:GLU:OE1   | 2.61                     | 0.54              |
| 1:G:361:ILE:O    | 1:G:362:LYS:C    | 2.46                     | 0.54              |
| 1:G:449:VAL:HG13 | 1:G:452:HIS:NE2  | 2.23                     | 0.54              |
| 2:H:207:LEU:O    | 2:H:210:ALA:HB3  | 2.08                     | 0.54              |
| 2:H:211:LEU:HD13 | 2:H:247:ARG:HD2  | 1.90                     | 0.54              |
| 1:I:344:GLN:O    | 1:I:346:HIS:N    | 2.41                     | 0.54              |
| 1:I:498:ILE:CG2  | 1:I:499:GLN:N    | 2.65                     | 0.54              |
| 1:I:540:THR:O    | 1:I:542:ASN:N    | 2.41                     | 0.54              |
| 2:J:413:VAL:O    | 2:J:414:ILE:C    | 2.46                     | 0.54              |
| 2:J:470:LEU:O    | 2:J:471:ASP:C    | 2.46                     | 0.54              |
| 2:J:493:LEU:HD13 | 2:J:538:LYS:HA   | 1.90                     | 0.54              |
| 1:K:254:ARG:HB2  | 1:K:295:THR:OG1  | 2.07                     | 0.54              |
| 1:K:513:LEU:HD12 | 1:K:513:LEU:N    | 2.23                     | 0.54              |
| 1:K:543:ARG:O    | 1:K:547:VAL:HG23 | 2.08                     | 0.54              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:L:301:VAL:HB   | 2:L:302:PRO:CD   | 2.37                     | 0.54              |
| 2:L:429:ILE:O    | 2:L:432:LEU:CB   | 2.55                     | 0.54              |
| 2:L:574:TYR:O    | 2:L:575:HIS:HB2  | 2.07                     | 0.54              |
| 3:M:118:MET:HB2  | 3:M:123:PRO:CA   | 2.38                     | 0.54              |
| 3:M:233:LEU:CD1  | 3:M:268:ARG:O    | 2.56                     | 0.54              |
| 3:O:325:PHE:CD1  | 3:O:332:VAL:HB   | 2.43                     | 0.54              |
| 3:P:83:PHE:O     | 3:P:86:LYS:HB2   | 2.07                     | 0.54              |
| 3:P:174:ASP:N    | 3:P:174:ASP:OD2  | 2.39                     | 0.54              |
| 3:V:83:PHE:O     | 3:V:86:LYS:HB2   | 2.07                     | 0.54              |
| 4:X:83:LEU:O     | 4:X:86:ARG:N     | 2.37                     | 0.54              |
| 1:A:344:GLN:O    | 1:A:346:HIS:N    | 2.41                     | 0.54              |
| 1:A:346:HIS:O    | 1:A:347:ARG:C    | 2.45                     | 0.54              |
| 1:A:363:ARG:O    | 1:A:366:MET:N    | 2.41                     | 0.54              |
| 1:A:369:SER:O    | 1:A:370:PHE:C    | 2.46                     | 0.54              |
| 2:B:39:ALA:C     | 2:B:41:MET:N     | 2.61                     | 0.54              |
| 2:B:225:CYS:C    | 2:B:227:GLY:N    | 2.61                     | 0.54              |
| 2:B:302:PRO:O    | 2:B:305:ASN:N    | 2.41                     | 0.54              |
| 2:B:324:PHE:HE2  | 2:B:341:ILE:HG21 | 1.70                     | 0.54              |
| 2:B:414:ILE:O    | 2:B:417:ILE:HB   | 2.07                     | 0.54              |
| 1:C:389:LEU:CD1  | 1:C:400:CYS:HB3  | 2.38                     | 0.54              |
| 1:C:552:GLY:O    | 1:C:560:GLN:HG3  | 2.07                     | 0.54              |
| 2:D:211:LEU:HD13 | 2:D:247:ARG:HD2  | 1.90                     | 0.54              |
| 2:D:409:GLU:O    | 2:D:412:VAL:HB   | 2.08                     | 0.54              |
| 1:E:333:LEU:HD12 | 1:E:368:LEU:HD12 | 1.89                     | 0.54              |
| 1:E:369:SER:O    | 1:E:370:PHE:C    | 2.46                     | 0.54              |
| 1:E:531:MET:SD   | 1:E:566:TYR:HB3  | 2.48                     | 0.54              |
| 2:F:128:LYS:O    | 2:F:130:LEU:N    | 2.41                     | 0.54              |
| 2:F:292:LEU:C    | 2:F:294:ALA:N    | 2.61                     | 0.54              |
| 2:F:302:PRO:O    | 2:F:303:LEU:C    | 2.44                     | 0.54              |
| 1:G:513:LEU:HD12 | 1:G:513:LEU:N    | 2.23                     | 0.54              |
| 2:H:149:HIS:CE1  | 2:H:187:ILE:HG23 | 2.43                     | 0.54              |
| 2:H:302:PRO:O    | 2:H:305:ASN:N    | 2.41                     | 0.54              |
| 2:H:574:TYR:O    | 2:H:575:HIS:HB2  | 2.07                     | 0.54              |
| 1:I:190:VAL:HG12 | 1:I:194:SER:OG   | 2.07                     | 0.54              |
| 1:I:369:SER:O    | 1:I:370:PHE:C    | 2.46                     | 0.54              |
| 1:I:467:TYR:OH   | 1:I:511:SER:HB2  | 2.07                     | 0.54              |
| 1:I:504:GLU:O    | 1:I:508:ILE:HD13 | 2.07                     | 0.54              |
| 2:J:104:ALA:CB   | 2:J:136:TYR:HD2  | 2.20                     | 0.54              |
| 2:J:191:HIS:ND1  | 2:J:191:HIS:O    | 2.41                     | 0.54              |
| 2:J:574:TYR:O    | 2:J:575:HIS:HB2  | 2.08                     | 0.54              |
| 1:K:75:ALA:O     | 1:K:76:SER:O     | 2.25                     | 0.54              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:361:ILE:O    | 1:K:362:LYS:C    | 2.46                     | 0.54              |
| 1:K:437:ALA:O    | 1:K:438:VAL:C    | 2.46                     | 0.54              |
| 2:L:148:LEU:HA   | 2:L:151:ILE:HG13 | 1.90                     | 0.54              |
| 2:L:262:VAL:O    | 2:L:266:PHE:HD1  | 1.90                     | 0.54              |
| 2:L:333:TYR:HD1  | 2:L:334:VAL:N    | 2.05                     | 0.54              |
| 2:L:351:ILE:O    | 2:L:352:ALA:C    | 2.44                     | 0.54              |
| 2:L:409:GLU:O    | 2:L:412:VAL:HB   | 2.08                     | 0.54              |
| 3:M:310:VAL:HG22 | 3:M:311:GLU:N    | 2.21                     | 0.54              |
| 3:P:233:LEU:CD1  | 3:P:268:ARG:O    | 2.56                     | 0.54              |
| 3:R:83:PHE:O     | 3:R:86:LYS:HB2   | 2.07                     | 0.54              |
| 3:R:174:ASP:N    | 3:R:174:ASP:OD2  | 2.39                     | 0.54              |
| 3:V:76:CYS:HB2   | 3:V:79:LEU:HD12  | 1.89                     | 0.54              |
| 3:V:233:LEU:CD1  | 3:V:268:ARG:O    | 2.56                     | 0.54              |
| 4:W:99:CYS:O     | 4:W:100:GLU:C    | 2.47                     | 0.54              |
| 4:X:50:LEU:HB3   | 4:X:57:VAL:CG2   | 2.38                     | 0.54              |
| 1:A:75:ALA:O     | 1:A:76:SER:O     | 2.25                     | 0.53              |
| 1:A:176:LEU:HB3  | 1:A:177:PRO:HD3  | 1.89                     | 0.53              |
| 2:B:351:ILE:O    | 2:B:352:ALA:C    | 2.44                     | 0.53              |
| 1:C:333:LEU:HD12 | 1:C:368:LEU:HD12 | 1.89                     | 0.53              |
| 2:D:211:LEU:CD2  | 2:D:219:GLN:HA   | 2.39                     | 0.53              |
| 2:D:335:LYS:HB3  | 2:D:369:PHE:CE1  | 2.43                     | 0.53              |
| 2:F:39:ALA:C     | 2:F:41:MET:N     | 2.61                     | 0.53              |
| 1:G:36:SER:HA    | 1:G:39:ARG:CG    | 2.36                     | 0.53              |
| 2:H:263:LEU:HD13 | 2:H:284:LEU:HD11 | 1.90                     | 0.53              |
| 2:H:324:PHE:HE2  | 2:H:341:ILE:HG21 | 1.70                     | 0.53              |
| 2:H:409:GLU:O    | 2:H:410:ALA:C    | 2.44                     | 0.53              |
| 1:I:10:LEU:O     | 1:I:13:THR:N     | 2.40                     | 0.53              |
| 1:I:74:ILE:HG13  | 1:I:86:TYR:CE1   | 2.44                     | 0.53              |
| 1:I:134:MET:O    | 1:I:137:ASP:N    | 2.38                     | 0.53              |
| 1:I:157:ALA:O    | 1:I:160:CYS:HB2  | 2.07                     | 0.53              |
| 1:I:363:ARG:O    | 1:I:366:MET:N    | 2.41                     | 0.53              |
| 1:I:366:MET:SD   | 1:I:400:CYS:SG   | 3.06                     | 0.53              |
| 1:I:531:MET:SD   | 1:I:566:TYR:HB3  | 2.48                     | 0.53              |
| 2:J:343:ILE:HG22 | 2:J:344:ARG:N    | 2.23                     | 0.53              |
| 2:J:410:ALA:O    | 2:J:411:ILE:C    | 2.46                     | 0.53              |
| 1:K:34:ILE:O     | 1:K:37:SER:HB3   | 2.07                     | 0.53              |
| 1:K:344:GLN:O    | 1:K:346:HIS:N    | 2.41                     | 0.53              |
| 2:L:138:ARG:O    | 2:L:139:LYS:C    | 2.46                     | 0.53              |
| 2:L:449:ILE:HG22 | 2:L:450:TRP:N    | 2.22                     | 0.53              |
| 2:L:461:ASN:HB3  | 2:L:465:LEU:HD11 | 1.88                     | 0.53              |
| 3:M:245:SER:HB2  | 3:M:252:THR:HB   | 1.88                     | 0.53              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:N:276:LEU:N    | 3:N:418:TYR:OH   | 2.40                     | 0.53              |
| 3:N:397:ILE:HD13 | 3:N:405:ALA:HB3  | 1.89                     | 0.53              |
| 3:O:174:ASP:N    | 3:O:174:ASP:OD2  | 2.39                     | 0.53              |
| 3:P:133:GLU:OE2  | 3:P:134:PHE:CE1  | 2.61                     | 0.53              |
| 3:P:179:VAL:H    | 3:P:415:ASN:CB   | 2.20                     | 0.53              |
| 3:R:8:VAL:O      | 3:R:16:LEU:CB    | 2.54                     | 0.53              |
| 3:R:10:ASP:O     | 3:R:11:LEU:C     | 2.45                     | 0.53              |
| 4:S:50:LEU:HB3   | 4:S:57:VAL:CG2   | 2.38                     | 0.53              |
| 4:T:74:GLN:HG2   | 4:T:74:GLN:O     | 2.08                     | 0.53              |
| 3:V:409:VAL:CG1  | 3:V:410:ARG:H    | 2.21                     | 0.53              |
| 4:W:74:GLN:HG2   | 4:W:74:GLN:O     | 2.08                     | 0.53              |
| 4:X:59:TYR:HA    | 4:X:67:PHE:O     | 2.08                     | 0.53              |
| 1:A:38:PHE:CD1   | 1:A:69:GLU:OE1   | 2.61                     | 0.53              |
| 1:A:254:ARG:HG2  | 1:A:255:ILE:N    | 2.24                     | 0.53              |
| 1:A:370:PHE:CZ   | 1:A:403:GLY:HA3  | 2.43                     | 0.53              |
| 1:A:389:LEU:CD1  | 1:A:400:CYS:HB3  | 2.38                     | 0.53              |
| 1:A:513:LEU:HD12 | 1:A:513:LEU:N    | 2.23                     | 0.53              |
| 2:B:211:LEU:CD2  | 2:B:219:GLN:HA   | 2.39                     | 0.53              |
| 2:B:449:ILE:HG22 | 2:B:450:TRP:N    | 2.22                     | 0.53              |
| 1:C:7:LEU:CD2    | 1:C:7:LEU:C      | 2.77                     | 0.53              |
| 1:C:58:MET:HE1   | 4:T:15:ARG:O     | 2.07                     | 0.53              |
| 1:C:346:HIS:O    | 1:C:347:ARG:C    | 2.45                     | 0.53              |
| 1:C:438:VAL:HB   | 1:C:439:PRO:CD   | 2.23                     | 0.53              |
| 2:D:351:ILE:O    | 2:D:352:ALA:C    | 2.44                     | 0.53              |
| 2:F:263:LEU:HD13 | 2:F:284:LEU:HD11 | 1.90                     | 0.53              |
| 2:F:335:LYS:HB3  | 2:F:369:PHE:CE1  | 2.44                     | 0.53              |
| 1:G:389:LEU:CD1  | 1:G:400:CYS:HB3  | 2.38                     | 0.53              |
| 1:G:531:MET:SD   | 1:G:566:TYR:HB3  | 2.48                     | 0.53              |
| 2:H:105:LEU:HA   | 2:H:108:ARG:HG2  | 1.90                     | 0.53              |
| 2:H:148:LEU:HA   | 2:H:151:ILE:HG13 | 1.90                     | 0.53              |
| 2:H:211:LEU:CD2  | 2:H:219:GLN:HA   | 2.39                     | 0.53              |
| 2:H:413:VAL:O    | 2:H:414:ILE:C    | 2.46                     | 0.53              |
| 1:I:470:GLN:HB2  | 1:I:471:PRO:CD   | 2.34                     | 0.53              |
| 1:I:533:LEU:O    | 1:I:536:ARG:N    | 2.40                     | 0.53              |
| 2:J:148:LEU:H    | 2:J:148:LEU:CD1  | 2.22                     | 0.53              |
| 2:J:456:ALA:O    | 2:J:457:GLU:C    | 2.47                     | 0.53              |
| 1:K:252:LEU:O    | 1:K:252:LEU:HD23 | 2.09                     | 0.53              |
| 1:K:449:VAL:HG13 | 1:K:452:HIS:NE2  | 2.23                     | 0.53              |
| 1:K:531:MET:SD   | 1:K:566:TYR:HB3  | 2.48                     | 0.53              |
| 2:L:104:ALA:CB   | 2:L:136:TYR:HD2  | 2.20                     | 0.53              |
| 2:L:317:LEU:O    | 2:L:319:HIS:N    | 2.41                     | 0.53              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:P:276:LEU:N    | 3:P:418:TYR:OH   | 2.40                     | 0.53              |
| 4:Q:99:CYS:O     | 4:Q:100:GLU:C    | 2.47                     | 0.53              |
| 3:R:56:ARG:N     | 3:R:56:ARG:CD    | 2.69                     | 0.53              |
| 3:R:133:GLU:OE2  | 3:R:134:PHE:CE1  | 2.62                     | 0.53              |
| 3:R:168:LYS:HE3  | 3:R:170:GLU:CD   | 2.28                     | 0.53              |
| 4:T:99:CYS:O     | 4:T:100:GLU:C    | 2.47                     | 0.53              |
| 4:T:135:ILE:HG23 | 4:T:136:GLU:N    | 2.24                     | 0.53              |
| 4:U:59:TYR:HA    | 4:U:67:PHE:O     | 2.08                     | 0.53              |
| 3:V:174:ASP:N    | 3:V:174:ASP:OD2  | 2.39                     | 0.53              |
| 3:V:276:LEU:N    | 3:V:418:TYR:OH   | 2.40                     | 0.53              |
| 2:B:148:LEU:H    | 2:B:148:LEU:CD1  | 2.22                     | 0.53              |
| 2:B:257:LEU:CD1  | 2:B:567:ILE:HG22 | 2.39                     | 0.53              |
| 1:C:344:GLN:O    | 1:C:346:HIS:N    | 2.41                     | 0.53              |
| 1:C:543:ARG:O    | 1:C:547:VAL:HG23 | 2.08                     | 0.53              |
| 2:D:68:LEU:O     | 2:D:69:VAL:C     | 2.46                     | 0.53              |
| 2:D:85:ILE:C     | 2:D:87:ALA:N     | 2.60                     | 0.53              |
| 2:D:148:LEU:HA   | 2:D:151:ILE:HG13 | 1.90                     | 0.53              |
| 2:D:574:TYR:O    | 2:D:575:HIS:HB2  | 2.08                     | 0.53              |
| 1:E:389:LEU:CD1  | 1:E:400:CYS:HB3  | 2.38                     | 0.53              |
| 1:E:540:THR:O    | 1:E:542:ASN:N    | 2.41                     | 0.53              |
| 1:E:543:ARG:O    | 1:E:547:VAL:HG23 | 2.08                     | 0.53              |
| 2:F:56:ASN:N     | 2:F:56:ASN:HD22  | 2.06                     | 0.53              |
| 2:F:148:LEU:H    | 2:F:148:LEU:CD1  | 2.22                     | 0.53              |
| 2:F:358:LEU:O    | 2:F:361:TYR:HB2  | 2.09                     | 0.53              |
| 1:G:285:GLY:O    | 1:G:286:ASN:C    | 2.45                     | 0.53              |
| 1:G:350:ILE:HG21 | 1:G:368:LEU:HD22 | 1.88                     | 0.53              |
| 1:G:370:PHE:CZ   | 1:G:403:GLY:HA3  | 2.43                     | 0.53              |
| 1:G:540:THR:O    | 1:G:542:ASN:N    | 2.41                     | 0.53              |
| 2:H:470:LEU:O    | 2:H:471:ASP:C    | 2.46                     | 0.53              |
| 1:I:24:ARG:O     | 1:I:25:GLU:C     | 2.46                     | 0.53              |
| 1:I:442:ILE:CD1  | 1:I:475:VAL:HG13 | 2.38                     | 0.53              |
| 2:J:211:LEU:CD2  | 2:J:219:GLN:HA   | 2.39                     | 0.53              |
| 2:J:358:LEU:O    | 2:J:361:TYR:HB2  | 2.09                     | 0.53              |
| 2:L:56:ASN:N     | 2:L:56:ASN:HD22  | 2.06                     | 0.53              |
| 2:L:191:HIS:ND1  | 2:L:191:HIS:O    | 2.41                     | 0.53              |
| 2:L:207:LEU:O    | 2:L:210:ALA:HB3  | 2.08                     | 0.53              |
| 2:L:456:ALA:O    | 2:L:457:GLU:C    | 2.47                     | 0.53              |
| 3:O:208:PRO:HG3  | 3:O:399:GLU:OE1  | 2.09                     | 0.53              |
| 3:R:100:GLU:OE1  | 3:R:104:ARG:NH2  | 2.42                     | 0.53              |
| 4:S:71:ILE:HG22  | 4:S:72:GLU:H     | 1.71                     | 0.53              |
| 4:S:109:LYS:O    | 4:S:110:ALA:C    | 2.47                     | 0.53              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:T:30:LYS:HZ1   | 4:T:30:LYS:HA    | 1.72                     | 0.53              |
| 4:T:129:LYS:HB3  | 4:T:133:LYS:HE3  | 1.88                     | 0.53              |
| 3:V:8:VAL:O      | 3:V:16:LEU:CB    | 2.54                     | 0.53              |
| 3:V:343:TRP:CZ3  | 3:V:356:MET:HB2  | 2.44                     | 0.53              |
| 2:B:128:LYS:O    | 2:B:130:LEU:N    | 2.41                     | 0.53              |
| 2:B:191:HIS:ND1  | 2:B:191:HIS:O    | 2.41                     | 0.53              |
| 1:C:7:LEU:O      | 1:C:8:ARG:C      | 2.47                     | 0.53              |
| 1:C:38:PHE:CD1   | 1:C:69:GLU:OE1   | 2.61                     | 0.53              |
| 1:C:53:LEU:O     | 1:C:54:LEU:C     | 2.44                     | 0.53              |
| 1:C:74:ILE:HD12  | 1:C:74:ILE:N     | 2.19                     | 0.53              |
| 2:D:97:ASP:OD1   | 2:D:98:PRO:HD2   | 2.09                     | 0.53              |
| 2:D:115:VAL:O    | 2:D:118:ILE:CG2  | 2.51                     | 0.53              |
| 2:D:292:LEU:C    | 2:D:294:ALA:N    | 2.61                     | 0.53              |
| 2:D:491:LEU:CD1  | 2:D:492:PHE:N    | 2.66                     | 0.53              |
| 1:E:31:CYS:HB3   | 1:E:56:MET:HE1   | 1.90                     | 0.53              |
| 1:E:38:PHE:CD1   | 1:E:69:GLU:OE1   | 2.61                     | 0.53              |
| 1:E:363:ARG:O    | 1:E:366:MET:N    | 2.41                     | 0.53              |
| 1:E:442:ILE:CD1  | 1:E:475:VAL:HG13 | 2.38                     | 0.53              |
| 2:F:67:LYS:O     | 2:F:68:LEU:C     | 2.47                     | 0.53              |
| 2:F:323:VAL:HG23 | 2:F:324:PHE:N    | 2.22                     | 0.53              |
| 1:G:7:LEU:CD2    | 1:G:7:LEU:C      | 2.77                     | 0.53              |
| 1:G:543:ARG:O    | 1:G:547:VAL:HG23 | 2.08                     | 0.53              |
| 2:H:88:VAL:HG11  | 2:H:121:TYR:HD2  | 1.69                     | 0.53              |
| 2:H:128:LYS:O    | 2:H:130:LEU:N    | 2.41                     | 0.53              |
| 2:H:225:CYS:C    | 2:H:227:GLY:N    | 2.61                     | 0.53              |
| 1:I:38:PHE:CD1   | 1:I:69:GLU:OE1   | 2.61                     | 0.53              |
| 2:J:34:VAL:O     | 2:J:38:ILE:HD13  | 2.07                     | 0.53              |
| 2:J:138:ARG:O    | 2:J:139:LYS:C    | 2.46                     | 0.53              |
| 2:J:317:LEU:O    | 2:J:319:HIS:N    | 2.42                     | 0.53              |
| 1:K:74:ILE:HG13  | 1:K:86:TYR:CE1   | 2.44                     | 0.53              |
| 1:K:369:SER:O    | 1:K:370:PHE:C    | 2.46                     | 0.53              |
| 1:K:389:LEU:CD1  | 1:K:400:CYS:HB3  | 2.38                     | 0.53              |
| 1:K:467:TYR:OH   | 1:K:511:SER:HB2  | 2.07                     | 0.53              |
| 2:L:211:LEU:CD2  | 2:L:219:GLN:HA   | 2.39                     | 0.53              |
| 2:L:262:VAL:HG23 | 2:L:263:LEU:N    | 2.21                     | 0.53              |
| 2:L:413:VAL:O    | 2:L:414:ILE:C    | 2.46                     | 0.53              |
| 3:M:173:LEU:C    | 3:M:173:LEU:CD2  | 2.76                     | 0.53              |
| 3:M:409:VAL:CG1  | 3:M:410:ARG:H    | 2.21                     | 0.53              |
| 3:O:100:GLU:OE1  | 3:O:104:ARG:NH2  | 2.42                     | 0.53              |
| 3:P:112:GLU:OE1  | 3:P:136:THR:N    | 2.40                     | 0.53              |
| 3:P:386:THR:CG2  | 3:P:389:GLY:H    | 2.21                     | 0.53              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:R:62:HIS:NE2   | 3:R:98:LEU:HD23  | 2.22                     | 0.53              |
| 3:R:118:MET:HB2  | 3:R:123:PRO:CA   | 2.38                     | 0.53              |
| 3:R:310:VAL:HG22 | 3:R:311:GLU:N    | 2.21                     | 0.53              |
| 1:A:113:HIS:HD2  | 1:A:115:THR:H    | 1.56                     | 0.53              |
| 1:A:366:MET:SD   | 1:A:400:CYS:SG   | 3.06                     | 0.53              |
| 1:A:437:ALA:O    | 1:A:438:VAL:C    | 2.46                     | 0.53              |
| 1:A:543:ARG:O    | 1:A:547:VAL:HG23 | 2.08                     | 0.53              |
| 2:B:138:ARG:O    | 2:B:139:LYS:C    | 2.46                     | 0.53              |
| 2:B:207:LEU:O    | 2:B:210:ALA:HB3  | 2.08                     | 0.53              |
| 2:B:413:VAL:O    | 2:B:414:ILE:C    | 2.46                     | 0.53              |
| 2:B:566:TYR:CE2  | 2:B:578:PRO:HG2  | 2.44                     | 0.53              |
| 1:C:370:PHE:CZ   | 1:C:403:GLY:HA3  | 2.43                     | 0.53              |
| 2:D:105:LEU:HA   | 2:D:108:ARG:HG2  | 1.90                     | 0.53              |
| 2:D:191:HIS:ND1  | 2:D:191:HIS:O    | 2.41                     | 0.53              |
| 2:D:426:GLU:O    | 2:D:429:ILE:N    | 2.28                     | 0.53              |
| 2:D:493:LEU:HD13 | 2:D:538:LYS:HA   | 1.90                     | 0.53              |
| 1:E:7:LEU:C      | 1:E:7:LEU:CD2    | 2.77                     | 0.53              |
| 1:E:36:SER:HA    | 1:E:39:ARG:CG    | 2.36                     | 0.53              |
| 1:E:343:VAL:HG23 | 1:E:344:GLN:N    | 2.24                     | 0.53              |
| 1:E:361:ILE:O    | 1:E:362:LYS:C    | 2.46                     | 0.53              |
| 1:E:372:LEU:N    | 1:E:372:LEU:CD1  | 2.69                     | 0.53              |
| 1:E:513:LEU:HD12 | 1:E:513:LEU:N    | 2.23                     | 0.53              |
| 2:F:191:HIS:ND1  | 2:F:191:HIS:O    | 2.41                     | 0.53              |
| 2:F:409:GLU:O    | 2:F:412:VAL:HB   | 2.08                     | 0.53              |
| 2:F:413:VAL:O    | 2:F:414:ILE:C    | 2.46                     | 0.53              |
| 2:F:473:PHE:CG   | 2:F:474:HIS:N    | 2.64                     | 0.53              |
| 1:G:226:LEU:O    | 1:G:227:ILE:C    | 2.47                     | 0.53              |
| 2:H:139:LYS:HD3  | 2:H:175:MET:HE2  | 1.90                     | 0.53              |
| 2:H:302:PRO:O    | 2:H:303:LEU:C    | 2.44                     | 0.53              |
| 2:H:317:LEU:O    | 2:H:319:HIS:N    | 2.42                     | 0.53              |
| 2:H:410:ALA:O    | 2:H:411:ILE:C    | 2.46                     | 0.53              |
| 1:I:67:GLN:NE2   | 1:I:93:LEU:HD23  | 2.17                     | 0.53              |
| 1:I:285:GLY:O    | 1:I:286:ASN:C    | 2.45                     | 0.53              |
| 1:I:370:PHE:CZ   | 1:I:403:GLY:HA3  | 2.43                     | 0.53              |
| 1:I:479:CYS:O    | 1:I:483:TYR:N    | 2.31                     | 0.53              |
| 1:I:506:LEU:O    | 1:I:507:ASP:C    | 2.47                     | 0.53              |
| 2:J:68:LEU:O     | 2:J:69:VAL:C     | 2.46                     | 0.53              |
| 2:J:128:LYS:O    | 2:J:130:LEU:N    | 2.41                     | 0.53              |
| 2:J:445:ARG:O    | 2:J:448:MET:HB3  | 2.09                     | 0.53              |
| 2:J:573:VAL:HG13 | 2:J:574:TYR:N    | 2.23                     | 0.53              |
| 2:L:68:LEU:O     | 2:L:69:VAL:C     | 2.46                     | 0.53              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:L:105:LEU:HA   | 2:L:108:ARG:HG2  | 1.89                     | 0.53              |
| 2:L:492:PHE:CG   | 2:L:503:VAL:HG21 | 2.43                     | 0.53              |
| 3:N:208:PRO:HG3  | 3:N:399:GLU:OE1  | 2.09                     | 0.53              |
| 3:P:100:GLU:OE1  | 3:P:104:ARG:NH2  | 2.42                     | 0.53              |
| 3:R:76:CYS:HB2   | 3:R:79:LEU:HD12  | 1.89                     | 0.53              |
| 3:R:233:LEU:CD1  | 3:R:268:ARG:O    | 2.56                     | 0.53              |
| 3:R:276:LEU:N    | 3:R:418:TYR:OH   | 2.40                     | 0.53              |
| 3:R:277:ILE:N    | 3:R:418:TYR:OH   | 2.40                     | 0.53              |
| 4:U:71:ILE:HG22  | 4:U:72:GLU:H     | 1.71                     | 0.53              |
| 3:V:325:PHE:CD2  | 3:V:325:PHE:N    | 2.72                     | 0.53              |
| 1:A:24:ARG:O     | 1:A:25:GLU:C     | 2.46                     | 0.53              |
| 1:A:455:THR:O    | 1:A:456:VAL:C    | 2.46                     | 0.53              |
| 1:A:540:THR:O    | 1:A:542:ASN:N    | 2.41                     | 0.53              |
| 2:B:343:ILE:HG22 | 2:B:344:ARG:N    | 2.23                     | 0.53              |
| 2:B:456:ALA:O    | 2:B:457:GLU:C    | 2.47                     | 0.53              |
| 1:C:252:LEU:O    | 1:C:252:LEU:HD23 | 2.08                     | 0.53              |
| 1:C:531:MET:SD   | 1:C:566:TYR:HB3  | 2.48                     | 0.53              |
| 2:D:149:HIS:CE1  | 2:D:187:ILE:HG23 | 2.43                     | 0.53              |
| 2:D:456:ALA:O    | 2:D:457:GLU:C    | 2.47                     | 0.53              |
| 2:D:492:PHE:CG   | 2:D:503:VAL:HG21 | 2.43                     | 0.53              |
| 1:E:159:LEU:HB2  | 4:U:119:MET:HE1  | 1.90                     | 0.53              |
| 1:E:366:MET:SD   | 1:E:400:CYS:SG   | 3.06                     | 0.53              |
| 2:F:138:ARG:O    | 2:F:139:LYS:C    | 2.46                     | 0.53              |
| 2:F:211:LEU:CD2  | 2:F:219:GLN:HA   | 2.39                     | 0.53              |
| 2:F:211:LEU:HD13 | 2:F:247:ARG:HD2  | 1.90                     | 0.53              |
| 1:G:252:LEU:O    | 1:G:252:LEU:HD23 | 2.09                     | 0.53              |
| 1:G:343:VAL:HG23 | 1:G:344:GLN:N    | 2.24                     | 0.53              |
| 1:G:478:TRP:CZ2  | 1:G:482:GLU:CG   | 2.92                     | 0.53              |
| 2:H:335:LYS:HB3  | 2:H:369:PHE:CE1  | 2.44                     | 0.53              |
| 2:H:377:ILE:HG21 | 2:H:395:LEU:CD2  | 2.39                     | 0.53              |
| 2:J:183:ALA:O    | 2:J:187:ILE:HG13 | 2.08                     | 0.53              |
| 2:J:292:LEU:C    | 2:J:294:ALA:N    | 2.61                     | 0.53              |
| 1:K:254:ARG:HG2  | 1:K:255:ILE:N    | 2.23                     | 0.53              |
| 1:K:442:ILE:CD1  | 1:K:475:VAL:HG13 | 2.38                     | 0.53              |
| 1:K:540:THR:O    | 1:K:542:ASN:N    | 2.41                     | 0.53              |
| 2:L:148:LEU:H    | 2:L:148:LEU:CD1  | 2.22                     | 0.53              |
| 3:O:233:LEU:CD1  | 3:O:268:ARG:O    | 2.56                     | 0.53              |
| 3:O:416:GLY:O    | 3:O:418:TYR:N    | 2.41                     | 0.53              |
| 3:P:42:GLU:HB3   | 3:P:302:LYS:HB2  | 1.91                     | 0.53              |
| 4:Q:83:LEU:O     | 4:Q:84:ILE:C     | 2.47                     | 0.53              |
| 3:V:208:PRO:HG3  | 3:V:399:GLU:OE1  | 2.09                     | 0.53              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:W:135:ILE:HG23 | 4:W:136:GLU:N    | 2.24                     | 0.53              |
| 1:A:53:LEU:O     | 1:A:54:LEU:C     | 2.44                     | 0.53              |
| 1:A:531:MET:SD   | 1:A:566:TYR:HB3  | 2.48                     | 0.53              |
| 2:B:57:CYS:O     | 2:B:65:LEU:HD21  | 2.09                     | 0.53              |
| 1:C:212:PHE:O    | 1:C:216:VAL:CG2  | 2.55                     | 0.53              |
| 1:C:236:ASP:HA   | 1:C:240:ILE:O    | 2.09                     | 0.53              |
| 1:C:244:PHE:O    | 1:C:245:LEU:C    | 2.47                     | 0.53              |
| 1:C:254:ARG:HB2  | 1:C:295:THR:OG1  | 2.07                     | 0.53              |
| 1:C:417:TRP:O    | 1:C:418:HIS:C    | 2.47                     | 0.53              |
| 1:C:421:THR:O    | 1:C:422:ILE:C    | 2.47                     | 0.53              |
| 1:C:540:THR:O    | 1:C:542:ASN:N    | 2.41                     | 0.53              |
| 1:E:172:MET:N    | 1:E:172:MET:CE   | 2.68                     | 0.53              |
| 1:E:193:THR:O    | 1:E:194:SER:C    | 2.46                     | 0.53              |
| 2:F:149:HIS:CE1  | 2:F:187:ILE:HG23 | 2.43                     | 0.53              |
| 2:F:226:LEU:HD23 | 2:F:226:LEU:N    | 2.23                     | 0.53              |
| 1:G:267:MET:HE1  | 1:G:299:ILE:HD13 | 1.90                     | 0.53              |
| 2:H:57:CYS:O     | 2:H:65:LEU:HD21  | 2.09                     | 0.53              |
| 1:I:113:HIS:HD2  | 1:I:115:THR:H    | 1.56                     | 0.53              |
| 1:I:172:MET:N    | 1:I:172:MET:CE   | 2.68                     | 0.53              |
| 1:I:193:THR:O    | 1:I:194:SER:C    | 2.46                     | 0.53              |
| 1:I:254:ARG:HB2  | 1:I:295:THR:OG1  | 2.08                     | 0.53              |
| 1:I:437:ALA:O    | 1:I:438:VAL:C    | 2.46                     | 0.53              |
| 2:J:211:LEU:HD13 | 2:J:247:ARG:HD2  | 1.90                     | 0.53              |
| 2:J:257:LEU:CD1  | 2:J:567:ILE:HG22 | 2.39                     | 0.53              |
| 1:K:7:LEU:CD2    | 1:K:7:LEU:C      | 2.77                     | 0.53              |
| 1:K:152:TYR:OH   | 4:W:116:GLU:OE1  | 2.27                     | 0.53              |
| 1:K:478:TRP:CZ2  | 1:K:482:GLU:CG   | 2.92                     | 0.53              |
| 2:L:97:ASP:OD1   | 2:L:98:PRO:HD2   | 2.09                     | 0.53              |
| 2:L:225:CYS:C    | 2:L:227:GLY:N    | 2.61                     | 0.53              |
| 2:L:493:LEU:HD13 | 2:L:538:LYS:HA   | 1.90                     | 0.53              |
| 3:M:100:GLU:OE1  | 3:M:104:ARG:NH2  | 2.42                     | 0.53              |
| 3:N:416:GLY:O    | 3:N:418:TYR:N    | 2.41                     | 0.53              |
| 3:P:208:PRO:HG3  | 3:P:399:GLU:OE1  | 2.09                     | 0.53              |
| 3:P:408:TRP:N    | 3:P:408:TRP:CD1  | 2.74                     | 0.53              |
| 4:Q:40:LEU:O     | 4:Q:40:LEU:HD12  | 2.09                     | 0.53              |
| 4:S:14:LEU:CD1   | 4:S:16:LEU:H     | 2.22                     | 0.53              |
| 4:U:50:LEU:HB3   | 4:U:57:VAL:CG2   | 2.38                     | 0.53              |
| 4:U:74:GLN:HG2   | 4:U:74:GLN:O     | 2.08                     | 0.53              |
| 3:V:173:LEU:C    | 3:V:173:LEU:CD2  | 2.76                     | 0.53              |
| 4:X:111:TYR:O    | 4:X:112:PHE:C    | 2.44                     | 0.53              |
| 1:A:7:LEU:C      | 1:A:7:LEU:CD2    | 2.77                     | 0.53              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:417:TRP:O    | 1:A:418:HIS:C    | 2.47                     | 0.53              |
| 2:B:19:LYS:O     | 2:B:22:LEU:HB3   | 2.08                     | 0.53              |
| 2:B:115:VAL:O    | 2:B:118:ILE:CG2  | 2.51                     | 0.53              |
| 2:B:200:LYS:C    | 2:B:202:GLN:H    | 2.12                     | 0.53              |
| 2:B:317:LEU:HD13 | 2:B:317:LEU:N    | 2.24                     | 0.53              |
| 1:C:24:ARG:O     | 1:C:25:GLU:C     | 2.46                     | 0.53              |
| 1:C:343:VAL:HG23 | 1:C:344:GLN:N    | 2.24                     | 0.53              |
| 2:D:19:LYS:O     | 2:D:22:LEU:HB3   | 2.08                     | 0.53              |
| 2:D:470:LEU:O    | 2:D:471:ASP:C    | 2.46                     | 0.53              |
| 2:D:573:VAL:HG13 | 2:D:574:TYR:N    | 2.23                     | 0.53              |
| 2:F:57:CYS:O     | 2:F:65:LEU:HD21  | 2.09                     | 0.53              |
| 2:F:343:ILE:HG22 | 2:F:344:ARG:N    | 2.23                     | 0.53              |
| 2:F:445:ARG:O    | 2:F:448:MET:HB3  | 2.09                     | 0.53              |
| 2:F:480:VAL:HG13 | 2:F:481:GLN:N    | 2.24                     | 0.53              |
| 1:G:583:ARG:HB2  | 2:H:528:ARG:HH12 | 1.74                     | 0.53              |
| 2:H:19:LYS:O     | 2:H:22:LEU:HB3   | 2.08                     | 0.53              |
| 2:H:97:ASP:OD1   | 2:H:98:PRO:HD2   | 2.09                     | 0.53              |
| 1:I:449:VAL:HG13 | 1:I:452:HIS:NE2  | 2.23                     | 0.53              |
| 1:I:478:TRP:CZ2  | 1:I:482:GLU:CG   | 2.92                     | 0.53              |
| 1:I:543:ARG:O    | 1:I:547:VAL:HG23 | 2.08                     | 0.53              |
| 2:J:115:VAL:O    | 2:J:118:ILE:CG2  | 2.51                     | 0.53              |
| 2:J:225:CYS:C    | 2:J:227:GLY:N    | 2.61                     | 0.53              |
| 2:J:302:PRO:O    | 2:J:305:ASN:N    | 2.41                     | 0.53              |
| 2:J:377:ILE:HG21 | 2:J:395:LEU:CD2  | 2.39                     | 0.53              |
| 1:K:10:LEU:O     | 1:K:13:THR:N     | 2.40                     | 0.53              |
| 2:L:149:HIS:CE1  | 2:L:187:ILE:HG23 | 2.44                     | 0.53              |
| 2:L:211:LEU:HD13 | 2:L:247:ARG:HD2  | 1.90                     | 0.53              |
| 3:M:168:LYS:HE3  | 3:M:170:GLU:CD   | 2.28                     | 0.53              |
| 3:O:168:LYS:HE3  | 3:O:170:GLU:CD   | 2.28                     | 0.53              |
| 3:O:343:TRP:CZ3  | 3:O:356:MET:HB2  | 2.44                     | 0.53              |
| 3:P:7:TYR:O      | 3:P:67:LEU:HD12  | 2.09                     | 0.53              |
| 3:P:386:THR:O    | 3:P:387:THR:C    | 2.47                     | 0.53              |
| 4:U:109:LYS:O    | 4:U:110:ALA:C    | 2.47                     | 0.53              |
| 3:V:56:ARG:HG3   | 3:V:56:ARG:NH1   | 2.21                     | 0.53              |
| 3:V:416:GLY:O    | 3:V:418:TYR:N    | 2.41                     | 0.53              |
| 4:X:40:LEU:O     | 4:X:40:LEU:HD12  | 2.09                     | 0.53              |
| 1:A:343:VAL:HG23 | 1:A:344:GLN:N    | 2.24                     | 0.53              |
| 2:B:387:SER:CA   | 2:B:390:ARG:HD2  | 2.25                     | 0.53              |
| 2:B:409:GLU:O    | 2:B:412:VAL:HB   | 2.08                     | 0.53              |
| 2:D:148:LEU:H    | 2:D:148:LEU:CD1  | 2.22                     | 0.53              |
| 2:D:317:LEU:O    | 2:D:319:HIS:N    | 2.42                     | 0.53              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:324:PHE:HE2  | 2:D:341:ILE:HG21 | 1.70                     | 0.53              |
| 2:D:445:ARG:O    | 2:D:448:MET:HB3  | 2.09                     | 0.53              |
| 1:E:244:PHE:O    | 1:E:245:LEU:C    | 2.47                     | 0.53              |
| 1:E:368:LEU:HD23 | 1:E:369:SER:N    | 2.24                     | 0.53              |
| 1:E:506:LEU:O    | 1:E:507:ASP:C    | 2.47                     | 0.53              |
| 1:E:583:ARG:HB2  | 2:F:528:ARG:HH12 | 1.74                     | 0.53              |
| 2:F:225:CYS:C    | 2:F:227:GLY:N    | 2.61                     | 0.53              |
| 1:G:131:SER:H    | 1:G:134:MET:HE2  | 1.74                     | 0.53              |
| 2:H:41:MET:HE3   | 2:H:47:VAL:HG21  | 1.91                     | 0.53              |
| 1:I:7:LEU:C      | 1:I:7:LEU:CD2    | 2.77                     | 0.53              |
| 1:I:368:LEU:HG   | 1:I:372:LEU:HD11 | 1.91                     | 0.53              |
| 2:J:97:ASP:OD1   | 2:J:98:PRO:HD2   | 2.09                     | 0.53              |
| 2:J:262:VAL:O    | 2:J:266:PHE:HD1  | 1.90                     | 0.53              |
| 2:J:302:PRO:O    | 2:J:303:LEU:C    | 2.44                     | 0.53              |
| 1:K:38:PHE:CD1   | 1:K:69:GLU:OE1   | 2.61                     | 0.53              |
| 1:K:134:MET:O    | 1:K:137:ASP:N    | 2.38                     | 0.53              |
| 1:K:411:TYR:H    | 1:K:411:TYR:HD1  | 1.52                     | 0.53              |
| 2:L:358:LEU:O    | 2:L:361:TYR:HB2  | 2.09                     | 0.53              |
| 2:L:387:SER:HA   | 2:L:390:ARG:CD   | 2.26                     | 0.53              |
| 3:M:386:THR:CG2  | 3:M:389:GLY:H    | 2.21                     | 0.53              |
| 3:N:133:GLU:OE2  | 3:N:134:PHE:CE1  | 2.62                     | 0.53              |
| 3:N:277:ILE:N    | 3:N:418:TYR:OH   | 2.40                     | 0.53              |
| 4:Q:135:ILE:HG23 | 4:Q:136:GLU:N    | 2.24                     | 0.53              |
| 3:R:343:TRP:CZ3  | 3:R:356:MET:HB2  | 2.44                     | 0.53              |
| 3:V:95:PHE:HA    | 3:V:141:LYS:HG2  | 1.91                     | 0.53              |
| 4:X:99:CYS:O     | 4:X:100:GLU:C    | 2.47                     | 0.53              |
| 1:A:131:SER:H    | 1:A:134:MET:HE2  | 1.74                     | 0.53              |
| 1:A:315:ARG:HG3  | 1:A:315:ARG:NH1  | 2.24                     | 0.53              |
| 2:B:455:TYR:N    | 2:B:455:TYR:CD1  | 2.77                     | 0.53              |
| 1:C:31:CYS:HB3   | 1:C:56:MET:HE1   | 1.91                     | 0.53              |
| 1:E:226:LEU:O    | 1:E:227:ILE:C    | 2.47                     | 0.53              |
| 1:E:368:LEU:HG   | 1:E:372:LEU:HD11 | 1.91                     | 0.53              |
| 1:E:370:PHE:CZ   | 1:E:403:GLY:HA3  | 2.43                     | 0.53              |
| 1:E:455:THR:O    | 1:E:456:VAL:C    | 2.46                     | 0.53              |
| 2:F:19:LYS:O     | 2:F:22:LEU:HB3   | 2.08                     | 0.53              |
| 2:F:88:VAL:HG11  | 2:F:121:TYR:HD2  | 1.69                     | 0.53              |
| 2:F:317:LEU:N    | 2:F:317:LEU:HD13 | 2.24                     | 0.53              |
| 2:F:449:ILE:HG22 | 2:F:450:TRP:N    | 2.22                     | 0.53              |
| 1:G:506:LEU:O    | 1:G:507:ASP:C    | 2.47                     | 0.53              |
| 2:H:573:VAL:HG13 | 2:H:574:TYR:N    | 2.23                     | 0.53              |
| 1:I:7:LEU:O      | 1:I:8:ARG:C      | 2.47                     | 0.53              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:389:LEU:CD1  | 1:I:400:CYS:HB3  | 2.38                     | 0.53              |
| 1:I:572:LYS:CG   | 1:I:573:TYR:CE1  | 2.92                     | 0.53              |
| 2:J:226:LEU:HD23 | 2:J:226:LEU:N    | 2.24                     | 0.53              |
| 1:K:417:TRP:O    | 1:K:418:HIS:C    | 2.47                     | 0.53              |
| 2:L:445:ARG:O    | 2:L:448:MET:HB3  | 2.09                     | 0.53              |
| 3:N:168:LYS:HE3  | 3:N:170:GLU:CD   | 2.28                     | 0.53              |
| 3:O:8:VAL:O      | 3:O:16:LEU:CB    | 2.54                     | 0.53              |
| 4:Q:50:LEU:HB3   | 4:Q:57:VAL:CG2   | 2.38                     | 0.53              |
| 3:R:112:GLU:O    | 3:R:113:LEU:C    | 2.48                     | 0.53              |
| 3:R:208:PRO:HG3  | 3:R:399:GLU:OE1  | 2.09                     | 0.53              |
| 3:V:7:TYR:O      | 3:V:67:LEU:HD12  | 2.09                     | 0.53              |
| 3:V:131:LEU:O    | 3:V:134:PHE:N    | 2.34                     | 0.53              |
| 1:A:13:THR:HG22  | 1:A:26:MET:HE1   | 1.91                     | 0.52              |
| 1:A:36:SER:HA    | 1:A:39:ARG:CG    | 2.36                     | 0.52              |
| 1:A:267:MET:HE1  | 1:A:299:ILE:HD13 | 1.90                     | 0.52              |
| 1:A:333:LEU:HD12 | 1:A:368:LEU:HD12 | 1.89                     | 0.52              |
| 2:B:470:LEU:O    | 2:B:471:ASP:C    | 2.46                     | 0.52              |
| 1:C:455:THR:O    | 1:C:456:VAL:C    | 2.46                     | 0.52              |
| 1:C:478:TRP:CZ2  | 1:C:482:GLU:CG   | 2.92                     | 0.52              |
| 1:C:572:LYS:HG3  | 1:C:573:TYR:CE1  | 2.45                     | 0.52              |
| 2:D:449:ILE:HG22 | 2:D:450:TRP:N    | 2.22                     | 0.52              |
| 2:D:466:LEU:HD23 | 2:D:488:ILE:HD13 | 1.91                     | 0.52              |
| 2:D:480:VAL:HG13 | 2:D:481:GLN:N    | 2.24                     | 0.52              |
| 1:E:10:LEU:O     | 1:E:13:THR:N     | 2.40                     | 0.52              |
| 1:E:205:SER:HB2  | 1:E:206:PRO:HD3  | 1.91                     | 0.52              |
| 2:F:475:ASP:O    | 2:F:476:GLU:CG   | 2.57                     | 0.52              |
| 2:F:566:TYR:CE2  | 2:F:578:PRO:HG2  | 2.44                     | 0.52              |
| 1:G:116:GLN:HG2  | 1:G:117:PHE:CD1  | 2.44                     | 0.52              |
| 1:G:244:PHE:O    | 1:G:245:LEU:C    | 2.47                     | 0.52              |
| 1:G:368:LEU:HG   | 1:G:372:LEU:HD11 | 1.91                     | 0.52              |
| 1:G:455:THR:O    | 1:G:456:VAL:C    | 2.46                     | 0.52              |
| 1:G:572:LYS:CG   | 1:G:573:TYR:CE1  | 2.92                     | 0.52              |
| 2:H:39:ALA:C     | 2:H:41:MET:N     | 2.61                     | 0.52              |
| 2:H:107:VAL:HG12 | 2:H:144:CYS:SG   | 2.49                     | 0.52              |
| 1:I:236:ASP:HA   | 1:I:240:ILE:O    | 2.09                     | 0.52              |
| 1:I:252:LEU:O    | 1:I:252:LEU:HD23 | 2.09                     | 0.52              |
| 2:J:35:LYS:O     | 2:J:38:ILE:HG12  | 2.10                     | 0.52              |
| 2:J:107:VAL:HG12 | 2:J:144:CYS:SG   | 2.49                     | 0.52              |
| 2:J:149:HIS:CE1  | 2:J:187:ILE:HG23 | 2.43                     | 0.52              |
| 2:J:426:GLU:O    | 2:J:429:ILE:N    | 2.28                     | 0.52              |
| 2:J:446:ALA:O    | 2:J:447:ALA:C    | 2.48                     | 0.52              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:131:SER:H    | 1:K:134:MET:HE2  | 1.74                     | 0.52              |
| 1:K:232:SER:O    | 1:K:234:GLU:N    | 2.43                     | 0.52              |
| 1:K:285:GLY:O    | 1:K:286:ASN:C    | 2.45                     | 0.52              |
| 1:K:370:PHE:CZ   | 1:K:403:GLY:HA3  | 2.43                     | 0.52              |
| 1:K:425:VAL:CG1  | 1:K:426:LEU:N    | 2.73                     | 0.52              |
| 1:K:572:LYS:CG   | 1:K:573:TYR:CE1  | 2.92                     | 0.52              |
| 2:L:57:CYS:O     | 2:L:65:LEU:HD21  | 2.09                     | 0.52              |
| 2:L:226:LEU:N    | 2:L:226:LEU:HD23 | 2.23                     | 0.52              |
| 2:L:321:MET:C    | 2:L:323:VAL:N    | 2.60                     | 0.52              |
| 2:L:335:LYS:HB3  | 2:L:369:PHE:CE1  | 2.44                     | 0.52              |
| 2:L:491:LEU:CD1  | 2:L:492:PHE:N    | 2.66                     | 0.52              |
| 3:M:8:VAL:O      | 3:M:16:LEU:CB    | 2.54                     | 0.52              |
| 3:M:174:ASP:N    | 3:M:174:ASP:OD2  | 2.39                     | 0.52              |
| 3:O:133:GLU:OE2  | 3:O:134:PHE:CE1  | 2.62                     | 0.52              |
| 3:P:173:LEU:C    | 3:P:173:LEU:CD2  | 2.76                     | 0.52              |
| 3:P:277:ILE:N    | 3:P:418:TYR:OH   | 2.40                     | 0.52              |
| 4:Q:14:LEU:CD1   | 4:Q:16:LEU:H     | 2.22                     | 0.52              |
| 4:S:59:TYR:HA    | 4:S:67:PHE:O     | 2.08                     | 0.52              |
| 4:S:99:CYS:O     | 4:S:100:GLU:C    | 2.47                     | 0.52              |
| 4:T:14:LEU:CD1   | 4:T:16:LEU:H     | 2.22                     | 0.52              |
| 4:T:108:GLU:CG   | 4:T:109:LYS:N    | 2.72                     | 0.52              |
| 4:U:40:LEU:O     | 4:U:40:LEU:HD12  | 2.09                     | 0.52              |
| 4:U:83:LEU:O     | 4:U:84:ILE:C     | 2.47                     | 0.52              |
| 3:V:106:ASN:O    | 3:V:107:PHE:C    | 2.48                     | 0.52              |
| 3:V:118:MET:HB2  | 3:V:123:PRO:CA   | 2.38                     | 0.52              |
| 3:V:133:GLU:OE2  | 3:V:134:PHE:CE1  | 2.62                     | 0.52              |
| 3:V:168:LYS:HE3  | 3:V:170:GLU:CD   | 2.28                     | 0.52              |
| 4:X:14:LEU:CD1   | 4:X:16:LEU:H     | 2.22                     | 0.52              |
| 4:X:109:LYS:O    | 4:X:110:ALA:C    | 2.47                     | 0.52              |
| 1:A:252:LEU:O    | 1:A:252:LEU:HD23 | 2.09                     | 0.52              |
| 1:A:344:GLN:C    | 1:A:346:HIS:H    | 2.13                     | 0.52              |
| 1:A:368:LEU:HD23 | 1:A:369:SER:N    | 2.24                     | 0.52              |
| 2:B:35:LYS:O     | 2:B:38:ILE:HG12  | 2.10                     | 0.52              |
| 2:B:104:ALA:CB   | 2:B:136:TYR:HD2  | 2.20                     | 0.52              |
| 2:B:148:LEU:HA   | 2:B:151:ILE:HG13 | 1.90                     | 0.52              |
| 1:C:250:LEU:HA   | 1:C:253:LEU:CD1  | 2.35                     | 0.52              |
| 1:C:368:LEU:HD23 | 1:C:369:SER:N    | 2.24                     | 0.52              |
| 1:C:369:SER:O    | 1:C:370:PHE:C    | 2.46                     | 0.52              |
| 2:D:107:VAL:HG12 | 2:D:144:CYS:SG   | 2.50                     | 0.52              |
| 2:D:317:LEU:N    | 2:D:317:LEU:HD13 | 2.24                     | 0.52              |
| 2:D:464:GLU:O    | 2:D:465:LEU:C    | 2.47                     | 0.52              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:475:ASP:O    | 2:D:476:GLU:CG   | 2.57                     | 0.52              |
| 2:D:566:TYR:CE2  | 2:D:578:PRO:HG2  | 2.44                     | 0.52              |
| 1:E:252:LEU:O    | 1:E:252:LEU:HD23 | 2.09                     | 0.52              |
| 1:E:254:ARG:HA   | 1:E:295:THR:HG23 | 1.92                     | 0.52              |
| 1:E:476:ALA:O    | 1:E:477:ALA:C    | 2.48                     | 0.52              |
| 2:F:257:LEU:CD1  | 2:F:567:ILE:HG22 | 2.39                     | 0.52              |
| 2:F:321:MET:C    | 2:F:323:VAL:N    | 2.60                     | 0.52              |
| 2:H:148:LEU:HA   | 2:H:151:ILE:HD11 | 1.92                     | 0.52              |
| 2:H:226:LEU:N    | 2:H:226:LEU:HD23 | 2.24                     | 0.52              |
| 2:H:317:LEU:HD13 | 2:H:317:LEU:N    | 2.24                     | 0.52              |
| 2:H:358:LEU:O    | 2:H:361:TYR:HB2  | 2.09                     | 0.52              |
| 1:I:116:GLN:HG2  | 1:I:117:PHE:CD1  | 2.44                     | 0.52              |
| 1:I:583:ARG:HB2  | 2:J:528:ARG:HH12 | 1.74                     | 0.52              |
| 2:J:17:GLU:HB3   | 2:J:18:LEU:HD22  | 1.92                     | 0.52              |
| 2:J:263:LEU:HD13 | 2:J:284:LEU:HD11 | 1.90                     | 0.52              |
| 2:J:466:LEU:HD23 | 2:J:488:ILE:HD13 | 1.92                     | 0.52              |
| 2:J:491:LEU:HD12 | 2:J:492:PHE:H    | 1.71                     | 0.52              |
| 1:K:7:LEU:O      | 1:K:8:ARG:C      | 2.47                     | 0.52              |
| 2:L:65:LEU:O     | 2:L:69:VAL:HG23  | 2.09                     | 0.52              |
| 3:M:133:GLU:OE2  | 3:M:134:PHE:CE1  | 2.62                     | 0.52              |
| 3:N:386:THR:O    | 3:N:387:THR:C    | 2.47                     | 0.52              |
| 3:O:95:PHE:HA    | 3:O:141:LYS:HG2  | 1.91                     | 0.52              |
| 3:R:255:PHE:N    | 3:R:255:PHE:CD2  | 2.78                     | 0.52              |
| 3:R:416:GLY:O    | 3:R:418:TYR:N    | 2.41                     | 0.52              |
| 4:T:40:LEU:O     | 4:T:40:LEU:HD12  | 2.09                     | 0.52              |
| 4:U:131:VAL:O    | 4:U:132:LEU:C    | 2.47                     | 0.52              |
| 3:V:100:GLU:OE1  | 3:V:104:ARG:NH2  | 2.42                     | 0.52              |
| 4:X:74:GLN:HG2   | 4:X:74:GLN:O     | 2.08                     | 0.52              |
| 1:A:134:MET:O    | 1:A:137:ASP:N    | 2.38                     | 0.52              |
| 1:A:193:THR:OG1  | 1:A:194:SER:N    | 2.43                     | 0.52              |
| 1:A:533:LEU:O    | 1:A:536:ARG:N    | 2.40                     | 0.52              |
| 2:B:226:LEU:HD23 | 2:B:226:LEU:N    | 2.23                     | 0.52              |
| 2:B:263:LEU:HD13 | 2:B:284:LEU:HD11 | 1.90                     | 0.52              |
| 2:B:292:LEU:C    | 2:B:294:ALA:N    | 2.61                     | 0.52              |
| 1:C:71:LEU:CA    | 1:C:74:ILE:HD13  | 2.29                     | 0.52              |
| 1:C:131:SER:H    | 1:C:134:MET:HE2  | 1.73                     | 0.52              |
| 1:C:232:SER:O    | 1:C:234:GLU:N    | 2.43                     | 0.52              |
| 2:D:67:LYS:O     | 2:D:68:LEU:C     | 2.47                     | 0.52              |
| 2:D:343:ILE:HG22 | 2:D:344:ARG:N    | 2.23                     | 0.52              |
| 2:D:455:TYR:N    | 2:D:455:TYR:CD1  | 2.77                     | 0.52              |
| 1:E:236:ASP:HA   | 1:E:240:ILE:O    | 2.09                     | 0.52              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:344:GLN:O    | 1:E:346:HIS:N    | 2.41                     | 0.52              |
| 1:E:533:LEU:HB3  | 1:E:537:PHE:CD1  | 2.45                     | 0.52              |
| 1:E:572:LYS:HG3  | 1:E:573:TYR:CE1  | 2.45                     | 0.52              |
| 2:F:20:ALA:C     | 2:F:22:LEU:N     | 2.60                     | 0.52              |
| 2:F:480:VAL:O    | 2:F:481:GLN:C    | 2.46                     | 0.52              |
| 2:F:573:VAL:HG13 | 2:F:574:TYR:N    | 2.23                     | 0.52              |
| 1:G:24:ARG:O     | 1:G:25:GLU:C     | 2.46                     | 0.52              |
| 1:G:73:LEU:O     | 1:G:74:ILE:C     | 2.48                     | 0.52              |
| 1:G:236:ASP:HA   | 1:G:240:ILE:O    | 2.09                     | 0.52              |
| 1:G:344:GLN:O    | 1:G:346:HIS:N    | 2.41                     | 0.52              |
| 1:G:476:ALA:O    | 1:G:477:ALA:C    | 2.48                     | 0.52              |
| 2:H:12:LYS:CG    | 2:H:13:GLY:N     | 2.73                     | 0.52              |
| 2:H:191:HIS:ND1  | 2:H:191:HIS:O    | 2.41                     | 0.52              |
| 2:H:253:SER:O    | 2:H:254:ALA:C    | 2.48                     | 0.52              |
| 2:H:305:ASN:O    | 2:H:306:ILE:C    | 2.48                     | 0.52              |
| 1:I:73:LEU:O     | 1:I:74:ILE:C     | 2.48                     | 0.52              |
| 1:I:226:LEU:O    | 1:I:227:ILE:C    | 2.47                     | 0.52              |
| 1:K:24:ARG:O     | 1:K:25:GLU:C     | 2.46                     | 0.52              |
| 1:K:526:ALA:O    | 1:K:529:ALA:HB3  | 2.09                     | 0.52              |
| 1:K:533:LEU:HB3  | 1:K:537:PHE:CD1  | 2.45                     | 0.52              |
| 3:M:343:TRP:CZ3  | 3:M:356:MET:HB2  | 2.44                     | 0.52              |
| 3:N:7:TYR:O      | 3:N:67:LEU:HD12  | 2.09                     | 0.52              |
| 3:P:28:SER:O     | 3:P:30:VAL:N     | 2.43                     | 0.52              |
| 3:P:112:GLU:O    | 3:P:113:LEU:C    | 2.48                     | 0.52              |
| 4:Q:8:PHE:HD2    | 4:Q:8:PHE:N      | 1.96                     | 0.52              |
| 3:R:28:SER:O     | 3:R:30:VAL:N     | 2.43                     | 0.52              |
| 3:V:28:SER:O     | 3:V:30:VAL:N     | 2.43                     | 0.52              |
| 3:V:125:THR:O    | 3:V:126:THR:OG1  | 2.22                     | 0.52              |
| 1:A:74:ILE:HG13  | 1:A:86:TYR:CE1   | 2.44                     | 0.52              |
| 2:B:317:LEU:O    | 2:B:319:HIS:N    | 2.42                     | 0.52              |
| 2:B:335:LYS:HB3  | 2:B:369:PHE:CE1  | 2.44                     | 0.52              |
| 2:B:464:GLU:O    | 2:B:465:LEU:C    | 2.47                     | 0.52              |
| 1:C:74:ILE:HG13  | 1:C:86:TYR:CE1   | 2.44                     | 0.52              |
| 1:C:152:TYR:HD1  | 1:C:155:LYS:HE2  | 1.75                     | 0.52              |
| 1:C:254:ARG:HG2  | 1:C:255:ILE:N    | 2.24                     | 0.52              |
| 2:D:141:ALA:O    | 2:D:145:VAL:HG23 | 2.10                     | 0.52              |
| 1:E:131:SER:H    | 1:E:134:MET:HE2  | 1.74                     | 0.52              |
| 1:E:254:ARG:HG2  | 1:E:255:ILE:N    | 2.24                     | 0.52              |
| 2:F:35:LYS:O     | 2:F:38:ILE:HG12  | 2.10                     | 0.52              |
| 2:F:164:THR:HG22 | 2:F:168:LEU:CD1  | 2.31                     | 0.52              |
| 2:F:317:LEU:O    | 2:F:319:HIS:N    | 2.41                     | 0.52              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:470:LEU:O    | 2:F:471:ASP:C    | 2.46                     | 0.52              |
| 1:G:7:LEU:O      | 1:G:8:ARG:C      | 2.47                     | 0.52              |
| 1:G:71:LEU:CA    | 1:G:74:ILE:HD13  | 2.29                     | 0.52              |
| 1:G:74:ILE:HG13  | 1:G:86:TYR:CE1   | 2.44                     | 0.52              |
| 1:G:205:SER:HB2  | 1:G:206:PRO:HD3  | 1.91                     | 0.52              |
| 1:G:315:ARG:HG3  | 1:G:315:ARG:NH1  | 2.24                     | 0.52              |
| 2:H:35:LYS:O     | 2:H:38:ILE:HG12  | 2.10                     | 0.52              |
| 2:H:68:LEU:O     | 2:H:69:VAL:C     | 2.46                     | 0.52              |
| 2:H:115:VAL:O    | 2:H:118:ILE:CG2  | 2.51                     | 0.52              |
| 2:H:304:ARG:CG   | 2:H:573:VAL:HA   | 2.40                     | 0.52              |
| 1:I:368:LEU:HD23 | 1:I:369:SER:N    | 2.24                     | 0.52              |
| 1:I:425:VAL:CG1  | 1:I:426:LEU:N    | 2.73                     | 0.52              |
| 1:K:73:LEU:O     | 1:K:74:ILE:C     | 2.48                     | 0.52              |
| 1:K:172:MET:N    | 1:K:172:MET:CE   | 2.68                     | 0.52              |
| 1:K:368:LEU:HD23 | 1:K:369:SER:N    | 2.24                     | 0.52              |
| 2:L:317:LEU:N    | 2:L:317:LEU:HD13 | 2.24                     | 0.52              |
| 3:M:7:TYR:O      | 3:M:67:LEU:HD12  | 2.09                     | 0.52              |
| 3:M:277:ILE:N    | 3:M:418:TYR:OH   | 2.40                     | 0.52              |
| 3:N:95:PHE:HA    | 3:N:141:LYS:HG2  | 1.91                     | 0.52              |
| 3:O:7:TYR:O      | 3:O:67:LEU:HD12  | 2.09                     | 0.52              |
| 3:R:409:VAL:CG1  | 3:R:410:ARG:H    | 2.21                     | 0.52              |
| 4:S:40:LEU:O     | 4:S:40:LEU:HD12  | 2.09                     | 0.52              |
| 4:S:83:LEU:O     | 4:S:84:ILE:C     | 2.47                     | 0.52              |
| 4:S:85:HIS:O     | 4:S:88:VAL:CG2   | 2.58                     | 0.52              |
| 4:U:90:LEU:O     | 4:U:91:LEU:C     | 2.45                     | 0.52              |
| 3:V:42:GLU:HB3   | 3:V:302:LYS:HB2  | 1.91                     | 0.52              |
| 3:V:112:GLU:O    | 3:V:113:LEU:C    | 2.48                     | 0.52              |
| 4:W:14:LEU:CD1   | 4:W:16:LEU:H     | 2.22                     | 0.52              |
| 1:A:226:LEU:O    | 1:A:227:ILE:C    | 2.47                     | 0.52              |
| 1:A:466:ASP:O    | 1:A:467:TYR:CD1  | 2.53                     | 0.52              |
| 1:A:526:ALA:O    | 1:A:529:ALA:HB3  | 2.09                     | 0.52              |
| 1:A:533:LEU:HB3  | 1:A:537:PHE:CD1  | 2.45                     | 0.52              |
| 1:A:573:TYR:O    | 1:A:574:ASP:C    | 2.48                     | 0.52              |
| 2:B:68:LEU:O     | 2:B:69:VAL:C     | 2.46                     | 0.52              |
| 2:B:85:ILE:C     | 2:B:87:ALA:N     | 2.60                     | 0.52              |
| 2:B:86:MET:CE    | 3:N:237:LYS:HB3  | 2.39                     | 0.52              |
| 2:B:149:HIS:CE1  | 2:B:187:ILE:HG23 | 2.44                     | 0.52              |
| 1:C:201:MET:O    | 1:C:203:GLU:N    | 2.42                     | 0.52              |
| 2:D:138:ARG:O    | 2:D:139:LYS:C    | 2.46                     | 0.52              |
| 1:E:24:ARG:O     | 1:E:25:GLU:C     | 2.46                     | 0.52              |
| 1:E:73:LEU:O     | 1:E:74:ILE:C     | 2.48                     | 0.52              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:74:ILE:HG13  | 1:E:86:TYR:CE1   | 2.44                     | 0.52              |
| 1:E:327:VAL:O    | 1:E:328:ALA:C    | 2.48                     | 0.52              |
| 1:E:572:LYS:CG   | 1:E:573:TYR:CE1  | 2.92                     | 0.52              |
| 2:F:68:LEU:O     | 2:F:69:VAL:C     | 2.46                     | 0.52              |
| 2:F:305:ASN:O    | 2:F:306:ILE:C    | 2.48                     | 0.52              |
| 2:F:407:VAL:O    | 2:F:408:GLN:C    | 2.48                     | 0.52              |
| 1:G:13:THR:O     | 1:G:26:MET:HE1   | 2.08                     | 0.52              |
| 1:G:130:GLY:O    | 1:G:163:HIS:HE1  | 1.93                     | 0.52              |
| 1:G:327:VAL:O    | 1:G:328:ALA:C    | 2.48                     | 0.52              |
| 1:G:541:VAL:O    | 1:G:541:VAL:HG12 | 2.10                     | 0.52              |
| 2:H:17:GLU:HB3   | 2:H:18:LEU:HD22  | 1.92                     | 0.52              |
| 2:H:456:ALA:O    | 2:H:457:GLU:C    | 2.47                     | 0.52              |
| 2:H:464:GLU:O    | 2:H:465:LEU:C    | 2.47                     | 0.52              |
| 2:H:555:ILE:CG2  | 2:H:556:GLU:H    | 2.23                     | 0.52              |
| 1:I:36:SER:HA    | 1:I:39:ARG:CG    | 2.36                     | 0.52              |
| 1:I:193:THR:OG1  | 1:I:194:SER:N    | 2.43                     | 0.52              |
| 1:I:344:GLN:C    | 1:I:346:HIS:H    | 2.13                     | 0.52              |
| 1:I:572:LYS:HG3  | 1:I:573:TYR:CE1  | 2.44                     | 0.52              |
| 2:J:253:SER:O    | 2:J:254:ALA:C    | 2.48                     | 0.52              |
| 2:J:335:LYS:HB3  | 2:J:369:PHE:CE1  | 2.44                     | 0.52              |
| 2:J:566:TYR:CE2  | 2:J:578:PRO:HG2  | 2.44                     | 0.52              |
| 1:K:31:CYS:HB3   | 1:K:56:MET:HE2   | 1.91                     | 0.52              |
| 1:K:67:GLN:NE2   | 1:K:93:LEU:HD23  | 2.17                     | 0.52              |
| 1:K:113:HIS:HD2  | 1:K:115:THR:H    | 1.56                     | 0.52              |
| 1:K:192:HIS:O    | 1:K:193:THR:C    | 2.48                     | 0.52              |
| 1:K:344:GLN:C    | 1:K:346:HIS:H    | 2.13                     | 0.52              |
| 1:K:421:THR:O    | 1:K:422:ILE:C    | 2.47                     | 0.52              |
| 1:K:506:LEU:O    | 1:K:507:ASP:C    | 2.47                     | 0.52              |
| 2:L:493:LEU:C    | 2:L:495:LYS:N    | 2.62                     | 0.52              |
| 2:L:566:TYR:CE2  | 2:L:578:PRO:HG2  | 2.44                     | 0.52              |
| 2:L:573:VAL:HG13 | 2:L:574:TYR:N    | 2.23                     | 0.52              |
| 3:M:208:PRO:HG3  | 3:M:399:GLU:OE1  | 2.09                     | 0.52              |
| 3:M:254:SER:O    | 3:M:255:PHE:HB3  | 2.10                     | 0.52              |
| 3:M:255:PHE:N    | 3:M:255:PHE:CD2  | 2.78                     | 0.52              |
| 3:N:28:SER:O     | 3:N:30:VAL:N     | 2.43                     | 0.52              |
| 3:N:42:GLU:HB3   | 3:N:302:LYS:HB2  | 1.91                     | 0.52              |
| 3:N:100:GLU:OE1  | 3:N:104:ARG:NH2  | 2.42                     | 0.52              |
| 3:N:173:LEU:C    | 3:N:173:LEU:CD2  | 2.76                     | 0.52              |
| 3:O:409:VAL:CG1  | 3:O:410:ARG:H    | 2.21                     | 0.52              |
| 4:Q:131:VAL:O    | 4:Q:132:LEU:C    | 2.47                     | 0.52              |
| 4:U:99:CYS:O     | 4:U:100:GLU:C    | 2.47                     | 0.52              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:W:30:LYS:HZ2   | 4:W:30:LYS:CB    | 2.20                     | 0.52              |
| 1:A:10:LEU:O     | 1:A:13:THR:N     | 2.40                     | 0.52              |
| 1:A:159:LEU:HB2  | 4:S:119:MET:HE1  | 1.91                     | 0.52              |
| 1:A:202:CYS:O    | 1:A:203:GLU:OE2  | 2.28                     | 0.52              |
| 1:A:254:ARG:HA   | 1:A:295:THR:HG23 | 1.92                     | 0.52              |
| 2:B:34:VAL:O     | 2:B:37:VAL:N     | 2.43                     | 0.52              |
| 2:B:107:VAL:HG12 | 2:B:144:CYS:SG   | 2.50                     | 0.52              |
| 2:B:141:ALA:O    | 2:B:145:VAL:HG23 | 2.10                     | 0.52              |
| 2:B:358:LEU:O    | 2:B:361:TYR:HB2  | 2.09                     | 0.52              |
| 1:C:73:LEU:O     | 1:C:74:ILE:C     | 2.48                     | 0.52              |
| 1:C:327:VAL:O    | 1:C:328:ALA:C    | 2.48                     | 0.52              |
| 1:C:506:LEU:O    | 1:C:507:ASP:C    | 2.47                     | 0.52              |
| 1:C:572:LYS:CG   | 1:C:573:TYR:CE1  | 2.92                     | 0.52              |
| 2:D:34:VAL:O     | 2:D:37:VAL:N     | 2.43                     | 0.52              |
| 2:D:358:LEU:O    | 2:D:361:TYR:HB2  | 2.09                     | 0.52              |
| 1:E:202:CYS:O    | 1:E:203:GLU:OE2  | 2.28                     | 0.52              |
| 1:E:541:VAL:HG12 | 1:E:541:VAL:O    | 2.10                     | 0.52              |
| 1:G:126:LEU:HD23 | 1:G:126:LEU:C    | 2.30                     | 0.52              |
| 1:G:152:TYR:HD1  | 1:G:155:LYS:HE2  | 1.75                     | 0.52              |
| 1:G:368:LEU:HD23 | 1:G:369:SER:N    | 2.24                     | 0.52              |
| 1:G:417:TRP:O    | 1:G:418:HIS:C    | 2.47                     | 0.52              |
| 1:I:327:VAL:O    | 1:I:328:ALA:C    | 2.48                     | 0.52              |
| 2:J:34:VAL:O     | 2:J:37:VAL:N     | 2.43                     | 0.52              |
| 1:K:68:LEU:CG    | 1:K:69:GLU:H     | 2.07                     | 0.52              |
| 1:K:116:GLN:HG2  | 1:K:117:PHE:CD1  | 2.44                     | 0.52              |
| 2:L:141:ALA:O    | 2:L:145:VAL:HG23 | 2.10                     | 0.52              |
| 3:N:112:GLU:OE1  | 3:N:136:THR:N    | 2.40                     | 0.52              |
| 3:N:112:GLU:O    | 3:N:113:LEU:C    | 2.48                     | 0.52              |
| 3:N:343:TRP:CZ3  | 3:N:356:MET:HB2  | 2.44                     | 0.52              |
| 4:T:131:VAL:O    | 4:T:132:LEU:C    | 2.47                     | 0.52              |
| 1:A:232:SER:O    | 1:A:234:GLU:N    | 2.43                     | 0.52              |
| 1:A:451:MET:H    | 1:A:451:MET:HE2  | 1.73                     | 0.52              |
| 1:A:506:LEU:O    | 1:A:507:ASP:C    | 2.47                     | 0.52              |
| 1:A:572:LYS:CG   | 1:A:573:TYR:CE1  | 2.92                     | 0.52              |
| 2:B:67:LYS:O     | 2:B:68:LEU:C     | 2.47                     | 0.52              |
| 2:B:97:ASP:OD1   | 2:B:98:PRO:HD2   | 2.09                     | 0.52              |
| 2:B:304:ARG:CG   | 2:B:573:VAL:HA   | 2.40                     | 0.52              |
| 2:B:464:GLU:HA   | 2:B:467:GLU:HB3  | 1.92                     | 0.52              |
| 1:C:116:GLN:HG2  | 1:C:117:PHE:CD1  | 2.44                     | 0.52              |
| 1:C:353:CYS:O    | 1:C:356:ASP:N    | 2.39                     | 0.52              |
| 2:D:57:CYS:O     | 2:D:65:LEU:HD21  | 2.09                     | 0.52              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:226:LEU:N    | 2:D:226:LEU:HD23 | 2.23                     | 0.52              |
| 2:D:413:VAL:O    | 2:D:414:ILE:C    | 2.46                     | 0.52              |
| 1:E:193:THR:OG1  | 1:E:194:SER:N    | 2.43                     | 0.52              |
| 1:E:417:TRP:O    | 1:E:418:HIS:C    | 2.47                     | 0.52              |
| 1:E:425:VAL:CG1  | 1:E:426:LEU:N    | 2.73                     | 0.52              |
| 2:F:446:ALA:O    | 2:F:447:ALA:C    | 2.48                     | 0.52              |
| 1:G:67:GLN:NE2   | 1:G:93:LEU:HD23  | 2.17                     | 0.52              |
| 1:G:232:SER:O    | 1:G:234:GLU:N    | 2.43                     | 0.52              |
| 1:G:254:ARG:HA   | 1:G:295:THR:HG23 | 1.92                     | 0.52              |
| 1:G:572:LYS:HG3  | 1:G:573:TYR:CE1  | 2.44                     | 0.52              |
| 2:J:41:MET:HE3   | 2:J:47:VAL:HG21  | 1.92                     | 0.52              |
| 2:J:317:LEU:N    | 2:J:317:LEU:HD13 | 2.24                     | 0.52              |
| 2:J:321:MET:C    | 2:J:323:VAL:N    | 2.60                     | 0.52              |
| 2:J:502:LEU:O    | 2:J:503:VAL:C    | 2.48                     | 0.52              |
| 1:K:152:TYR:HD1  | 1:K:155:LYS:HE2  | 1.75                     | 0.52              |
| 1:K:193:THR:OG1  | 1:K:194:SER:N    | 2.43                     | 0.52              |
| 1:K:532:LYS:CB   | 1:K:536:ARG:HH11 | 2.23                     | 0.52              |
| 2:L:304:ARG:CG   | 2:L:573:VAL:HA   | 2.40                     | 0.52              |
| 2:L:455:TYR:N    | 2:L:455:TYR:CD1  | 2.77                     | 0.52              |
| 2:L:475:ASP:O    | 2:L:476:GLU:CG   | 2.58                     | 0.52              |
| 2:L:555:ILE:CG2  | 2:L:556:GLU:H    | 2.23                     | 0.52              |
| 3:M:42:GLU:HB3   | 3:M:302:LYS:HB2  | 1.91                     | 0.52              |
| 3:M:112:GLU:O    | 3:M:113:LEU:C    | 2.48                     | 0.52              |
| 3:O:42:GLU:HB3   | 3:O:302:LYS:HB2  | 1.91                     | 0.52              |
| 3:O:173:LEU:C    | 3:O:173:LEU:CD2  | 2.76                     | 0.52              |
| 3:O:255:PHE:CD2  | 3:O:255:PHE:N    | 2.78                     | 0.52              |
| 3:R:96:LYS:HG3   | 3:R:97:GLU:HG3   | 1.92                     | 0.52              |
| 3:R:245:SER:HB2  | 3:R:252:THR:HB   | 1.88                     | 0.52              |
| 4:S:135:ILE:HG23 | 4:S:136:GLU:N    | 2.24                     | 0.52              |
| 4:X:85:HIS:O     | 4:X:88:VAL:CG2   | 2.58                     | 0.52              |
| 4:X:131:VAL:O    | 4:X:132:LEU:C    | 2.47                     | 0.52              |
| 1:A:289:LEU:HA   | 1:A:292:THR:OG1  | 2.10                     | 0.52              |
| 2:B:139:LYS:HD3  | 2:B:175:MET:HE2  | 1.90                     | 0.52              |
| 2:B:446:ALA:O    | 2:B:447:ALA:C    | 2.48                     | 0.52              |
| 2:B:493:LEU:HD13 | 2:B:538:LYS:HA   | 1.90                     | 0.52              |
| 1:C:130:GLY:O    | 1:C:163:HIS:HE1  | 1.93                     | 0.52              |
| 1:C:205:SER:HB2  | 1:C:206:PRO:HD3  | 1.91                     | 0.52              |
| 1:C:526:ALA:O    | 1:C:529:ALA:HB3  | 2.09                     | 0.52              |
| 1:E:130:GLY:O    | 1:E:163:HIS:HE1  | 1.93                     | 0.52              |
| 1:E:344:GLN:C    | 1:E:346:HIS:H    | 2.13                     | 0.52              |
| 2:F:34:VAL:O     | 2:F:37:VAL:N     | 2.43                     | 0.52              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:141:ALA:O    | 2:F:145:VAL:HG23 | 2.10                     | 0.52              |
| 1:G:353:CYS:O    | 1:G:356:ASP:N    | 2.39                     | 0.52              |
| 1:G:364:ARG:HG2  | 1:G:364:ARG:NH1  | 2.25                     | 0.52              |
| 1:G:421:THR:O    | 1:G:422:ILE:C    | 2.47                     | 0.52              |
| 2:H:445:ARG:O    | 2:H:448:MET:HB3  | 2.09                     | 0.52              |
| 2:H:464:GLU:HA   | 2:H:467:GLU:HB3  | 1.92                     | 0.52              |
| 2:H:466:LEU:HD23 | 2:H:488:ILE:HD13 | 1.92                     | 0.52              |
| 2:H:566:TYR:CE2  | 2:H:578:PRO:HG2  | 2.44                     | 0.52              |
| 2:J:65:LEU:O     | 2:J:69:VAL:HG23  | 2.09                     | 0.52              |
| 2:J:455:TYR:N    | 2:J:455:TYR:CD1  | 2.77                     | 0.52              |
| 2:J:464:GLU:O    | 2:J:465:LEU:C    | 2.47                     | 0.52              |
| 2:J:475:ASP:O    | 2:J:476:GLU:CG   | 2.57                     | 0.52              |
| 2:J:480:VAL:HG13 | 2:J:481:GLN:N    | 2.24                     | 0.52              |
| 1:K:343:VAL:HG23 | 1:K:344:GLN:N    | 2.24                     | 0.52              |
| 2:L:12:LYS:CG    | 2:L:13:GLY:N     | 2.73                     | 0.52              |
| 2:L:34:VAL:O     | 2:L:37:VAL:N     | 2.43                     | 0.52              |
| 2:L:107:VAL:HG12 | 2:L:144:CYS:SG   | 2.49                     | 0.52              |
| 2:L:200:LYS:C    | 2:L:202:GLN:H    | 2.12                     | 0.52              |
| 2:L:424:LYS:HB3  | 2:L:425:TYR:CE1  | 2.45                     | 0.52              |
| 3:O:144:THR:CG2  | 3:O:145:GLY:N    | 2.73                     | 0.52              |
| 4:U:14:LEU:CD1   | 4:U:16:LEU:H     | 2.22                     | 0.52              |
| 4:W:40:LEU:O     | 4:W:40:LEU:HD12  | 2.09                     | 0.52              |
| 4:W:83:LEU:O     | 4:W:84:ILE:C     | 2.47                     | 0.52              |
| 4:W:85:HIS:O     | 4:W:88:VAL:CG2   | 2.58                     | 0.52              |
| 1:A:455:THR:HG22 | 1:A:459:LEU:CD1  | 2.40                     | 0.52              |
| 2:B:424:LYS:HB3  | 2:B:425:TYR:CE1  | 2.45                     | 0.52              |
| 1:C:524:GLY:O    | 1:C:525:TYR:C    | 2.49                     | 0.52              |
| 1:C:532:LYS:CB   | 1:C:536:ARG:HH11 | 2.23                     | 0.52              |
| 2:D:56:ASN:N     | 2:D:56:ASN:HD22  | 2.06                     | 0.52              |
| 2:D:305:ASN:O    | 2:D:306:ILE:C    | 2.48                     | 0.52              |
| 2:D:555:ILE:CG2  | 2:D:556:GLU:H    | 2.23                     | 0.52              |
| 1:E:7:LEU:O      | 1:E:8:ARG:C      | 2.47                     | 0.52              |
| 1:E:333:LEU:HD12 | 1:E:333:LEU:N    | 2.25                     | 0.52              |
| 2:F:12:LYS:CG    | 2:F:13:GLY:N     | 2.72                     | 0.52              |
| 2:F:502:LEU:O    | 2:F:503:VAL:C    | 2.48                     | 0.52              |
| 1:G:147:LYS:HA   | 1:G:147:LYS:CE   | 2.39                     | 0.52              |
| 1:G:254:ARG:HG2  | 1:G:255:ILE:N    | 2.24                     | 0.52              |
| 1:G:533:LEU:HB3  | 1:G:537:PHE:CD1  | 2.45                     | 0.52              |
| 1:G:573:TYR:O    | 1:G:574:ASP:C    | 2.48                     | 0.52              |
| 2:H:148:LEU:H    | 2:H:148:LEU:CD1  | 2.22                     | 0.52              |
| 2:H:292:LEU:C    | 2:H:294:ALA:N    | 2.61                     | 0.52              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:426:GLU:O    | 2:H:429:ILE:N    | 2.28                     | 0.52              |
| 2:H:487:ALA:O    | 2:H:490:LYS:HB2  | 2.10                     | 0.52              |
| 2:J:39:ALA:C     | 2:J:41:MET:N     | 2.61                     | 0.52              |
| 1:K:126:LEU:HD23 | 1:K:126:LEU:C    | 2.30                     | 0.52              |
| 1:K:267:MET:HE1  | 1:K:299:ILE:HD13 | 1.91                     | 0.52              |
| 1:K:375:GLY:C    | 1:K:377:ASN:H    | 2.14                     | 0.52              |
| 1:K:572:LYS:HG3  | 1:K:573:TYR:CE1  | 2.45                     | 0.52              |
| 2:L:5:LYS:NZ     | 3:P:261:GLU:OE2  | 2.42                     | 0.52              |
| 2:L:148:LEU:HA   | 2:L:151:ILE:HD11 | 1.92                     | 0.52              |
| 2:L:480:VAL:HG13 | 2:L:481:GLN:N    | 2.24                     | 0.52              |
| 3:N:118:MET:HG3  | 3:N:119:ASP:N    | 2.25                     | 0.52              |
| 3:P:96:LYS:HG3   | 3:P:97:GLU:HG3   | 1.92                     | 0.52              |
| 3:P:278:TRP:O    | 3:P:279:ILE:CG1  | 2.58                     | 0.52              |
| 3:R:106:ASN:O    | 3:R:107:PHE:C    | 2.48                     | 0.52              |
| 4:T:90:LEU:N     | 4:T:90:LEU:HD22  | 2.25                     | 0.52              |
| 4:U:135:ILE:HG23 | 4:U:136:GLU:N    | 2.24                     | 0.52              |
| 3:V:278:TRP:O    | 3:V:279:ILE:CG1  | 2.58                     | 0.52              |
| 4:X:83:LEU:O     | 4:X:84:ILE:C     | 2.47                     | 0.52              |
| 4:X:135:ILE:HG23 | 4:X:136:GLU:N    | 2.24                     | 0.52              |
| 1:A:205:SER:HB2  | 1:A:206:PRO:HD3  | 1.91                     | 0.52              |
| 1:A:368:LEU:HG   | 1:A:372:LEU:HD11 | 1.91                     | 0.52              |
| 1:A:572:LYS:HG3  | 1:A:573:TYR:CE1  | 2.44                     | 0.52              |
| 2:B:253:SER:O    | 2:B:254:ALA:C    | 2.48                     | 0.52              |
| 2:B:491:LEU:CD1  | 2:B:492:PHE:N    | 2.66                     | 0.52              |
| 1:C:289:LEU:HA   | 1:C:292:THR:OG1  | 2.10                     | 0.52              |
| 1:C:344:GLN:C    | 1:C:346:HIS:H    | 2.13                     | 0.52              |
| 1:C:364:ARG:HG2  | 1:C:364:ARG:NH1  | 2.25                     | 0.52              |
| 1:C:368:LEU:HG   | 1:C:372:LEU:HD11 | 1.91                     | 0.52              |
| 1:C:539:CYS:C    | 1:C:541:VAL:H    | 2.13                     | 0.52              |
| 2:D:243:ARG:O    | 2:D:246:PRO:HD2  | 2.10                     | 0.52              |
| 2:D:487:ALA:O    | 2:D:490:LYS:HB2  | 2.10                     | 0.52              |
| 2:D:493:LEU:C    | 2:D:495:LYS:N    | 2.62                     | 0.52              |
| 1:E:113:HIS:HD2  | 1:E:115:THR:H    | 1.56                     | 0.52              |
| 1:E:533:LEU:O    | 1:E:536:ARG:N    | 2.40                     | 0.52              |
| 2:F:107:VAL:HG12 | 2:F:144:CYS:SG   | 2.49                     | 0.52              |
| 2:F:200:LYS:C    | 2:F:202:GLN:H    | 2.12                     | 0.52              |
| 1:G:212:PHE:O    | 1:G:216:VAL:CG2  | 2.55                     | 0.52              |
| 1:G:344:GLN:C    | 1:G:346:HIS:H    | 2.13                     | 0.52              |
| 2:H:104:ALA:CB   | 2:H:136:TYR:HD2  | 2.20                     | 0.52              |
| 2:H:493:LEU:C    | 2:H:495:LYS:N    | 2.62                     | 0.52              |
| 1:I:232:SER:O    | 1:I:234:GLU:N    | 2.43                     | 0.52              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:361:ILE:O    | 1:I:362:LYS:C    | 2.46                     | 0.52              |
| 2:J:305:ASN:O    | 2:J:306:ILE:C    | 2.48                     | 0.52              |
| 2:J:424:LYS:HB3  | 2:J:425:TYR:CE1  | 2.45                     | 0.52              |
| 1:K:36:SER:HA    | 1:K:39:ARG:CG    | 2.36                     | 0.52              |
| 1:K:368:LEU:HG   | 1:K:372:LEU:HD11 | 1.91                     | 0.52              |
| 1:K:539:CYS:C    | 1:K:541:VAL:H    | 2.13                     | 0.52              |
| 1:K:562:ARG:O    | 1:K:565:GLU:HB2  | 2.10                     | 0.52              |
| 3:M:28:SER:O     | 3:M:30:VAL:N     | 2.43                     | 0.52              |
| 3:M:95:PHE:HA    | 3:M:141:LYS:HG2  | 1.91                     | 0.52              |
| 3:M:278:TRP:O    | 3:M:279:ILE:CG1  | 2.58                     | 0.52              |
| 3:N:106:ASN:O    | 3:N:107:PHE:C    | 2.48                     | 0.52              |
| 3:N:233:LEU:CD1  | 3:N:268:ARG:O    | 2.56                     | 0.52              |
| 3:N:255:PHE:N    | 3:N:255:PHE:CD2  | 2.78                     | 0.52              |
| 3:N:278:TRP:O    | 3:N:279:ILE:CG1  | 2.58                     | 0.52              |
| 3:O:28:SER:O     | 3:O:30:VAL:N     | 2.43                     | 0.52              |
| 3:P:118:MET:HB2  | 3:P:123:PRO:CA   | 2.37                     | 0.52              |
| 3:P:343:TRP:CZ3  | 3:P:356:MET:HB2  | 2.44                     | 0.52              |
| 4:Q:30:LYS:HZ3   | 4:Q:33:ARG:NH2   | 2.08                     | 0.52              |
| 4:Q:33:ARG:CG    | 4:Q:34:GLU:N     | 2.73                     | 0.52              |
| 4:Q:90:LEU:HD22  | 4:Q:90:LEU:N     | 2.25                     | 0.52              |
| 4:Q:109:LYS:O    | 4:Q:110:ALA:C    | 2.47                     | 0.52              |
| 3:R:278:TRP:O    | 3:R:279:ILE:CG1  | 2.58                     | 0.52              |
| 3:R:408:TRP:N    | 3:R:408:TRP:CD1  | 2.74                     | 0.52              |
| 4:T:85:HIS:O     | 4:T:88:VAL:CG2   | 2.58                     | 0.52              |
| 4:U:33:ARG:CG    | 4:U:34:GLU:N     | 2.73                     | 0.52              |
| 3:V:96:LYS:HG3   | 3:V:97:GLU:HG3   | 1.92                     | 0.52              |
| 4:X:90:LEU:N     | 4:X:90:LEU:HD22  | 2.25                     | 0.52              |
| 1:A:162:VAL:O    | 1:A:163:HIS:C    | 2.49                     | 0.51              |
| 1:A:172:MET:N    | 1:A:172:MET:CE   | 2.68                     | 0.51              |
| 1:A:236:ASP:HA   | 1:A:240:ILE:O    | 2.09                     | 0.51              |
| 1:A:378:ILE:O    | 1:A:379:ARG:C    | 2.49                     | 0.51              |
| 1:A:421:THR:O    | 1:A:422:ILE:C    | 2.47                     | 0.51              |
| 2:B:95:CYS:HA    | 2:B:103:ARG:HB2  | 1.93                     | 0.51              |
| 2:B:186:GLU:HB2  | 3:M:122:TYR:OH   | 2.11                     | 0.51              |
| 1:C:126:LEU:HD23 | 1:C:126:LEU:C    | 2.30                     | 0.51              |
| 1:C:425:VAL:CG1  | 1:C:426:LEU:N    | 2.73                     | 0.51              |
| 1:E:455:THR:HG22 | 1:E:459:LEU:CD1  | 2.40                     | 0.51              |
| 1:E:524:GLY:O    | 1:E:525:TYR:C    | 2.49                     | 0.51              |
| 1:E:526:ALA:O    | 1:E:529:ALA:HB3  | 2.09                     | 0.51              |
| 1:E:532:LYS:CB   | 1:E:536:ARG:HH11 | 2.23                     | 0.51              |
| 2:F:424:LYS:HB3  | 2:F:425:TYR:CE1  | 2.45                     | 0.51              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:487:ALA:O    | 2:F:490:LYS:HB2  | 2.10                     | 0.51              |
| 1:G:425:VAL:CG1  | 1:G:426:LEU:N    | 2.73                     | 0.51              |
| 2:H:65:LEU:O     | 2:H:69:VAL:HG23  | 2.09                     | 0.51              |
| 2:H:407:VAL:O    | 2:H:408:GLN:C    | 2.48                     | 0.51              |
| 2:H:446:ALA:O    | 2:H:447:ALA:C    | 2.48                     | 0.51              |
| 2:H:510:ALA:CB   | 2:H:519:LEU:HD11 | 2.34                     | 0.51              |
| 1:I:126:LEU:HD23 | 1:I:126:LEU:C    | 2.30                     | 0.51              |
| 1:I:289:LEU:HA   | 1:I:292:THR:OG1  | 2.10                     | 0.51              |
| 1:I:509:LEU:O    | 1:I:512:VAL:HB   | 2.11                     | 0.51              |
| 1:I:582:GLU:HG3  | 1:I:582:GLU:O    | 2.10                     | 0.51              |
| 2:J:57:CYS:O     | 2:J:65:LEU:HD21  | 2.09                     | 0.51              |
| 2:J:304:ARG:CG   | 2:J:573:VAL:HA   | 2.40                     | 0.51              |
| 1:K:455:THR:HG22 | 1:K:459:LEU:CD1  | 2.40                     | 0.51              |
| 2:L:39:ALA:C     | 2:L:41:MET:N     | 2.61                     | 0.51              |
| 2:L:257:LEU:CD1  | 2:L:567:ILE:HG22 | 2.39                     | 0.51              |
| 2:L:466:LEU:HD23 | 2:L:488:ILE:HD13 | 1.92                     | 0.51              |
| 2:L:487:ALA:O    | 2:L:490:LYS:HB2  | 2.10                     | 0.51              |
| 3:N:56:ARG:HG3   | 3:N:56:ARG:NH1   | 2.21                     | 0.51              |
| 3:N:61:LYS:HD2   | 3:N:66:TYR:CE2   | 2.45                     | 0.51              |
| 3:N:409:VAL:CG1  | 3:N:410:ARG:H    | 2.21                     | 0.51              |
| 3:O:119:ASP:O    | 3:O:121:GLY:N    | 2.43                     | 0.51              |
| 3:O:245:SER:HB2  | 3:O:252:THR:HB   | 1.88                     | 0.51              |
| 3:O:278:TRP:O    | 3:O:279:ILE:CG1  | 2.58                     | 0.51              |
| 4:S:33:ARG:CG    | 4:S:34:GLU:N     | 2.73                     | 0.51              |
| 4:S:131:VAL:O    | 4:S:132:LEU:C    | 2.47                     | 0.51              |
| 3:V:386:THR:O    | 3:V:387:THR:C    | 2.47                     | 0.51              |
| 1:A:130:GLY:O    | 1:A:163:HIS:HE1  | 1.93                     | 0.51              |
| 1:A:250:LEU:HA   | 1:A:253:LEU:CD1  | 2.35                     | 0.51              |
| 1:A:327:VAL:O    | 1:A:328:ALA:C    | 2.48                     | 0.51              |
| 1:A:425:VAL:CG1  | 1:A:426:LEU:N    | 2.73                     | 0.51              |
| 1:A:430:GLY:C    | 1:A:432:TYR:N    | 2.64                     | 0.51              |
| 2:B:7:PHE:CD2    | 4:S:99:CYS:HA    | 2.45                     | 0.51              |
| 2:B:124:GLU:HB2  | 2:B:125:PRO:CD   | 2.36                     | 0.51              |
| 2:B:243:ARG:O    | 2:B:246:PRO:HD2  | 2.10                     | 0.51              |
| 2:B:445:ARG:O    | 2:B:448:MET:HB3  | 2.09                     | 0.51              |
| 2:B:480:VAL:HG13 | 2:B:481:GLN:N    | 2.24                     | 0.51              |
| 1:C:172:MET:HG2  | 1:C:201:MET:HE1  | 1.92                     | 0.51              |
| 1:C:193:THR:OG1  | 1:C:194:SER:N    | 2.43                     | 0.51              |
| 1:C:333:LEU:HD12 | 1:C:333:LEU:N    | 2.26                     | 0.51              |
| 1:C:406:LEU:O    | 1:C:407:ALA:C    | 2.49                     | 0.51              |
| 1:C:476:ALA:O    | 1:C:477:ALA:C    | 2.48                     | 0.51              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:17:GLU:HB3   | 2:D:18:LEU:HD22  | 1.92                     | 0.51              |
| 1:E:66:GLY:O     | 1:E:67:GLN:C     | 2.48                     | 0.51              |
| 1:E:232:SER:O    | 1:E:234:GLU:N    | 2.43                     | 0.51              |
| 2:F:97:ASP:OD1   | 2:F:98:PRO:HD2   | 2.09                     | 0.51              |
| 2:F:186:GLU:HB2  | 3:O:122:TYR:OH   | 2.11                     | 0.51              |
| 2:F:456:ALA:O    | 2:F:457:GLU:C    | 2.47                     | 0.51              |
| 1:G:192:HIS:O    | 1:G:193:THR:C    | 2.48                     | 0.51              |
| 2:H:186:GLU:HB2  | 3:P:122:TYR:OH   | 2.10                     | 0.51              |
| 2:H:243:ARG:O    | 2:H:246:PRO:HD2  | 2.10                     | 0.51              |
| 2:H:480:VAL:O    | 2:H:481:GLN:C    | 2.46                     | 0.51              |
| 1:I:172:MET:HG2  | 1:I:201:MET:HE1  | 1.92                     | 0.51              |
| 1:I:202:CYS:O    | 1:I:203:GLU:OE2  | 2.28                     | 0.51              |
| 1:I:417:TRP:O    | 1:I:418:HIS:C    | 2.47                     | 0.51              |
| 2:J:433:CYS:HA   | 2:J:448:MET:HE1  | 1.92                     | 0.51              |
| 1:K:565:GLU:CD   | 2:L:526:TYR:HH   | 2.12                     | 0.51              |
| 1:K:582:GLU:O    | 1:K:582:GLU:HG3  | 2.10                     | 0.51              |
| 2:L:410:ALA:O    | 2:L:411:ILE:C    | 2.46                     | 0.51              |
| 2:L:446:ALA:O    | 2:L:447:ALA:C    | 2.48                     | 0.51              |
| 3:M:194:ILE:HG13 | 3:M:194:ILE:O    | 2.10                     | 0.51              |
| 3:N:88:VAL:O     | 3:N:89:GLN:C     | 2.48                     | 0.51              |
| 3:O:112:GLU:O    | 3:O:113:LEU:C    | 2.48                     | 0.51              |
| 3:P:61:LYS:HD2   | 3:P:66:TYR:CE2   | 2.46                     | 0.51              |
| 3:R:7:TYR:O      | 3:R:67:LEU:HD12  | 2.09                     | 0.51              |
| 3:R:61:LYS:HD2   | 3:R:66:TYR:CE2   | 2.46                     | 0.51              |
| 3:R:118:MET:HG3  | 3:R:119:ASP:N    | 2.25                     | 0.51              |
| 3:R:386:THR:O    | 3:R:387:THR:C    | 2.47                     | 0.51              |
| 4:U:135:ILE:CG2  | 4:U:136:GLU:N    | 2.74                     | 0.51              |
| 3:V:194:ILE:HG13 | 3:V:194:ILE:O    | 2.11                     | 0.51              |
| 3:V:254:SER:O    | 3:V:255:PHE:HB3  | 2.10                     | 0.51              |
| 3:V:255:PHE:N    | 3:V:255:PHE:CD2  | 2.78                     | 0.51              |
| 4:X:135:ILE:CG2  | 4:X:136:GLU:N    | 2.73                     | 0.51              |
| 1:A:7:LEU:O      | 1:A:8:ARG:C      | 2.47                     | 0.51              |
| 1:A:509:LEU:O    | 1:A:512:VAL:HB   | 2.11                     | 0.51              |
| 1:C:202:CYS:O    | 1:C:203:GLU:OE2  | 2.28                     | 0.51              |
| 1:C:226:LEU:O    | 1:C:227:ILE:C    | 2.47                     | 0.51              |
| 1:C:583:ARG:HB2  | 2:D:528:ARG:HH12 | 1.74                     | 0.51              |
| 2:D:65:LEU:O     | 2:D:69:VAL:HG23  | 2.09                     | 0.51              |
| 2:D:252:ASN:O    | 2:D:253:SER:C    | 2.49                     | 0.51              |
| 2:D:407:VAL:O    | 2:D:408:GLN:C    | 2.48                     | 0.51              |
| 2:D:446:ALA:O    | 2:D:447:ALA:C    | 2.48                     | 0.51              |
| 1:E:126:LEU:HD23 | 1:E:126:LEU:C    | 2.30                     | 0.51              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:153:LEU:O    | 1:E:154:ARG:C    | 2.49                     | 0.51              |
| 1:E:201:MET:O    | 1:E:203:GLU:N    | 2.42                     | 0.51              |
| 1:E:582:GLU:HG3  | 1:E:582:GLU:O    | 2.11                     | 0.51              |
| 2:F:253:SER:O    | 2:F:254:ALA:C    | 2.48                     | 0.51              |
| 2:F:433:CYS:HA   | 2:F:448:MET:HE1  | 1.92                     | 0.51              |
| 2:F:464:GLU:HA   | 2:F:467:GLU:HB3  | 1.92                     | 0.51              |
| 2:F:466:LEU:HD23 | 2:F:488:ILE:HD13 | 1.92                     | 0.51              |
| 1:G:120:GLY:O    | 1:G:121:LEU:C    | 2.49                     | 0.51              |
| 1:G:172:MET:HG2  | 1:G:201:MET:HE1  | 1.91                     | 0.51              |
| 1:G:202:CYS:O    | 1:G:203:GLU:OE2  | 2.28                     | 0.51              |
| 1:G:526:ALA:O    | 1:G:529:ALA:HB3  | 2.09                     | 0.51              |
| 2:H:141:ALA:O    | 2:H:145:VAL:HG23 | 2.10                     | 0.51              |
| 2:H:452:VAL:O    | 2:H:453:GLY:C    | 2.49                     | 0.51              |
| 2:H:480:VAL:HG13 | 2:H:481:GLN:N    | 2.24                     | 0.51              |
| 1:I:152:TYR:HD1  | 1:I:155:LYS:HE2  | 1.75                     | 0.51              |
| 1:I:152:TYR:OH   | 4:X:116:GLU:OE1  | 2.27                     | 0.51              |
| 1:I:254:ARG:HG2  | 1:I:255:ILE:N    | 2.24                     | 0.51              |
| 1:I:421:THR:O    | 1:I:422:ILE:C    | 2.47                     | 0.51              |
| 1:I:455:THR:HG22 | 1:I:459:LEU:CD1  | 2.40                     | 0.51              |
| 2:J:95:CYS:HA    | 2:J:103:ARG:HB2  | 1.93                     | 0.51              |
| 2:J:141:ALA:O    | 2:J:145:VAL:HG23 | 2.10                     | 0.51              |
| 2:J:452:VAL:O    | 2:J:453:GLY:C    | 2.49                     | 0.51              |
| 1:K:130:GLY:O    | 1:K:163:HIS:HE1  | 1.93                     | 0.51              |
| 1:K:202:CYS:O    | 1:K:203:GLU:OE2  | 2.28                     | 0.51              |
| 1:K:226:LEU:O    | 1:K:227:ILE:C    | 2.47                     | 0.51              |
| 2:L:35:LYS:O     | 2:L:38:ILE:HG12  | 2.09                     | 0.51              |
| 2:L:452:VAL:CG1  | 2:L:453:GLY:H    | 2.23                     | 0.51              |
| 2:L:458:ARG:HD3  | 2:L:458:ARG:C    | 2.31                     | 0.51              |
| 3:M:77:VAL:O     | 3:M:79:LEU:N     | 2.44                     | 0.51              |
| 3:O:61:LYS:HD2   | 3:O:66:TYR:CE2   | 2.46                     | 0.51              |
| 3:P:254:SER:O    | 3:P:255:PHE:HB3  | 2.10                     | 0.51              |
| 3:P:409:VAL:CG1  | 3:P:410:ARG:H    | 2.21                     | 0.51              |
| 4:Q:113:ILE:HG22 | 4:Q:114:LEU:N    | 2.26                     | 0.51              |
| 3:R:42:GLU:HB3   | 3:R:302:LYS:HB2  | 1.91                     | 0.51              |
| 3:R:77:VAL:O     | 3:R:79:LEU:N     | 2.44                     | 0.51              |
| 3:R:95:PHE:HA    | 3:R:141:LYS:HG2  | 1.91                     | 0.51              |
| 3:R:119:ASP:O    | 3:R:121:GLY:N    | 2.43                     | 0.51              |
| 4:U:90:LEU:HD22  | 4:U:90:LEU:N     | 2.25                     | 0.51              |
| 4:X:22:ALA:O     | 4:X:23:THR:OG1   | 2.21                     | 0.51              |
| 1:A:85:GLY:O     | 1:A:86:TYR:C     | 2.49                     | 0.51              |
| 1:A:116:GLN:HG2  | 1:A:117:PHE:CD1  | 2.44                     | 0.51              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:361:ILE:O    | 1:A:362:LYS:C    | 2.46                     | 0.51              |
| 1:A:375:GLY:C    | 1:A:377:ASN:H    | 2.14                     | 0.51              |
| 1:A:478:TRP:CZ2  | 1:A:482:GLU:CG   | 2.92                     | 0.51              |
| 2:B:200:LYS:HB2  | 2:B:203:SER:CB   | 2.41                     | 0.51              |
| 2:B:458:ARG:HD3  | 2:B:458:ARG:C    | 2.31                     | 0.51              |
| 2:B:510:ALA:CB   | 2:B:519:LEU:HD11 | 2.34                     | 0.51              |
| 1:C:10:LEU:O     | 1:C:13:THR:N     | 2.40                     | 0.51              |
| 1:C:120:GLY:O    | 1:C:121:LEU:C    | 2.49                     | 0.51              |
| 1:C:533:LEU:HB3  | 1:C:537:PHE:CD1  | 2.45                     | 0.51              |
| 1:C:573:TYR:O    | 1:C:574:ASP:C    | 2.48                     | 0.51              |
| 2:D:35:LYS:O     | 2:D:38:ILE:HG12  | 2.10                     | 0.51              |
| 1:E:116:GLN:HG2  | 1:E:117:PHE:CD1  | 2.44                     | 0.51              |
| 1:E:120:GLY:O    | 1:E:121:LEU:C    | 2.49                     | 0.51              |
| 1:E:172:MET:HG2  | 1:E:201:MET:HE1  | 1.92                     | 0.51              |
| 1:E:364:ARG:HG2  | 1:E:364:ARG:NH1  | 2.25                     | 0.51              |
| 1:E:573:TYR:O    | 1:E:574:ASP:C    | 2.48                     | 0.51              |
| 2:F:95:CYS:HA    | 2:F:103:ARG:HB2  | 1.93                     | 0.51              |
| 2:F:104:ALA:CB   | 2:F:136:TYR:HD2  | 2.20                     | 0.51              |
| 2:F:464:GLU:O    | 2:F:465:LEU:C    | 2.47                     | 0.51              |
| 1:G:83:ARG:HA    | 1:G:121:LEU:CD1  | 2.41                     | 0.51              |
| 1:G:201:MET:O    | 1:G:203:GLU:N    | 2.42                     | 0.51              |
| 1:G:333:LEU:HD12 | 1:G:333:LEU:N    | 2.26                     | 0.51              |
| 1:G:524:GLY:O    | 1:G:525:TYR:C    | 2.49                     | 0.51              |
| 2:H:109:THR:O    | 2:H:110:MET:C    | 2.49                     | 0.51              |
| 2:H:252:ASN:O    | 2:H:253:SER:C    | 2.49                     | 0.51              |
| 2:H:566:TYR:HD1  | 2:H:566:TYR:H    | 1.58                     | 0.51              |
| 1:I:131:SER:H    | 1:I:134:MET:HE2  | 1.75                     | 0.51              |
| 1:I:244:PHE:O    | 1:I:245:LEU:C    | 2.47                     | 0.51              |
| 1:I:476:ALA:O    | 1:I:478:TRP:N    | 2.44                     | 0.51              |
| 1:I:526:ALA:O    | 1:I:529:ALA:HB3  | 2.09                     | 0.51              |
| 1:I:533:LEU:HB3  | 1:I:537:PHE:CD1  | 2.45                     | 0.51              |
| 1:I:541:VAL:HG12 | 1:I:541:VAL:O    | 2.10                     | 0.51              |
| 1:I:573:TYR:O    | 1:I:574:ASP:C    | 2.48                     | 0.51              |
| 1:K:162:VAL:O    | 1:K:163:HIS:C    | 2.49                     | 0.51              |
| 1:K:397:LYS:O    | 1:K:398:ALA:C    | 2.49                     | 0.51              |
| 1:K:541:VAL:O    | 1:K:541:VAL:HG12 | 2.10                     | 0.51              |
| 2:L:216:GLU:HB2  | 2:L:217:TRP:HE3  | 1.67                     | 0.51              |
| 2:L:502:LEU:O    | 2:L:503:VAL:C    | 2.49                     | 0.51              |
| 3:M:61:LYS:HD2   | 3:M:66:TYR:CE2   | 2.46                     | 0.51              |
| 3:M:380:PHE:CD1  | 3:M:380:PHE:N    | 2.76                     | 0.51              |
| 3:O:194:ILE:HG13 | 3:O:194:ILE:O    | 2.10                     | 0.51              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:P:119:ASP:O    | 3:P:121:GLY:N    | 2.44                     | 0.51              |
| 3:P:194:ILE:HG13 | 3:P:194:ILE:O    | 2.10                     | 0.51              |
| 4:S:62:TYR:CE2   | 4:S:88:VAL:HG11  | 2.46                     | 0.51              |
| 4:T:33:ARG:CG    | 4:T:34:GLU:N     | 2.73                     | 0.51              |
| 4:U:62:TYR:CE2   | 4:U:88:VAL:HG11  | 2.46                     | 0.51              |
| 3:V:119:ASP:O    | 3:V:121:GLY:N    | 2.43                     | 0.51              |
| 4:W:90:LEU:N     | 4:W:90:LEU:HD22  | 2.25                     | 0.51              |
| 1:A:152:TYR:HD1  | 1:A:155:LYS:HE2  | 1.75                     | 0.51              |
| 1:A:476:ALA:O    | 1:A:477:ALA:C    | 2.48                     | 0.51              |
| 1:A:532:LYS:CB   | 1:A:536:ARG:HH11 | 2.23                     | 0.51              |
| 2:B:426:GLU:O    | 2:B:429:ILE:N    | 2.28                     | 0.51              |
| 1:C:582:GLU:O    | 1:C:582:GLU:HG3  | 2.10                     | 0.51              |
| 2:D:200:LYS:C    | 2:D:202:GLN:H    | 2.12                     | 0.51              |
| 1:E:478:TRP:CZ2  | 1:E:482:GLU:CG   | 2.92                     | 0.51              |
| 1:E:509:LEU:O    | 1:E:512:VAL:HB   | 2.11                     | 0.51              |
| 1:E:558:GLU:O    | 1:E:559:LEU:C    | 2.49                     | 0.51              |
| 2:F:17:GLU:HB3   | 2:F:18:LEU:HD22  | 1.92                     | 0.51              |
| 2:F:75:ASN:HD22  | 2:F:75:ASN:N     | 2.08                     | 0.51              |
| 2:F:458:ARG:HD3  | 2:F:458:ARG:C    | 2.31                     | 0.51              |
| 1:G:274:VAL:HG11 | 1:G:292:THR:CG2  | 2.32                     | 0.51              |
| 1:G:423:MET:O    | 1:G:426:LEU:HB2  | 2.11                     | 0.51              |
| 1:G:430:GLY:C    | 1:G:432:TYR:N    | 2.64                     | 0.51              |
| 2:H:67:LYS:O     | 2:H:68:LEU:C     | 2.47                     | 0.51              |
| 2:H:455:TYR:N    | 2:H:455:TYR:CD1  | 2.77                     | 0.51              |
| 1:I:5:ILE:CG2    | 1:I:9:GLU:HG3    | 2.41                     | 0.51              |
| 1:I:205:SER:HB2  | 1:I:206:PRO:HD3  | 1.91                     | 0.51              |
| 1:I:406:LEU:O    | 1:I:407:ALA:C    | 2.49                     | 0.51              |
| 1:I:524:GLY:O    | 1:I:525:TYR:C    | 2.49                     | 0.51              |
| 2:J:200:LYS:C    | 2:J:202:GLN:H    | 2.12                     | 0.51              |
| 2:J:464:GLU:HA   | 2:J:467:GLU:HB3  | 1.92                     | 0.51              |
| 2:J:470:LEU:C    | 2:J:472:GLY:N    | 2.64                     | 0.51              |
| 1:K:205:SER:HB2  | 1:K:206:PRO:HD3  | 1.91                     | 0.51              |
| 1:K:236:ASP:HA   | 1:K:240:ILE:O    | 2.09                     | 0.51              |
| 1:K:378:ILE:O    | 1:K:379:ARG:C    | 2.49                     | 0.51              |
| 2:L:16:PHE:HZ    | 3:P:416:GLY:HA3  | 1.75                     | 0.51              |
| 2:L:292:LEU:C    | 2:L:294:ALA:N    | 2.61                     | 0.51              |
| 3:M:118:MET:HG3  | 3:M:119:ASP:N    | 2.25                     | 0.51              |
| 3:N:254:SER:O    | 3:N:255:PHE:HB3  | 2.10                     | 0.51              |
| 3:O:112:GLU:OE1  | 3:O:136:THR:N    | 2.39                     | 0.51              |
| 3:O:254:SER:O    | 3:O:255:PHE:HB3  | 2.10                     | 0.51              |
| 4:Q:85:HIS:O     | 4:Q:88:VAL:CG2   | 2.58                     | 0.51              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:R:180:ASN:O    | 3:R:181:LEU:HD23 | 2.11                     | 0.51              |
| 3:R:254:SER:O    | 3:R:255:PHE:HB3  | 2.10                     | 0.51              |
| 4:T:109:LYS:O    | 4:T:110:ALA:C    | 2.47                     | 0.51              |
| 3:V:36:ILE:O     | 3:V:37:LEU:C     | 2.48                     | 0.51              |
| 3:V:88:VAL:O     | 3:V:89:GLN:C     | 2.48                     | 0.51              |
| 4:W:33:ARG:CG    | 4:W:34:GLU:N     | 2.74                     | 0.51              |
| 4:W:113:ILE:HG22 | 4:W:114:LEU:N    | 2.26                     | 0.51              |
| 4:X:20:TYR:HD2   | 4:X:121:GLY:H    | 1.52                     | 0.51              |
| 1:A:7:LEU:C      | 1:A:7:LEU:HD23   | 2.31                     | 0.51              |
| 1:A:172:MET:HG2  | 1:A:201:MET:HE1  | 1.92                     | 0.51              |
| 1:A:476:ALA:O    | 1:A:478:TRP:N    | 2.44                     | 0.51              |
| 1:A:539:CYS:C    | 1:A:541:VAL:H    | 2.13                     | 0.51              |
| 2:B:17:GLU:HB3   | 2:B:18:LEU:HD22  | 1.92                     | 0.51              |
| 2:B:65:LEU:O     | 2:B:69:VAL:HG23  | 2.09                     | 0.51              |
| 2:B:75:ASN:N     | 2:B:75:ASN:HD22  | 2.08                     | 0.51              |
| 2:B:452:VAL:CG1  | 2:B:453:GLY:H    | 2.24                     | 0.51              |
| 2:B:487:ALA:O    | 2:B:490:LYS:HB2  | 2.10                     | 0.51              |
| 1:C:7:LEU:C      | 1:C:7:LEU:HD23   | 2.31                     | 0.51              |
| 1:C:86:TYR:HD2   | 1:C:125:THR:HG1  | 1.59                     | 0.51              |
| 1:C:134:MET:O    | 1:C:137:ASP:N    | 2.38                     | 0.51              |
| 2:D:200:LYS:HB2  | 2:D:203:SER:CB   | 2.41                     | 0.51              |
| 1:E:137:ASP:HB2  | 1:E:138:LEU:HD22 | 1.93                     | 0.51              |
| 1:E:152:TYR:HD1  | 1:E:155:LYS:HE2  | 1.75                     | 0.51              |
| 1:E:405:PHE:O    | 1:E:409:GLU:HG2  | 2.11                     | 0.51              |
| 2:F:7:PHE:CD2    | 4:U:99:CYS:HA    | 2.45                     | 0.51              |
| 2:F:65:LEU:O     | 2:F:69:VAL:HG23  | 2.09                     | 0.51              |
| 2:F:104:ALA:O    | 2:F:107:VAL:N    | 2.43                     | 0.51              |
| 2:F:200:LYS:HB2  | 2:F:203:SER:CB   | 2.41                     | 0.51              |
| 2:F:262:VAL:HB   | 2:F:266:PHE:CE1  | 2.46                     | 0.51              |
| 2:F:452:VAL:CG1  | 2:F:453:GLY:H    | 2.24                     | 0.51              |
| 2:F:455:TYR:N    | 2:F:455:TYR:CD1  | 2.77                     | 0.51              |
| 1:G:10:LEU:O     | 1:G:13:THR:N     | 2.40                     | 0.51              |
| 2:H:7:PHE:CD2    | 4:Q:99:CYS:HA    | 2.45                     | 0.51              |
| 2:H:95:CYS:HA    | 2:H:103:ARG:HB2  | 1.93                     | 0.51              |
| 2:H:200:LYS:C    | 2:H:202:GLN:H    | 2.12                     | 0.51              |
| 2:H:424:LYS:HB3  | 2:H:425:TYR:CE1  | 2.45                     | 0.51              |
| 1:I:130:GLY:O    | 1:I:163:HIS:HE1  | 1.93                     | 0.51              |
| 1:I:364:ARG:HG2  | 1:I:364:ARG:NH1  | 2.25                     | 0.51              |
| 1:I:423:MET:O    | 1:I:426:LEU:HB2  | 2.11                     | 0.51              |
| 1:I:532:LYS:CB   | 1:I:536:ARG:HH11 | 2.23                     | 0.51              |
| 2:J:7:PHE:CD2    | 4:X:99:CYS:HA    | 2.45                     | 0.51              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:J:452:VAL:CG1  | 2:J:453:GLY:H    | 2.24                     | 0.51              |
| 1:K:5:ILE:CG2    | 1:K:9:GLU:HG3    | 2.41                     | 0.51              |
| 1:K:289:LEU:HA   | 1:K:292:THR:OG1  | 2.10                     | 0.51              |
| 2:L:7:PHE:CD2    | 4:W:99:CYS:HA    | 2.45                     | 0.51              |
| 2:L:17:GLU:HB3   | 2:L:18:LEU:HD22  | 1.92                     | 0.51              |
| 2:L:109:THR:O    | 2:L:110:MET:C    | 2.49                     | 0.51              |
| 3:M:36:ILE:O     | 3:M:37:LEU:C     | 2.48                     | 0.51              |
| 3:N:77:VAL:O     | 3:N:79:LEU:N     | 2.44                     | 0.51              |
| 3:N:180:ASN:O    | 3:N:181:LEU:HD23 | 2.11                     | 0.51              |
| 3:O:36:ILE:O     | 3:O:37:LEU:C     | 2.48                     | 0.51              |
| 4:S:27:GLU:O     | 4:S:31:MET:HG2   | 2.11                     | 0.51              |
| 4:S:113:ILE:HG22 | 4:S:114:LEU:N    | 2.26                     | 0.51              |
| 4:T:99:CYS:O     | 4:T:102:ASP:OD2  | 2.29                     | 0.51              |
| 4:U:85:HIS:O     | 4:U:88:VAL:CG2   | 2.58                     | 0.51              |
| 3:V:61:LYS:HD2   | 3:V:66:TYR:CE2   | 2.46                     | 0.51              |
| 3:V:180:ASN:O    | 3:V:181:LEU:HD23 | 2.11                     | 0.51              |
| 1:A:67:GLN:NE2   | 1:A:93:LEU:HD23  | 2.17                     | 0.51              |
| 2:B:252:ASN:O    | 2:B:253:SER:C    | 2.49                     | 0.51              |
| 1:C:162:VAL:O    | 1:C:163:HIS:C    | 2.49                     | 0.51              |
| 1:C:438:VAL:CB   | 1:C:439:PRO:HD3  | 2.28                     | 0.51              |
| 2:D:305:ASN:ND2  | 2:D:572:SER:O    | 2.44                     | 0.51              |
| 1:E:289:LEU:HA   | 1:E:292:THR:OG1  | 2.10                     | 0.51              |
| 1:E:406:LEU:O    | 1:E:407:ALA:C    | 2.49                     | 0.51              |
| 1:E:479:CYS:O    | 1:E:483:TYR:N    | 2.31                     | 0.51              |
| 1:G:369:SER:O    | 1:G:370:PHE:C    | 2.46                     | 0.51              |
| 1:G:476:ALA:O    | 1:G:478:TRP:N    | 2.44                     | 0.51              |
| 1:G:539:CYS:C    | 1:G:541:VAL:H    | 2.13                     | 0.51              |
| 2:H:34:VAL:O     | 2:H:37:VAL:N     | 2.43                     | 0.51              |
| 2:H:104:ALA:O    | 2:H:107:VAL:N    | 2.43                     | 0.51              |
| 2:H:502:LEU:O    | 2:H:503:VAL:C    | 2.48                     | 0.51              |
| 1:I:375:GLY:C    | 1:I:377:ASN:H    | 2.14                     | 0.51              |
| 1:I:378:ILE:O    | 1:I:379:ARG:C    | 2.49                     | 0.51              |
| 1:I:405:PHE:O    | 1:I:409:GLU:HG2  | 2.11                     | 0.51              |
| 1:I:451:MET:H    | 1:I:451:MET:HE2  | 1.75                     | 0.51              |
| 1:I:476:ALA:O    | 1:I:477:ALA:C    | 2.48                     | 0.51              |
| 2:J:148:LEU:HA   | 2:J:151:ILE:HD11 | 1.92                     | 0.51              |
| 1:K:405:PHE:O    | 1:K:409:GLU:HG2  | 2.11                     | 0.51              |
| 1:K:406:LEU:O    | 1:K:407:ALA:C    | 2.49                     | 0.51              |
| 1:K:524:GLY:O    | 1:K:525:TYR:C    | 2.49                     | 0.51              |
| 2:L:491:LEU:HD12 | 2:L:492:PHE:H    | 1.71                     | 0.51              |
| 3:M:88:VAL:O     | 3:M:89:GLN:C     | 2.48                     | 0.51              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:P:36:ILE:O     | 3:P:37:LEU:C     | 2.48                     | 0.51              |
| 3:P:68:VAL:CG1   | 3:P:69:ALA:N     | 2.74                     | 0.51              |
| 3:P:118:MET:HG3  | 3:P:119:ASP:N    | 2.25                     | 0.51              |
| 3:P:144:THR:CG2  | 3:P:145:GLY:N    | 2.73                     | 0.51              |
| 4:Q:8:PHE:CE1    | 4:Q:36:MET:HG2   | 2.46                     | 0.51              |
| 4:T:28:ARG:O     | 4:T:29:LYS:C     | 2.49                     | 0.51              |
| 4:U:27:GLU:O     | 4:U:31:MET:HG2   | 2.11                     | 0.51              |
| 4:W:135:ILE:CG2  | 4:W:136:GLU:N    | 2.74                     | 0.51              |
| 2:B:455:TYR:N    | 2:B:455:TYR:HD1  | 2.09                     | 0.51              |
| 2:B:475:ASP:O    | 2:B:476:GLU:CG   | 2.57                     | 0.51              |
| 1:C:192:HIS:O    | 1:C:193:THR:C    | 2.48                     | 0.51              |
| 1:C:315:ARG:HG3  | 1:C:315:ARG:NH1  | 2.24                     | 0.51              |
| 1:C:455:THR:HG22 | 1:C:459:LEU:CD1  | 2.40                     | 0.51              |
| 2:D:253:SER:O    | 2:D:254:ALA:C    | 2.48                     | 0.51              |
| 2:D:403:VAL:O    | 2:D:404:ASN:C    | 2.50                     | 0.51              |
| 2:D:510:ALA:CB   | 2:D:519:LEU:HD11 | 2.34                     | 0.51              |
| 1:E:7:LEU:C      | 1:E:7:LEU:HD23   | 2.31                     | 0.51              |
| 1:E:378:ILE:O    | 1:E:379:ARG:C    | 2.49                     | 0.51              |
| 2:F:191:HIS:HA   | 2:F:195:ASN:HD22 | 1.70                     | 0.51              |
| 1:G:153:LEU:O    | 1:G:154:ARG:C    | 2.49                     | 0.51              |
| 1:G:397:LYS:O    | 1:G:398:ALA:C    | 2.49                     | 0.51              |
| 2:H:455:TYR:N    | 2:H:455:TYR:HD1  | 2.08                     | 0.51              |
| 2:H:458:ARG:HD3  | 2:H:458:ARG:C    | 2.31                     | 0.51              |
| 1:I:162:VAL:O    | 1:I:163:HIS:C    | 2.49                     | 0.51              |
| 1:I:192:HIS:O    | 1:I:193:THR:C    | 2.48                     | 0.51              |
| 1:I:315:ARG:HG3  | 1:I:315:ARG:NH1  | 2.24                     | 0.51              |
| 2:J:55:VAL:O     | 2:J:57:CYS:N     | 2.44                     | 0.51              |
| 2:J:91:PHE:O     | 2:J:94:ASP:N     | 2.38                     | 0.51              |
| 2:J:188:ALA:HA   | 2:J:195:ASN:CG   | 2.31                     | 0.51              |
| 2:J:387:SER:HA   | 2:J:390:ARG:CD   | 2.26                     | 0.51              |
| 2:J:480:VAL:O    | 2:J:481:GLN:C    | 2.46                     | 0.51              |
| 1:K:85:GLY:O     | 1:K:86:TYR:C     | 2.49                     | 0.51              |
| 1:K:423:MET:O    | 1:K:426:LEU:HB2  | 2.11                     | 0.51              |
| 1:K:438:VAL:CB   | 1:K:439:PRO:HD3  | 2.28                     | 0.51              |
| 1:K:529:ALA:O    | 1:K:532:LYS:N    | 2.44                     | 0.51              |
| 2:L:243:ARG:O    | 2:L:246:PRO:HD2  | 2.10                     | 0.51              |
| 3:P:60:ILE:O     | 3:P:60:ILE:HG13  | 2.10                     | 0.51              |
| 3:P:283:ILE:O    | 3:P:284:GLU:CG   | 2.59                     | 0.51              |
| 4:T:83:LEU:O     | 4:T:84:ILE:C     | 2.47                     | 0.51              |
| 4:U:8:PHE:CE1    | 4:U:36:MET:HG2   | 2.46                     | 0.51              |
| 4:W:3:ARG:O      | 4:W:4:PHE:HB3    | 2.11                     | 0.51              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:126:LEU:HD23 | 1:A:126:LEU:C    | 2.30                     | 0.51              |
| 1:A:233:PRO:CD   | 2:D:464:GLU:OE2  | 2.57                     | 0.51              |
| 1:A:529:ALA:O    | 1:A:532:LYS:N    | 2.44                     | 0.51              |
| 1:A:541:VAL:HG12 | 1:A:541:VAL:O    | 2.10                     | 0.51              |
| 1:A:583:ARG:HB2  | 2:B:528:ARG:HH12 | 1.74                     | 0.51              |
| 2:B:377:ILE:HG21 | 2:B:395:LEU:CD2  | 2.39                     | 0.51              |
| 2:B:405:TYR:HD1  | 2:B:406:VAL:H    | 1.47                     | 0.51              |
| 2:B:466:LEU:HD23 | 2:B:488:ILE:HD13 | 1.91                     | 0.51              |
| 1:C:423:MET:O    | 1:C:426:LEU:HB2  | 2.11                     | 0.51              |
| 1:C:562:ARG:O    | 1:C:565:GLU:HB2  | 2.10                     | 0.51              |
| 2:D:148:LEU:HA   | 2:D:151:ILE:HD11 | 1.92                     | 0.51              |
| 2:D:357:GLU:O    | 2:D:358:LEU:C    | 2.49                     | 0.51              |
| 2:D:378:GLY:O    | 2:D:379:ARG:C    | 2.49                     | 0.51              |
| 2:D:433:CYS:HA   | 2:D:448:MET:HE1  | 1.93                     | 0.51              |
| 2:D:458:ARG:HD3  | 2:D:458:ARG:C    | 2.31                     | 0.51              |
| 2:D:464:GLU:HA   | 2:D:467:GLU:HB3  | 1.92                     | 0.51              |
| 1:E:134:MET:O    | 1:E:137:ASP:N    | 2.38                     | 0.51              |
| 1:E:395:GLU:HB2  | 1:E:396:PHE:CD1  | 2.46                     | 0.51              |
| 1:E:422:ILE:O    | 1:E:426:LEU:HD23 | 2.11                     | 0.51              |
| 1:E:539:CYS:C    | 1:E:541:VAL:H    | 2.13                     | 0.51              |
| 2:F:31:LYS:O     | 2:F:32:GLU:C     | 2.50                     | 0.51              |
| 2:F:41:MET:HE3   | 2:F:72:TYR:HE1   | 1.76                     | 0.51              |
| 2:F:304:ARG:CG   | 2:F:573:VAL:HA   | 2.40                     | 0.51              |
| 2:F:555:ILE:CG2  | 2:F:556:GLU:H    | 2.23                     | 0.51              |
| 1:G:455:THR:HG22 | 1:G:459:LEU:CD1  | 2.40                     | 0.51              |
| 1:G:532:LYS:CA   | 1:G:581:LEU:HD13 | 2.35                     | 0.51              |
| 1:G:558:GLU:O    | 1:G:559:LEU:C    | 2.49                     | 0.51              |
| 2:H:216:GLU:HB2  | 2:H:217:TRP:HE3  | 1.67                     | 0.51              |
| 2:H:475:ASP:O    | 2:H:475:ASP:OD1  | 2.29                     | 0.51              |
| 1:I:83:ARG:HA    | 1:I:121:LEU:CD1  | 2.41                     | 0.51              |
| 1:I:153:LEU:O    | 1:I:154:ARG:C    | 2.49                     | 0.51              |
| 1:I:310:ILE:O    | 1:I:312:ILE:N    | 2.44                     | 0.51              |
| 1:I:529:ALA:O    | 1:I:532:LYS:N    | 2.44                     | 0.51              |
| 1:I:562:ARG:O    | 1:I:565:GLU:HB2  | 2.10                     | 0.51              |
| 2:J:56:ASN:HD22  | 2:J:56:ASN:N     | 2.06                     | 0.51              |
| 2:J:420:LYS:HB3  | 2:J:421:TYR:CE2  | 2.46                     | 0.51              |
| 2:J:487:ALA:O    | 2:J:490:LYS:HB2  | 2.10                     | 0.51              |
| 1:K:254:ARG:HA   | 1:K:295:THR:HG23 | 1.92                     | 0.51              |
| 1:K:422:ILE:O    | 1:K:426:LEU:HD23 | 2.11                     | 0.51              |
| 1:K:430:GLY:C    | 1:K:432:TYR:N    | 2.64                     | 0.51              |
| 1:K:476:ALA:O    | 1:K:477:ALA:C    | 2.48                     | 0.51              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2          | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-----------------|--------------------------|-------------------|
| 2:L:88:VAL:HG11  | 2:L:121:TYR:HD2 | 1.69                     | 0.51              |
| 2:L:403:VAL:O    | 2:L:404:ASN:C   | 2.50                     | 0.51              |
| 2:L:455:TYR:N    | 2:L:455:TYR:HD1 | 2.09                     | 0.51              |
| 3:M:60:ILE:O     | 3:M:60:ILE:HG13 | 2.10                     | 0.51              |
| 3:N:36:ILE:O     | 3:N:37:LEU:C    | 2.48                     | 0.51              |
| 3:N:119:ASP:O    | 3:N:121:GLY:N   | 2.43                     | 0.51              |
| 3:O:77:VAL:O     | 3:O:79:LEU:N    | 2.44                     | 0.51              |
| 3:P:95:PHE:HA    | 3:P:141:LYS:HG2 | 1.92                     | 0.51              |
| 3:P:106:ASN:O    | 3:P:107:PHE:C   | 2.48                     | 0.51              |
| 3:P:215:ASN:HB2  | 3:P:391:GLN:H   | 1.76                     | 0.51              |
| 4:Q:135:ILE:CG2  | 4:Q:136:GLU:N   | 2.74                     | 0.51              |
| 3:R:36:ILE:O     | 3:R:37:LEU:C    | 2.48                     | 0.51              |
| 3:R:65:LEU:HD21  | 3:R:100:GLU:N   | 2.26                     | 0.51              |
| 4:S:8:PHE:CD1    | 4:S:36:MET:SD   | 3.04                     | 0.51              |
| 4:S:8:PHE:CE1    | 4:S:36:MET:HG2  | 2.46                     | 0.51              |
| 4:S:135:ILE:CG2  | 4:S:136:GLU:N   | 2.74                     | 0.51              |
| 4:U:99:CYS:O     | 4:U:102:ASP:OD2 | 2.29                     | 0.51              |
| 3:V:68:VAL:CG1   | 3:V:69:ALA:N    | 2.74                     | 0.51              |
| 3:V:112:GLU:OE1  | 3:V:136:THR:N   | 2.40                     | 0.51              |
| 4:W:8:PHE:CE1    | 4:W:36:MET:HG2  | 2.46                     | 0.51              |
| 4:X:59:TYR:CD2   | 4:X:59:TYR:O    | 2.64                     | 0.51              |
| 4:X:113:ILE:HG22 | 4:X:114:LEU:N   | 2.26                     | 0.51              |
| 1:A:364:ARG:HG2  | 1:A:364:ARG:NH1 | 2.25                     | 0.51              |
| 1:A:524:GLY:O    | 1:A:525:TYR:C   | 2.49                     | 0.51              |
| 2:B:109:THR:O    | 2:B:110:MET:C   | 2.49                     | 0.51              |
| 2:B:262:VAL:HB   | 2:B:266:PHE:CE1 | 2.46                     | 0.51              |
| 2:B:475:ASP:O    | 2:B:475:ASP:OD1 | 2.29                     | 0.51              |
| 2:B:489:VAL:O    | 2:B:492:PHE:N   | 2.44                     | 0.51              |
| 1:C:5:ILE:CG2    | 1:C:9:GLU:HG3   | 2.41                     | 0.51              |
| 1:C:113:HIS:HD2  | 1:C:115:THR:H   | 1.56                     | 0.51              |
| 1:C:243:PRO:O    | 1:C:244:PHE:C   | 2.50                     | 0.51              |
| 1:C:405:PHE:O    | 1:C:409:GLU:HG2 | 2.11                     | 0.51              |
| 1:C:430:GLY:C    | 1:C:432:TYR:N   | 2.64                     | 0.51              |
| 1:C:509:LEU:O    | 1:C:512:VAL:HB  | 2.11                     | 0.51              |
| 1:C:558:GLU:O    | 1:C:559:LEU:C   | 2.49                     | 0.51              |
| 2:D:424:LYS:HB3  | 2:D:425:TYR:CE1 | 2.45                     | 0.51              |
| 2:D:475:ASP:O    | 2:D:475:ASP:OD1 | 2.29                     | 0.51              |
| 2:D:488:ILE:O    | 2:D:489:VAL:C   | 2.50                     | 0.51              |
| 1:E:375:GLY:C    | 1:E:377:ASN:H   | 2.14                     | 0.51              |
| 1:E:423:MET:O    | 1:E:426:LEU:HB2 | 2.11                     | 0.51              |
| 1:E:476:ALA:O    | 1:E:478:TRP:N   | 2.44                     | 0.51              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:197:LEU:HD13 | 1:G:201:MET:HG3  | 1.93                     | 0.51              |
| 1:G:395:GLU:HB2  | 1:G:396:PHE:CD1  | 2.46                     | 0.51              |
| 1:G:509:LEU:O    | 1:G:512:VAL:HB   | 2.11                     | 0.51              |
| 2:H:252:ASN:C    | 2:H:255:VAL:HG22 | 2.32                     | 0.51              |
| 2:H:475:ASP:O    | 2:H:476:GLU:CG   | 2.57                     | 0.51              |
| 1:I:7:LEU:C      | 1:I:7:LEU:HD23   | 2.31                     | 0.51              |
| 1:I:243:PRO:O    | 1:I:244:PHE:C    | 2.50                     | 0.51              |
| 1:I:254:ARG:HA   | 1:I:295:THR:HG23 | 1.92                     | 0.51              |
| 1:I:343:VAL:HG23 | 1:I:344:GLN:N    | 2.24                     | 0.51              |
| 2:J:67:LYS:O     | 2:J:68:LEU:C     | 2.47                     | 0.51              |
| 2:J:113:ILE:CG2  | 2:J:114:ARG:N    | 2.74                     | 0.51              |
| 2:J:243:ARG:O    | 2:J:246:PRO:HD2  | 2.11                     | 0.51              |
| 1:K:197:LEU:HD13 | 1:K:201:MET:HG3  | 1.93                     | 0.51              |
| 2:L:55:VAL:O     | 2:L:57:CYS:N     | 2.44                     | 0.51              |
| 2:L:113:ILE:CG2  | 2:L:114:ARG:N    | 2.74                     | 0.51              |
| 2:L:186:GLU:HB2  | 3:V:122:TYR:OH   | 2.11                     | 0.51              |
| 2:L:253:SER:O    | 2:L:254:ALA:C    | 2.48                     | 0.51              |
| 2:L:305:ASN:ND2  | 2:L:572:SER:O    | 2.44                     | 0.51              |
| 2:L:388:ALA:O    | 2:L:389:GLU:C    | 2.50                     | 0.51              |
| 2:L:452:VAL:O    | 2:L:453:GLY:C    | 2.49                     | 0.51              |
| 2:L:464:GLU:O    | 2:L:465:LEU:C    | 2.47                     | 0.51              |
| 3:M:180:ASN:O    | 3:M:181:LEU:HD23 | 2.11                     | 0.51              |
| 3:N:8:VAL:O      | 3:N:16:LEU:CB    | 2.54                     | 0.51              |
| 3:O:88:VAL:O     | 3:O:89:GLN:C     | 2.48                     | 0.51              |
| 3:P:88:VAL:O     | 3:P:89:GLN:C     | 2.48                     | 0.51              |
| 4:Q:3:ARG:O      | 4:Q:4:PHE:HB3    | 2.11                     | 0.51              |
| 3:R:144:THR:CG2  | 3:R:145:GLY:N    | 2.73                     | 0.51              |
| 4:S:59:TYR:O     | 4:S:59:TYR:CD2   | 2.64                     | 0.51              |
| 4:T:62:TYR:CE2   | 4:T:88:VAL:HG11  | 2.46                     | 0.51              |
| 4:U:3:ARG:O      | 4:U:4:PHE:HB3    | 2.11                     | 0.51              |
| 4:W:99:CYS:O     | 4:W:102:ASP:OD2  | 2.29                     | 0.51              |
| 4:X:33:ARG:CG    | 4:X:34:GLU:N     | 2.73                     | 0.51              |
| 4:X:62:TYR:CE2   | 4:X:88:VAL:HG11  | 2.46                     | 0.51              |
| 1:A:5:ILE:CG2    | 1:A:9:GLU:HG3    | 2.41                     | 0.50              |
| 1:A:422:ILE:O    | 1:A:426:LEU:HD23 | 2.11                     | 0.50              |
| 1:A:562:ARG:O    | 1:A:565:GLU:HB2  | 2.10                     | 0.50              |
| 2:B:31:LYS:O     | 2:B:32:GLU:C     | 2.50                     | 0.50              |
| 2:B:376:ALA:O    | 2:B:377:ILE:C    | 2.50                     | 0.50              |
| 2:B:420:LYS:HB3  | 2:B:421:TYR:CE2  | 2.46                     | 0.50              |
| 2:B:555:ILE:CG2  | 2:B:556:GLU:H    | 2.23                     | 0.50              |
| 1:C:85:GLY:O     | 1:C:86:TYR:C     | 2.49                     | 0.50              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:254:ARG:HA   | 1:C:295:THR:HG23 | 1.92                     | 0.50              |
| 2:D:186:GLU:HB2  | 3:N:122:TYR:OH   | 2.11                     | 0.50              |
| 2:D:376:ALA:O    | 2:D:377:ILE:C    | 2.50                     | 0.50              |
| 2:D:452:VAL:O    | 2:D:453:GLY:C    | 2.49                     | 0.50              |
| 1:E:67:GLN:NE2   | 1:E:93:LEU:HD23  | 2.17                     | 0.50              |
| 2:F:55:VAL:O     | 2:F:57:CYS:N     | 2.44                     | 0.50              |
| 2:F:243:ARG:O    | 2:F:246:PRO:HD2  | 2.11                     | 0.50              |
| 2:H:188:ALA:HA   | 2:H:195:ASN:CG   | 2.31                     | 0.50              |
| 2:H:489:VAL:O    | 2:H:492:PHE:N    | 2.45                     | 0.50              |
| 1:I:120:GLY:O    | 1:I:121:LEU:C    | 2.49                     | 0.50              |
| 1:I:585:PRO:C    | 1:I:586:VAL:HG23 | 2.32                     | 0.50              |
| 2:J:262:VAL:HB   | 2:J:266:PHE:CE1  | 2.46                     | 0.50              |
| 2:J:376:ALA:O    | 2:J:377:ILE:C    | 2.50                     | 0.50              |
| 2:J:407:VAL:O    | 2:J:408:GLN:C    | 2.48                     | 0.50              |
| 1:K:7:LEU:C      | 1:K:7:LEU:HD23   | 2.31                     | 0.50              |
| 1:K:333:LEU:HD12 | 1:K:333:LEU:N    | 2.25                     | 0.50              |
| 1:K:366:MET:O    | 1:K:369:SER:OG   | 2.24                     | 0.50              |
| 1:K:509:LEU:O    | 1:K:512:VAL:HB   | 2.11                     | 0.50              |
| 1:K:583:ARG:HB2  | 2:L:528:ARG:HH12 | 1.74                     | 0.50              |
| 2:L:464:GLU:HA   | 2:L:467:GLU:HB3  | 1.92                     | 0.50              |
| 3:M:386:THR:O    | 3:M:387:THR:C    | 2.47                     | 0.50              |
| 3:P:180:ASN:O    | 3:P:181:LEU:HD23 | 2.11                     | 0.50              |
| 4:Q:27:GLU:O     | 4:Q:31:MET:HG2   | 2.11                     | 0.50              |
| 4:Q:59:TYR:O     | 4:Q:59:TYR:CD2   | 2.64                     | 0.50              |
| 4:Q:99:CYS:O     | 4:Q:102:ASP:OD2  | 2.29                     | 0.50              |
| 3:R:215:ASN:HB2  | 3:R:391:GLN:H    | 1.76                     | 0.50              |
| 4:S:3:ARG:O      | 4:S:4:PHE:HB3    | 2.11                     | 0.50              |
| 4:S:90:LEU:N     | 4:S:90:LEU:HD22  | 2.25                     | 0.50              |
| 4:T:27:GLU:O     | 4:T:31:MET:HG2   | 2.11                     | 0.50              |
| 4:T:135:ILE:CG2  | 4:T:136:GLU:N    | 2.73                     | 0.50              |
| 3:V:77:VAL:O     | 3:V:79:LEU:N     | 2.44                     | 0.50              |
| 4:W:59:TYR:O     | 4:W:59:TYR:CD2   | 2.64                     | 0.50              |
| 4:W:62:TYR:CE2   | 4:W:88:VAL:HG11  | 2.46                     | 0.50              |
| 4:W:131:VAL:O    | 4:W:132:LEU:C    | 2.47                     | 0.50              |
| 4:X:3:ARG:O      | 4:X:4:PHE:HB3    | 2.11                     | 0.50              |
| 1:A:66:GLY:O     | 1:A:67:GLN:C     | 2.48                     | 0.50              |
| 1:A:73:LEU:O     | 1:A:74:ILE:C     | 2.48                     | 0.50              |
| 1:A:212:PHE:O    | 1:A:216:VAL:CG2  | 2.55                     | 0.50              |
| 1:A:310:ILE:O    | 1:A:312:ILE:N    | 2.44                     | 0.50              |
| 1:A:558:GLU:O    | 1:A:559:LEU:C    | 2.49                     | 0.50              |
| 2:B:55:VAL:O     | 2:B:57:CYS:N     | 2.44                     | 0.50              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:305:ASN:ND2  | 2:B:572:SER:O    | 2.44                     | 0.50              |
| 2:B:378:GLY:O    | 2:B:379:ARG:C    | 2.49                     | 0.50              |
| 2:B:488:ILE:O    | 2:B:489:VAL:C    | 2.50                     | 0.50              |
| 1:C:137:ASP:HB2  | 1:C:138:LEU:HD22 | 1.93                     | 0.50              |
| 1:C:347:ARG:O    | 1:C:350:ILE:N    | 2.45                     | 0.50              |
| 1:C:395:GLU:HB2  | 1:C:396:PHE:CD1  | 2.46                     | 0.50              |
| 1:C:476:ALA:O    | 1:C:478:TRP:N    | 2.44                     | 0.50              |
| 2:D:95:CYS:HA    | 2:D:103:ARG:HB2  | 1.93                     | 0.50              |
| 2:D:486:THR:HG22 | 2:D:487:ALA:H    | 1.76                     | 0.50              |
| 1:E:197:LEU:HD13 | 1:E:201:MET:HG3  | 1.93                     | 0.50              |
| 1:E:425:VAL:O    | 1:E:426:LEU:C    | 2.49                     | 0.50              |
| 2:F:188:ALA:HA   | 2:F:195:ASN:CG   | 2.31                     | 0.50              |
| 2:F:420:LYS:HB3  | 2:F:421:TYR:CE2  | 2.46                     | 0.50              |
| 1:G:7:LEU:C      | 1:G:7:LEU:HD23   | 2.31                     | 0.50              |
| 1:G:86:TYR:HE2   | 1:G:122:ALA:HA   | 1.76                     | 0.50              |
| 1:G:152:TYR:OH   | 4:Q:116:GLU:OE1  | 2.27                     | 0.50              |
| 1:G:159:LEU:HB2  | 4:Q:119:MET:HE1  | 1.91                     | 0.50              |
| 1:G:217:PRO:O    | 1:G:220:VAL:HB   | 2.12                     | 0.50              |
| 1:G:289:LEU:HA   | 1:G:292:THR:OG1  | 2.10                     | 0.50              |
| 1:G:523:ARG:O    | 1:G:526:ALA:HB3  | 2.12                     | 0.50              |
| 2:H:433:CYS:HA   | 2:H:448:MET:HE1  | 1.94                     | 0.50              |
| 2:H:488:ILE:O    | 2:H:489:VAL:C    | 2.50                     | 0.50              |
| 1:I:85:GLY:O     | 1:I:86:TYR:C     | 2.49                     | 0.50              |
| 1:I:539:CYS:C    | 1:I:541:VAL:H    | 2.13                     | 0.50              |
| 2:J:429:ILE:O    | 2:J:432:LEU:HB3  | 2.12                     | 0.50              |
| 1:K:120:GLY:O    | 1:K:121:LEU:C    | 2.49                     | 0.50              |
| 1:K:172:MET:HG2  | 1:K:201:MET:HE1  | 1.92                     | 0.50              |
| 1:K:327:VAL:O    | 1:K:328:ALA:C    | 2.48                     | 0.50              |
| 1:K:372:LEU:N    | 1:K:372:LEU:CD1  | 2.69                     | 0.50              |
| 1:K:438:VAL:O    | 1:K:442:ILE:HD13 | 2.12                     | 0.50              |
| 1:K:540:THR:C    | 1:K:542:ASN:N    | 2.65                     | 0.50              |
| 1:K:573:TYR:O    | 1:K:574:ASP:C    | 2.48                     | 0.50              |
| 2:L:429:ILE:O    | 2:L:432:LEU:HB3  | 2.12                     | 0.50              |
| 3:M:65:LEU:HD21  | 3:M:100:GLU:N    | 2.26                     | 0.50              |
| 3:M:321:ASP:OD1  | 3:M:322:SER:N    | 2.38                     | 0.50              |
| 3:O:60:ILE:O     | 3:O:60:ILE:HG13  | 2.10                     | 0.50              |
| 3:O:106:ASN:O    | 3:O:107:PHE:C    | 2.48                     | 0.50              |
| 4:Q:25:ASP:O     | 4:Q:28:ARG:HB2   | 2.11                     | 0.50              |
| 4:T:109:LYS:HA   | 4:T:112:PHE:CD1  | 2.35                     | 0.50              |
| 4:T:113:ILE:HG22 | 4:T:114:LEU:N    | 2.26                     | 0.50              |
| 4:U:28:ARG:O     | 4:U:29:LYS:C     | 2.49                     | 0.50              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:U:113:ILE:HG22 | 4:U:114:LEU:N    | 2.26                     | 0.50              |
| 4:W:28:ARG:O     | 4:W:29:LYS:C     | 2.49                     | 0.50              |
| 4:W:109:LYS:O    | 4:W:110:ALA:C    | 2.47                     | 0.50              |
| 1:A:523:ARG:O    | 1:A:526:ALA:HB3  | 2.12                     | 0.50              |
| 2:B:113:ILE:CG2  | 2:B:114:ARG:N    | 2.74                     | 0.50              |
| 2:B:182:ALA:O    | 2:B:185:SER:N    | 2.45                     | 0.50              |
| 2:B:407:VAL:O    | 2:B:408:GLN:C    | 2.48                     | 0.50              |
| 1:C:14:ILE:H     | 1:C:14:ILE:CD1   | 2.18                     | 0.50              |
| 1:C:36:SER:HA    | 1:C:39:ARG:CG    | 2.36                     | 0.50              |
| 1:C:310:ILE:O    | 1:C:312:ILE:N    | 2.44                     | 0.50              |
| 1:C:375:GLY:C    | 1:C:377:ASN:H    | 2.14                     | 0.50              |
| 1:C:422:ILE:O    | 1:C:426:LEU:HD23 | 2.11                     | 0.50              |
| 1:C:523:ARG:O    | 1:C:526:ALA:HB3  | 2.12                     | 0.50              |
| 1:C:533:LEU:O    | 1:C:536:ARG:N    | 2.40                     | 0.50              |
| 1:C:541:VAL:O    | 1:C:541:VAL:HG12 | 2.10                     | 0.50              |
| 1:C:556:ASP:CG   | 1:C:559:LEU:HG   | 2.32                     | 0.50              |
| 2:D:420:LYS:HB3  | 2:D:421:TYR:CE2  | 2.46                     | 0.50              |
| 2:D:429:ILE:O    | 2:D:432:LEU:HB3  | 2.12                     | 0.50              |
| 2:D:455:TYR:N    | 2:D:455:TYR:HD1  | 2.09                     | 0.50              |
| 2:D:543:ALA:O    | 2:D:545:LYS:HG3  | 2.11                     | 0.50              |
| 1:E:523:ARG:O    | 1:E:526:ALA:HB3  | 2.12                     | 0.50              |
| 1:E:585:PRO:C    | 1:E:586:VAL:HG23 | 2.32                     | 0.50              |
| 2:F:252:ASN:O    | 2:F:253:SER:C    | 2.49                     | 0.50              |
| 2:F:305:ASN:ND2  | 2:F:572:SER:O    | 2.44                     | 0.50              |
| 2:F:429:ILE:O    | 2:F:432:LEU:HB3  | 2.12                     | 0.50              |
| 2:F:452:VAL:O    | 2:F:453:GLY:C    | 2.49                     | 0.50              |
| 2:F:455:TYR:N    | 2:F:455:TYR:HD1  | 2.09                     | 0.50              |
| 1:G:378:ILE:O    | 1:G:379:ARG:C    | 2.49                     | 0.50              |
| 1:G:406:LEU:O    | 1:G:407:ALA:C    | 2.49                     | 0.50              |
| 1:G:529:ALA:O    | 1:G:530:ILE:C    | 2.50                     | 0.50              |
| 1:G:556:ASP:CG   | 1:G:559:LEU:HG   | 2.32                     | 0.50              |
| 2:H:200:LYS:HB2  | 2:H:203:SER:CB   | 2.41                     | 0.50              |
| 2:H:305:ASN:ND2  | 2:H:572:SER:O    | 2.44                     | 0.50              |
| 2:H:378:GLY:O    | 2:H:379:ARG:C    | 2.50                     | 0.50              |
| 2:H:505:GLN:O    | 2:H:506:VAL:C    | 2.50                     | 0.50              |
| 1:I:347:ARG:O    | 1:I:350:ILE:N    | 2.45                     | 0.50              |
| 1:I:429:ALA:O    | 1:I:430:GLY:C    | 2.50                     | 0.50              |
| 2:J:29:LYS:O     | 2:J:30:LYS:C     | 2.50                     | 0.50              |
| 2:J:252:ASN:O    | 2:J:253:SER:C    | 2.49                     | 0.50              |
| 2:J:489:VAL:O    | 2:J:492:PHE:N    | 2.44                     | 0.50              |
| 1:K:86:TYR:HE2   | 1:K:122:ALA:HA   | 1.76                     | 0.50              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1          | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:K:310:ILE:O   | 1:K:312:ILE:N    | 2.44                     | 0.50              |
| 2:L:182:ALA:O   | 2:L:185:SER:N    | 2.45                     | 0.50              |
| 2:L:252:ASN:O   | 2:L:253:SER:C    | 2.49                     | 0.50              |
| 3:N:68:VAL:CG1  | 3:N:69:ALA:N     | 2.74                     | 0.50              |
| 3:O:180:ASN:O   | 3:O:181:LEU:HD23 | 2.11                     | 0.50              |
| 3:P:376:ILE:CG2 | 3:P:420:LEU:HB2  | 2.41                     | 0.50              |
| 3:R:76:CYS:O    | 3:R:77:VAL:C     | 2.50                     | 0.50              |
| 1:A:50:VAL:O    | 1:A:53:LEU:HB3   | 2.12                     | 0.50              |
| 1:A:137:ASP:HB2 | 1:A:138:LEU:HD22 | 1.93                     | 0.50              |
| 1:A:423:MET:O   | 1:A:426:LEU:HB2  | 2.11                     | 0.50              |
| 2:B:305:ASN:O   | 2:B:306:ILE:C    | 2.48                     | 0.50              |
| 2:B:543:ALA:O   | 2:B:545:LYS:HG3  | 2.11                     | 0.50              |
| 1:C:153:LEU:O   | 1:C:154:ARG:C    | 2.49                     | 0.50              |
| 2:D:7:PHE:CD2   | 4:T:99:CYS:HA    | 2.45                     | 0.50              |
| 2:D:182:ALA:O   | 2:D:185:SER:N    | 2.45                     | 0.50              |
| 1:E:315:ARG:HG3 | 1:E:315:ARG:NH1  | 2.24                     | 0.50              |
| 2:F:426:GLU:O   | 2:F:429:ILE:N    | 2.28                     | 0.50              |
| 2:F:475:ASP:O   | 2:F:475:ASP:OD1  | 2.29                     | 0.50              |
| 1:G:532:LYS:CB  | 1:G:536:ARG:HH11 | 2.23                     | 0.50              |
| 2:H:403:VAL:O   | 2:H:404:ASN:C    | 2.50                     | 0.50              |
| 2:H:543:ALA:O   | 2:H:545:LYS:HG3  | 2.11                     | 0.50              |
| 2:H:563:LEU:O   | 2:H:564:ILE:C    | 2.50                     | 0.50              |
| 1:I:14:ILE:H    | 1:I:14:ILE:CD1   | 2.17                     | 0.50              |
| 1:I:201:MET:O   | 1:I:203:GLU:N    | 2.42                     | 0.50              |
| 1:I:438:VAL:O   | 1:I:442:ILE:HD13 | 2.12                     | 0.50              |
| 2:J:252:ASN:C   | 2:J:255:VAL:HG22 | 2.32                     | 0.50              |
| 2:J:566:TYR:HD1 | 2:J:566:TYR:H    | 1.58                     | 0.50              |
| 1:K:160:CYS:O   | 1:K:161:ALA:C    | 2.50                     | 0.50              |
| 1:K:244:PHE:O   | 1:K:245:LEU:C    | 2.47                     | 0.50              |
| 1:K:347:ARG:O   | 1:K:350:ILE:N    | 2.45                     | 0.50              |
| 2:L:305:ASN:O   | 2:L:306:ILE:C    | 2.48                     | 0.50              |
| 2:L:376:ALA:O   | 2:L:377:ILE:C    | 2.50                     | 0.50              |
| 2:L:489:VAL:O   | 2:L:492:PHE:N    | 2.44                     | 0.50              |
| 3:M:106:ASN:O   | 3:M:107:PHE:C    | 2.48                     | 0.50              |
| 3:M:112:GLU:OE1 | 3:M:136:THR:N    | 2.39                     | 0.50              |
| 3:M:215:ASN:HB2 | 3:M:391:GLN:H    | 1.76                     | 0.50              |
| 3:N:215:ASN:HB2 | 3:N:391:GLN:H    | 1.76                     | 0.50              |
| 3:O:65:LEU:HD21 | 3:O:100:GLU:N    | 2.26                     | 0.50              |
| 3:O:68:VAL:CG1  | 3:O:69:ALA:N     | 2.74                     | 0.50              |
| 3:O:215:ASN:HB2 | 3:O:391:GLN:H    | 1.76                     | 0.50              |
| 3:O:265:MET:HG2 | 3:O:266:SER:N    | 2.27                     | 0.50              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1          | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 3:O:283:ILE:O   | 3:O:284:GLU:CG   | 2.59                     | 0.50              |
| 3:O:388:SER:OG  | 3:O:389:GLY:N    | 2.45                     | 0.50              |
| 3:P:11:LEU:H    | 3:P:11:LEU:CD1   | 1.98                     | 0.50              |
| 3:P:321:ASP:OD1 | 3:P:322:SER:N    | 2.38                     | 0.50              |
| 4:Q:62:TYR:CE2  | 4:Q:88:VAL:HG11  | 2.46                     | 0.50              |
| 3:R:173:LEU:C   | 3:R:173:LEU:CD2  | 2.76                     | 0.50              |
| 4:T:25:ASP:O    | 4:T:28:ARG:HB2   | 2.11                     | 0.50              |
| 3:V:144:THR:CG2 | 3:V:145:GLY:N    | 2.73                     | 0.50              |
| 3:V:279:ILE:CG2 | 3:V:280:GLU:N    | 2.75                     | 0.50              |
| 3:V:388:SER:OG  | 3:V:389:GLY:N    | 2.45                     | 0.50              |
| 4:W:25:ASP:O    | 4:W:28:ARG:HB2   | 2.12                     | 0.50              |
| 4:W:27:GLU:O    | 4:W:31:MET:HG2   | 2.11                     | 0.50              |
| 4:X:8:PHE:CD1   | 4:X:36:MET:SD    | 3.04                     | 0.50              |
| 1:A:152:TYR:OH  | 4:S:116:GLU:OE1  | 2.27                     | 0.50              |
| 1:A:243:PRO:O   | 1:A:244:PHE:C    | 2.50                     | 0.50              |
| 1:A:406:LEU:O   | 1:A:407:ALA:C    | 2.49                     | 0.50              |
| 1:A:556:ASP:OD2 | 1:A:558:GLU:HB3  | 2.12                     | 0.50              |
| 1:A:582:GLU:O   | 1:A:582:GLU:HG3  | 2.11                     | 0.50              |
| 2:B:403:VAL:O   | 2:B:404:ASN:C    | 2.50                     | 0.50              |
| 2:B:433:CYS:HA  | 2:B:448:MET:HE1  | 1.94                     | 0.50              |
| 1:C:529:ALA:O   | 1:C:532:LYS:N    | 2.44                     | 0.50              |
| 2:D:304:ARG:CG  | 2:D:573:VAL:HA   | 2.40                     | 0.50              |
| 2:D:452:VAL:CG1 | 2:D:453:GLY:H    | 2.24                     | 0.50              |
| 1:E:5:ILE:CG2   | 1:E:9:GLU:HG3    | 2.41                     | 0.50              |
| 1:E:267:MET:HE1 | 1:E:299:ILE:HD13 | 1.92                     | 0.50              |
| 2:F:403:VAL:O   | 2:F:404:ASN:C    | 2.50                     | 0.50              |
| 2:F:488:ILE:O   | 2:F:489:VAL:C    | 2.50                     | 0.50              |
| 1:G:5:ILE:CG2   | 1:G:9:GLU:HG3    | 2.41                     | 0.50              |
| 1:G:61:TYR:HB3  | 1:G:62:PRO:HD2   | 1.94                     | 0.50              |
| 1:G:347:ARG:O   | 1:G:350:ILE:N    | 2.45                     | 0.50              |
| 1:G:405:PHE:O   | 1:G:409:GLU:HG2  | 2.11                     | 0.50              |
| 1:G:529:ALA:O   | 1:G:532:LYS:N    | 2.44                     | 0.50              |
| 1:G:540:THR:C   | 1:G:542:ASN:N    | 2.65                     | 0.50              |
| 1:G:562:ARG:O   | 1:G:565:GLU:HB2  | 2.10                     | 0.50              |
| 1:G:582:GLU:O   | 1:G:582:GLU:HG3  | 2.11                     | 0.50              |
| 2:H:388:ALA:O   | 2:H:389:GLU:C    | 2.50                     | 0.50              |
| 2:H:524:TYR:O   | 2:H:525:ILE:C    | 2.50                     | 0.50              |
| 1:I:217:PRO:O   | 1:I:220:VAL:HB   | 2.12                     | 0.50              |
| 1:I:397:LYS:O   | 1:I:398:ALA:C    | 2.49                     | 0.50              |
| 1:I:422:ILE:O   | 1:I:426:LEU:HD23 | 2.11                     | 0.50              |
| 2:J:378:GLY:O   | 2:J:379:ARG:C    | 2.50                     | 0.50              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:J:486:THR:CG2  | 2:J:490:LYS:HE2  | 2.41                     | 0.50              |
| 2:J:524:TYR:O    | 2:J:525:ILE:C    | 2.50                     | 0.50              |
| 2:J:569:THR:HG22 | 2:J:570:LEU:N    | 2.27                     | 0.50              |
| 1:K:50:VAL:O     | 1:K:53:LEU:HB3   | 2.12                     | 0.50              |
| 1:K:243:PRO:O    | 1:K:244:PHE:C    | 2.50                     | 0.50              |
| 1:K:315:ARG:HG3  | 1:K:315:ARG:NH1  | 2.24                     | 0.50              |
| 1:K:476:ALA:O    | 1:K:478:TRP:N    | 2.44                     | 0.50              |
| 1:K:585:PRO:C    | 1:K:586:VAL:HG23 | 2.32                     | 0.50              |
| 2:L:543:ALA:O    | 2:L:545:LYS:HG3  | 2.11                     | 0.50              |
| 3:M:68:VAL:CG1   | 3:M:69:ALA:N     | 2.74                     | 0.50              |
| 3:M:388:SER:OG   | 3:M:389:GLY:N    | 2.45                     | 0.50              |
| 3:O:65:LEU:HD11  | 3:O:99:GLU:CA    | 2.42                     | 0.50              |
| 3:P:77:VAL:O     | 3:P:79:LEU:N     | 2.44                     | 0.50              |
| 3:R:65:LEU:HD11  | 3:R:99:GLU:CA    | 2.42                     | 0.50              |
| 4:S:30:LYS:HA    | 4:S:30:LYS:NZ    | 2.26                     | 0.50              |
| 4:S:99:CYS:O     | 4:S:102:ASP:OD2  | 2.29                     | 0.50              |
| 4:T:59:TYR:CD2   | 4:T:59:TYR:O     | 2.64                     | 0.50              |
| 4:U:25:ASP:O     | 4:U:28:ARG:HB2   | 2.12                     | 0.50              |
| 4:X:107:PHE:O    | 4:X:110:ALA:HB3  | 2.12                     | 0.50              |
| 1:A:83:ARG:HA    | 1:A:121:LEU:CD1  | 2.41                     | 0.50              |
| 1:A:197:LEU:HD13 | 1:A:201:MET:HG3  | 1.93                     | 0.50              |
| 1:A:344:GLN:NE2  | 1:A:374:ASN:HD22 | 2.10                     | 0.50              |
| 2:B:12:LYS:CG    | 2:B:13:GLY:N     | 2.72                     | 0.50              |
| 2:B:519:LEU:O    | 2:B:520:ARG:C    | 2.50                     | 0.50              |
| 1:C:50:VAL:O     | 1:C:53:LEU:HB3   | 2.12                     | 0.50              |
| 1:C:344:GLN:NE2  | 1:C:374:ASN:HD22 | 2.10                     | 0.50              |
| 1:C:479:CYS:O    | 1:C:483:TYR:N    | 2.31                     | 0.50              |
| 1:E:50:VAL:O     | 1:E:53:LEU:HB3   | 2.12                     | 0.50              |
| 2:F:124:GLU:HB2  | 2:F:125:PRO:CD   | 2.36                     | 0.50              |
| 2:F:182:ALA:O    | 2:F:185:SER:N    | 2.45                     | 0.50              |
| 2:F:377:ILE:HG21 | 2:F:395:LEU:CD2  | 2.39                     | 0.50              |
| 1:G:31:CYS:HB3   | 1:G:56:MET:HE1   | 1.94                     | 0.50              |
| 1:G:50:VAL:O     | 1:G:53:LEU:HB3   | 2.12                     | 0.50              |
| 1:G:193:THR:OG1  | 1:G:194:SER:N    | 2.43                     | 0.50              |
| 1:G:585:PRO:C    | 1:G:586:VAL:HG23 | 2.32                     | 0.50              |
| 2:H:41:MET:HG2   | 2:H:42:THR:N     | 2.27                     | 0.50              |
| 2:H:178:ALA:O    | 2:H:179:ASN:C    | 2.50                     | 0.50              |
| 2:J:31:LYS:O     | 2:J:32:GLU:C     | 2.50                     | 0.50              |
| 2:J:186:GLU:HB2  | 3:R:122:TYR:OH   | 2.11                     | 0.50              |
| 2:J:403:VAL:O    | 2:J:404:ASN:C    | 2.49                     | 0.50              |
| 2:J:455:TYR:N    | 2:J:455:TYR:HD1  | 2.08                     | 0.50              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2          | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-----------------|--------------------------|-------------------|
| 1:K:67:GLN:HG3   | 1:K:93:LEU:HD23 | 1.94                     | 0.50              |
| 1:K:217:PRO:O    | 1:K:220:VAL:HB  | 2.12                     | 0.50              |
| 1:K:254:ARG:HB2  | 1:K:295:THR:CG2 | 2.42                     | 0.50              |
| 1:K:422:ILE:O    | 1:K:423:MET:C   | 2.50                     | 0.50              |
| 2:L:95:CYS:HA    | 2:L:103:ARG:HB2 | 1.93                     | 0.50              |
| 2:L:262:VAL:HB   | 2:L:266:PHE:CE1 | 2.46                     | 0.50              |
| 2:L:378:GLY:O    | 2:L:379:ARG:C   | 2.49                     | 0.50              |
| 3:M:65:LEU:HD11  | 3:M:99:GLU:CA   | 2.42                     | 0.50              |
| 3:M:119:ASP:O    | 3:M:121:GLY:N   | 2.44                     | 0.50              |
| 3:N:32:HIS:O     | 3:N:35:PRO:HD2  | 2.11                     | 0.50              |
| 3:N:65:LEU:HD21  | 3:N:100:GLU:N   | 2.26                     | 0.50              |
| 3:N:194:ILE:HG13 | 3:N:194:ILE:O   | 2.10                     | 0.50              |
| 4:S:28:ARG:O     | 4:S:29:LYS:C    | 2.49                     | 0.50              |
| 4:U:30:LYS:HA    | 4:U:30:LYS:NZ   | 2.26                     | 0.50              |
| 3:V:32:HIS:O     | 3:V:35:PRO:HD2  | 2.12                     | 0.50              |
| 3:V:65:LEU:HD21  | 3:V:100:GLU:N   | 2.26                     | 0.50              |
| 3:V:380:PHE:N    | 3:V:380:PHE:CD1 | 2.76                     | 0.50              |
| 4:W:88:VAL:HA    | 4:W:91:LEU:HD12 | 1.94                     | 0.50              |
| 4:X:27:GLU:O     | 4:X:31:MET:HG2  | 2.11                     | 0.50              |
| 4:X:28:ARG:O     | 4:X:29:LYS:C    | 2.49                     | 0.50              |
| 4:X:30:LYS:HA    | 4:X:30:LYS:NZ   | 2.26                     | 0.50              |
| 4:X:88:VAL:CG2   | 4:X:89:GLU:N    | 2.75                     | 0.50              |
| 4:X:88:VAL:HA    | 4:X:91:LEU:HD12 | 1.94                     | 0.50              |
| 1:A:413:PRO:HD2  | 1:A:417:TRP:CZ3 | 2.47                     | 0.50              |
| 2:B:452:VAL:O    | 2:B:453:GLY:C   | 2.49                     | 0.50              |
| 1:C:556:ASP:OD2  | 1:C:558:GLU:HB3 | 2.12                     | 0.50              |
| 2:D:109:THR:O    | 2:D:110:MET:C   | 2.49                     | 0.50              |
| 2:D:148:LEU:HA   | 2:D:151:ILE:CG1 | 2.42                     | 0.50              |
| 2:D:262:VAL:HB   | 2:D:266:PHE:CE1 | 2.46                     | 0.50              |
| 2:D:377:ILE:HG21 | 2:D:395:LEU:CD2 | 2.39                     | 0.50              |
| 2:D:489:VAL:O    | 2:D:492:PHE:N   | 2.44                     | 0.50              |
| 1:E:86:TYR:HE2   | 1:E:122:ALA:HA  | 1.76                     | 0.50              |
| 1:E:397:LYS:O    | 1:E:398:ALA:C   | 2.49                     | 0.50              |
| 1:E:429:ALA:O    | 1:E:430:GLY:C   | 2.50                     | 0.50              |
| 1:E:529:ALA:O    | 1:E:532:LYS:N   | 2.44                     | 0.50              |
| 2:F:113:ILE:CG2  | 2:F:114:ARG:N   | 2.74                     | 0.50              |
| 2:F:334:VAL:O    | 2:F:335:LYS:C   | 2.50                     | 0.50              |
| 2:F:470:LEU:C    | 2:F:472:GLY:N   | 2.64                     | 0.50              |
| 2:F:489:VAL:O    | 2:F:492:PHE:N   | 2.44                     | 0.50              |
| 1:G:113:HIS:HD2  | 1:G:115:THR:H   | 1.56                     | 0.50              |
| 1:G:310:ILE:O    | 1:G:312:ILE:N   | 2.45                     | 0.50              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:320:ASN:OD1  | 3:R:166:TYR:CE1  | 2.65                     | 0.50              |
| 1:G:533:LEU:O    | 1:G:536:ARG:N    | 2.40                     | 0.50              |
| 2:H:75:ASN:N     | 2:H:75:ASN:HD22  | 2.08                     | 0.50              |
| 2:H:113:ILE:CG2  | 2:H:114:ARG:N    | 2.74                     | 0.50              |
| 2:H:420:LYS:HB3  | 2:H:421:TYR:CE2  | 2.46                     | 0.50              |
| 2:H:447:ALA:O    | 2:H:448:MET:C    | 2.50                     | 0.50              |
| 2:H:569:THR:HG22 | 2:H:570:LEU:N    | 2.27                     | 0.50              |
| 1:I:66:GLY:O     | 1:I:67:GLN:C     | 2.48                     | 0.50              |
| 1:I:197:LEU:HD13 | 1:I:201:MET:HG3  | 1.93                     | 0.50              |
| 2:J:41:MET:HG2   | 2:J:42:THR:N     | 2.27                     | 0.50              |
| 2:J:388:ALA:O    | 2:J:389:GLU:C    | 2.50                     | 0.50              |
| 2:J:458:ARG:HD3  | 2:J:458:ARG:C    | 2.31                     | 0.50              |
| 2:J:505:GLN:O    | 2:J:506:VAL:C    | 2.50                     | 0.50              |
| 2:J:555:ILE:CG2  | 2:J:556:GLU:H    | 2.23                     | 0.50              |
| 1:K:61:TYR:HB3   | 1:K:62:PRO:HD2   | 1.94                     | 0.50              |
| 1:K:395:GLU:HB2  | 1:K:396:PHE:CD1  | 2.46                     | 0.50              |
| 1:K:425:VAL:O    | 1:K:426:LEU:C    | 2.50                     | 0.50              |
| 1:K:470:GLN:HB2  | 1:K:471:PRO:CD   | 2.34                     | 0.50              |
| 2:L:486:THR:CG2  | 2:L:490:LYS:HE2  | 2.41                     | 0.50              |
| 2:L:505:GLN:O    | 2:L:506:VAL:C    | 2.50                     | 0.50              |
| 3:M:265:MET:HG2  | 3:M:266:SER:N    | 2.27                     | 0.50              |
| 3:N:25:VAL:O     | 3:N:26:ASP:C     | 2.50                     | 0.50              |
| 3:N:76:CYS:O     | 3:N:77:VAL:C     | 2.50                     | 0.50              |
| 3:N:96:LYS:HG3   | 3:N:97:GLU:HG3   | 1.92                     | 0.50              |
| 3:O:96:LYS:HG3   | 3:O:97:GLU:HG3   | 1.92                     | 0.50              |
| 3:P:65:LEU:HD21  | 3:P:100:GLU:N    | 2.26                     | 0.50              |
| 3:P:255:PHE:CD2  | 3:P:255:PHE:N    | 2.78                     | 0.50              |
| 4:Q:107:PHE:O    | 4:Q:110:ALA:HB3  | 2.12                     | 0.50              |
| 3:R:68:VAL:CG1   | 3:R:69:ALA:N     | 2.74                     | 0.50              |
| 4:T:3:ARG:O      | 4:T:4:PHE:HB3    | 2.11                     | 0.50              |
| 4:U:8:PHE:CD1    | 4:U:36:MET:SD    | 3.04                     | 0.50              |
| 4:U:59:TYR:O     | 4:U:59:TYR:CD2   | 2.64                     | 0.50              |
| 1:A:103:MET:O    | 1:A:104:THR:C    | 2.50                     | 0.50              |
| 1:A:429:ALA:O    | 1:A:430:GLY:C    | 2.50                     | 0.50              |
| 2:B:388:ALA:O    | 2:B:389:GLU:C    | 2.50                     | 0.50              |
| 1:C:66:GLY:O     | 1:C:67:GLN:C     | 2.48                     | 0.50              |
| 2:D:486:THR:CG2  | 2:D:490:LYS:HE2  | 2.42                     | 0.50              |
| 1:E:85:GLY:O     | 1:E:86:TYR:C     | 2.49                     | 0.50              |
| 1:E:243:PRO:O    | 1:E:244:PHE:C    | 2.50                     | 0.50              |
| 1:G:344:GLN:NE2  | 1:G:374:ASN:HD22 | 2.10                     | 0.50              |
| 1:G:375:GLY:C    | 1:G:377:ASN:H    | 2.14                     | 0.50              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:422:ILE:O    | 1:G:426:LEU:HD23 | 2.11                     | 0.50              |
| 1:G:429:ALA:O    | 1:G:430:GLY:C    | 2.50                     | 0.50              |
| 1:G:438:VAL:O    | 1:G:442:ILE:HD13 | 2.12                     | 0.50              |
| 2:H:262:VAL:HB   | 2:H:266:PHE:CE1  | 2.46                     | 0.50              |
| 1:I:50:VAL:O     | 1:I:53:LEU:HB3   | 2.12                     | 0.50              |
| 2:J:75:ASN:HD22  | 2:J:75:ASN:N     | 2.08                     | 0.50              |
| 2:J:543:ALA:O    | 2:J:545:LYS:HG3  | 2.11                     | 0.50              |
| 1:K:364:ARG:HG2  | 1:K:364:ARG:NH1  | 2.25                     | 0.50              |
| 1:K:429:ALA:O    | 1:K:430:GLY:C    | 2.50                     | 0.50              |
| 1:K:451:MET:SD   | 1:K:451:MET:N    | 2.85                     | 0.50              |
| 2:L:178:ALA:O    | 2:L:179:ASN:C    | 2.50                     | 0.50              |
| 2:L:200:LYS:HB2  | 2:L:203:SER:CB   | 2.41                     | 0.50              |
| 3:M:25:VAL:O     | 3:M:26:ASP:C     | 2.50                     | 0.50              |
| 3:M:96:LYS:HG3   | 3:M:97:GLU:HG3   | 1.92                     | 0.50              |
| 3:N:60:ILE:O     | 3:N:60:ILE:HG13  | 2.10                     | 0.50              |
| 3:N:242:VAL:HG12 | 3:N:243:ARG:N    | 2.27                     | 0.50              |
| 3:N:269:LEU:N    | 3:N:269:LEU:CD2  | 2.70                     | 0.50              |
| 3:O:32:HIS:O     | 3:O:35:PRO:HD2   | 2.11                     | 0.50              |
| 3:O:104:ARG:CA   | 3:O:107:PHE:HE1  | 2.25                     | 0.50              |
| 3:R:60:ILE:HG13  | 3:R:60:ILE:O     | 2.10                     | 0.50              |
| 3:R:279:ILE:CG2  | 3:R:280:GLU:N    | 2.75                     | 0.50              |
| 3:R:388:SER:OG   | 3:R:389:GLY:N    | 2.45                     | 0.50              |
| 4:S:107:PHE:O    | 4:S:110:ALA:HB3  | 2.12                     | 0.50              |
| 4:T:8:PHE:CE1    | 4:T:36:MET:HG2   | 2.46                     | 0.50              |
| 3:V:25:VAL:O     | 3:V:26:ASP:C     | 2.50                     | 0.50              |
| 3:V:242:VAL:HG12 | 3:V:243:ARG:N    | 2.27                     | 0.50              |
| 3:V:306:THR:HG22 | 3:V:349:PRO:CA   | 2.35                     | 0.50              |
| 4:X:8:PHE:CE1    | 4:X:36:MET:HG2   | 2.46                     | 0.50              |
| 1:A:67:GLN:HG3   | 1:A:93:LEU:HD23  | 1.94                     | 0.50              |
| 1:A:115:THR:HB   | 1:A:118:VAL:CG2  | 2.42                     | 0.50              |
| 1:A:160:CYS:O    | 1:A:161:ALA:C    | 2.50                     | 0.50              |
| 1:C:254:ARG:HB2  | 1:C:295:THR:CG2  | 2.42                     | 0.50              |
| 1:C:378:ILE:O    | 1:C:379:ARG:C    | 2.49                     | 0.50              |
| 1:C:413:PRO:HD2  | 1:C:417:TRP:CZ3  | 2.47                     | 0.50              |
| 2:D:191:HIS:HA   | 2:D:195:ASN:HD22 | 1.70                     | 0.50              |
| 2:D:191:HIS:O    | 2:D:191:HIS:CG   | 2.64                     | 0.50              |
| 1:E:289:LEU:HD12 | 1:E:289:LEU:N    | 2.27                     | 0.50              |
| 1:E:562:ARG:O    | 1:E:565:GLU:HB2  | 2.10                     | 0.50              |
| 2:F:252:ASN:C    | 2:F:255:VAL:HG22 | 2.32                     | 0.50              |
| 2:F:566:TYR:HD1  | 2:F:566:TYR:H    | 1.58                     | 0.50              |
| 1:G:394:PRO:O    | 1:G:395:GLU:C    | 2.50                     | 0.50              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:445:ILE:HD13 | 1:G:455:THR:HG21 | 1.94                     | 0.50              |
| 2:H:519:LEU:O    | 2:H:520:ARG:C    | 2.50                     | 0.50              |
| 1:I:103:MET:O    | 1:I:104:THR:C    | 2.50                     | 0.50              |
| 1:I:115:THR:HB   | 1:I:118:VAL:CG2  | 2.42                     | 0.50              |
| 1:I:395:GLU:HB2  | 1:I:396:PHE:CD1  | 2.46                     | 0.50              |
| 1:I:513:LEU:HD12 | 1:I:513:LEU:H    | 1.77                     | 0.50              |
| 1:I:523:ARG:O    | 1:I:526:ALA:HB3  | 2.12                     | 0.50              |
| 1:I:540:THR:C    | 1:I:542:ASN:N    | 2.65                     | 0.50              |
| 2:J:182:ALA:O    | 2:J:185:SER:N    | 2.45                     | 0.50              |
| 2:J:475:ASP:O    | 2:J:475:ASP:OD1  | 2.29                     | 0.50              |
| 1:K:556:ASP:CG   | 1:K:559:LEU:HG   | 2.32                     | 0.50              |
| 2:L:29:LYS:O     | 2:L:30:LYS:C     | 2.50                     | 0.50              |
| 2:L:70:TYR:O     | 2:L:71:LEU:C     | 2.50                     | 0.50              |
| 2:L:169:ILE:CG2  | 2:L:170:SER:N    | 2.70                     | 0.50              |
| 2:L:188:ALA:HA   | 2:L:195:ASN:CG   | 2.31                     | 0.50              |
| 3:M:184:SER:O    | 3:M:185:ALA:C    | 2.51                     | 0.50              |
| 3:O:210:LEU:HD13 | 3:O:211:ARG:N    | 2.27                     | 0.50              |
| 3:P:32:HIS:O     | 3:P:35:PRO:HD2   | 2.11                     | 0.50              |
| 4:Q:8:PHE:CD1    | 4:Q:36:MET:SD    | 3.04                     | 0.50              |
| 3:R:283:ILE:O    | 3:R:284:GLU:CG   | 2.59                     | 0.50              |
| 4:S:109:LYS:HA   | 4:S:112:PHE:CD1  | 2.35                     | 0.50              |
| 4:T:33:ARG:O     | 4:T:34:GLU:C     | 2.51                     | 0.50              |
| 4:U:88:VAL:CG2   | 4:U:89:GLU:N     | 2.75                     | 0.50              |
| 4:X:7:LEU:O      | 4:X:15:ARG:N     | 2.41                     | 0.50              |
| 1:A:333:LEU:HD12 | 1:A:333:LEU:N    | 2.25                     | 0.49              |
| 1:A:395:GLU:HB2  | 1:A:396:PHE:CD1  | 2.46                     | 0.49              |
| 1:A:438:VAL:O    | 1:A:442:ILE:HD13 | 2.12                     | 0.49              |
| 1:A:449:VAL:O    | 1:A:449:VAL:HG12 | 2.12                     | 0.49              |
| 2:B:334:VAL:O    | 2:B:335:LYS:C    | 2.50                     | 0.49              |
| 2:B:335:LYS:O    | 2:B:336:LEU:C    | 2.50                     | 0.49              |
| 1:C:83:ARG:HA    | 1:C:121:LEU:CD1  | 2.41                     | 0.49              |
| 1:C:217:PRO:O    | 1:C:220:VAL:HB   | 2.12                     | 0.49              |
| 1:C:540:THR:C    | 1:C:542:ASN:N    | 2.65                     | 0.49              |
| 2:D:524:TYR:O    | 2:D:525:ILE:C    | 2.50                     | 0.49              |
| 2:D:563:LEU:O    | 2:D:564:ILE:C    | 2.50                     | 0.49              |
| 2:D:566:TYR:HD1  | 2:D:566:TYR:H    | 1.58                     | 0.49              |
| 1:E:67:GLN:HG3   | 1:E:93:LEU:HD23  | 1.94                     | 0.49              |
| 1:E:83:ARG:O     | 1:E:84:ILE:C     | 2.51                     | 0.49              |
| 1:E:513:LEU:HD12 | 1:E:513:LEU:H    | 1.77                     | 0.49              |
| 2:H:452:VAL:CG1  | 2:H:453:GLY:H    | 2.24                     | 0.49              |
| 1:I:67:GLN:HG3   | 1:I:93:LEU:HD23  | 1.94                     | 0.49              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:425:VAL:O    | 1:I:426:LEU:C    | 2.50                     | 0.49              |
| 1:I:451:MET:SD   | 1:I:451:MET:N    | 2.85                     | 0.49              |
| 1:I:558:GLU:O    | 1:I:559:LEU:C    | 2.49                     | 0.49              |
| 2:J:177:VAL:O    | 2:J:178:ALA:C    | 2.50                     | 0.49              |
| 2:J:335:LYS:O    | 2:J:336:LEU:C    | 2.50                     | 0.49              |
| 2:J:447:ALA:O    | 2:J:448:MET:C    | 2.50                     | 0.49              |
| 1:K:103:MET:O    | 1:K:104:THR:C    | 2.50                     | 0.49              |
| 1:K:316:PHE:O    | 1:K:317:LEU:C    | 2.50                     | 0.49              |
| 1:K:523:ARG:O    | 1:K:526:ALA:HB3  | 2.12                     | 0.49              |
| 2:L:334:VAL:O    | 2:L:335:LYS:C    | 2.50                     | 0.49              |
| 2:L:475:ASP:O    | 2:L:475:ASP:OD1  | 2.29                     | 0.49              |
| 3:M:283:ILE:O    | 3:M:284:GLU:CG   | 2.59                     | 0.49              |
| 3:N:210:LEU:HD13 | 3:N:211:ARG:N    | 2.27                     | 0.49              |
| 3:N:283:ILE:O    | 3:N:284:GLU:CG   | 2.59                     | 0.49              |
| 3:O:76:CYS:O     | 3:O:77:VAL:C     | 2.50                     | 0.49              |
| 3:O:279:ILE:CG2  | 3:O:280:GLU:N    | 2.75                     | 0.49              |
| 3:O:321:ASP:OD1  | 3:O:322:SER:N    | 2.38                     | 0.49              |
| 3:P:178:ALA:CA   | 3:P:415:ASN:HB2  | 2.42                     | 0.49              |
| 3:R:32:HIS:O     | 3:R:35:PRO:HD2   | 2.12                     | 0.49              |
| 3:R:88:VAL:O     | 3:R:89:GLN:C     | 2.48                     | 0.49              |
| 4:U:22:ALA:O     | 4:U:23:THR:OG1   | 2.22                     | 0.49              |
| 3:V:245:SER:HB2  | 3:V:252:THR:HB   | 1.88                     | 0.49              |
| 4:X:25:ASP:O     | 4:X:28:ARG:HB2   | 2.11                     | 0.49              |
| 1:A:289:LEU:HD12 | 1:A:289:LEU:N    | 2.27                     | 0.49              |
| 2:B:188:ALA:HA   | 2:B:195:ASN:CG   | 2.31                     | 0.49              |
| 2:B:191:HIS:O    | 2:B:191:HIS:CG   | 2.64                     | 0.49              |
| 2:B:252:ASN:C    | 2:B:255:VAL:HG22 | 2.32                     | 0.49              |
| 2:B:405:TYR:O    | 2:B:408:GLN:HG3  | 2.13                     | 0.49              |
| 1:C:61:TYR:HB3   | 1:C:62:PRO:HD2   | 1.94                     | 0.49              |
| 1:C:103:MET:O    | 1:C:104:THR:C    | 2.50                     | 0.49              |
| 1:C:115:THR:HB   | 1:C:118:VAL:CG2  | 2.42                     | 0.49              |
| 1:C:585:PRO:C    | 1:C:586:VAL:HG23 | 2.32                     | 0.49              |
| 2:D:252:ASN:C    | 2:D:255:VAL:HG22 | 2.32                     | 0.49              |
| 2:D:519:LEU:O    | 2:D:520:ARG:C    | 2.50                     | 0.49              |
| 1:E:134:MET:O    | 1:E:137:ASP:HB2  | 2.12                     | 0.49              |
| 1:E:212:PHE:O    | 1:E:216:VAL:CG2  | 2.55                     | 0.49              |
| 1:E:556:ASP:OD2  | 1:E:558:GLU:HB3  | 2.12                     | 0.49              |
| 2:F:62:ASN:O     | 2:F:63:LEU:C     | 2.50                     | 0.49              |
| 2:F:406:VAL:O    | 2:F:407:VAL:C    | 2.50                     | 0.49              |
| 2:F:486:THR:CG2  | 2:F:490:LYS:HE2  | 2.41                     | 0.49              |
| 1:G:61:TYR:HB3   | 1:G:62:PRO:CD    | 2.42                     | 0.49              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:83:ARG:O     | 1:G:84:ILE:C     | 2.51                     | 0.49              |
| 1:G:137:ASP:HB2  | 1:G:138:LEU:HD22 | 1.93                     | 0.49              |
| 1:G:378:ILE:HD11 | 1:G:411:TYR:CB   | 2.42                     | 0.49              |
| 2:H:177:VAL:O    | 2:H:178:ALA:C    | 2.50                     | 0.49              |
| 2:J:62:ASN:O     | 2:J:63:LEU:C     | 2.50                     | 0.49              |
| 1:K:11:ILE:HG12  | 1:K:55:TYR:CE2   | 2.47                     | 0.49              |
| 1:K:137:ASP:HB2  | 1:K:138:LEU:HD22 | 1.93                     | 0.49              |
| 1:K:161:ALA:O    | 1:K:164:VAL:HB   | 2.13                     | 0.49              |
| 1:K:513:LEU:HD12 | 1:K:513:LEU:H    | 1.77                     | 0.49              |
| 2:L:252:ASN:C    | 2:L:255:VAL:HG22 | 2.32                     | 0.49              |
| 2:L:262:VAL:HB   | 2:L:266:PHE:HE1  | 1.77                     | 0.49              |
| 3:N:65:LEU:HD11  | 3:N:99:GLU:CA    | 2.42                     | 0.49              |
| 3:O:380:PHE:N    | 3:O:380:PHE:CD1  | 2.76                     | 0.49              |
| 3:P:265:MET:HG2  | 3:P:266:SER:N    | 2.27                     | 0.49              |
| 3:P:388:SER:OG   | 3:P:389:GLY:N    | 2.45                     | 0.49              |
| 3:R:112:GLU:OE1  | 3:R:136:THR:N    | 2.39                     | 0.49              |
| 3:R:194:ILE:HG13 | 3:R:194:ILE:O    | 2.10                     | 0.49              |
| 3:R:265:MET:HG2  | 3:R:266:SER:N    | 2.27                     | 0.49              |
| 3:V:65:LEU:HD11  | 3:V:99:GLU:CA    | 2.42                     | 0.49              |
| 3:V:118:MET:HG3  | 3:V:119:ASP:N    | 2.25                     | 0.49              |
| 3:V:283:ILE:O    | 3:V:284:GLU:CG   | 2.59                     | 0.49              |
| 3:V:416:GLY:C    | 3:V:418:TYR:N    | 2.65                     | 0.49              |
| 1:A:113:HIS:CD2  | 1:A:118:VAL:HG21 | 2.47                     | 0.49              |
| 2:B:41:MET:HG2   | 2:B:42:THR:N     | 2.27                     | 0.49              |
| 2:B:148:LEU:HA   | 2:B:151:ILE:CG1  | 2.42                     | 0.49              |
| 2:B:505:GLN:O    | 2:B:506:VAL:C    | 2.50                     | 0.49              |
| 1:C:289:LEU:HD12 | 1:C:289:LEU:N    | 2.27                     | 0.49              |
| 2:D:502:LEU:O    | 2:D:503:VAL:C    | 2.48                     | 0.49              |
| 1:E:113:HIS:CD2  | 1:E:118:VAL:HG21 | 2.47                     | 0.49              |
| 1:E:310:ILE:O    | 1:E:312:ILE:N    | 2.45                     | 0.49              |
| 1:E:470:GLN:NE2  | 1:E:517:MET:O    | 2.46                     | 0.49              |
| 2:F:109:THR:O    | 2:F:110:MET:C    | 2.49                     | 0.49              |
| 1:G:162:VAL:O    | 1:G:163:HIS:C    | 2.49                     | 0.49              |
| 1:G:271:LEU:HD12 | 1:G:296:ILE:HG12 | 1.95                     | 0.49              |
| 2:H:333:TYR:CD1  | 2:H:334:VAL:N    | 2.80                     | 0.49              |
| 2:H:491:LEU:HD12 | 2:H:492:PHE:H    | 1.71                     | 0.49              |
| 1:I:212:PHE:O    | 1:I:216:VAL:CG2  | 2.55                     | 0.49              |
| 1:I:470:GLN:NE2  | 1:I:517:MET:O    | 2.46                     | 0.49              |
| 2:J:50:LEU:O     | 2:J:51:PHE:C     | 2.51                     | 0.49              |
| 2:J:200:LYS:HB2  | 2:J:203:SER:CB   | 2.41                     | 0.49              |
| 1:K:61:TYR:HB3   | 1:K:62:PRO:CD    | 2.42                     | 0.49              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:155:LYS:HB2  | 1:K:193:THR:HG21 | 1.95                     | 0.49              |
| 2:L:148:LEU:HA   | 2:L:151:ILE:CG1  | 2.42                     | 0.49              |
| 2:L:177:VAL:O    | 2:L:178:ALA:C    | 2.50                     | 0.49              |
| 2:L:351:ILE:CD1  | 2:L:384:VAL:HG11 | 2.42                     | 0.49              |
| 2:L:377:ILE:HG21 | 2:L:395:LEU:CD2  | 2.39                     | 0.49              |
| 2:L:420:LYS:HB3  | 2:L:421:TYR:CE2  | 2.46                     | 0.49              |
| 2:L:519:LEU:O    | 2:L:520:ARG:C    | 2.50                     | 0.49              |
| 2:L:536:ALA:O    | 2:L:540:VAL:HG23 | 2.12                     | 0.49              |
| 3:O:242:VAL:HG12 | 3:O:243:ARG:N    | 2.27                     | 0.49              |
| 4:Q:30:LYS:HA    | 4:Q:30:LYS:NZ    | 2.26                     | 0.49              |
| 4:T:4:PHE:C      | 4:T:4:PHE:CD1    | 2.86                     | 0.49              |
| 4:T:117:PHE:C    | 4:T:117:PHE:CD1  | 2.85                     | 0.49              |
| 4:U:107:PHE:O    | 4:U:110:ALA:HB3  | 2.12                     | 0.49              |
| 3:V:210:LEU:HD13 | 3:V:211:ARG:N    | 2.27                     | 0.49              |
| 3:V:277:ILE:N    | 3:V:418:TYR:OH   | 2.40                     | 0.49              |
| 4:W:88:VAL:CG2   | 4:W:89:GLU:N     | 2.75                     | 0.49              |
| 1:A:120:GLY:O    | 1:A:121:LEU:C    | 2.49                     | 0.49              |
| 1:A:347:ARG:O    | 1:A:350:ILE:N    | 2.45                     | 0.49              |
| 1:A:422:ILE:O    | 1:A:423:MET:C    | 2.50                     | 0.49              |
| 1:A:525:TYR:CE1  | 2:B:518:ASP:HB2  | 2.48                     | 0.49              |
| 2:B:29:LYS:O     | 2:B:30:LYS:C     | 2.50                     | 0.49              |
| 2:B:70:TYR:O     | 2:B:71:LEU:C     | 2.50                     | 0.49              |
| 2:B:178:ALA:O    | 2:B:179:ASN:C    | 2.50                     | 0.49              |
| 2:B:257:LEU:O    | 2:B:258:SER:C    | 2.51                     | 0.49              |
| 2:B:426:GLU:O    | 2:B:429:ILE:CD1  | 2.60                     | 0.49              |
| 2:B:485:LEU:O    | 2:B:486:THR:C    | 2.50                     | 0.49              |
| 2:B:524:TYR:O    | 2:B:525:ILE:C    | 2.50                     | 0.49              |
| 1:C:197:LEU:HD13 | 1:C:201:MET:HG3  | 1.93                     | 0.49              |
| 1:C:316:PHE:O    | 1:C:317:LEU:C    | 2.51                     | 0.49              |
| 2:D:55:VAL:O     | 2:D:57:CYS:N     | 2.44                     | 0.49              |
| 2:D:262:VAL:HB   | 2:D:266:PHE:HE1  | 1.77                     | 0.49              |
| 1:E:160:CYS:O    | 1:E:161:ALA:C    | 2.50                     | 0.49              |
| 1:E:162:VAL:O    | 1:E:163:HIS:C    | 2.49                     | 0.49              |
| 1:E:421:THR:O    | 1:E:422:ILE:C    | 2.47                     | 0.49              |
| 1:E:438:VAL:O    | 1:E:442:ILE:HD13 | 2.12                     | 0.49              |
| 2:F:394:THR:HA   | 2:F:397:ASP:HB2  | 1.95                     | 0.49              |
| 2:F:447:ALA:O    | 2:F:448:MET:C    | 2.50                     | 0.49              |
| 2:F:519:LEU:O    | 2:F:520:ARG:C    | 2.50                     | 0.49              |
| 1:G:513:LEU:HD12 | 1:G:513:LEU:H    | 1.77                     | 0.49              |
| 2:H:31:LYS:O     | 2:H:32:GLU:C     | 2.50                     | 0.49              |
| 2:H:70:TYR:O     | 2:H:71:LEU:C     | 2.50                     | 0.49              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:176:VAL:O    | 2:H:177:VAL:C    | 2.51                     | 0.49              |
| 2:H:182:ALA:O    | 2:H:185:SER:N    | 2.45                     | 0.49              |
| 2:H:252:ASN:O    | 2:H:254:ALA:N    | 2.46                     | 0.49              |
| 2:H:262:VAL:HB   | 2:H:266:PHE:HE1  | 1.77                     | 0.49              |
| 2:H:376:ALA:O    | 2:H:377:ILE:C    | 2.49                     | 0.49              |
| 2:H:405:TYR:O    | 2:H:408:GLN:HG3  | 2.13                     | 0.49              |
| 1:I:86:TYR:HE2   | 1:I:122:ALA:HA   | 1.76                     | 0.49              |
| 1:I:333:LEU:HD12 | 1:I:333:LEU:N    | 2.26                     | 0.49              |
| 1:I:556:ASP:CG   | 1:I:559:LEU:HG   | 2.32                     | 0.49              |
| 2:J:305:ASN:ND2  | 2:J:572:SER:O    | 2.44                     | 0.49              |
| 2:J:351:ILE:CD1  | 2:J:384:VAL:HG11 | 2.43                     | 0.49              |
| 2:J:486:THR:O    | 2:J:489:VAL:HB   | 2.13                     | 0.49              |
| 2:J:519:LEU:O    | 2:J:520:ARG:C    | 2.50                     | 0.49              |
| 2:J:563:LEU:O    | 2:J:564:ILE:C    | 2.50                     | 0.49              |
| 2:J:569:THR:CG2  | 3:R:74:ASN:HD21  | 2.26                     | 0.49              |
| 1:K:556:ASP:OD2  | 1:K:558:GLU:HB3  | 2.12                     | 0.49              |
| 2:L:357:GLU:O    | 2:L:358:LEU:C    | 2.50                     | 0.49              |
| 2:L:524:TYR:O    | 2:L:525:ILE:C    | 2.50                     | 0.49              |
| 2:L:569:THR:HG22 | 2:L:570:LEU:N    | 2.27                     | 0.49              |
| 3:M:32:HIS:O     | 3:M:35:PRO:HD2   | 2.11                     | 0.49              |
| 3:R:104:ARG:CA   | 3:R:107:PHE:HE1  | 2.25                     | 0.49              |
| 4:S:30:LYS:HA    | 4:S:30:LYS:HZ1   | 1.77                     | 0.49              |
| 4:T:30:LYS:HA    | 4:T:30:LYS:NZ    | 2.26                     | 0.49              |
| 4:T:107:PHE:O    | 4:T:110:ALA:HB3  | 2.12                     | 0.49              |
| 4:U:4:PHE:CD1    | 4:U:4:PHE:C      | 2.86                     | 0.49              |
| 3:V:104:ARG:CA   | 3:V:107:PHE:CE1  | 2.94                     | 0.49              |
| 3:V:267:TYR:N    | 3:V:267:TYR:CD1  | 2.81                     | 0.49              |
| 4:X:99:CYS:O     | 4:X:102:ASP:OD2  | 2.29                     | 0.49              |
| 1:A:11:ILE:HG12  | 1:A:55:TYR:CE2   | 2.47                     | 0.49              |
| 1:A:86:TYR:HE2   | 1:A:122:ALA:HA   | 1.76                     | 0.49              |
| 1:A:217:PRO:O    | 1:A:220:VAL:HB   | 2.12                     | 0.49              |
| 1:A:244:PHE:O    | 1:A:245:LEU:C    | 2.47                     | 0.49              |
| 1:A:405:PHE:O    | 1:A:409:GLU:HG2  | 2.11                     | 0.49              |
| 1:A:425:VAL:O    | 1:A:426:LEU:C    | 2.50                     | 0.49              |
| 1:A:470:GLN:NE2  | 1:A:517:MET:O    | 2.46                     | 0.49              |
| 2:B:262:VAL:HB   | 2:B:266:PHE:HE1  | 1.77                     | 0.49              |
| 2:B:447:ALA:O    | 2:B:448:MET:C    | 2.50                     | 0.49              |
| 1:C:71:LEU:HD23  | 1:C:71:LEU:C     | 2.33                     | 0.49              |
| 1:C:445:ILE:HD13 | 1:C:455:THR:HG21 | 1.94                     | 0.49              |
| 1:C:459:LEU:O    | 1:C:463:ILE:HG13 | 2.13                     | 0.49              |
| 2:D:29:LYS:O     | 2:D:30:LYS:C     | 2.50                     | 0.49              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:113:ILE:CG2  | 2:D:114:ARG:N    | 2.74                     | 0.49              |
| 2:D:118:ILE:HG23 | 2:D:119:THR:N    | 2.28                     | 0.49              |
| 2:D:351:ILE:CD1  | 2:D:384:VAL:HG11 | 2.42                     | 0.49              |
| 2:D:388:ALA:O    | 2:D:389:GLU:C    | 2.50                     | 0.49              |
| 1:E:61:TYR:HB3   | 1:E:62:PRO:HD2   | 1.94                     | 0.49              |
| 1:E:493:GLU:O    | 1:E:494:GLU:HB2  | 2.13                     | 0.49              |
| 2:F:50:LEU:O     | 2:F:51:PHE:C     | 2.51                     | 0.49              |
| 2:F:70:TYR:O     | 2:F:71:LEU:C     | 2.50                     | 0.49              |
| 2:F:357:GLU:O    | 2:F:358:LEU:C    | 2.49                     | 0.49              |
| 2:F:543:ALA:O    | 2:F:545:LYS:HG3  | 2.11                     | 0.49              |
| 2:F:569:THR:HG22 | 2:F:570:LEU:N    | 2.27                     | 0.49              |
| 1:G:243:PRO:O    | 1:G:244:PHE:C    | 2.50                     | 0.49              |
| 1:G:289:LEU:HD12 | 1:G:289:LEU:N    | 2.27                     | 0.49              |
| 1:G:425:VAL:O    | 1:G:426:LEU:C    | 2.50                     | 0.49              |
| 1:G:466:ASP:O    | 1:G:467:TYR:CD1  | 2.53                     | 0.49              |
| 1:G:556:ASP:OD2  | 1:G:558:GLU:HB3  | 2.12                     | 0.49              |
| 2:H:16:PHE:CZ    | 3:R:416:GLY:HA3  | 2.48                     | 0.49              |
| 2:H:285:ALA:CB   | 2:H:286:PRO:CD   | 2.87                     | 0.49              |
| 2:H:486:THR:CG2  | 2:H:490:LYS:HE2  | 2.41                     | 0.49              |
| 1:I:71:LEU:HD23  | 1:I:71:LEU:C     | 2.33                     | 0.49              |
| 1:I:137:ASP:HB2  | 1:I:138:LEU:HD22 | 1.93                     | 0.49              |
| 1:I:394:PRO:O    | 1:I:395:GLU:C    | 2.50                     | 0.49              |
| 2:J:485:LEU:O    | 2:J:486:THR:C    | 2.50                     | 0.49              |
| 2:J:565:CYS:HB2  | 2:J:566:TYR:CD1  | 2.48                     | 0.49              |
| 1:K:344:GLN:NE2  | 1:K:374:ASN:HD22 | 2.10                     | 0.49              |
| 1:K:378:ILE:HD11 | 1:K:411:TYR:CB   | 2.42                     | 0.49              |
| 1:K:489:SER:N    | 1:K:500:VAL:CG1  | 2.74                     | 0.49              |
| 2:L:257:LEU:O    | 2:L:258:SER:C    | 2.51                     | 0.49              |
| 2:L:463:ASP:N    | 2:L:463:ASP:OD1  | 2.45                     | 0.49              |
| 2:L:480:VAL:CG1  | 2:L:481:GLN:N    | 2.76                     | 0.49              |
| 2:L:566:TYR:HD1  | 2:L:566:TYR:H    | 1.58                     | 0.49              |
| 3:M:61:LYS:HD2   | 3:M:66:TYR:HE2   | 1.78                     | 0.49              |
| 3:N:185:ALA:C    | 3:N:187:GLY:N    | 2.57                     | 0.49              |
| 3:O:267:TYR:N    | 3:O:267:TYR:CD1  | 2.81                     | 0.49              |
| 3:P:84:LEU:O     | 3:P:87:VAL:HB    | 2.13                     | 0.49              |
| 3:P:104:ARG:CA   | 3:P:107:PHE:CE1  | 2.94                     | 0.49              |
| 3:P:210:LEU:HD13 | 3:P:211:ARG:N    | 2.27                     | 0.49              |
| 4:S:88:VAL:CG2   | 4:S:89:GLU:N     | 2.75                     | 0.49              |
| 4:T:88:VAL:HA    | 4:T:91:LEU:HD12  | 1.94                     | 0.49              |
| 4:U:117:PHE:C    | 4:U:117:PHE:CD1  | 2.85                     | 0.49              |
| 3:V:60:ILE:O     | 3:V:60:ILE:HG13  | 2.11                     | 0.49              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:192:HIS:O    | 1:A:193:THR:C    | 2.48                     | 0.49              |
| 1:A:271:LEU:HD12 | 1:A:296:ILE:HG12 | 1.95                     | 0.49              |
| 1:A:493:GLU:O    | 1:A:494:GLU:HB2  | 2.13                     | 0.49              |
| 2:B:176:VAL:O    | 2:B:177:VAL:C    | 2.51                     | 0.49              |
| 1:C:161:ALA:O    | 1:C:164:VAL:HB   | 2.13                     | 0.49              |
| 1:C:249:ILE:O    | 1:C:250:LEU:C    | 2.51                     | 0.49              |
| 1:C:422:ILE:HG22 | 1:C:441:LEU:HD12 | 1.95                     | 0.49              |
| 1:C:470:GLN:NE2  | 1:C:517:MET:O    | 2.46                     | 0.49              |
| 2:D:75:ASN:N     | 2:D:75:ASN:HD22  | 2.08                     | 0.49              |
| 2:D:470:LEU:C    | 2:D:472:GLY:N    | 2.64                     | 0.49              |
| 1:E:103:MET:O    | 1:E:104:THR:C    | 2.50                     | 0.49              |
| 1:E:192:HIS:O    | 1:E:193:THR:C    | 2.48                     | 0.49              |
| 1:E:378:ILE:HD11 | 1:E:411:TYR:CB   | 2.42                     | 0.49              |
| 1:E:525:TYR:CE1  | 2:F:518:ASP:HB2  | 2.48                     | 0.49              |
| 2:F:486:THR:O    | 2:F:489:VAL:HB   | 2.13                     | 0.49              |
| 2:F:569:THR:CG2  | 3:O:74:ASN:HD21  | 2.26                     | 0.49              |
| 1:G:11:ILE:HG12  | 1:G:55:TYR:CE2   | 2.47                     | 0.49              |
| 1:G:85:GLY:O     | 1:G:86:TYR:C     | 2.49                     | 0.49              |
| 1:G:103:MET:O    | 1:G:104:THR:C    | 2.50                     | 0.49              |
| 1:G:160:CYS:O    | 1:G:161:ALA:C    | 2.50                     | 0.49              |
| 2:H:29:LYS:O     | 2:H:30:LYS:C     | 2.50                     | 0.49              |
| 2:H:335:LYS:O    | 2:H:336:LEU:C    | 2.50                     | 0.49              |
| 2:H:357:GLU:O    | 2:H:358:LEU:C    | 2.49                     | 0.49              |
| 2:H:470:LEU:C    | 2:H:472:GLY:N    | 2.64                     | 0.49              |
| 1:I:134:MET:O    | 1:I:137:ASP:HB2  | 2.12                     | 0.49              |
| 1:I:160:CYS:O    | 1:I:161:ALA:C    | 2.50                     | 0.49              |
| 1:I:254:ARG:HB2  | 1:I:295:THR:CG2  | 2.42                     | 0.49              |
| 1:I:413:PRO:HD2  | 1:I:417:TRP:CZ3  | 2.47                     | 0.49              |
| 1:I:422:ILE:HG22 | 1:I:441:LEU:HD12 | 1.94                     | 0.49              |
| 1:I:525:TYR:CE1  | 2:J:518:ASP:HB2  | 2.48                     | 0.49              |
| 1:I:556:ASP:OD2  | 1:I:558:GLU:HB3  | 2.12                     | 0.49              |
| 1:K:71:LEU:HD23  | 1:K:71:LEU:C     | 2.33                     | 0.49              |
| 1:K:83:ARG:HA    | 1:K:121:LEU:CD1  | 2.41                     | 0.49              |
| 1:K:153:LEU:O    | 1:K:154:ARG:C    | 2.49                     | 0.49              |
| 1:K:470:GLN:NE2  | 1:K:517:MET:O    | 2.46                     | 0.49              |
| 2:L:31:LYS:O     | 2:L:32:GLU:C     | 2.50                     | 0.49              |
| 2:L:118:ILE:HG23 | 2:L:119:THR:N    | 2.28                     | 0.49              |
| 2:L:124:GLU:HB2  | 2:L:125:PRO:CD   | 2.36                     | 0.49              |
| 2:L:176:VAL:O    | 2:L:177:VAL:C    | 2.51                     | 0.49              |
| 2:L:191:HIS:HA   | 2:L:195:ASN:HD22 | 1.70                     | 0.49              |
| 2:L:426:GLU:O    | 2:L:429:ILE:CD1  | 2.60                     | 0.49              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:L:447:ALA:O    | 2:L:448:MET:C    | 2.50                     | 0.49              |
| 2:L:563:LEU:O    | 2:L:564:ILE:C    | 2.50                     | 0.49              |
| 3:N:61:LYS:HD2   | 3:N:66:TYR:HE2   | 1.77                     | 0.49              |
| 3:O:61:LYS:HD2   | 3:O:66:TYR:HE2   | 1.78                     | 0.49              |
| 3:O:386:THR:O    | 3:O:387:THR:C    | 2.47                     | 0.49              |
| 3:P:273:VAL:O    | 3:P:274:LYS:C    | 2.51                     | 0.49              |
| 4:Q:4:PHE:CD1    | 4:Q:4:PHE:C      | 2.86                     | 0.49              |
| 3:R:242:VAL:HG12 | 3:R:243:ARG:N    | 2.27                     | 0.49              |
| 4:S:7:LEU:O      | 4:S:15:ARG:N     | 2.40                     | 0.49              |
| 4:T:88:VAL:CG2   | 4:T:89:GLU:N     | 2.75                     | 0.49              |
| 3:V:215:ASN:HB2  | 3:V:391:GLN:H    | 1.76                     | 0.49              |
| 4:W:117:PHE:C    | 4:W:117:PHE:CD1  | 2.85                     | 0.49              |
| 1:A:71:LEU:HD23  | 1:A:71:LEU:C     | 2.33                     | 0.49              |
| 1:A:394:PRO:O    | 1:A:395:GLU:C    | 2.50                     | 0.49              |
| 1:A:532:LYS:CA   | 1:A:581:LEU:HD13 | 2.35                     | 0.49              |
| 1:A:556:ASP:CG   | 1:A:559:LEU:HG   | 2.32                     | 0.49              |
| 2:B:464:GLU:OE2  | 1:E:233:PRO:HD2  | 2.13                     | 0.49              |
| 2:B:480:VAL:CG1  | 2:B:481:GLN:N    | 2.76                     | 0.49              |
| 2:B:486:THR:O    | 2:B:489:VAL:HB   | 2.13                     | 0.49              |
| 2:B:502:LEU:O    | 2:B:503:VAL:C    | 2.48                     | 0.49              |
| 1:C:86:TYR:HE2   | 1:C:122:ALA:HA   | 1.76                     | 0.49              |
| 1:C:419:ILE:HG12 | 1:C:444:LEU:HD23 | 1.95                     | 0.49              |
| 1:C:425:VAL:O    | 1:C:426:LEU:C    | 2.50                     | 0.49              |
| 2:D:31:LYS:O     | 2:D:32:GLU:C     | 2.50                     | 0.49              |
| 2:D:41:MET:HG2   | 2:D:42:THR:N     | 2.27                     | 0.49              |
| 2:D:252:ASN:O    | 2:D:254:ALA:N    | 2.46                     | 0.49              |
| 2:D:334:VAL:O    | 2:D:335:LYS:C    | 2.50                     | 0.49              |
| 2:D:335:LYS:O    | 2:D:336:LEU:C    | 2.50                     | 0.49              |
| 2:D:426:GLU:O    | 2:D:429:ILE:CD1  | 2.60                     | 0.49              |
| 1:E:11:ILE:HG12  | 1:E:55:TYR:CE2   | 2.47                     | 0.49              |
| 1:E:58:MET:HE1   | 4:U:15:ARG:O     | 2.13                     | 0.49              |
| 1:E:155:LYS:HB2  | 1:E:193:THR:HG21 | 1.95                     | 0.49              |
| 1:E:344:GLN:NE2  | 1:E:374:ASN:HD22 | 2.10                     | 0.49              |
| 1:E:413:PRO:HD2  | 1:E:417:TRP:CZ3  | 2.47                     | 0.49              |
| 1:E:445:ILE:HD13 | 1:E:455:THR:HG21 | 1.94                     | 0.49              |
| 1:E:472:LEU:O    | 1:E:473:VAL:C    | 2.51                     | 0.49              |
| 1:E:556:ASP:CG   | 1:E:559:LEU:HG   | 2.32                     | 0.49              |
| 2:F:29:LYS:O     | 2:F:30:LYS:C     | 2.50                     | 0.49              |
| 2:F:208:LEU:HD11 | 2:F:243:ARG:CD   | 2.41                     | 0.49              |
| 2:F:257:LEU:O    | 2:F:258:SER:C    | 2.51                     | 0.49              |
| 2:F:426:GLU:O    | 2:F:429:ILE:CD1  | 2.60                     | 0.49              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:563:LEU:O    | 2:F:564:ILE:C    | 2.50                     | 0.49              |
| 1:G:14:ILE:H     | 1:G:14:ILE:CD1   | 2.18                     | 0.49              |
| 1:G:222:ILE:O    | 1:G:225:ASN:HB3  | 2.13                     | 0.49              |
| 1:G:316:PHE:O    | 1:G:317:LEU:C    | 2.51                     | 0.49              |
| 1:G:413:PRO:HD2  | 1:G:417:TRP:CZ3  | 2.47                     | 0.49              |
| 2:H:2:THR:HB     | 2:J:402:LYS:HE2  | 1.93                     | 0.49              |
| 2:H:351:ILE:CD1  | 2:H:384:VAL:HG11 | 2.42                     | 0.49              |
| 2:H:387:SER:CA   | 2:H:390:ARG:HD2  | 2.24                     | 0.49              |
| 2:H:429:ILE:O    | 2:H:432:LEU:HB3  | 2.12                     | 0.49              |
| 2:H:536:ALA:O    | 2:H:540:VAL:HG23 | 2.12                     | 0.49              |
| 1:I:271:LEU:HD12 | 1:I:296:ILE:HG12 | 1.95                     | 0.49              |
| 2:J:104:ALA:O    | 2:J:107:VAL:N    | 2.43                     | 0.49              |
| 2:J:148:LEU:HA   | 2:J:151:ILE:CG1  | 2.42                     | 0.49              |
| 1:K:117:PHE:HD1  | 1:K:117:PHE:H    | 1.61                     | 0.49              |
| 1:K:289:LEU:N    | 1:K:289:LEU:HD12 | 2.27                     | 0.49              |
| 1:K:394:PRO:O    | 1:K:395:GLU:C    | 2.50                     | 0.49              |
| 1:K:403:GLY:O    | 1:K:406:LEU:HB2  | 2.13                     | 0.49              |
| 1:K:413:PRO:HD2  | 1:K:417:TRP:CZ3  | 2.47                     | 0.49              |
| 1:K:419:ILE:HG12 | 1:K:444:LEU:HD23 | 1.95                     | 0.49              |
| 1:K:525:TYR:CE1  | 2:L:518:ASP:HB2  | 2.48                     | 0.49              |
| 2:L:407:VAL:O    | 2:L:408:GLN:C    | 2.48                     | 0.49              |
| 3:M:84:LEU:O     | 3:M:87:VAL:HB    | 2.13                     | 0.49              |
| 3:M:242:VAL:HG12 | 3:M:243:ARG:N    | 2.27                     | 0.49              |
| 3:M:273:VAL:O    | 3:M:274:LYS:C    | 2.51                     | 0.49              |
| 3:N:133:GLU:HG3  | 3:N:134:PHE:N    | 2.28                     | 0.49              |
| 3:N:388:SER:OG   | 3:N:389:GLY:N    | 2.45                     | 0.49              |
| 3:O:84:LEU:O     | 3:O:87:VAL:HB    | 2.13                     | 0.49              |
| 3:P:61:LYS:HD2   | 3:P:66:TYR:HE2   | 1.78                     | 0.49              |
| 3:P:306:THR:HG22 | 3:P:349:PRO:CA   | 2.35                     | 0.49              |
| 4:Q:33:ARG:O     | 4:Q:34:GLU:C     | 2.51                     | 0.49              |
| 4:Q:71:ILE:CG2   | 4:Q:72:GLU:H     | 2.26                     | 0.49              |
| 4:Q:88:VAL:CG2   | 4:Q:89:GLU:N     | 2.75                     | 0.49              |
| 3:R:84:LEU:O     | 3:R:87:VAL:HB    | 2.13                     | 0.49              |
| 4:S:4:PHE:C      | 4:S:4:PHE:CD1    | 2.86                     | 0.49              |
| 4:S:88:VAL:HA    | 4:S:91:LEU:HD12  | 1.94                     | 0.49              |
| 4:T:8:PHE:CD1    | 4:T:36:MET:SD    | 3.04                     | 0.49              |
| 4:T:29:LYS:O     | 4:T:32:VAL:HB    | 2.12                     | 0.49              |
| 3:V:273:VAL:O    | 3:V:274:LYS:C    | 2.51                     | 0.49              |
| 4:W:30:LYS:HA    | 4:W:30:LYS:NZ    | 2.26                     | 0.49              |
| 4:W:87:TYR:O     | 4:W:88:VAL:C     | 2.51                     | 0.49              |
| 4:W:107:PHE:O    | 4:W:110:ALA:HB3  | 2.12                     | 0.49              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:172:MET:HG2  | 1:A:201:MET:CE   | 2.43                     | 0.49              |
| 1:A:419:ILE:HG12 | 1:A:444:LEU:HD23 | 1.95                     | 0.49              |
| 1:A:459:LEU:O    | 1:A:463:ILE:HG13 | 2.13                     | 0.49              |
| 1:A:513:LEU:HD12 | 1:A:513:LEU:H    | 1.77                     | 0.49              |
| 1:A:585:PRO:C    | 1:A:586:VAL:HG23 | 2.32                     | 0.49              |
| 2:B:257:LEU:O    | 2:B:260:VAL:N    | 2.46                     | 0.49              |
| 2:B:470:LEU:C    | 2:B:472:GLY:N    | 2.64                     | 0.49              |
| 2:B:492:PHE:CD1  | 2:B:503:VAL:HG21 | 2.48                     | 0.49              |
| 2:B:536:ALA:O    | 2:B:540:VAL:HG23 | 2.12                     | 0.49              |
| 1:C:11:ILE:HG12  | 1:C:55:TYR:CE2   | 2.47                     | 0.49              |
| 1:C:378:ILE:HD11 | 1:C:411:TYR:CB   | 2.42                     | 0.49              |
| 1:C:397:LYS:O    | 1:C:398:ALA:C    | 2.49                     | 0.49              |
| 1:C:422:ILE:O    | 1:C:423:MET:C    | 2.50                     | 0.49              |
| 2:D:406:VAL:O    | 2:D:407:VAL:C    | 2.50                     | 0.49              |
| 2:D:485:LEU:O    | 2:D:486:THR:C    | 2.50                     | 0.49              |
| 2:F:176:VAL:O    | 2:F:177:VAL:C    | 2.51                     | 0.49              |
| 2:F:376:ALA:O    | 2:F:377:ILE:C    | 2.50                     | 0.49              |
| 2:F:535:VAL:O    | 2:F:538:LYS:HB3  | 2.13                     | 0.49              |
| 1:G:459:LEU:O    | 1:G:463:ILE:HG13 | 2.13                     | 0.49              |
| 2:H:55:VAL:O     | 2:H:57:CYS:N     | 2.44                     | 0.49              |
| 2:H:99:ASN:O     | 2:H:102:ILE:N    | 2.46                     | 0.49              |
| 2:H:406:VAL:O    | 2:H:407:VAL:C    | 2.50                     | 0.49              |
| 2:H:463:ASP:O    | 2:H:464:GLU:C    | 2.51                     | 0.49              |
| 2:H:492:PHE:CD1  | 2:H:503:VAL:HG21 | 2.48                     | 0.49              |
| 2:H:569:THR:CG2  | 3:P:74:ASN:HD21  | 2.26                     | 0.49              |
| 1:I:11:ILE:HG12  | 1:I:55:TYR:CE2   | 2.47                     | 0.49              |
| 1:I:344:GLN:NE2  | 1:I:374:ASN:HD22 | 2.10                     | 0.49              |
| 2:J:99:ASN:O     | 2:J:102:ILE:N    | 2.46                     | 0.49              |
| 2:J:109:THR:O    | 2:J:110:MET:C    | 2.49                     | 0.49              |
| 2:J:118:ILE:HG23 | 2:J:119:THR:N    | 2.28                     | 0.49              |
| 2:J:178:ALA:O    | 2:J:179:ASN:C    | 2.50                     | 0.49              |
| 2:J:252:ASN:O    | 2:J:254:ALA:N    | 2.46                     | 0.49              |
| 2:J:463:ASP:O    | 2:J:464:GLU:C    | 2.51                     | 0.49              |
| 1:K:14:ILE:H     | 1:K:14:ILE:CD1   | 2.18                     | 0.49              |
| 1:K:113:HIS:CD2  | 1:K:118:VAL:HG21 | 2.47                     | 0.49              |
| 2:L:75:ASN:N     | 2:L:75:ASN:HD22  | 2.09                     | 0.49              |
| 2:L:569:THR:CG2  | 3:V:74:ASN:HD21  | 2.26                     | 0.49              |
| 3:M:76:CYS:O     | 3:M:77:VAL:C     | 2.50                     | 0.49              |
| 3:M:96:LYS:HG2   | 3:M:143:GLU:HA   | 1.95                     | 0.49              |
| 3:N:96:LYS:HG2   | 3:N:143:GLU:HA   | 1.95                     | 0.49              |
| 3:O:178:ALA:CA   | 3:O:415:ASN:HB2  | 2.42                     | 0.49              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:O:184:SER:O    | 3:O:185:ALA:C    | 2.51                     | 0.49              |
| 4:Q:28:ARG:O     | 4:Q:29:LYS:C     | 2.49                     | 0.49              |
| 4:Q:88:VAL:HA    | 4:Q:91:LEU:HD12  | 1.94                     | 0.49              |
| 3:R:178:ALA:CA   | 3:R:415:ASN:HB2  | 2.42                     | 0.49              |
| 4:S:87:TYR:O     | 4:S:88:VAL:C     | 2.51                     | 0.49              |
| 4:T:7:LEU:O      | 4:T:15:ARG:N     | 2.40                     | 0.49              |
| 4:T:83:LEU:O     | 4:T:83:LEU:HD12  | 2.13                     | 0.49              |
| 4:U:88:VAL:HA    | 4:U:91:LEU:HD12  | 1.94                     | 0.49              |
| 3:V:76:CYS:O     | 3:V:77:VAL:C     | 2.50                     | 0.49              |
| 1:A:279:GLU:OE1  | 1:A:279:GLU:N    | 2.45                     | 0.49              |
| 2:B:258:SER:HA   | 2:B:261:LYS:HE3  | 1.95                     | 0.49              |
| 2:B:351:ILE:CD1  | 2:B:384:VAL:HG11 | 2.42                     | 0.49              |
| 2:B:394:THR:HA   | 2:B:397:ASP:HB2  | 1.95                     | 0.49              |
| 2:B:406:VAL:O    | 2:B:407:VAL:C    | 2.50                     | 0.49              |
| 2:B:569:THR:HG22 | 2:B:570:LEU:N    | 2.27                     | 0.49              |
| 2:B:569:THR:CG2  | 3:M:74:ASN:HD21  | 2.26                     | 0.49              |
| 1:C:394:PRO:O    | 1:C:395:GLU:C    | 2.50                     | 0.49              |
| 1:C:438:VAL:O    | 1:C:442:ILE:HD13 | 2.12                     | 0.49              |
| 1:C:525:TYR:CE1  | 2:D:518:ASP:HB2  | 2.48                     | 0.49              |
| 2:D:104:ALA:CB   | 2:D:136:TYR:HD2  | 2.20                     | 0.49              |
| 2:D:486:THR:O    | 2:D:489:VAL:HB   | 2.13                     | 0.49              |
| 2:D:569:THR:HG22 | 2:D:570:LEU:N    | 2.27                     | 0.49              |
| 1:E:61:TYR:HB3   | 1:E:62:PRO:CD    | 2.42                     | 0.49              |
| 1:E:222:ILE:O    | 1:E:225:ASN:HB3  | 2.13                     | 0.49              |
| 1:E:347:ARG:O    | 1:E:350:ILE:N    | 2.45                     | 0.49              |
| 1:E:449:VAL:O    | 1:E:449:VAL:HG12 | 2.13                     | 0.49              |
| 1:E:540:THR:C    | 1:E:542:ASN:N    | 2.65                     | 0.49              |
| 2:F:491:LEU:HD12 | 2:F:492:PHE:H    | 1.71                     | 0.49              |
| 2:F:491:LEU:CD1  | 2:F:492:PHE:N    | 2.66                     | 0.49              |
| 2:F:505:GLN:O    | 2:F:506:VAL:C    | 2.50                     | 0.49              |
| 2:F:524:TYR:O    | 2:F:525:ILE:C    | 2.50                     | 0.49              |
| 1:G:71:LEU:HD23  | 1:G:71:LEU:C     | 2.33                     | 0.49              |
| 1:G:162:VAL:O    | 1:G:165:ILE:N    | 2.46                     | 0.49              |
| 1:G:362:LYS:O    | 1:G:363:ARG:C    | 2.52                     | 0.49              |
| 2:H:394:THR:HA   | 2:H:397:ASP:HB2  | 1.95                     | 0.49              |
| 1:I:83:ARG:O     | 1:I:84:ILE:C     | 2.51                     | 0.49              |
| 2:J:124:GLU:HB2  | 2:J:125:PRO:CD   | 2.36                     | 0.49              |
| 2:J:257:LEU:O    | 2:J:258:SER:C    | 2.51                     | 0.49              |
| 2:J:333:TYR:CD1  | 2:J:334:VAL:N    | 2.81                     | 0.49              |
| 2:J:357:GLU:O    | 2:J:358:LEU:C    | 2.49                     | 0.49              |
| 1:K:146:LEU:HD23 | 1:K:146:LEU:C    | 2.33                     | 0.49              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:147:LYS:HA   | 1:K:147:LYS:CE   | 2.38                     | 0.49              |
| 1:K:172:MET:HG2  | 1:K:201:MET:CE   | 2.43                     | 0.49              |
| 1:K:247:VAL:O    | 1:K:248:ARG:C    | 2.51                     | 0.49              |
| 2:L:41:MET:HG2   | 2:L:42:THR:N     | 2.27                     | 0.49              |
| 2:L:67:LYS:O     | 2:L:68:LEU:C     | 2.47                     | 0.49              |
| 2:L:177:VAL:O    | 2:L:180:ARG:HB2  | 2.13                     | 0.49              |
| 3:M:210:LEU:HD13 | 3:M:211:ARG:N    | 2.27                     | 0.49              |
| 3:M:355:LEU:HD12 | 3:M:356:MET:H    | 1.78                     | 0.49              |
| 3:M:376:ILE:CG2  | 3:M:420:LEU:HB2  | 2.41                     | 0.49              |
| 3:O:118:MET:HG3  | 3:O:119:ASP:N    | 2.25                     | 0.49              |
| 3:P:133:GLU:HG3  | 3:P:134:PHE:N    | 2.28                     | 0.49              |
| 3:P:184:SER:O    | 3:P:185:ALA:C    | 2.51                     | 0.49              |
| 3:P:267:TYR:N    | 3:P:267:TYR:CD1  | 2.81                     | 0.49              |
| 3:R:177:GLU:OE1  | 3:R:388:SER:HB3  | 2.13                     | 0.49              |
| 4:S:61:ARG:NH1   | 4:S:63:ALA:O     | 2.46                     | 0.49              |
| 4:S:71:ILE:CG2   | 4:S:72:GLU:H     | 2.26                     | 0.49              |
| 4:S:88:VAL:HG23  | 4:S:89:GLU:H     | 1.78                     | 0.49              |
| 3:V:265:MET:HG2  | 3:V:266:SER:N    | 2.27                     | 0.49              |
| 4:W:61:ARG:NH1   | 4:W:63:ALA:O     | 2.46                     | 0.49              |
| 4:X:71:ILE:CG2   | 4:X:72:GLU:H     | 2.26                     | 0.49              |
| 1:A:302:GLU:HG3  | 1:A:305:LEU:H    | 1.78                     | 0.49              |
| 1:A:316:PHE:O    | 1:A:317:LEU:C    | 2.51                     | 0.49              |
| 2:B:177:VAL:O    | 2:B:178:ALA:C    | 2.50                     | 0.49              |
| 2:B:326:VAL:HG21 | 2:B:369:PHE:CZ   | 2.47                     | 0.49              |
| 2:B:486:THR:HG22 | 2:B:487:ALA:H    | 1.76                     | 0.49              |
| 2:B:486:THR:CG2  | 2:B:490:LYS:HE2  | 2.42                     | 0.49              |
| 1:C:83:ARG:O     | 1:C:84:ILE:C     | 2.51                     | 0.49              |
| 1:C:222:ILE:O    | 1:C:225:ASN:HB3  | 2.13                     | 0.49              |
| 2:D:62:ASN:O     | 2:D:63:LEU:C     | 2.50                     | 0.49              |
| 2:D:177:VAL:O    | 2:D:178:ALA:C    | 2.50                     | 0.49              |
| 2:D:535:VAL:O    | 2:D:538:LYS:HB3  | 2.13                     | 0.49              |
| 2:D:569:THR:CG2  | 3:N:74:ASN:HD21  | 2.26                     | 0.49              |
| 1:E:117:PHE:H    | 1:E:117:PHE:HD1  | 1.61                     | 0.49              |
| 1:E:217:PRO:O    | 1:E:220:VAL:HB   | 2.12                     | 0.49              |
| 1:E:362:LYS:O    | 1:E:363:ARG:C    | 2.52                     | 0.49              |
| 1:E:459:LEU:O    | 1:E:463:ILE:HG13 | 2.13                     | 0.49              |
| 2:F:257:LEU:O    | 2:F:260:VAL:N    | 2.46                     | 0.49              |
| 2:F:258:SER:HA   | 2:F:261:LYS:HE3  | 1.95                     | 0.49              |
| 2:F:405:TYR:O    | 2:F:408:GLN:HG3  | 2.13                     | 0.49              |
| 1:G:66:GLY:O     | 1:G:67:GLN:C     | 2.48                     | 0.49              |
| 1:G:172:MET:HG2  | 1:G:201:MET:CE   | 2.43                     | 0.49              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:366:MET:O    | 1:G:369:SER:OG   | 2.24                     | 0.49              |
| 2:H:95:CYS:O     | 2:H:103:ARG:HD2  | 2.13                     | 0.49              |
| 2:H:148:LEU:HA   | 2:H:151:ILE:CG1  | 2.42                     | 0.49              |
| 2:H:565:CYS:HB2  | 2:H:566:TYR:CD1  | 2.48                     | 0.49              |
| 1:I:61:TYR:HB3   | 1:I:62:PRO:CD    | 2.42                     | 0.49              |
| 1:I:247:VAL:O    | 1:I:248:ARG:C    | 2.51                     | 0.49              |
| 1:I:289:LEU:HD12 | 1:I:289:LEU:N    | 2.27                     | 0.49              |
| 1:I:403:GLY:O    | 1:I:406:LEU:HB2  | 2.13                     | 0.49              |
| 2:J:176:VAL:O    | 2:J:177:VAL:C    | 2.51                     | 0.49              |
| 1:K:222:ILE:O    | 1:K:225:ASN:HB3  | 2.13                     | 0.49              |
| 2:L:252:ASN:O    | 2:L:254:ALA:N    | 2.46                     | 0.49              |
| 2:L:323:VAL:CG2  | 2:L:324:PHE:HD1  | 2.17                     | 0.49              |
| 2:L:326:VAL:HG21 | 2:L:369:PHE:CZ   | 2.47                     | 0.49              |
| 3:M:7:TYR:CE2    | 3:M:30:VAL:HB    | 2.48                     | 0.49              |
| 3:M:178:ALA:CA   | 3:M:415:ASN:HB2  | 2.42                     | 0.49              |
| 3:N:10:ASP:O     | 3:N:12:LYS:N     | 2.46                     | 0.49              |
| 3:N:273:VAL:O    | 3:N:274:LYS:C    | 2.51                     | 0.49              |
| 3:O:56:ARG:HG3   | 3:O:56:ARG:NH1   | 2.21                     | 0.49              |
| 3:P:106:ASN:CG   | 3:P:109:ILE:HD11 | 2.33                     | 0.49              |
| 3:R:184:SER:O    | 3:R:185:ALA:C    | 2.51                     | 0.49              |
| 3:R:306:THR:HG22 | 3:R:349:PRO:CA   | 2.35                     | 0.49              |
| 4:S:83:LEU:O     | 4:S:83:LEU:HD12  | 2.13                     | 0.49              |
| 4:W:29:LYS:O     | 4:W:32:VAL:HB    | 2.13                     | 0.49              |
| 4:W:33:ARG:O     | 4:W:34:GLU:C     | 2.51                     | 0.49              |
| 4:X:33:ARG:O     | 4:X:34:GLU:C     | 2.51                     | 0.49              |
| 1:A:35:ARG:CD    | 1:A:65:PHE:HE2   | 2.21                     | 0.48              |
| 1:A:61:TYR:HB3   | 1:A:62:PRO:CD    | 2.42                     | 0.48              |
| 1:A:430:GLY:O    | 1:A:433:VAL:N    | 2.46                     | 0.48              |
| 2:B:62:ASN:O     | 2:B:63:LEU:C     | 2.50                     | 0.48              |
| 2:B:72:TYR:O     | 2:B:73:LEU:C     | 2.52                     | 0.48              |
| 2:B:493:LEU:C    | 2:B:495:LYS:N    | 2.62                     | 0.48              |
| 2:B:535:VAL:O    | 2:B:538:LYS:HB3  | 2.13                     | 0.48              |
| 1:C:61:TYR:HB3   | 1:C:62:PRO:CD    | 2.42                     | 0.48              |
| 1:C:138:LEU:O    | 1:C:141:GLU:HB2  | 2.13                     | 0.48              |
| 1:C:172:MET:HG2  | 1:C:201:MET:CE   | 2.43                     | 0.48              |
| 1:C:489:SER:N    | 1:C:500:VAL:CG1  | 2.74                     | 0.48              |
| 2:D:95:CYS:O     | 2:D:103:ARG:HD2  | 2.13                     | 0.48              |
| 2:D:236:GLU:O    | 2:D:240:ILE:HG13 | 2.13                     | 0.48              |
| 2:D:491:LEU:HD12 | 2:D:492:PHE:H    | 1.71                     | 0.48              |
| 1:E:162:VAL:O    | 1:E:165:ILE:N    | 2.46                     | 0.48              |
| 1:E:438:VAL:CB   | 1:E:439:PRO:HD3  | 2.28                     | 0.48              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:335:LYS:O    | 2:F:336:LEU:C    | 2.50                     | 0.48              |
| 1:G:67:GLN:HG3   | 1:G:93:LEU:HD23  | 1.94                     | 0.48              |
| 1:G:113:HIS:CD2  | 1:G:118:VAL:HG21 | 2.47                     | 0.48              |
| 1:G:525:TYR:CE1  | 2:H:518:ASP:HB2  | 2.48                     | 0.48              |
| 2:H:257:LEU:O    | 2:H:260:VAL:N    | 2.46                     | 0.48              |
| 2:H:257:LEU:O    | 2:H:258:SER:C    | 2.51                     | 0.48              |
| 1:I:61:TYR:HB3   | 1:I:62:PRO:HD2   | 1.94                     | 0.48              |
| 1:I:422:ILE:O    | 1:I:423:MET:C    | 2.50                     | 0.48              |
| 1:I:466:ASP:O    | 1:I:467:TYR:CD1  | 2.53                     | 0.48              |
| 2:J:255:VAL:O    | 2:J:256:VAL:C    | 2.52                     | 0.48              |
| 2:J:310:VAL:CG1  | 2:J:317:LEU:HD21 | 2.42                     | 0.48              |
| 2:J:405:TYR:O    | 2:J:408:GLN:HG3  | 2.13                     | 0.48              |
| 2:J:488:ILE:O    | 2:J:489:VAL:C    | 2.50                     | 0.48              |
| 1:K:83:ARG:O     | 1:K:84:ILE:C     | 2.51                     | 0.48              |
| 1:K:422:ILE:HG22 | 1:K:441:LEU:HD12 | 1.95                     | 0.48              |
| 1:K:449:VAL:HG12 | 1:K:449:VAL:O    | 2.12                     | 0.48              |
| 2:L:333:TYR:CD1  | 2:L:334:VAL:N    | 2.81                     | 0.48              |
| 3:M:267:TYR:N    | 3:M:267:TYR:CD1  | 2.81                     | 0.48              |
| 3:M:314:ILE:HG12 | 3:M:376:ILE:HD12 | 1.95                     | 0.48              |
| 3:N:279:ILE:CG2  | 3:N:280:GLU:N    | 2.75                     | 0.48              |
| 3:P:65:LEU:HD11  | 3:P:99:GLU:CA    | 2.42                     | 0.48              |
| 3:P:355:LEU:HD12 | 3:P:356:MET:H    | 1.78                     | 0.48              |
| 3:R:7:TYR:CE2    | 3:R:30:VAL:HB    | 2.48                     | 0.48              |
| 4:S:29:LYS:O     | 4:S:32:VAL:HB    | 2.13                     | 0.48              |
| 4:S:33:ARG:O     | 4:S:34:GLU:C     | 2.51                     | 0.48              |
| 4:U:83:LEU:O     | 4:U:83:LEU:HD12  | 2.13                     | 0.48              |
| 3:V:177:GLU:OE1  | 3:V:388:SER:HB3  | 2.13                     | 0.48              |
| 4:W:40:LEU:HD12  | 4:W:40:LEU:C     | 2.34                     | 0.48              |
| 4:X:40:LEU:HD12  | 4:X:40:LEU:C     | 2.34                     | 0.48              |
| 1:A:161:ALA:O    | 1:A:164:VAL:HB   | 2.13                     | 0.48              |
| 1:A:362:LYS:O    | 1:A:363:ARG:C    | 2.52                     | 0.48              |
| 1:A:403:GLY:O    | 1:A:406:LEU:HB2  | 2.13                     | 0.48              |
| 1:A:415:LYS:HE3  | 1:A:415:LYS:CA   | 2.43                     | 0.48              |
| 2:B:118:ILE:HG23 | 2:B:119:THR:N    | 2.28                     | 0.48              |
| 2:B:236:GLU:O    | 2:B:240:ILE:HG13 | 2.13                     | 0.48              |
| 2:B:517:PRO:O    | 2:B:518:ASP:C    | 2.52                     | 0.48              |
| 2:B:563:LEU:O    | 2:B:564:ILE:C    | 2.50                     | 0.48              |
| 1:C:146:LEU:HD23 | 1:C:146:LEU:C    | 2.33                     | 0.48              |
| 1:C:162:VAL:O    | 1:C:165:ILE:N    | 2.46                     | 0.48              |
| 1:C:429:ALA:O    | 1:C:430:GLY:C    | 2.50                     | 0.48              |
| 1:C:513:LEU:HD12 | 1:C:513:LEU:H    | 1.77                     | 0.48              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:585:PRO:O    | 1:C:586:VAL:CG2  | 2.62                     | 0.48              |
| 2:D:99:ASN:O     | 2:D:102:ILE:N    | 2.46                     | 0.48              |
| 2:D:333:TYR:CD1  | 2:D:334:VAL:N    | 2.81                     | 0.48              |
| 2:D:480:VAL:CG1  | 2:D:481:GLN:N    | 2.76                     | 0.48              |
| 2:D:536:ALA:O    | 2:D:540:VAL:HG23 | 2.12                     | 0.48              |
| 1:E:172:MET:HG2  | 1:E:201:MET:CE   | 2.43                     | 0.48              |
| 1:E:249:ILE:O    | 1:E:250:LEU:C    | 2.51                     | 0.48              |
| 2:F:72:TYR:O     | 2:F:73:LEU:C     | 2.51                     | 0.48              |
| 2:F:148:LEU:HA   | 2:F:151:ILE:CG1  | 2.42                     | 0.48              |
| 2:F:236:GLU:O    | 2:F:240:ILE:HG13 | 2.14                     | 0.48              |
| 2:F:252:ASN:O    | 2:F:254:ALA:N    | 2.46                     | 0.48              |
| 1:G:449:VAL:HG12 | 1:G:449:VAL:O    | 2.12                     | 0.48              |
| 1:G:470:GLN:NE2  | 1:G:517:MET:O    | 2.46                     | 0.48              |
| 2:H:16:PHE:HZ    | 3:R:416:GLY:CA   | 2.26                     | 0.48              |
| 2:H:480:VAL:CG1  | 2:H:481:GLN:N    | 2.76                     | 0.48              |
| 2:H:485:LEU:O    | 2:H:486:THR:C    | 2.50                     | 0.48              |
| 2:H:535:VAL:O    | 2:H:538:LYS:HB3  | 2.13                     | 0.48              |
| 1:I:271:LEU:O    | 1:I:272:ALA:C    | 2.52                     | 0.48              |
| 2:J:426:GLU:O    | 2:J:429:ILE:CD1  | 2.60                     | 0.48              |
| 2:J:492:PHE:CD1  | 2:J:503:VAL:HG21 | 2.48                     | 0.48              |
| 1:K:249:ILE:O    | 1:K:250:LEU:C    | 2.51                     | 0.48              |
| 2:L:61:ASP:O     | 2:L:62:ASN:C     | 2.52                     | 0.48              |
| 2:L:470:LEU:C    | 2:L:472:GLY:N    | 2.64                     | 0.48              |
| 2:L:492:PHE:CD1  | 2:L:503:VAL:HG21 | 2.48                     | 0.48              |
| 3:M:279:ILE:CG2  | 3:M:280:GLU:N    | 2.75                     | 0.48              |
| 3:N:22:ARG:CG    | 3:N:23:GLY:N     | 2.76                     | 0.48              |
| 3:N:83:PHE:CE1   | 3:N:87:VAL:HG22  | 2.49                     | 0.48              |
| 3:N:267:TYR:N    | 3:N:267:TYR:CD1  | 2.81                     | 0.48              |
| 3:P:25:VAL:O     | 3:P:26:ASP:C     | 2.50                     | 0.48              |
| 3:P:177:GLU:OE1  | 3:P:388:SER:HB3  | 2.13                     | 0.48              |
| 3:R:10:ASP:O     | 3:R:12:LYS:N     | 2.46                     | 0.48              |
| 3:R:106:ASN:CG   | 3:R:109:ILE:HD11 | 2.33                     | 0.48              |
| 1:A:247:VAL:O    | 1:A:248:ARG:C    | 2.51                     | 0.48              |
| 1:A:540:THR:C    | 1:A:542:ASN:N    | 2.65                     | 0.48              |
| 2:B:104:ALA:O    | 2:B:107:VAL:N    | 2.43                     | 0.48              |
| 2:B:429:ILE:O    | 2:B:432:LEU:HB3  | 2.12                     | 0.48              |
| 2:B:463:ASP:O    | 2:B:464:GLU:C    | 2.51                     | 0.48              |
| 1:C:5:ILE:HB     | 1:C:52:LYS:NZ    | 2.27                     | 0.48              |
| 1:C:67:GLN:HG3   | 1:C:93:LEU:HD23  | 1.94                     | 0.48              |
| 1:C:113:HIS:CD2  | 1:C:118:VAL:HG21 | 2.47                     | 0.48              |
| 2:D:70:TYR:O     | 2:D:71:LEU:C     | 2.50                     | 0.48              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:176:VAL:O    | 2:D:177:VAL:C    | 2.51                     | 0.48              |
| 2:D:178:ALA:O    | 2:D:179:ASN:C    | 2.50                     | 0.48              |
| 2:D:188:ALA:HA   | 2:D:195:ASN:CG   | 2.31                     | 0.48              |
| 2:D:257:LEU:CD1  | 2:D:567:ILE:HG22 | 2.39                     | 0.48              |
| 1:E:5:ILE:O      | 1:E:52:LYS:NZ    | 2.46                     | 0.48              |
| 1:E:115:THR:HB   | 1:E:118:VAL:CG2  | 2.42                     | 0.48              |
| 2:F:115:VAL:O    | 2:F:118:ILE:CG2  | 2.51                     | 0.48              |
| 2:F:118:ILE:HG23 | 2:F:119:THR:N    | 2.28                     | 0.48              |
| 2:F:148:LEU:HA   | 2:F:151:ILE:HD11 | 1.92                     | 0.48              |
| 2:F:204:ILE:HA   | 2:F:207:LEU:CD1  | 2.44                     | 0.48              |
| 2:F:220:ILE:O    | 2:F:223:LEU:N    | 2.47                     | 0.48              |
| 2:F:333:TYR:CD1  | 2:F:334:VAL:N    | 2.81                     | 0.48              |
| 2:F:351:ILE:CD1  | 2:F:384:VAL:HG11 | 2.42                     | 0.48              |
| 2:F:388:ALA:O    | 2:F:389:GLU:C    | 2.50                     | 0.48              |
| 2:F:390:ARG:HH11 | 2:F:390:ARG:CG   | 2.27                     | 0.48              |
| 2:F:536:ALA:O    | 2:F:540:VAL:HG23 | 2.12                     | 0.48              |
| 1:G:161:ALA:O    | 1:G:164:VAL:HB   | 2.13                     | 0.48              |
| 1:G:247:VAL:O    | 1:G:248:ARG:C    | 2.51                     | 0.48              |
| 1:I:113:HIS:CD2  | 1:I:118:VAL:HG21 | 2.47                     | 0.48              |
| 1:I:155:LYS:HB2  | 1:I:193:THR:HG21 | 1.95                     | 0.48              |
| 1:I:161:ALA:O    | 1:I:164:VAL:HB   | 2.13                     | 0.48              |
| 1:I:302:GLU:HG3  | 1:I:305:LEU:H    | 1.78                     | 0.48              |
| 1:I:430:GLY:C    | 1:I:432:TYR:N    | 2.64                     | 0.48              |
| 1:I:445:ILE:HD13 | 1:I:455:THR:HG21 | 1.94                     | 0.48              |
| 2:J:83:MET:O     | 2:J:84:ALA:C     | 2.52                     | 0.48              |
| 2:J:208:LEU:HD11 | 2:J:243:ARG:CD   | 2.41                     | 0.48              |
| 2:J:334:VAL:O    | 2:J:335:LYS:C    | 2.50                     | 0.48              |
| 2:J:480:VAL:CG1  | 2:J:481:GLN:N    | 2.76                     | 0.48              |
| 2:J:486:THR:HG22 | 2:J:487:ALA:H    | 1.76                     | 0.48              |
| 2:J:536:ALA:O    | 2:J:540:VAL:HG23 | 2.12                     | 0.48              |
| 1:K:271:LEU:HD12 | 1:K:296:ILE:HG12 | 1.95                     | 0.48              |
| 1:K:466:ASP:O    | 1:K:467:TYR:CD1  | 2.53                     | 0.48              |
| 2:L:99:ASN:O     | 2:L:102:ILE:N    | 2.46                     | 0.48              |
| 2:L:130:LEU:C    | 2:L:132:ASP:N    | 2.67                     | 0.48              |
| 2:L:535:VAL:O    | 2:L:538:LYS:HB3  | 2.13                     | 0.48              |
| 2:L:565:CYS:HB2  | 2:L:566:TYR:CD1  | 2.48                     | 0.48              |
| 3:M:106:ASN:CG   | 3:M:109:ILE:HD11 | 2.33                     | 0.48              |
| 3:O:96:LYS:HG2   | 3:O:143:GLU:HA   | 1.95                     | 0.48              |
| 3:O:314:ILE:HG12 | 3:O:376:ILE:HD12 | 1.95                     | 0.48              |
| 3:P:7:TYR:CE2    | 3:P:30:VAL:HB    | 2.48                     | 0.48              |
| 3:P:7:TYR:CD1    | 3:P:7:TYR:N      | 2.82                     | 0.48              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:P:76:CYS:O     | 3:P:77:VAL:C     | 2.50                     | 0.48              |
| 3:P:242:VAL:HG12 | 3:P:243:ARG:N    | 2.27                     | 0.48              |
| 4:T:71:ILE:CG2   | 4:T:75:ASP:HB3   | 2.43                     | 0.48              |
| 3:V:36:ILE:HG22  | 3:V:50:LEU:HD23  | 1.96                     | 0.48              |
| 4:W:4:PHE:C      | 4:W:4:PHE:CD1    | 2.86                     | 0.48              |
| 4:X:29:LYS:O     | 4:X:32:VAL:HB    | 2.12                     | 0.48              |
| 4:X:90:LEU:H     | 4:X:90:LEU:HD22  | 1.79                     | 0.48              |
| 1:A:53:LEU:O     | 1:A:56:MET:N     | 2.47                     | 0.48              |
| 1:A:155:LYS:HB2  | 1:A:193:THR:HG21 | 1.95                     | 0.48              |
| 1:A:396:PHE:H    | 1:A:396:PHE:HD1  | 1.62                     | 0.48              |
| 1:A:445:ILE:HD13 | 1:A:455:THR:HG21 | 1.94                     | 0.48              |
| 2:B:83:MET:O     | 2:B:84:ALA:C     | 2.52                     | 0.48              |
| 1:C:279:GLU:OE1  | 1:C:279:GLU:N    | 2.45                     | 0.48              |
| 1:C:529:ALA:O    | 1:C:530:ILE:C    | 2.50                     | 0.48              |
| 2:D:230:MET:HB2  | 2:D:266:PHE:CE2  | 2.49                     | 0.48              |
| 2:D:326:VAL:HG21 | 2:D:369:PHE:CZ   | 2.47                     | 0.48              |
| 1:E:146:LEU:HD23 | 1:E:146:LEU:C    | 2.33                     | 0.48              |
| 1:E:302:GLU:HG3  | 1:E:305:LEU:H    | 1.78                     | 0.48              |
| 1:E:422:ILE:HG22 | 1:E:441:LEU:HD12 | 1.95                     | 0.48              |
| 2:F:41:MET:HG2   | 2:F:42:THR:N     | 2.27                     | 0.48              |
| 2:F:99:ASN:O     | 2:F:102:ILE:N    | 2.46                     | 0.48              |
| 2:F:130:LEU:HD23 | 2:F:130:LEU:HA   | 1.44                     | 0.48              |
| 2:F:178:ALA:O    | 2:F:179:ASN:C    | 2.50                     | 0.48              |
| 2:F:492:PHE:CD1  | 2:F:503:VAL:HG21 | 2.48                     | 0.48              |
| 1:G:115:THR:HB   | 1:G:118:VAL:CG2  | 2.42                     | 0.48              |
| 1:G:138:LEU:O    | 1:G:141:GLU:HB2  | 2.13                     | 0.48              |
| 1:G:146:LEU:HD23 | 1:G:146:LEU:C    | 2.33                     | 0.48              |
| 1:G:249:ILE:O    | 1:G:250:LEU:C    | 2.51                     | 0.48              |
| 1:G:396:PHE:H    | 1:G:396:PHE:HD1  | 1.61                     | 0.48              |
| 2:H:50:LEU:O     | 2:H:51:PHE:C     | 2.51                     | 0.48              |
| 2:H:230:MET:HB2  | 2:H:266:PHE:CE2  | 2.49                     | 0.48              |
| 2:H:236:GLU:O    | 2:H:240:ILE:HG13 | 2.13                     | 0.48              |
| 2:H:257:LEU:CD1  | 2:H:567:ILE:HG22 | 2.39                     | 0.48              |
| 1:I:157:ALA:O    | 1:I:160:CYS:N    | 2.47                     | 0.48              |
| 1:I:162:VAL:O    | 1:I:165:ILE:N    | 2.46                     | 0.48              |
| 1:I:449:VAL:O    | 1:I:449:VAL:HG12 | 2.13                     | 0.48              |
| 2:J:406:VAL:O    | 2:J:407:VAL:C    | 2.50                     | 0.48              |
| 2:J:510:ALA:CB   | 2:J:519:LEU:HD11 | 2.34                     | 0.48              |
| 1:K:271:LEU:O    | 1:K:272:ALA:C    | 2.52                     | 0.48              |
| 2:L:230:MET:HB2  | 2:L:266:PHE:CE2  | 2.49                     | 0.48              |
| 3:M:83:PHE:CE1   | 3:M:87:VAL:HG22  | 2.49                     | 0.48              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:M:269:LEU:N    | 3:M:269:LEU:CD2  | 2.70                     | 0.48              |
| 3:M:416:GLY:C    | 3:M:418:TYR:N    | 2.65                     | 0.48              |
| 3:N:7:TYR:N      | 3:N:7:TYR:CD1    | 2.82                     | 0.48              |
| 3:O:83:PHE:CE1   | 3:O:87:VAL:HG22  | 2.49                     | 0.48              |
| 4:Q:29:LYS:O     | 4:Q:32:VAL:HB    | 2.13                     | 0.48              |
| 4:Q:50:LEU:HD23  | 4:Q:50:LEU:C     | 2.34                     | 0.48              |
| 4:Q:76:ASN:HD21  | 4:Q:78:LEU:HB2   | 1.78                     | 0.48              |
| 4:Q:83:LEU:O     | 4:Q:83:LEU:HD12  | 2.13                     | 0.48              |
| 3:R:355:LEU:HD12 | 3:R:356:MET:H    | 1.78                     | 0.48              |
| 4:S:25:ASP:O     | 4:S:28:ARG:HB2   | 2.11                     | 0.48              |
| 4:S:76:ASN:HD21  | 4:S:78:LEU:HB2   | 1.78                     | 0.48              |
| 4:T:87:TYR:O     | 4:T:88:VAL:C     | 2.51                     | 0.48              |
| 4:U:7:LEU:O      | 4:U:15:ARG:N     | 2.40                     | 0.48              |
| 4:X:61:ARG:NH1   | 4:X:63:ALA:O     | 2.46                     | 0.48              |
| 1:A:83:ARG:O     | 1:A:84:ILE:C     | 2.51                     | 0.48              |
| 1:A:134:MET:O    | 1:A:137:ASP:HB2  | 2.13                     | 0.48              |
| 1:A:138:LEU:O    | 1:A:141:GLU:HB2  | 2.13                     | 0.48              |
| 1:A:153:LEU:O    | 1:A:154:ARG:C    | 2.49                     | 0.48              |
| 1:A:201:MET:O    | 1:A:203:GLU:N    | 2.42                     | 0.48              |
| 1:A:222:ILE:O    | 1:A:225:ASN:HB3  | 2.13                     | 0.48              |
| 1:A:529:ALA:O    | 1:A:530:ILE:C    | 2.50                     | 0.48              |
| 2:B:252:ASN:O    | 2:B:254:ALA:N    | 2.46                     | 0.48              |
| 1:C:35:ARG:CD    | 1:C:65:PHE:HE2   | 2.21                     | 0.48              |
| 1:C:366:MET:O    | 1:C:369:SER:OG   | 2.24                     | 0.48              |
| 1:C:403:GLY:O    | 1:C:406:LEU:HB2  | 2.13                     | 0.48              |
| 1:C:473:VAL:O    | 1:C:474:GLN:C    | 2.52                     | 0.48              |
| 2:D:177:VAL:O    | 2:D:180:ARG:HB2  | 2.13                     | 0.48              |
| 2:D:216:GLU:HB2  | 2:D:217:TRP:HE3  | 1.67                     | 0.48              |
| 2:D:257:LEU:O    | 2:D:260:VAL:N    | 2.46                     | 0.48              |
| 2:D:447:ALA:O    | 2:D:448:MET:C    | 2.50                     | 0.48              |
| 1:E:232:SER:HA   | 1:E:233:PRO:HD3  | 1.71                     | 0.48              |
| 2:F:463:ASP:N    | 2:F:463:ASP:OD1  | 2.45                     | 0.48              |
| 1:G:79:PHE:O     | 1:G:82:LYS:HB2   | 2.13                     | 0.48              |
| 1:G:403:GLY:O    | 1:G:406:LEU:HB2  | 2.13                     | 0.48              |
| 1:G:419:ILE:HG12 | 1:G:444:LEU:HD23 | 1.95                     | 0.48              |
| 1:G:422:ILE:HG22 | 1:G:441:LEU:HD12 | 1.95                     | 0.48              |
| 1:G:470:GLN:HB2  | 1:G:471:PRO:CD   | 2.34                     | 0.48              |
| 2:H:426:GLU:O    | 2:H:429:ILE:CD1  | 2.60                     | 0.48              |
| 1:I:138:LEU:O    | 1:I:141:GLU:HB2  | 2.13                     | 0.48              |
| 1:I:419:ILE:HG12 | 1:I:444:LEU:HD23 | 1.95                     | 0.48              |
| 1:I:473:VAL:O    | 1:I:474:GLN:C    | 2.52                     | 0.48              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:493:GLU:O    | 1:I:494:GLU:HB2  | 2.13                     | 0.48              |
| 1:I:585:PRO:O    | 1:I:586:VAL:CG2  | 2.62                     | 0.48              |
| 2:J:70:TYR:O     | 2:J:71:LEU:C     | 2.50                     | 0.48              |
| 2:J:177:VAL:O    | 2:J:180:ARG:HB2  | 2.13                     | 0.48              |
| 2:J:220:ILE:O    | 2:J:223:LEU:N    | 2.47                     | 0.48              |
| 1:K:138:LEU:O    | 1:K:141:GLU:HB2  | 2.13                     | 0.48              |
| 1:K:159:LEU:HB2  | 4:W:119:MET:HE1  | 1.96                     | 0.48              |
| 1:K:558:GLU:O    | 1:K:559:LEU:C    | 2.49                     | 0.48              |
| 1:K:585:PRO:O    | 1:K:586:VAL:CG2  | 2.62                     | 0.48              |
| 2:L:62:ASN:O     | 2:L:63:LEU:C     | 2.50                     | 0.48              |
| 2:L:95:CYS:O     | 2:L:103:ARG:HD2  | 2.13                     | 0.48              |
| 2:L:220:ILE:O    | 2:L:223:LEU:N    | 2.47                     | 0.48              |
| 2:L:394:THR:HA   | 2:L:397:ASP:HB2  | 1.95                     | 0.48              |
| 3:N:106:ASN:CG   | 3:N:109:ILE:HD11 | 2.33                     | 0.48              |
| 3:N:118:MET:CB   | 3:N:123:PRO:HA   | 2.41                     | 0.48              |
| 3:N:265:MET:HG2  | 3:N:266:SER:N    | 2.27                     | 0.48              |
| 3:N:314:ILE:HG12 | 3:N:376:ILE:HD12 | 1.95                     | 0.48              |
| 3:O:7:TYR:CE2    | 3:O:30:VAL:HB    | 2.48                     | 0.48              |
| 3:O:76:CYS:HB2   | 3:O:79:LEU:CD1   | 2.43                     | 0.48              |
| 3:O:177:GLU:OE1  | 3:O:388:SER:HB3  | 2.13                     | 0.48              |
| 4:Q:61:ARG:NH1   | 4:Q:63:ALA:O     | 2.46                     | 0.48              |
| 3:R:133:GLU:HG3  | 3:R:134:PHE:N    | 2.28                     | 0.48              |
| 4:T:76:ASN:HD21  | 4:T:78:LEU:HB2   | 1.78                     | 0.48              |
| 4:T:112:PHE:O    | 4:T:113:ILE:C    | 2.52                     | 0.48              |
| 4:U:33:ARG:O     | 4:U:34:GLU:C     | 2.51                     | 0.48              |
| 4:U:87:TYR:O     | 4:U:88:VAL:C     | 2.51                     | 0.48              |
| 3:V:76:CYS:HB2   | 3:V:79:LEU:CD1   | 2.43                     | 0.48              |
| 3:V:107:PHE:O    | 3:V:108:VAL:C    | 2.52                     | 0.48              |
| 4:W:8:PHE:CD1    | 4:W:36:MET:SD    | 3.04                     | 0.48              |
| 4:W:86:ARG:O     | 4:W:87:TYR:C     | 2.52                     | 0.48              |
| 4:X:112:PHE:O    | 4:X:113:ILE:C    | 2.52                     | 0.48              |
| 1:A:61:TYR:HB3   | 1:A:62:PRO:HD2   | 1.94                     | 0.48              |
| 1:A:162:VAL:O    | 1:A:165:ILE:N    | 2.46                     | 0.48              |
| 1:A:196:VAL:CG1  | 1:A:248:ARG:HD2  | 2.44                     | 0.48              |
| 1:A:331:SER:O    | 1:A:332:LEU:C    | 2.52                     | 0.48              |
| 1:A:372:LEU:N    | 1:A:372:LEU:CD1  | 2.69                     | 0.48              |
| 1:A:397:LYS:O    | 1:A:398:ALA:C    | 2.49                     | 0.48              |
| 2:B:177:VAL:O    | 2:B:180:ARG:HB2  | 2.13                     | 0.48              |
| 2:B:565:CYS:HB2  | 2:B:566:TYR:CD1  | 2.48                     | 0.48              |
| 1:C:117:PHE:H    | 1:C:117:PHE:HD1  | 1.61                     | 0.48              |
| 1:C:362:LYS:O    | 1:C:363:ARG:C    | 2.52                     | 0.48              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:449:VAL:HG12 | 1:C:449:VAL:O    | 2.13                     | 0.48              |
| 1:C:472:LEU:O    | 1:C:473:VAL:C    | 2.51                     | 0.48              |
| 2:D:14:GLU:O     | 2:D:17:GLU:HB3   | 2.14                     | 0.48              |
| 2:D:255:VAL:O    | 2:D:256:VAL:C    | 2.52                     | 0.48              |
| 2:D:492:PHE:CD1  | 2:D:503:VAL:HG21 | 2.48                     | 0.48              |
| 1:E:394:PRO:O    | 1:E:395:GLU:C    | 2.50                     | 0.48              |
| 1:E:415:LYS:HE3  | 1:E:415:LYS:CA   | 2.43                     | 0.48              |
| 1:E:422:ILE:O    | 1:E:423:MET:C    | 2.50                     | 0.48              |
| 2:F:83:MET:O     | 2:F:84:ALA:C     | 2.52                     | 0.48              |
| 2:F:255:VAL:O    | 2:F:256:VAL:C    | 2.52                     | 0.48              |
| 2:F:480:VAL:CG1  | 2:F:481:GLN:N    | 2.76                     | 0.48              |
| 1:G:196:VAL:CG1  | 1:G:248:ARG:HD2  | 2.44                     | 0.48              |
| 2:H:14:GLU:O     | 2:H:17:GLU:HB3   | 2.14                     | 0.48              |
| 2:H:220:ILE:O    | 2:H:223:LEU:N    | 2.47                     | 0.48              |
| 2:H:486:THR:O    | 2:H:489:VAL:HB   | 2.13                     | 0.48              |
| 1:I:5:ILE:O      | 1:I:52:LYS:NZ    | 2.46                     | 0.48              |
| 1:I:146:LEU:HD23 | 1:I:146:LEU:C    | 2.33                     | 0.48              |
| 1:I:172:MET:HG2  | 1:I:201:MET:CE   | 2.43                     | 0.48              |
| 1:I:222:ILE:O    | 1:I:225:ASN:HB3  | 2.13                     | 0.48              |
| 1:I:316:PHE:O    | 1:I:317:LEU:C    | 2.51                     | 0.48              |
| 1:I:489:SER:N    | 1:I:500:VAL:CG1  | 2.74                     | 0.48              |
| 2:J:262:VAL:HB   | 2:J:266:PHE:HE1  | 1.77                     | 0.48              |
| 2:J:390:ARG:HH11 | 2:J:390:ARG:CG   | 2.27                     | 0.48              |
| 2:J:463:ASP:N    | 2:J:463:ASP:OD1  | 2.45                     | 0.48              |
| 1:K:53:LEU:O     | 1:K:56:MET:N     | 2.47                     | 0.48              |
| 1:K:134:MET:O    | 1:K:137:ASP:HB2  | 2.12                     | 0.48              |
| 1:K:493:GLU:O    | 1:K:494:GLU:HB2  | 2.13                     | 0.48              |
| 3:M:107:PHE:O    | 3:M:108:VAL:C    | 2.52                     | 0.48              |
| 3:M:380:PHE:CD1  | 3:M:380:PHE:C    | 2.87                     | 0.48              |
| 3:N:84:LEU:O     | 3:N:87:VAL:HB    | 2.13                     | 0.48              |
| 3:N:104:ARG:CA   | 3:N:107:PHE:HE1  | 2.25                     | 0.48              |
| 3:N:177:GLU:OE1  | 3:N:388:SER:HB3  | 2.13                     | 0.48              |
| 3:N:376:ILE:CG2  | 3:N:420:LEU:HB2  | 2.41                     | 0.48              |
| 3:O:22:ARG:CG    | 3:O:23:GLY:N     | 2.76                     | 0.48              |
| 3:O:106:ASN:CG   | 3:O:109:ILE:HD11 | 2.33                     | 0.48              |
| 3:P:60:ILE:CG1   | 3:P:67:LEU:HB3   | 2.44                     | 0.48              |
| 3:P:327:THR:OG1  | 3:P:356:MET:HG2  | 2.14                     | 0.48              |
| 3:R:25:VAL:O     | 3:R:26:ASP:C     | 2.50                     | 0.48              |
| 3:R:61:LYS:HD2   | 3:R:66:TYR:HE2   | 1.78                     | 0.48              |
| 3:R:83:PHE:CE1   | 3:R:87:VAL:HG22  | 2.49                     | 0.48              |
| 4:S:40:LEU:HD12  | 4:S:40:LEU:C     | 2.34                     | 0.48              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:S:85:HIS:C     | 4:S:88:VAL:HG22  | 2.34                     | 0.48              |
| 4:T:71:ILE:HG21  | 4:T:75:ASP:CB    | 2.44                     | 0.48              |
| 4:T:88:VAL:HG23  | 4:T:89:GLU:H     | 1.78                     | 0.48              |
| 4:U:29:LYS:O     | 4:U:32:VAL:HB    | 2.12                     | 0.48              |
| 3:V:7:TYR:CE2    | 3:V:30:VAL:HB    | 2.48                     | 0.48              |
| 3:V:7:TYR:N      | 3:V:7:TYR:CD1    | 2.82                     | 0.48              |
| 3:V:10:ASP:O     | 3:V:12:LYS:N     | 2.46                     | 0.48              |
| 3:V:60:ILE:CG1   | 3:V:67:LEU:HB3   | 2.44                     | 0.48              |
| 3:V:106:ASN:CG   | 3:V:109:ILE:HD11 | 2.33                     | 0.48              |
| 4:W:50:LEU:HD23  | 4:W:50:LEU:C     | 2.34                     | 0.48              |
| 4:X:83:LEU:O     | 4:X:83:LEU:HD12  | 2.13                     | 0.48              |
| 1:A:138:LEU:O    | 1:A:139:ALA:C    | 2.52                     | 0.48              |
| 1:A:178:ALA:O    | 1:A:182:LEU:HG   | 2.14                     | 0.48              |
| 1:A:378:ILE:HD11 | 1:A:411:TYR:CB   | 2.42                     | 0.48              |
| 1:A:491:GLN:HG2  | 1:G:276:THR:HG22 | 1.95                     | 0.48              |
| 2:B:148:LEU:HA   | 2:B:151:ILE:HD11 | 1.92                     | 0.48              |
| 2:B:390:ARG:HH11 | 2:B:390:ARG:CG   | 2.27                     | 0.48              |
| 2:B:491:LEU:HD12 | 2:B:492:PHE:H    | 1.71                     | 0.48              |
| 2:B:566:TYR:HD1  | 2:B:566:TYR:H    | 1.58                     | 0.48              |
| 1:C:53:LEU:O     | 1:C:56:MET:N     | 2.47                     | 0.48              |
| 1:C:55:TYR:C     | 1:C:55:TYR:CD1   | 2.87                     | 0.48              |
| 2:D:146:ALA:O    | 2:D:149:HIS:HB3  | 2.14                     | 0.48              |
| 2:D:565:CYS:HB2  | 2:D:566:TYR:CD1  | 2.48                     | 0.48              |
| 1:E:71:LEU:HD23  | 1:E:71:LEU:C     | 2.33                     | 0.48              |
| 1:E:83:ARG:HA    | 1:E:121:LEU:CD1  | 2.41                     | 0.48              |
| 1:E:396:PHE:H    | 1:E:396:PHE:HD1  | 1.62                     | 0.48              |
| 1:E:419:ILE:HG12 | 1:E:444:LEU:HD23 | 1.95                     | 0.48              |
| 1:E:430:GLY:C    | 1:E:432:TYR:N    | 2.64                     | 0.48              |
| 1:E:478:TRP:HH2  | 1:E:532:LYS:NZ   | 2.12                     | 0.48              |
| 2:F:14:GLU:O     | 2:F:17:GLU:HB3   | 2.14                     | 0.48              |
| 2:F:130:LEU:C    | 2:F:132:ASP:N    | 2.67                     | 0.48              |
| 2:F:230:MET:HB2  | 2:F:266:PHE:CE2  | 2.49                     | 0.48              |
| 2:F:485:LEU:O    | 2:F:486:THR:C    | 2.50                     | 0.48              |
| 2:F:565:CYS:HB2  | 2:F:566:TYR:CD1  | 2.48                     | 0.48              |
| 1:G:585:PRO:O    | 1:G:586:VAL:CG2  | 2.62                     | 0.48              |
| 2:H:177:VAL:O    | 2:H:180:ARG:HB2  | 2.13                     | 0.48              |
| 1:I:396:PHE:H    | 1:I:396:PHE:HD1  | 1.62                     | 0.48              |
| 2:J:95:CYS:O     | 2:J:103:ARG:HD2  | 2.13                     | 0.48              |
| 1:K:66:GLY:O     | 1:K:67:GLN:C     | 2.48                     | 0.48              |
| 1:K:246:GLN:O    | 1:K:249:ILE:HB   | 2.14                     | 0.48              |
| 1:K:301:SER:HB2  | 1:K:305:LEU:HD23 | 1.96                     | 0.48              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:472:LEU:O    | 1:K:473:VAL:C    | 2.51                     | 0.48              |
| 2:L:72:TYR:O     | 2:L:73:LEU:C     | 2.52                     | 0.48              |
| 2:L:105:LEU:HD23 | 2:L:108:ARG:HD3  | 1.96                     | 0.48              |
| 2:L:390:ARG:CG   | 2:L:390:ARG:HH11 | 2.26                     | 0.48              |
| 2:L:405:TYR:O    | 2:L:408:GLN:HG3  | 2.13                     | 0.48              |
| 2:L:463:ASP:O    | 2:L:464:GLU:C    | 2.51                     | 0.48              |
| 3:M:36:ILE:HG22  | 3:M:50:LEU:HD23  | 1.96                     | 0.48              |
| 3:N:7:TYR:CE2    | 3:N:30:VAL:HB    | 2.48                     | 0.48              |
| 3:N:58:MET:HB2   | 3:N:69:ALA:HB3   | 1.96                     | 0.48              |
| 3:N:355:LEU:HD12 | 3:N:356:MET:H    | 1.78                     | 0.48              |
| 3:N:416:GLY:C    | 3:N:418:TYR:N    | 2.65                     | 0.48              |
| 3:O:133:GLU:HG3  | 3:O:134:PHE:N    | 2.28                     | 0.48              |
| 3:O:399:GLU:HG3  | 3:O:401:SER:N    | 2.29                     | 0.48              |
| 3:P:10:ASP:O     | 3:P:12:LYS:N     | 2.46                     | 0.48              |
| 3:P:126:THR:CG2  | 3:P:131:LEU:HD13 | 2.41                     | 0.48              |
| 3:P:380:PHE:CD1  | 3:P:380:PHE:N    | 2.76                     | 0.48              |
| 4:Q:90:LEU:H     | 4:Q:90:LEU:HD22  | 1.79                     | 0.48              |
| 3:R:36:ILE:HG22  | 3:R:50:LEU:HD23  | 1.96                     | 0.48              |
| 4:T:61:ARG:NH1   | 4:T:63:ALA:O     | 2.46                     | 0.48              |
| 4:U:61:ARG:NH1   | 4:U:63:ALA:O     | 2.46                     | 0.48              |
| 3:V:58:MET:HB2   | 3:V:69:ALA:HB3   | 1.96                     | 0.48              |
| 3:V:84:LEU:O     | 3:V:87:VAL:HB    | 2.13                     | 0.48              |
| 3:V:408:TRP:N    | 3:V:408:TRP:HD1  | 2.12                     | 0.48              |
| 4:X:117:PHE:C    | 4:X:117:PHE:CD1  | 2.86                     | 0.48              |
| 1:A:451:MET:SD   | 1:A:451:MET:N    | 2.85                     | 0.48              |
| 2:B:105:LEU:HD23 | 2:B:108:ARG:HD3  | 1.96                     | 0.48              |
| 2:B:255:VAL:O    | 2:B:256:VAL:C    | 2.52                     | 0.48              |
| 2:B:283:LYS:O    | 2:B:287:PRO:CD   | 2.62                     | 0.48              |
| 2:B:307:ASN:ND2  | 2:B:344:ARG:NH1  | 2.62                     | 0.48              |
| 1:C:134:MET:O    | 1:C:137:ASP:HB2  | 2.13                     | 0.48              |
| 1:C:255:ILE:HG23 | 1:C:256:LEU:N    | 2.29                     | 0.48              |
| 1:C:271:LEU:HD12 | 1:C:296:ILE:HG12 | 1.95                     | 0.48              |
| 1:C:331:SER:O    | 1:C:332:LEU:C    | 2.52                     | 0.48              |
| 1:C:415:LYS:HE3  | 1:C:415:LYS:CA   | 2.43                     | 0.48              |
| 2:D:72:TYR:O     | 2:D:73:LEU:C     | 2.51                     | 0.48              |
| 2:D:105:LEU:HD23 | 2:D:108:ARG:HD3  | 1.96                     | 0.48              |
| 2:D:130:LEU:C    | 2:D:132:ASP:N    | 2.67                     | 0.48              |
| 2:D:405:TYR:O    | 2:D:408:GLN:HG3  | 2.13                     | 0.48              |
| 2:D:505:GLN:O    | 2:D:506:VAL:C    | 2.50                     | 0.48              |
| 1:E:331:SER:O    | 1:E:332:LEU:C    | 2.52                     | 0.48              |
| 1:E:403:GLY:O    | 1:E:406:LEU:HB2  | 2.13                     | 0.48              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:191:HIS:O    | 2:F:191:HIS:CG   | 2.64                     | 0.48              |
| 1:G:195:VAL:O    | 1:G:198:LEU:N    | 2.47                     | 0.48              |
| 1:G:498:ILE:CG2  | 1:G:499:GLN:N    | 2.65                     | 0.48              |
| 2:H:62:ASN:O     | 2:H:63:LEU:C     | 2.50                     | 0.48              |
| 2:H:390:ARG:CG   | 2:H:390:ARG:HH11 | 2.27                     | 0.48              |
| 2:H:490:LYS:NZ   | 2:H:545:LYS:HZ2  | 2.11                     | 0.48              |
| 1:I:378:ILE:HD11 | 1:I:411:TYR:CB   | 2.42                     | 0.48              |
| 2:J:191:HIS:O    | 2:J:191:HIS:CG   | 2.64                     | 0.48              |
| 2:J:230:MET:HB2  | 2:J:266:PHE:CE2  | 2.49                     | 0.48              |
| 2:J:236:GLU:O    | 2:J:240:ILE:HG13 | 2.13                     | 0.48              |
| 1:K:362:LYS:O    | 1:K:363:ARG:C    | 2.52                     | 0.48              |
| 1:K:415:LYS:HE3  | 1:K:415:LYS:CA   | 2.43                     | 0.48              |
| 1:K:532:LYS:CA   | 1:K:581:LEU:HD13 | 2.35                     | 0.48              |
| 2:L:83:MET:O     | 2:L:84:ALA:C     | 2.52                     | 0.48              |
| 2:L:486:THR:HG22 | 2:L:487:ALA:H    | 1.76                     | 0.48              |
| 3:N:60:ILE:CG1   | 3:N:67:LEU:HB3   | 2.44                     | 0.48              |
| 3:N:126:THR:CG2  | 3:N:131:LEU:HD13 | 2.40                     | 0.48              |
| 3:N:178:ALA:CA   | 3:N:415:ASN:HB2  | 2.43                     | 0.48              |
| 3:N:184:SER:O    | 3:N:185:ALA:C    | 2.51                     | 0.48              |
| 3:O:58:MET:HB2   | 3:O:69:ALA:HB3   | 1.96                     | 0.48              |
| 3:P:215:ASN:HB2  | 3:P:391:GLN:O    | 2.14                     | 0.48              |
| 3:P:279:ILE:CG2  | 3:P:280:GLU:N    | 2.75                     | 0.48              |
| 4:Q:52:TRP:O     | 4:Q:55:LEU:N     | 2.47                     | 0.48              |
| 4:Q:88:VAL:HG23  | 4:Q:89:GLU:H     | 1.78                     | 0.48              |
| 3:R:76:CYS:HB2   | 3:R:79:LEU:CD1   | 2.43                     | 0.48              |
| 3:R:96:LYS:HG2   | 3:R:143:GLU:HA   | 1.95                     | 0.48              |
| 4:U:40:LEU:HD12  | 4:U:40:LEU:C     | 2.34                     | 0.48              |
| 4:U:85:HIS:C     | 4:U:88:VAL:HG22  | 2.34                     | 0.48              |
| 3:V:178:ALA:CA   | 3:V:415:ASN:HB2  | 2.42                     | 0.48              |
| 3:V:198:ILE:HD12 | 3:V:265:MET:HB3  | 1.96                     | 0.48              |
| 4:W:52:TRP:O     | 4:W:55:LEU:N     | 2.47                     | 0.48              |
| 4:W:76:ASN:HD21  | 4:W:78:LEU:HB2   | 1.78                     | 0.48              |
| 4:X:4:PHE:C      | 4:X:4:PHE:CD1    | 2.86                     | 0.48              |
| 1:A:249:ILE:O    | 1:A:250:LEU:C    | 2.51                     | 0.48              |
| 2:B:50:LEU:O     | 2:B:51:PHE:C     | 2.51                     | 0.48              |
| 2:B:60:THR:CG2   | 2:B:61:ASP:N     | 2.70                     | 0.48              |
| 2:B:333:TYR:CD1  | 2:B:334:VAL:N    | 2.81                     | 0.48              |
| 1:C:430:GLY:O    | 1:C:433:VAL:N    | 2.46                     | 0.48              |
| 1:C:561:GLN:HE21 | 1:C:565:GLU:HG3  | 1.79                     | 0.48              |
| 2:D:257:LEU:O    | 2:D:258:SER:C    | 2.51                     | 0.48              |
| 2:D:258:SER:HA   | 2:D:261:LYS:HE3  | 1.95                     | 0.48              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:53:LEU:O     | 1:E:56:MET:N     | 2.47                     | 0.48              |
| 1:E:67:GLN:O     | 1:E:70:CYS:CB    | 2.56                     | 0.48              |
| 1:E:195:VAL:O    | 1:E:198:LEU:N    | 2.47                     | 0.48              |
| 1:E:196:VAL:CG1  | 1:E:248:ARG:HD2  | 2.44                     | 0.48              |
| 1:E:401:ALA:O    | 1:E:402:SER:C    | 2.52                     | 0.48              |
| 2:F:67:LYS:O     | 2:F:70:TYR:N     | 2.47                     | 0.48              |
| 2:F:146:ALA:O    | 2:F:149:HIS:HB3  | 2.14                     | 0.48              |
| 2:F:177:VAL:O    | 2:F:178:ALA:C    | 2.50                     | 0.48              |
| 2:F:262:VAL:HB   | 2:F:266:PHE:HE1  | 1.77                     | 0.48              |
| 2:F:283:LYS:O    | 2:F:287:PRO:CD   | 2.62                     | 0.48              |
| 2:F:378:GLY:O    | 2:F:379:ARG:C    | 2.49                     | 0.48              |
| 2:F:463:ASP:O    | 2:F:464:GLU:C    | 2.51                     | 0.48              |
| 2:F:517:PRO:O    | 2:F:518:ASP:C    | 2.52                     | 0.48              |
| 1:G:53:LEU:O     | 1:G:56:MET:N     | 2.47                     | 0.48              |
| 1:G:134:MET:O    | 1:G:137:ASP:HB2  | 2.13                     | 0.48              |
| 1:G:178:ALA:O    | 1:G:182:LEU:HG   | 2.14                     | 0.48              |
| 1:G:430:GLY:O    | 1:G:433:VAL:N    | 2.46                     | 0.48              |
| 1:G:472:LEU:O    | 1:G:473:VAL:C    | 2.51                     | 0.48              |
| 1:G:493:GLU:O    | 1:G:494:GLU:HB2  | 2.13                     | 0.48              |
| 2:H:105:LEU:HD23 | 2:H:108:ARG:HD3  | 1.96                     | 0.48              |
| 2:H:118:ILE:HG23 | 2:H:119:THR:N    | 2.28                     | 0.48              |
| 2:H:146:ALA:O    | 2:H:149:HIS:HB3  | 2.14                     | 0.48              |
| 2:H:191:HIS:O    | 2:H:191:HIS:CG   | 2.64                     | 0.48              |
| 2:H:334:VAL:O    | 2:H:335:LYS:C    | 2.50                     | 0.48              |
| 1:I:254:ARG:CA   | 1:I:295:THR:HG23 | 2.44                     | 0.48              |
| 1:I:459:LEU:O    | 1:I:463:ILE:HG13 | 2.13                     | 0.48              |
| 2:J:14:GLU:O     | 2:J:17:GLU:HB3   | 2.14                     | 0.48              |
| 2:J:105:LEU:HD23 | 2:J:108:ARG:HD3  | 1.96                     | 0.48              |
| 2:J:516:ASN:O    | 2:J:519:LEU:HB3  | 2.14                     | 0.48              |
| 1:K:115:THR:HB   | 1:K:118:VAL:CG2  | 2.42                     | 0.48              |
| 1:K:445:ILE:HD13 | 1:K:455:THR:HG21 | 1.94                     | 0.48              |
| 2:L:9:THR:HG22   | 2:L:11:LYS:N     | 2.29                     | 0.48              |
| 2:L:67:LYS:O     | 2:L:70:TYR:N     | 2.47                     | 0.48              |
| 2:L:146:ALA:O    | 2:L:149:HIS:HB3  | 2.14                     | 0.48              |
| 2:L:257:LEU:O    | 2:L:260:VAL:N    | 2.46                     | 0.48              |
| 2:L:258:SER:HA   | 2:L:261:LYS:HE3  | 1.95                     | 0.48              |
| 2:L:485:LEU:O    | 2:L:486:THR:C    | 2.50                     | 0.48              |
| 2:L:488:ILE:O    | 2:L:489:VAL:C    | 2.50                     | 0.48              |
| 2:L:517:PRO:O    | 2:L:518:ASP:C    | 2.52                     | 0.48              |
| 3:M:10:ASP:O     | 3:M:12:LYS:N     | 2.46                     | 0.48              |
| 3:O:25:VAL:O     | 3:O:26:ASP:C     | 2.50                     | 0.48              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:O:107:PHE:O    | 3:O:108:VAL:C    | 2.52                     | 0.48              |
| 3:O:355:LEU:HD12 | 3:O:356:MET:H    | 1.78                     | 0.48              |
| 3:P:83:PHE:CE1   | 3:P:87:VAL:HG22  | 2.49                     | 0.48              |
| 3:P:96:LYS:HG2   | 3:P:143:GLU:HA   | 1.95                     | 0.48              |
| 3:P:314:ILE:HG12 | 3:P:376:ILE:HD12 | 1.95                     | 0.48              |
| 4:Q:71:ILE:HG21  | 4:Q:75:ASP:CB    | 2.44                     | 0.48              |
| 3:R:7:TYR:N      | 3:R:7:TYR:CD1    | 2.82                     | 0.48              |
| 3:R:327:THR:OG1  | 3:R:356:MET:HG2  | 2.14                     | 0.48              |
| 4:S:31:MET:CE    | 4:S:52:TRP:HH2   | 2.27                     | 0.48              |
| 4:S:50:LEU:HD23  | 4:S:50:LEU:C     | 2.34                     | 0.48              |
| 4:T:84:ILE:O     | 4:T:86:ARG:N     | 2.47                     | 0.48              |
| 4:U:90:LEU:H     | 4:U:90:LEU:HD22  | 1.79                     | 0.48              |
| 3:V:184:SER:O    | 3:V:185:ALA:C    | 2.51                     | 0.48              |
| 4:W:83:LEU:O     | 4:W:83:LEU:HD12  | 2.13                     | 0.48              |
| 4:W:85:HIS:C     | 4:W:88:VAL:HG22  | 2.34                     | 0.48              |
| 4:X:31:MET:CE    | 4:X:52:TRP:HH2   | 2.27                     | 0.48              |
| 1:A:422:ILE:HG22 | 1:A:441:LEU:HD12 | 1.95                     | 0.48              |
| 1:A:585:PRO:O    | 1:A:586:VAL:CG2  | 2.62                     | 0.48              |
| 2:B:220:ILE:O    | 2:B:223:LEU:N    | 2.47                     | 0.48              |
| 1:C:301:SER:HB2  | 1:C:305:LEU:HD23 | 1.96                     | 0.48              |
| 1:C:493:GLU:O    | 1:C:494:GLU:HB2  | 2.13                     | 0.48              |
| 2:D:220:ILE:O    | 2:D:223:LEU:N    | 2.47                     | 0.48              |
| 2:D:307:ASN:ND2  | 2:D:344:ARG:NH1  | 2.62                     | 0.48              |
| 2:D:394:THR:HA   | 2:D:397:ASP:HB2  | 1.95                     | 0.48              |
| 1:E:138:LEU:O    | 1:E:139:ALA:C    | 2.52                     | 0.48              |
| 1:E:157:ALA:O    | 1:E:160:CYS:N    | 2.47                     | 0.48              |
| 1:E:178:ALA:O    | 1:E:182:LEU:HG   | 2.14                     | 0.48              |
| 1:E:529:ALA:O    | 1:E:530:ILE:C    | 2.50                     | 0.48              |
| 2:F:310:VAL:CG1  | 2:F:317:LEU:HD21 | 2.42                     | 0.48              |
| 2:H:258:SER:HA   | 2:H:261:LYS:HE3  | 1.95                     | 0.48              |
| 2:H:517:PRO:O    | 2:H:518:ASP:C    | 2.52                     | 0.48              |
| 1:I:310:ILE:O    | 1:I:313:LEU:N    | 2.47                     | 0.48              |
| 1:I:529:ALA:O    | 1:I:530:ILE:C    | 2.50                     | 0.48              |
| 2:J:130:LEU:C    | 2:J:132:ASP:N    | 2.67                     | 0.48              |
| 2:J:493:LEU:C    | 2:J:495:LYS:N    | 2.62                     | 0.48              |
| 1:K:55:TYR:C     | 1:K:55:TYR:CD1   | 2.87                     | 0.48              |
| 1:K:459:LEU:O    | 1:K:463:ILE:HG13 | 2.13                     | 0.48              |
| 2:L:86:MET:CE    | 3:P:237:LYS:HD3  | 2.44                     | 0.48              |
| 2:L:255:VAL:O    | 2:L:256:VAL:C    | 2.52                     | 0.48              |
| 2:L:406:VAL:O    | 2:L:407:VAL:C    | 2.50                     | 0.48              |
| 2:L:486:THR:O    | 2:L:489:VAL:HB   | 2.13                     | 0.48              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2          | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-----------------|--------------------------|-------------------|
| 3:O:10:ASP:O     | 3:O:12:LYS:N    | 2.46                     | 0.48              |
| 3:O:36:ILE:HG22  | 3:O:50:LEU:HD23 | 1.96                     | 0.48              |
| 3:P:76:CYS:HB2   | 3:P:79:LEU:CD1  | 2.43                     | 0.48              |
| 4:Q:84:ILE:O     | 4:Q:86:ARG:N    | 2.47                     | 0.48              |
| 3:R:107:PHE:O    | 3:R:108:VAL:C   | 2.52                     | 0.48              |
| 3:R:210:LEU:HD13 | 3:R:211:ARG:N   | 2.27                     | 0.48              |
| 3:R:215:ASN:HB2  | 3:R:391:GLN:O   | 2.14                     | 0.48              |
| 3:R:380:PHE:C    | 3:R:380:PHE:CD1 | 2.87                     | 0.48              |
| 3:R:408:TRP:N    | 3:R:408:TRP:HD1 | 2.12                     | 0.48              |
| 4:S:52:TRP:O     | 4:S:55:LEU:N    | 2.47                     | 0.48              |
| 4:S:86:ARG:O     | 4:S:87:TYR:C    | 2.52                     | 0.48              |
| 3:V:133:GLU:HG3  | 3:V:134:PHE:N   | 2.28                     | 0.48              |
| 4:W:7:LEU:O      | 4:W:15:ARG:N    | 2.40                     | 0.48              |
| 4:W:87:TYR:CZ    | 4:W:114:LEU:HB2 | 2.49                     | 0.48              |
| 4:W:107:PHE:CD2  | 4:W:107:PHE:N   | 2.82                     | 0.48              |
| 4:X:76:ASN:HD21  | 4:X:78:LEU:HB2  | 1.78                     | 0.48              |
| 4:X:85:HIS:C     | 4:X:88:VAL:HG22 | 2.34                     | 0.48              |
| 1:A:47:CYS:SG    | 1:A:48:ARG:N    | 2.87                     | 0.47              |
| 1:A:79:PHE:O     | 1:A:82:LYS:HB2  | 2.14                     | 0.47              |
| 1:A:117:PHE:H    | 1:A:117:PHE:HD1 | 1.61                     | 0.47              |
| 1:A:401:ALA:O    | 1:A:402:SER:C   | 2.52                     | 0.47              |
| 2:B:2:THR:HB     | 2:D:402:LYS:HE2 | 1.96                     | 0.47              |
| 2:B:95:CYS:O     | 2:B:103:ARG:HD2 | 2.13                     | 0.47              |
| 2:B:436:LEU:O    | 2:B:439:ASP:OD2 | 2.32                     | 0.47              |
| 1:C:196:VAL:CG1  | 1:C:248:ARG:HD2 | 2.44                     | 0.47              |
| 2:D:50:LEU:O     | 2:D:51:PHE:C    | 2.51                     | 0.47              |
| 2:D:339:LEU:O    | 2:D:340:ASP:C   | 2.53                     | 0.47              |
| 1:E:86:TYR:HD2   | 1:E:125:THR:HG1 | 1.62                     | 0.47              |
| 1:E:310:ILE:O    | 1:E:313:LEU:N   | 2.47                     | 0.47              |
| 1:E:473:VAL:O    | 1:E:474:GLN:C   | 2.52                     | 0.47              |
| 2:F:73:LEU:O     | 2:F:74:MET:C    | 2.53                     | 0.47              |
| 1:G:134:MET:O    | 1:G:137:ASP:N   | 2.38                     | 0.47              |
| 1:G:254:ARG:HB2  | 1:G:295:THR:CG2 | 2.42                     | 0.47              |
| 1:G:255:ILE:HG23 | 1:G:256:LEU:N   | 2.29                     | 0.47              |
| 1:G:279:GLU:OE1  | 1:G:279:GLU:N   | 2.45                     | 0.47              |
| 1:G:302:GLU:HG3  | 1:G:305:LEU:H   | 1.78                     | 0.47              |
| 1:G:415:LYS:HE3  | 1:G:415:LYS:CA  | 2.43                     | 0.47              |
| 1:G:478:TRP:HH2  | 1:G:532:LYS:NZ  | 2.12                     | 0.47              |
| 2:H:326:VAL:HG21 | 2:H:369:PHE:CZ  | 2.47                     | 0.47              |
| 1:I:79:PHE:O     | 1:I:82:LYS:HB2  | 2.14                     | 0.47              |
| 1:I:255:ILE:HG23 | 1:I:256:LEU:N   | 2.29                     | 0.47              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:J:316:ILE:CB   | 2:J:317:LEU:HD13 | 2.44                     | 0.47              |
| 2:J:343:ILE:C    | 2:J:345:LEU:N    | 2.59                     | 0.47              |
| 2:J:394:THR:HA   | 2:J:397:ASP:HB2  | 1.95                     | 0.47              |
| 2:J:449:ILE:O    | 2:J:450:TRP:C    | 2.52                     | 0.47              |
| 2:J:535:VAL:O    | 2:J:538:LYS:HB3  | 2.13                     | 0.47              |
| 1:K:162:VAL:O    | 1:K:165:ILE:N    | 2.46                     | 0.47              |
| 1:K:331:SER:O    | 1:K:332:LEU:C    | 2.52                     | 0.47              |
| 2:L:307:ASN:ND2  | 2:L:344:ARG:NH1  | 2.62                     | 0.47              |
| 2:L:385:GLU:O    | 2:L:387:SER:N    | 2.47                     | 0.47              |
| 2:L:449:ILE:O    | 2:L:450:TRP:C    | 2.52                     | 0.47              |
| 3:O:171:VAL:HG13 | 3:O:202:VAL:CG2  | 2.36                     | 0.47              |
| 3:O:386:THR:CG2  | 3:O:389:GLY:H    | 2.21                     | 0.47              |
| 3:O:408:TRP:N    | 3:O:408:TRP:HD1  | 2.12                     | 0.47              |
| 3:P:198:ILE:HD12 | 3:P:265:MET:HB3  | 1.96                     | 0.47              |
| 3:P:416:GLY:C    | 3:P:418:TYR:N    | 2.65                     | 0.47              |
| 3:R:104:ARG:CA   | 3:R:107:PHE:CE1  | 2.93                     | 0.47              |
| 3:R:314:ILE:HG12 | 3:R:376:ILE:HD12 | 1.95                     | 0.47              |
| 3:R:376:ILE:CG2  | 3:R:420:LEU:HB2  | 2.42                     | 0.47              |
| 4:S:7:LEU:HD23   | 4:S:7:LEU:HA     | 1.55                     | 0.47              |
| 4:S:90:LEU:H     | 4:S:90:LEU:HD22  | 1.79                     | 0.47              |
| 4:T:52:TRP:O     | 4:T:55:LEU:N     | 2.47                     | 0.47              |
| 3:V:314:ILE:HG12 | 3:V:376:ILE:HD12 | 1.95                     | 0.47              |
| 4:W:30:LYS:CB    | 4:W:30:LYS:NZ    | 2.77                     | 0.47              |
| 4:X:84:ILE:O     | 4:X:86:ARG:N     | 2.47                     | 0.47              |
| 1:A:173:GLU:O    | 1:A:175:PHE:N    | 2.48                     | 0.47              |
| 1:A:468:SER:O    | 1:A:469:GLN:CB   | 2.42                     | 0.47              |
| 1:A:478:TRP:HH2  | 1:A:532:LYS:NZ   | 2.12                     | 0.47              |
| 2:B:61:ASP:O     | 2:B:62:ASN:C     | 2.52                     | 0.47              |
| 2:B:570:LEU:CD1  | 3:M:74:ASN:HA    | 2.44                     | 0.47              |
| 1:C:160:CYS:O    | 1:C:161:ALA:C    | 2.50                     | 0.47              |
| 1:C:195:VAL:O    | 1:C:198:LEU:N    | 2.47                     | 0.47              |
| 1:C:247:VAL:O    | 1:C:248:ARG:C    | 2.51                     | 0.47              |
| 2:D:516:ASN:O    | 2:D:519:LEU:HB3  | 2.14                     | 0.47              |
| 1:E:14:ILE:H     | 1:E:14:ILE:CD1   | 2.18                     | 0.47              |
| 1:E:250:LEU:O    | 1:E:251:ARG:C    | 2.53                     | 0.47              |
| 1:E:271:LEU:HD12 | 1:E:296:ILE:HG12 | 1.95                     | 0.47              |
| 2:F:426:GLU:CA   | 2:F:429:ILE:HD13 | 2.44                     | 0.47              |
| 1:G:11:ILE:CA    | 1:G:14:ILE:HD13  | 2.40                     | 0.47              |
| 1:G:155:LYS:HB2  | 1:G:193:THR:HG21 | 1.95                     | 0.47              |
| 1:G:246:GLN:O    | 1:G:249:ILE:HB   | 2.14                     | 0.47              |
| 2:H:61:ASP:O     | 2:H:62:ASN:C     | 2.52                     | 0.47              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:130:LEU:C    | 2:H:132:ASP:N    | 2.67                     | 0.47              |
| 2:H:316:ILE:CB   | 2:H:317:LEU:HD13 | 2.44                     | 0.47              |
| 2:H:449:ILE:O    | 2:H:450:TRP:C    | 2.53                     | 0.47              |
| 2:H:507:LEU:O    | 2:H:508:SER:C    | 2.53                     | 0.47              |
| 1:I:55:TYR:C     | 1:I:55:TYR:CD1   | 2.87                     | 0.47              |
| 1:I:425:VAL:HG13 | 1:I:426:LEU:HD22 | 1.96                     | 0.47              |
| 2:J:146:ALA:O    | 2:J:149:HIS:HB3  | 2.14                     | 0.47              |
| 2:J:257:LEU:O    | 2:J:260:VAL:N    | 2.46                     | 0.47              |
| 2:J:258:SER:HA   | 2:J:261:LYS:HE3  | 1.95                     | 0.47              |
| 2:J:339:LEU:O    | 2:J:340:ASP:C    | 2.53                     | 0.47              |
| 2:J:385:GLU:O    | 2:J:387:SER:N    | 2.47                     | 0.47              |
| 1:K:178:ALA:O    | 1:K:182:LEU:HG   | 2.14                     | 0.47              |
| 1:K:254:ARG:CA   | 1:K:295:THR:HG23 | 2.44                     | 0.47              |
| 1:K:396:PHE:H    | 1:K:396:PHE:HD1  | 1.62                     | 0.47              |
| 2:L:204:ILE:HA   | 2:L:207:LEU:CD1  | 2.44                     | 0.47              |
| 2:L:236:GLU:O    | 2:L:240:ILE:HG13 | 2.13                     | 0.47              |
| 2:L:451:ILE:O    | 2:L:452:VAL:C    | 2.53                     | 0.47              |
| 3:M:22:ARG:CG    | 3:M:23:GLY:N     | 2.76                     | 0.47              |
| 3:N:198:ILE:HD12 | 3:N:265:MET:HB3  | 1.96                     | 0.47              |
| 3:O:376:ILE:CG2  | 3:O:420:LEU:HB2  | 2.41                     | 0.47              |
| 4:Q:30:LYS:NZ    | 4:Q:30:LYS:CB    | 2.78                     | 0.47              |
| 4:Q:40:LEU:HD12  | 4:Q:40:LEU:C     | 2.34                     | 0.47              |
| 4:Q:85:HIS:C     | 4:Q:88:VAL:HG22  | 2.34                     | 0.47              |
| 4:Q:112:PHE:O    | 4:Q:113:ILE:C    | 2.52                     | 0.47              |
| 3:R:253:ILE:N    | 3:R:253:ILE:CD1  | 2.78                     | 0.47              |
| 3:R:267:TYR:N    | 3:R:267:TYR:CD1  | 2.81                     | 0.47              |
| 3:R:273:VAL:O    | 3:R:274:LYS:C    | 2.51                     | 0.47              |
| 4:T:40:LEU:HD12  | 4:T:40:LEU:C     | 2.34                     | 0.47              |
| 3:V:61:LYS:HD2   | 3:V:66:TYR:HE2   | 1.78                     | 0.47              |
| 3:V:384:TYR:CA   | 3:V:411:TYR:HB2  | 2.44                     | 0.47              |
| 4:X:50:LEU:HB3   | 4:X:57:VAL:HG23  | 1.96                     | 0.47              |
| 1:A:195:VAL:O    | 1:A:198:LEU:N    | 2.47                     | 0.47              |
| 1:A:246:GLN:O    | 1:A:249:ILE:HB   | 2.14                     | 0.47              |
| 2:B:99:ASN:O     | 2:B:102:ILE:N    | 2.46                     | 0.47              |
| 2:B:316:ILE:CB   | 2:B:317:LEU:HD13 | 2.44                     | 0.47              |
| 2:B:385:GLU:O    | 2:B:387:SER:N    | 2.47                     | 0.47              |
| 2:B:507:LEU:O    | 2:B:508:SER:C    | 2.53                     | 0.47              |
| 1:C:155:LYS:HB2  | 1:C:193:THR:HG21 | 1.95                     | 0.47              |
| 1:C:169:PRO:O    | 1:C:172:MET:HE2  | 2.15                     | 0.47              |
| 1:C:478:TRP:HH2  | 1:C:532:LYS:NZ   | 2.12                     | 0.47              |
| 2:D:67:LYS:O     | 2:D:70:TYR:N     | 2.47                     | 0.47              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:71:LEU:O     | 2:D:72:TYR:C     | 2.53                     | 0.47              |
| 2:D:104:ALA:O    | 2:D:107:VAL:N    | 2.43                     | 0.47              |
| 2:D:110:MET:HE3  | 2:D:122:LEU:HB2  | 1.95                     | 0.47              |
| 2:D:570:LEU:CD1  | 3:N:74:ASN:HA    | 2.44                     | 0.47              |
| 1:E:35:ARG:CD    | 1:E:65:PHE:HE2   | 2.21                     | 0.47              |
| 1:E:173:GLU:O    | 1:E:175:PHE:N    | 2.48                     | 0.47              |
| 1:E:247:VAL:O    | 1:E:248:ARG:C    | 2.52                     | 0.47              |
| 1:E:254:ARG:HB2  | 1:E:295:THR:CG2  | 2.42                     | 0.47              |
| 1:E:532:LYS:CA   | 1:E:581:LEU:HD13 | 2.35                     | 0.47              |
| 1:E:561:GLN:HE21 | 1:E:565:GLU:HG3  | 1.79                     | 0.47              |
| 1:E:585:PRO:O    | 1:E:586:VAL:CG2  | 2.62                     | 0.47              |
| 2:F:385:GLU:C    | 2:F:387:SER:N    | 2.67                     | 0.47              |
| 2:F:449:ILE:O    | 2:F:450:TRP:C    | 2.53                     | 0.47              |
| 2:F:516:ASN:O    | 2:F:519:LEU:HB3  | 2.14                     | 0.47              |
| 1:G:451:MET:SD   | 1:G:451:MET:N    | 2.85                     | 0.47              |
| 2:H:173:ASN:O    | 2:H:177:VAL:HG23 | 2.15                     | 0.47              |
| 1:I:47:CYS:SG    | 1:I:48:ARG:N     | 2.87                     | 0.47              |
| 1:I:239:GLY:C    | 1:I:240:ILE:HG13 | 2.32                     | 0.47              |
| 1:I:246:GLN:O    | 1:I:249:ILE:HB   | 2.14                     | 0.47              |
| 1:I:561:GLN:HE21 | 1:I:565:GLU:HG3  | 1.79                     | 0.47              |
| 2:J:72:TYR:O     | 2:J:73:LEU:C     | 2.51                     | 0.47              |
| 1:K:173:GLU:O    | 1:K:175:PHE:N    | 2.48                     | 0.47              |
| 1:K:529:ALA:O    | 1:K:530:ILE:C    | 2.50                     | 0.47              |
| 2:L:16:PHE:CZ    | 3:P:416:GLY:HA3  | 2.49                     | 0.47              |
| 3:M:133:GLU:HG3  | 3:M:134:PHE:N    | 2.28                     | 0.47              |
| 3:M:327:THR:OG1  | 3:M:356:MET:HG2  | 2.14                     | 0.47              |
| 3:N:380:PHE:C    | 3:N:380:PHE:CD1  | 2.87                     | 0.47              |
| 3:N:386:THR:CG2  | 3:N:389:GLY:H    | 2.21                     | 0.47              |
| 3:N:408:TRP:N    | 3:N:408:TRP:HD1  | 2.12                     | 0.47              |
| 3:O:60:ILE:CG1   | 3:O:67:LEU:HB3   | 2.44                     | 0.47              |
| 4:T:107:PHE:CD2  | 4:T:107:PHE:N    | 2.82                     | 0.47              |
| 4:U:31:MET:O     | 4:U:32:VAL:O     | 2.32                     | 0.47              |
| 4:U:71:ILE:CG2   | 4:U:75:ASP:HB3   | 2.43                     | 0.47              |
| 4:U:76:ASN:HD21  | 4:U:78:LEU:HB2   | 1.78                     | 0.47              |
| 4:W:109:LYS:HA   | 4:W:112:PHE:CD1  | 2.35                     | 0.47              |
| 1:A:21:ALA:O     | 1:A:24:ARG:HB2   | 2.15                     | 0.47              |
| 1:A:254:ARG:CA   | 1:A:295:THR:HG23 | 2.44                     | 0.47              |
| 1:A:310:ILE:O    | 1:A:313:LEU:N    | 2.47                     | 0.47              |
| 1:A:472:LEU:O    | 1:A:473:VAL:C    | 2.51                     | 0.47              |
| 1:A:489:SER:N    | 1:A:500:VAL:CG1  | 2.74                     | 0.47              |
| 1:A:491:GLN:CB   | 1:G:276:THR:CG2  | 2.92                     | 0.47              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:241:CYS:C    | 2:B:243:ARG:H    | 2.17                     | 0.47              |
| 2:B:311:GLN:CG   | 2:B:555:ILE:HD12 | 2.45                     | 0.47              |
| 2:B:326:VAL:HG22 | 2:B:361:TYR:CZ   | 2.50                     | 0.47              |
| 2:B:533:ASP:O    | 2:B:534:PRO:C    | 2.52                     | 0.47              |
| 1:C:21:ALA:O     | 1:C:24:ARG:HB2   | 2.15                     | 0.47              |
| 2:D:261:LYS:HA   | 2:D:567:ILE:HD12 | 1.97                     | 0.47              |
| 2:D:490:LYS:NZ   | 2:D:545:LYS:HZ2  | 2.12                     | 0.47              |
| 1:E:414:SER:HA   | 1:E:415:LYS:NZ   | 2.29                     | 0.47              |
| 1:E:451:MET:SD   | 1:E:451:MET:N    | 2.85                     | 0.47              |
| 1:E:466:ASP:O    | 1:E:467:TYR:CD1  | 2.53                     | 0.47              |
| 2:F:55:VAL:O     | 2:F:58:MET:CB    | 2.60                     | 0.47              |
| 2:F:311:GLN:CG   | 2:F:555:ILE:HD12 | 2.45                     | 0.47              |
| 2:F:326:VAL:HG22 | 2:F:361:TYR:CZ   | 2.50                     | 0.47              |
| 2:F:436:LEU:O    | 2:F:439:ASP:OD2  | 2.32                     | 0.47              |
| 2:F:451:ILE:O    | 2:F:452:VAL:C    | 2.53                     | 0.47              |
| 1:G:250:LEU:O    | 1:G:251:ARG:C    | 2.53                     | 0.47              |
| 1:G:301:SER:HB2  | 1:G:305:LEU:HD23 | 1.96                     | 0.47              |
| 1:G:310:ILE:O    | 1:G:313:LEU:N    | 2.47                     | 0.47              |
| 1:G:401:ALA:O    | 1:G:402:SER:C    | 2.52                     | 0.47              |
| 1:G:414:SER:HA   | 1:G:415:LYS:NZ   | 2.30                     | 0.47              |
| 1:G:473:VAL:O    | 1:G:474:GLN:C    | 2.52                     | 0.47              |
| 1:I:535:THR:O    | 1:I:535:THR:CG2  | 2.63                     | 0.47              |
| 2:J:173:ASN:O    | 2:J:177:VAL:HG23 | 2.15                     | 0.47              |
| 2:J:241:CYS:C    | 2:J:243:ARG:H    | 2.17                     | 0.47              |
| 2:J:283:LYS:O    | 2:J:287:PRO:CD   | 2.62                     | 0.47              |
| 1:K:201:MET:O    | 1:K:203:GLU:N    | 2.42                     | 0.47              |
| 2:L:14:GLU:O     | 2:L:17:GLU:HB3   | 2.14                     | 0.47              |
| 2:L:335:LYS:O    | 2:L:336:LEU:C    | 2.50                     | 0.47              |
| 2:L:436:LEU:O    | 2:L:439:ASP:OD2  | 2.32                     | 0.47              |
| 3:M:126:THR:CG2  | 3:M:131:LEU:HD13 | 2.40                     | 0.47              |
| 3:M:215:ASN:HB2  | 3:M:391:GLN:O    | 2.14                     | 0.47              |
| 3:M:253:ILE:N    | 3:M:253:ILE:CD1  | 2.78                     | 0.47              |
| 3:O:131:LEU:C    | 3:O:133:GLU:N    | 2.68                     | 0.47              |
| 3:P:22:ARG:CG    | 3:P:23:GLY:N     | 2.76                     | 0.47              |
| 3:R:58:MET:HB2   | 3:R:69:ALA:HB3   | 1.96                     | 0.47              |
| 3:R:100:GLU:O    | 3:R:101:GLU:C    | 2.53                     | 0.47              |
| 3:R:239:HIS:O    | 3:R:240:GLN:C    | 2.53                     | 0.47              |
| 3:R:384:TYR:CA   | 3:R:411:TYR:HB2  | 2.44                     | 0.47              |
| 4:U:84:ILE:O     | 4:U:86:ARG:N     | 2.47                     | 0.47              |
| 3:V:215:ASN:HB2  | 3:V:391:GLN:O    | 2.14                     | 0.47              |
| 4:W:56:LYS:O     | 4:W:71:ILE:N     | 2.43                     | 0.47              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1          | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 4:X:87:TYR:O    | 4:X:88:VAL:C     | 2.51                     | 0.47              |
| 1:A:250:LEU:O   | 1:A:251:ARG:C    | 2.53                     | 0.47              |
| 1:A:271:LEU:O   | 1:A:272:ALA:C    | 2.52                     | 0.47              |
| 2:B:73:LEU:O    | 2:B:74:MET:C     | 2.53                     | 0.47              |
| 2:B:230:MET:HB2 | 2:B:266:PHE:CE2  | 2.49                     | 0.47              |
| 1:C:414:SER:HA  | 1:C:415:LYS:NZ   | 2.30                     | 0.47              |
| 1:C:535:THR:O   | 1:C:535:THR:CG2  | 2.63                     | 0.47              |
| 2:D:83:MET:O    | 2:D:84:ALA:C     | 2.52                     | 0.47              |
| 2:D:241:CYS:C   | 2:D:243:ARG:H    | 2.17                     | 0.47              |
| 2:D:316:ILE:CB  | 2:D:317:LEU:HD13 | 2.44                     | 0.47              |
| 2:D:414:ILE:O   | 2:D:415:LYS:C    | 2.53                     | 0.47              |
| 2:D:533:ASP:O   | 2:D:534:PRO:C    | 2.52                     | 0.47              |
| 1:E:161:ALA:O   | 1:E:164:VAL:HB   | 2.13                     | 0.47              |
| 1:E:301:SER:HB2 | 1:E:305:LEU:HD23 | 1.96                     | 0.47              |
| 1:E:474:GLN:O   | 1:E:475:VAL:C    | 2.53                     | 0.47              |
| 2:F:13:GLY:O    | 2:F:14:GLU:C     | 2.53                     | 0.47              |
| 2:F:18:LEU:N    | 2:F:18:LEU:CD2   | 2.78                     | 0.47              |
| 2:F:95:CYS:O    | 2:F:103:ARG:HD2  | 2.14                     | 0.47              |
| 2:F:241:CYS:C   | 2:F:243:ARG:H    | 2.17                     | 0.47              |
| 2:F:339:LEU:O   | 2:F:340:ASP:C    | 2.53                     | 0.47              |
| 2:F:414:ILE:O   | 2:F:415:LYS:C    | 2.53                     | 0.47              |
| 2:F:570:LEU:CD1 | 3:O:74:ASN:HA    | 2.44                     | 0.47              |
| 1:G:47:CYS:SG   | 1:G:48:ARG:N     | 2.87                     | 0.47              |
| 1:G:117:PHE:H   | 1:G:117:PHE:HD1  | 1.61                     | 0.47              |
| 1:G:157:ALA:O   | 1:G:160:CYS:N    | 2.47                     | 0.47              |
| 1:G:565:GLU:CD  | 2:H:526:TYR:HH   | 2.17                     | 0.47              |
| 2:H:13:GLY:O    | 2:H:14:GLU:C     | 2.53                     | 0.47              |
| 2:H:67:LYS:O    | 2:H:70:TYR:N     | 2.47                     | 0.47              |
| 1:I:196:VAL:CG1 | 1:I:248:ARG:HD2  | 2.44                     | 0.47              |
| 1:I:249:ILE:O   | 1:I:250:LEU:C    | 2.51                     | 0.47              |
| 1:I:279:GLU:OE1 | 1:I:279:GLU:N    | 2.45                     | 0.47              |
| 1:I:470:GLN:CB  | 1:I:471:PRO:HD3  | 2.40                     | 0.47              |
| 2:J:61:ASP:O    | 2:J:62:ASN:C     | 2.52                     | 0.47              |
| 1:K:138:LEU:O   | 1:K:139:ALA:C    | 2.52                     | 0.47              |
| 2:L:283:LYS:O   | 2:L:287:PRO:CD   | 2.62                     | 0.47              |
| 2:L:339:LEU:O   | 2:L:340:ASP:C    | 2.53                     | 0.47              |
| 2:L:468:SER:OG  | 2:L:469:PHE:N    | 2.47                     | 0.47              |
| 2:L:570:LEU:CD1 | 3:V:75:ALA:H     | 2.28                     | 0.47              |
| 3:M:60:ILE:CG1  | 3:M:67:LEU:HB3   | 2.44                     | 0.47              |
| 3:N:107:PHE:O   | 3:N:108:VAL:C    | 2.52                     | 0.47              |
| 3:O:87:VAL:HG12 | 3:O:91:PHE:CE2   | 2.50                     | 0.47              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:O:253:ILE:N    | 3:O:253:ILE:CD1  | 2.78                     | 0.47              |
| 4:Q:31:MET:O     | 4:Q:32:VAL:O     | 2.32                     | 0.47              |
| 3:R:198:ILE:HD12 | 3:R:265:MET:HB3  | 1.96                     | 0.47              |
| 3:R:333:LYS:HB2  | 3:R:333:LYS:NZ   | 2.30                     | 0.47              |
| 4:S:31:MET:O     | 4:S:32:VAL:O     | 2.32                     | 0.47              |
| 4:T:31:MET:O     | 4:T:32:VAL:O     | 2.32                     | 0.47              |
| 4:U:86:ARG:O     | 4:U:87:TYR:C     | 2.52                     | 0.47              |
| 3:V:96:LYS:HG2   | 3:V:143:GLU:HA   | 1.95                     | 0.47              |
| 3:V:240:GLN:O    | 3:V:242:VAL:N    | 2.48                     | 0.47              |
| 4:W:8:PHE:HE1    | 4:W:36:MET:HA    | 1.80                     | 0.47              |
| 4:W:84:ILE:O     | 4:W:86:ARG:N     | 2.47                     | 0.47              |
| 4:X:31:MET:O     | 4:X:32:VAL:O     | 2.32                     | 0.47              |
| 1:A:157:ALA:O    | 1:A:160:CYS:N    | 2.47                     | 0.47              |
| 2:B:14:GLU:O     | 2:B:17:GLU:HB3   | 2.14                     | 0.47              |
| 2:B:110:MET:HE3  | 2:B:122:LEU:HB2  | 1.96                     | 0.47              |
| 2:B:399:ILE:HG23 | 2:B:407:VAL:HG13 | 1.97                     | 0.47              |
| 2:B:468:SER:OG   | 2:B:469:PHE:N    | 2.47                     | 0.47              |
| 1:C:79:PHE:O     | 1:C:82:LYS:HB2   | 2.14                     | 0.47              |
| 1:C:138:LEU:O    | 1:C:139:ALA:C    | 2.52                     | 0.47              |
| 1:C:157:ALA:O    | 1:C:160:CYS:N    | 2.47                     | 0.47              |
| 1:C:173:GLU:O    | 1:C:175:PHE:N    | 2.48                     | 0.47              |
| 1:C:302:GLU:HG3  | 1:C:305:LEU:H    | 1.78                     | 0.47              |
| 2:D:39:ALA:C     | 2:D:41:MET:H     | 2.18                     | 0.47              |
| 2:D:61:ASP:O     | 2:D:62:ASN:C     | 2.52                     | 0.47              |
| 2:D:311:GLN:CG   | 2:D:555:ILE:HD12 | 2.45                     | 0.47              |
| 2:D:390:ARG:HG2  | 2:D:390:ARG:NH1  | 2.30                     | 0.47              |
| 1:E:74:ILE:HD12  | 1:E:74:ILE:N     | 2.19                     | 0.47              |
| 1:E:246:GLN:O    | 1:E:249:ILE:HB   | 2.14                     | 0.47              |
| 1:E:255:ILE:HG23 | 1:E:256:LEU:N    | 2.29                     | 0.47              |
| 1:E:316:PHE:O    | 1:E:317:LEU:C    | 2.50                     | 0.47              |
| 1:E:350:ILE:HG21 | 1:E:368:LEU:CD2  | 2.45                     | 0.47              |
| 1:E:443:GLN:HA   | 1:E:446:THR:CG2  | 2.45                     | 0.47              |
| 2:F:326:VAL:HG21 | 2:F:369:PHE:CZ   | 2.47                     | 0.47              |
| 2:F:385:GLU:O    | 2:F:387:SER:N    | 2.47                     | 0.47              |
| 2:F:390:ARG:HG2  | 2:F:390:ARG:NH1  | 2.30                     | 0.47              |
| 2:F:570:LEU:CD1  | 3:O:75:ALA:H     | 2.28                     | 0.47              |
| 1:G:21:ALA:O     | 1:G:24:ARG:HB2   | 2.15                     | 0.47              |
| 1:G:310:ILE:C    | 1:G:312:ILE:N    | 2.68                     | 0.47              |
| 1:G:425:VAL:HG13 | 1:G:426:LEU:HD22 | 1.97                     | 0.47              |
| 1:G:470:GLN:CB   | 1:G:471:PRO:HD3  | 2.40                     | 0.47              |
| 2:H:339:LEU:O    | 2:H:340:ASP:C    | 2.53                     | 0.47              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:21:ALA:O     | 1:I:24:ARG:HB2   | 2.15                     | 0.47              |
| 1:I:103:MET:HA   | 1:I:103:MET:HE3  | 1.95                     | 0.47              |
| 1:I:117:PHE:H    | 1:I:117:PHE:HD1  | 1.61                     | 0.47              |
| 1:I:138:LEU:O    | 1:I:139:ALA:C    | 2.52                     | 0.47              |
| 1:I:232:SER:HA   | 1:I:233:PRO:HD3  | 1.71                     | 0.47              |
| 1:I:415:LYS:HE3  | 1:I:415:LYS:CA   | 2.43                     | 0.47              |
| 1:I:472:LEU:O    | 1:I:473:VAL:C    | 2.51                     | 0.47              |
| 2:J:327:LYS:HB2  | 2:J:330:ASP:OD1  | 2.15                     | 0.47              |
| 1:K:47:CYS:SG    | 1:K:48:ARG:N     | 2.87                     | 0.47              |
| 1:K:157:ALA:O    | 1:K:160:CYS:N    | 2.47                     | 0.47              |
| 1:K:561:GLN:HE21 | 1:K:565:GLU:HG3  | 1.79                     | 0.47              |
| 2:L:13:GLY:O     | 2:L:14:GLU:C     | 2.53                     | 0.47              |
| 2:L:385:GLU:C    | 2:L:387:SER:N    | 2.67                     | 0.47              |
| 3:M:7:TYR:N      | 3:M:7:TYR:CD1    | 2.82                     | 0.47              |
| 3:M:87:VAL:HG12  | 3:M:91:PHE:CE2   | 2.50                     | 0.47              |
| 3:N:321:ASP:OD1  | 3:N:322:SER:N    | 2.38                     | 0.47              |
| 3:O:198:ILE:HD12 | 3:O:265:MET:HB3  | 1.96                     | 0.47              |
| 3:O:215:ASN:HB2  | 3:O:391:GLN:O    | 2.14                     | 0.47              |
| 3:O:327:THR:OG1  | 3:O:356:MET:HG2  | 2.14                     | 0.47              |
| 3:P:58:MET:HB2   | 3:P:69:ALA:HB3   | 1.96                     | 0.47              |
| 3:P:87:VAL:HG12  | 3:P:91:PHE:CE2   | 2.50                     | 0.47              |
| 4:S:30:LYS:CB    | 4:S:30:LYS:NZ    | 2.78                     | 0.47              |
| 4:U:52:TRP:O     | 4:U:55:LEU:N     | 2.47                     | 0.47              |
| 3:V:83:PHE:CE1   | 3:V:87:VAL:HG22  | 2.49                     | 0.47              |
| 3:V:104:ARG:CA   | 3:V:107:PHE:HE1  | 2.25                     | 0.47              |
| 3:V:327:THR:OG1  | 3:V:356:MET:HG2  | 2.14                     | 0.47              |
| 4:W:50:LEU:HB3   | 4:W:57:VAL:HG23  | 1.96                     | 0.47              |
| 4:W:71:ILE:CG2   | 4:W:72:GLU:H     | 2.26                     | 0.47              |
| 4:W:90:LEU:H     | 4:W:90:LEU:HD22  | 1.79                     | 0.47              |
| 4:X:8:PHE:HE1    | 4:X:36:MET:HA    | 1.80                     | 0.47              |
| 1:A:140:GLY:O    | 1:A:141:GLU:C    | 2.53                     | 0.47              |
| 1:A:146:LEU:HD23 | 1:A:146:LEU:C    | 2.33                     | 0.47              |
| 1:A:254:ARG:HB2  | 1:A:295:THR:CG2  | 2.42                     | 0.47              |
| 1:A:473:VAL:O    | 1:A:474:GLN:C    | 2.52                     | 0.47              |
| 1:A:479:CYS:O    | 1:A:483:TYR:N    | 2.31                     | 0.47              |
| 2:B:27:LYS:HA    | 2:B:30:LYS:HD2   | 1.97                     | 0.47              |
| 2:B:88:VAL:O     | 2:B:89:ASN:C     | 2.53                     | 0.47              |
| 2:B:208:LEU:HD11 | 2:B:243:ARG:CD   | 2.41                     | 0.47              |
| 2:B:310:VAL:CG1  | 2:B:317:LEU:HD21 | 2.42                     | 0.47              |
| 2:B:385:GLU:C    | 2:B:387:SER:N    | 2.67                     | 0.47              |
| 2:B:415:LYS:HG2  | 2:B:416:ASP:N    | 2.30                     | 0.47              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:449:ILE:O    | 2:B:450:TRP:C    | 2.52                     | 0.47              |
| 2:B:452:VAL:HG13 | 2:B:453:GLY:H    | 1.80                     | 0.47              |
| 1:C:67:GLN:O     | 1:C:70:CYS:CB    | 2.56                     | 0.47              |
| 1:C:115:THR:HB   | 1:C:118:VAL:HG23 | 1.97                     | 0.47              |
| 1:C:178:ALA:O    | 1:C:182:LEU:HG   | 2.14                     | 0.47              |
| 1:C:250:LEU:O    | 1:C:251:ARG:C    | 2.53                     | 0.47              |
| 1:C:254:ARG:CA   | 1:C:295:THR:HG23 | 2.44                     | 0.47              |
| 1:C:396:PHE:HD1  | 1:C:396:PHE:H    | 1.61                     | 0.47              |
| 1:C:401:ALA:O    | 1:C:402:SER:C    | 2.52                     | 0.47              |
| 1:C:498:ILE:CG2  | 1:C:499:GLN:N    | 2.65                     | 0.47              |
| 2:D:30:LYS:O     | 2:D:34:VAL:HG23  | 2.15                     | 0.47              |
| 2:D:88:VAL:O     | 2:D:89:ASN:C     | 2.53                     | 0.47              |
| 2:D:327:LYS:HB2  | 2:D:330:ASP:OD1  | 2.15                     | 0.47              |
| 2:D:426:GLU:CA   | 2:D:429:ILE:HD13 | 2.44                     | 0.47              |
| 2:D:463:ASP:O    | 2:D:464:GLU:C    | 2.51                     | 0.47              |
| 1:E:47:CYS:SG    | 1:E:48:ARG:N     | 2.87                     | 0.47              |
| 1:E:55:TYR:C     | 1:E:55:TYR:CD1   | 2.87                     | 0.47              |
| 1:E:79:PHE:O     | 1:E:82:LYS:HB2   | 2.14                     | 0.47              |
| 1:E:138:LEU:O    | 1:E:141:GLU:HB2  | 2.13                     | 0.47              |
| 1:E:140:GLY:O    | 1:E:141:GLU:C    | 2.53                     | 0.47              |
| 1:E:254:ARG:CA   | 1:E:295:THR:HG23 | 2.44                     | 0.47              |
| 1:E:430:GLY:O    | 1:E:433:VAL:N    | 2.46                     | 0.47              |
| 1:E:522:THR:O    | 1:E:523:ARG:C    | 2.53                     | 0.47              |
| 1:E:535:THR:CG2  | 1:E:535:THR:O    | 2.63                     | 0.47              |
| 2:F:9:THR:HG22   | 2:F:11:LYS:N     | 2.29                     | 0.47              |
| 2:F:30:LYS:O     | 2:F:34:VAL:HG23  | 2.15                     | 0.47              |
| 2:F:105:LEU:HD23 | 2:F:108:ARG:HD3  | 1.96                     | 0.47              |
| 2:F:307:ASN:ND2  | 2:F:344:ARG:NH1  | 2.62                     | 0.47              |
| 2:F:499:THR:O    | 2:F:500:GLN:C    | 2.53                     | 0.47              |
| 2:F:577:PRO:HA   | 2:F:578:PRO:HD3  | 1.89                     | 0.47              |
| 1:G:14:ILE:HA    | 1:G:26:MET:HE2   | 1.97                     | 0.47              |
| 1:G:27:ILE:HD12  | 1:G:61:TYR:CZ    | 2.50                     | 0.47              |
| 1:G:55:TYR:C     | 1:G:55:TYR:CD1   | 2.87                     | 0.47              |
| 1:G:151:SER:O    | 1:G:152:TYR:C    | 2.53                     | 0.47              |
| 1:G:331:SER:O    | 1:G:332:LEU:C    | 2.52                     | 0.47              |
| 1:G:350:ILE:HG21 | 1:G:368:LEU:CD2  | 2.45                     | 0.47              |
| 2:H:9:THR:HG22   | 2:H:11:LYS:N     | 2.29                     | 0.47              |
| 2:H:39:ALA:C     | 2:H:41:MET:H     | 2.18                     | 0.47              |
| 2:H:73:LEU:O     | 2:H:74:MET:C     | 2.53                     | 0.47              |
| 2:H:83:MET:O     | 2:H:84:ALA:C     | 2.52                     | 0.47              |
| 2:H:204:ILE:HA   | 2:H:207:LEU:CD1  | 2.44                     | 0.47              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:463:ASP:N    | 2:H:463:ASP:OD1  | 2.45                     | 0.47              |
| 1:I:31:CYS:HB3   | 1:I:56:MET:HE1   | 1.96                     | 0.47              |
| 1:I:147:LYS:HA   | 1:I:147:LYS:CE   | 2.38                     | 0.47              |
| 1:I:169:PRO:O    | 1:I:172:MET:HE2  | 2.15                     | 0.47              |
| 2:J:39:ALA:C     | 2:J:41:MET:H     | 2.18                     | 0.47              |
| 2:J:204:ILE:HA   | 2:J:207:LEU:CD1  | 2.44                     | 0.47              |
| 2:J:297:GLU:OE2  | 3:R:60:ILE:HG22  | 2.15                     | 0.47              |
| 2:J:307:ASN:ND2  | 2:J:344:ARG:NH1  | 2.62                     | 0.47              |
| 2:J:385:GLU:C    | 2:J:387:SER:N    | 2.67                     | 0.47              |
| 2:J:405:TYR:O    | 2:J:406:VAL:C    | 2.53                     | 0.47              |
| 2:J:489:VAL:O    | 2:J:490:LYS:C    | 2.53                     | 0.47              |
| 2:J:499:THR:O    | 2:J:500:GLN:C    | 2.53                     | 0.47              |
| 1:K:195:VAL:O    | 1:K:198:LEU:N    | 2.47                     | 0.47              |
| 1:K:414:SER:HA   | 1:K:415:LYS:NZ   | 2.29                     | 0.47              |
| 1:K:430:GLY:O    | 1:K:433:VAL:N    | 2.46                     | 0.47              |
| 1:K:473:VAL:O    | 1:K:474:GLN:C    | 2.52                     | 0.47              |
| 1:K:478:TRP:HH2  | 1:K:532:LYS:NZ   | 2.12                     | 0.47              |
| 1:K:535:THR:HG22 | 1:K:535:THR:O    | 2.15                     | 0.47              |
| 2:L:50:LEU:O     | 2:L:51:PHE:C     | 2.51                     | 0.47              |
| 2:L:73:LEU:O     | 2:L:74:MET:C     | 2.53                     | 0.47              |
| 2:L:104:ALA:O    | 2:L:107:VAL:N    | 2.43                     | 0.47              |
| 2:L:316:ILE:CB   | 2:L:317:LEU:HD13 | 2.44                     | 0.47              |
| 2:L:326:VAL:HG22 | 2:L:361:TYR:CZ   | 2.50                     | 0.47              |
| 2:L:337:GLU:O    | 2:L:338:LYS:C    | 2.53                     | 0.47              |
| 2:L:405:TYR:O    | 2:L:406:VAL:C    | 2.53                     | 0.47              |
| 2:L:490:LYS:NZ   | 2:L:545:LYS:HZ2  | 2.12                     | 0.47              |
| 2:L:507:LEU:O    | 2:L:508:SER:C    | 2.53                     | 0.47              |
| 2:L:516:ASN:O    | 2:L:519:LEU:HB3  | 2.14                     | 0.47              |
| 3:M:239:HIS:O    | 3:M:240:GLN:C    | 2.53                     | 0.47              |
| 3:N:76:CYS:HB2   | 3:N:79:LEU:CD1   | 2.43                     | 0.47              |
| 3:O:7:TYR:N      | 3:O:7:TYR:CD1    | 2.81                     | 0.47              |
| 3:O:62:HIS:CD2   | 3:O:98:LEU:HD23  | 2.50                     | 0.47              |
| 3:O:100:GLU:O    | 3:O:101:GLU:C    | 2.53                     | 0.47              |
| 3:O:239:HIS:O    | 3:O:240:GLN:C    | 2.53                     | 0.47              |
| 3:P:100:GLU:O    | 3:P:101:GLU:C    | 2.53                     | 0.47              |
| 3:P:104:ARG:CA   | 3:P:107:PHE:HE1  | 2.24                     | 0.47              |
| 3:P:325:PHE:CD2  | 3:P:358:ALA:HB1  | 2.50                     | 0.47              |
| 4:Q:71:ILE:CG2   | 4:Q:75:ASP:HB3   | 2.43                     | 0.47              |
| 3:R:62:HIS:CD2   | 3:R:98:LEU:HD23  | 2.50                     | 0.47              |
| 3:R:380:PHE:CD1  | 3:R:380:PHE:N    | 2.76                     | 0.47              |
| 4:S:50:LEU:HB3   | 4:S:57:VAL:HG23  | 1.96                     | 0.47              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:S:56:LYS:O     | 4:S:71:ILE:N     | 2.43                     | 0.47              |
| 4:S:71:ILE:CG2   | 4:S:75:ASP:HB3   | 2.43                     | 0.47              |
| 4:S:84:ILE:O     | 4:S:86:ARG:N     | 2.47                     | 0.47              |
| 4:T:30:LYS:CB    | 4:T:30:LYS:NZ    | 2.78                     | 0.47              |
| 4:U:8:PHE:HE1    | 4:U:36:MET:HA    | 1.80                     | 0.47              |
| 4:U:30:LYS:CB    | 4:U:30:LYS:NZ    | 2.78                     | 0.47              |
| 4:U:87:TYR:CZ    | 4:U:114:LEU:HB2  | 2.49                     | 0.47              |
| 4:U:109:LYS:HA   | 4:U:112:PHE:CD1  | 2.35                     | 0.47              |
| 3:V:62:HIS:CD2   | 3:V:98:LEU:HD23  | 2.50                     | 0.47              |
| 4:X:50:LEU:HD23  | 4:X:50:LEU:C     | 2.34                     | 0.47              |
| 4:X:52:TRP:O     | 4:X:55:LEU:N     | 2.47                     | 0.47              |
| 4:X:87:TYR:CZ    | 4:X:114:LEU:HB2  | 2.49                     | 0.47              |
| 4:X:88:VAL:HG23  | 4:X:89:GLU:H     | 1.78                     | 0.47              |
| 1:A:27:ILE:HD12  | 1:A:61:TYR:CZ    | 2.50                     | 0.47              |
| 1:A:344:GLN:OE1  | 1:A:372:LEU:HD23 | 2.15                     | 0.47              |
| 2:B:13:GLY:O     | 2:B:14:GLU:C     | 2.53                     | 0.47              |
| 2:B:261:LYS:HA   | 2:B:567:ILE:HD12 | 1.97                     | 0.47              |
| 2:B:516:ASN:O    | 2:B:519:LEU:HB3  | 2.14                     | 0.47              |
| 1:C:246:GLN:O    | 1:C:249:ILE:HB   | 2.14                     | 0.47              |
| 1:C:443:GLN:HA   | 1:C:446:THR:CG2  | 2.45                     | 0.47              |
| 1:C:509:LEU:HD12 | 1:C:530:ILE:HG12 | 1.97                     | 0.47              |
| 1:C:551:TYR:C    | 1:C:553:SER:N    | 2.68                     | 0.47              |
| 2:D:32:GLU:O     | 2:D:33:ALA:C     | 2.53                     | 0.47              |
| 2:D:173:ASN:O    | 2:D:177:VAL:HG23 | 2.15                     | 0.47              |
| 2:D:283:LYS:O    | 2:D:287:PRO:CD   | 2.62                     | 0.47              |
| 2:D:399:ILE:HG23 | 2:D:407:VAL:HG13 | 1.97                     | 0.47              |
| 2:D:411:ILE:H    | 2:D:411:ILE:CD1  | 2.28                     | 0.47              |
| 2:D:436:LEU:O    | 2:D:439:ASP:OD2  | 2.32                     | 0.47              |
| 1:E:151:SER:O    | 1:E:152:TYR:C    | 2.53                     | 0.47              |
| 1:E:185:GLU:HG3  | 1:E:186:LYS:N    | 2.30                     | 0.47              |
| 1:E:271:LEU:O    | 1:E:272:ALA:C    | 2.52                     | 0.47              |
| 2:F:316:ILE:CB   | 2:F:317:LEU:HD13 | 2.44                     | 0.47              |
| 2:F:411:ILE:H    | 2:F:411:ILE:CD1  | 2.28                     | 0.47              |
| 2:F:415:LYS:HG2  | 2:F:416:ASP:N    | 2.30                     | 0.47              |
| 2:F:452:VAL:HG13 | 2:F:453:GLY:H    | 1.80                     | 0.47              |
| 1:G:270:ILE:HG23 | 1:G:271:LEU:CD2  | 2.44                     | 0.47              |
| 1:G:344:GLN:OE1  | 1:G:372:LEU:HD23 | 2.15                     | 0.47              |
| 1:G:443:GLN:HA   | 1:G:446:THR:CG2  | 2.45                     | 0.47              |
| 1:G:474:GLN:O    | 1:G:475:VAL:C    | 2.53                     | 0.47              |
| 1:G:522:THR:O    | 1:G:523:ARG:C    | 2.53                     | 0.47              |
| 2:H:283:LYS:O    | 2:H:287:PRO:CD   | 2.62                     | 0.47              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:337:GLU:O    | 2:H:338:LYS:C    | 2.53                     | 0.47              |
| 2:H:385:GLU:O    | 2:H:387:SER:N    | 2.47                     | 0.47              |
| 2:H:499:THR:O    | 2:H:500:GLN:C    | 2.53                     | 0.47              |
| 1:I:123:LEU:O    | 1:I:124:CYS:C    | 2.54                     | 0.47              |
| 1:I:140:GLY:O    | 1:I:141:GLU:C    | 2.53                     | 0.47              |
| 1:I:173:GLU:O    | 1:I:175:PHE:N    | 2.48                     | 0.47              |
| 1:I:254:ARG:CB   | 1:I:295:THR:HG23 | 2.45                     | 0.47              |
| 1:I:401:ALA:O    | 1:I:402:SER:C    | 2.52                     | 0.47              |
| 1:I:478:TRP:CE3  | 1:I:478:TRP:CA   | 2.98                     | 0.47              |
| 1:I:509:LEU:HD12 | 1:I:530:ILE:HG12 | 1.97                     | 0.47              |
| 2:J:88:VAL:O     | 2:J:89:ASN:C     | 2.53                     | 0.47              |
| 2:J:157:GLU:O    | 2:J:161:PHE:CD1  | 2.68                     | 0.47              |
| 2:J:326:VAL:HG21 | 2:J:369:PHE:CZ   | 2.47                     | 0.47              |
| 2:J:411:ILE:H    | 2:J:411:ILE:CD1  | 2.28                     | 0.47              |
| 1:K:509:LEU:HD12 | 1:K:530:ILE:HG12 | 1.97                     | 0.47              |
| 2:L:88:VAL:O     | 2:L:89:ASN:C     | 2.53                     | 0.47              |
| 2:L:399:ILE:HG23 | 2:L:407:VAL:HG13 | 1.97                     | 0.47              |
| 2:L:489:VAL:O    | 2:L:490:LYS:C    | 2.53                     | 0.47              |
| 3:M:58:MET:HB2   | 3:M:69:ALA:HB3   | 1.96                     | 0.47              |
| 3:M:177:GLU:OE1  | 3:M:388:SER:HB3  | 2.13                     | 0.47              |
| 3:M:240:GLN:O    | 3:M:242:VAL:N    | 2.48                     | 0.47              |
| 3:M:325:PHE:CD2  | 3:M:358:ALA:HB1  | 2.50                     | 0.47              |
| 3:N:144:THR:CG2  | 3:N:145:GLY:N    | 2.73                     | 0.47              |
| 3:N:325:PHE:CD2  | 3:N:358:ALA:HB1  | 2.50                     | 0.47              |
| 3:O:56:ARG:N     | 3:O:56:ARG:CD    | 2.70                     | 0.47              |
| 3:O:104:ARG:CA   | 3:O:107:PHE:CE1  | 2.93                     | 0.47              |
| 3:O:306:THR:HG22 | 3:O:349:PRO:CA   | 2.35                     | 0.47              |
| 4:Q:35:LEU:O     | 4:Q:36:MET:C     | 2.53                     | 0.47              |
| 3:R:60:ILE:CG1   | 3:R:67:LEU:HB3   | 2.44                     | 0.47              |
| 3:R:399:GLU:HG3  | 3:R:401:SER:N    | 2.29                     | 0.47              |
| 4:S:59:TYR:CD2   | 4:S:59:TYR:N     | 2.83                     | 0.47              |
| 4:S:87:TYR:CZ    | 4:S:114:LEU:HB2  | 2.49                     | 0.47              |
| 4:S:107:PHE:CD2  | 4:S:107:PHE:N    | 2.82                     | 0.47              |
| 3:V:87:VAL:HG12  | 3:V:91:PHE:CE2   | 2.50                     | 0.47              |
| 3:V:239:HIS:O    | 3:V:240:GLN:C    | 2.53                     | 0.47              |
| 3:V:325:PHE:CD2  | 3:V:358:ALA:HB1  | 2.50                     | 0.47              |
| 1:A:301:SER:HB2  | 1:A:305:LEU:HD23 | 1.96                     | 0.47              |
| 1:A:310:ILE:C    | 1:A:312:ILE:N    | 2.68                     | 0.47              |
| 1:A:347:ARG:O    | 1:A:348:SER:C    | 2.54                     | 0.47              |
| 1:A:425:VAL:HG13 | 1:A:426:LEU:HD22 | 1.97                     | 0.47              |
| 1:A:474:GLN:O    | 1:A:475:VAL:C    | 2.53                     | 0.47              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:522:THR:O    | 1:A:523:ARG:C    | 2.53                     | 0.47              |
| 2:B:30:LYS:O     | 2:B:34:VAL:HG23  | 2.15                     | 0.47              |
| 2:B:130:LEU:C    | 2:B:132:ASP:N    | 2.67                     | 0.47              |
| 2:B:146:ALA:O    | 2:B:149:HIS:HB3  | 2.14                     | 0.47              |
| 2:B:175:MET:O    | 2:B:178:ALA:CB   | 2.63                     | 0.47              |
| 2:B:411:ILE:HD12 | 2:B:411:ILE:N    | 2.30                     | 0.47              |
| 2:B:426:GLU:CA   | 2:B:429:ILE:HD13 | 2.44                     | 0.47              |
| 2:B:534:PRO:O    | 2:B:535:VAL:C    | 2.53                     | 0.47              |
| 1:C:310:ILE:O    | 1:C:313:LEU:N    | 2.47                     | 0.47              |
| 1:C:502:GLU:HG3  | 1:C:537:PHE:CD2  | 2.50                     | 0.47              |
| 2:D:73:LEU:O     | 2:D:74:MET:C     | 2.53                     | 0.47              |
| 2:D:204:ILE:HA   | 2:D:207:LEU:CD1  | 2.44                     | 0.47              |
| 2:D:517:PRO:O    | 2:D:518:ASP:C    | 2.52                     | 0.47              |
| 1:E:79:PHE:O     | 1:E:80:THR:C     | 2.54                     | 0.47              |
| 1:E:310:ILE:C    | 1:E:312:ILE:N    | 2.68                     | 0.47              |
| 1:E:430:GLY:C    | 1:E:432:TYR:H    | 2.19                     | 0.47              |
| 1:E:489:SER:N    | 1:E:500:VAL:CG1  | 2.74                     | 0.47              |
| 1:E:509:LEU:HD12 | 1:E:530:ILE:HG12 | 1.97                     | 0.47              |
| 2:F:157:GLU:O    | 2:F:161:PHE:CD1  | 2.68                     | 0.47              |
| 2:F:173:ASN:O    | 2:F:177:VAL:HG23 | 2.15                     | 0.47              |
| 2:F:177:VAL:O    | 2:F:180:ARG:HB2  | 2.13                     | 0.47              |
| 2:F:556:GLU:HB3  | 2:F:557:PRO:CD   | 2.45                     | 0.47              |
| 1:G:185:GLU:HG3  | 1:G:186:LYS:N    | 2.30                     | 0.47              |
| 1:G:347:ARG:O    | 1:G:348:SER:C    | 2.54                     | 0.47              |
| 1:G:430:GLY:C    | 1:G:432:TYR:H    | 2.18                     | 0.47              |
| 1:G:509:LEU:HD12 | 1:G:530:ILE:HG12 | 1.97                     | 0.47              |
| 1:G:561:GLN:HE21 | 1:G:565:GLU:HG3  | 1.79                     | 0.47              |
| 2:H:144:CYS:C    | 2:H:148:LEU:HD13 | 2.36                     | 0.47              |
| 2:H:326:VAL:HG22 | 2:H:361:TYR:CZ   | 2.50                     | 0.47              |
| 2:H:395:LEU:O    | 2:H:396:LEU:C    | 2.53                     | 0.47              |
| 2:H:399:ILE:HG23 | 2:H:407:VAL:HG13 | 1.97                     | 0.47              |
| 2:H:436:LEU:O    | 2:H:439:ASP:OD2  | 2.32                     | 0.47              |
| 1:I:195:VAL:O    | 1:I:198:LEU:N    | 2.47                     | 0.47              |
| 1:I:386:LEU:O    | 1:I:387:TYR:C    | 2.54                     | 0.47              |
| 1:I:474:GLN:O    | 1:I:475:VAL:C    | 2.53                     | 0.47              |
| 2:J:9:THR:HG22   | 2:J:11:LYS:N     | 2.29                     | 0.47              |
| 2:J:261:LYS:HA   | 2:J:567:ILE:HD12 | 1.97                     | 0.47              |
| 1:K:5:ILE:HB     | 1:K:52:LYS:NZ    | 2.27                     | 0.47              |
| 1:K:79:PHE:O     | 1:K:82:LYS:HB2   | 2.14                     | 0.47              |
| 1:K:123:LEU:O    | 1:K:124:CYS:C    | 2.54                     | 0.47              |
| 1:K:176:LEU:N    | 1:K:177:PRO:CD   | 2.78                     | 0.47              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:255:ILE:HG23 | 1:K:256:LEU:N    | 2.29                     | 0.47              |
| 1:K:270:ILE:HG23 | 1:K:271:LEU:CD2  | 2.44                     | 0.47              |
| 1:K:302:GLU:HG3  | 1:K:305:LEU:H    | 1.78                     | 0.47              |
| 1:K:350:ILE:HG21 | 1:K:368:LEU:CD2  | 2.45                     | 0.47              |
| 1:K:478:TRP:CE3  | 1:K:478:TRP:CA   | 2.98                     | 0.47              |
| 2:L:115:VAL:O    | 2:L:118:ILE:CG2  | 2.51                     | 0.47              |
| 2:L:310:VAL:CG1  | 2:L:317:LEU:HD21 | 2.42                     | 0.47              |
| 2:L:311:GLN:CG   | 2:L:555:ILE:HD12 | 2.45                     | 0.47              |
| 3:M:76:CYS:HB2   | 3:M:79:LEU:CD1   | 2.43                     | 0.47              |
| 3:M:203:PHE:CD1  | 3:M:203:PHE:N    | 2.83                     | 0.47              |
| 3:M:333:LYS:HB2  | 3:M:333:LYS:NZ   | 2.30                     | 0.47              |
| 3:N:333:LYS:HB2  | 3:N:333:LYS:NZ   | 2.30                     | 0.47              |
| 3:O:273:VAL:O    | 3:O:274:LYS:C    | 2.51                     | 0.47              |
| 3:P:36:ILE:HG22  | 3:P:50:LEU:HD23  | 1.96                     | 0.47              |
| 3:R:87:VAL:HG12  | 3:R:91:PHE:CE2   | 2.50                     | 0.47              |
| 3:R:256:ILE:HA   | 3:R:257:PRO:HD3  | 1.62                     | 0.47              |
| 3:R:386:THR:CG2  | 3:R:389:GLY:H    | 2.21                     | 0.47              |
| 4:S:112:PHE:O    | 4:S:113:ILE:C    | 2.52                     | 0.47              |
| 4:S:117:PHE:CD1  | 4:S:117:PHE:C    | 2.85                     | 0.47              |
| 4:T:31:MET:CE    | 4:T:52:TRP:HH2   | 2.27                     | 0.47              |
| 4:T:35:LEU:O     | 4:T:36:MET:C     | 2.53                     | 0.47              |
| 4:T:87:TYR:CZ    | 4:T:114:LEU:HB2  | 2.49                     | 0.47              |
| 4:T:87:TYR:CE2   | 4:T:91:LEU:HD11  | 2.50                     | 0.47              |
| 4:T:108:GLU:O    | 4:T:111:TYR:HB2  | 2.15                     | 0.47              |
| 4:U:112:PHE:O    | 4:U:113:ILE:C    | 2.52                     | 0.47              |
| 3:V:100:GLU:O    | 3:V:101:GLU:C    | 2.53                     | 0.47              |
| 3:V:131:LEU:C    | 3:V:133:GLU:N    | 2.68                     | 0.47              |
| 3:V:376:ILE:CG2  | 3:V:420:LEU:HB2  | 2.42                     | 0.47              |
| 4:W:7:LEU:HD23   | 4:W:7:LEU:HA     | 1.55                     | 0.47              |
| 4:X:59:TYR:CD2   | 4:X:59:TYR:N     | 2.83                     | 0.47              |
| 4:X:107:PHE:CD2  | 4:X:107:PHE:N    | 2.82                     | 0.47              |
| 1:A:270:ILE:HG23 | 1:A:271:LEU:CD2  | 2.44                     | 0.47              |
| 1:A:405:PHE:O    | 1:A:406:LEU:C    | 2.54                     | 0.47              |
| 2:B:38:ILE:O     | 2:B:42:THR:HG23  | 2.15                     | 0.47              |
| 2:B:67:LYS:O     | 2:B:70:TYR:N     | 2.47                     | 0.47              |
| 2:B:154:GLN:CB   | 2:B:158:ASP:OD2  | 2.53                     | 0.47              |
| 2:B:157:GLU:O    | 2:B:161:PHE:CD1  | 2.68                     | 0.47              |
| 2:B:230:MET:HE2  | 2:B:240:ILE:HD12 | 1.97                     | 0.47              |
| 2:B:339:LEU:O    | 2:B:340:ASP:C    | 2.53                     | 0.47              |
| 2:B:357:GLU:O    | 2:B:358:LEU:C    | 2.49                     | 0.47              |
| 2:B:465:LEU:O    | 2:B:466:LEU:C    | 2.54                     | 0.47              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:185:GLU:HG3  | 1:C:186:LYS:N    | 2.30                     | 0.47              |
| 1:C:344:GLN:OE1  | 1:C:372:LEU:HD23 | 2.15                     | 0.47              |
| 1:C:347:ARG:O    | 1:C:348:SER:C    | 2.54                     | 0.47              |
| 1:C:395:GLU:HB2  | 1:C:396:PHE:HD1  | 1.80                     | 0.47              |
| 2:D:9:THR:HG22   | 2:D:11:LYS:N     | 2.29                     | 0.47              |
| 2:D:13:GLY:O     | 2:D:14:GLU:C     | 2.53                     | 0.47              |
| 2:D:385:GLU:C    | 2:D:387:SER:N    | 2.67                     | 0.47              |
| 2:D:468:SER:OG   | 2:D:469:PHE:N    | 2.47                     | 0.47              |
| 2:D:507:LEU:O    | 2:D:508:SER:C    | 2.53                     | 0.47              |
| 2:D:519:LEU:HD13 | 2:D:519:LEU:C    | 2.36                     | 0.47              |
| 1:E:123:LEU:O    | 1:E:124:CYS:C    | 2.54                     | 0.47              |
| 1:E:425:VAL:HG13 | 1:E:426:LEU:HD22 | 1.97                     | 0.47              |
| 2:F:261:LYS:HA   | 2:F:567:ILE:HD12 | 1.97                     | 0.47              |
| 2:F:411:ILE:HG22 | 2:F:412:VAL:N    | 2.29                     | 0.47              |
| 2:F:486:THR:HG22 | 2:F:487:ALA:H    | 1.76                     | 0.47              |
| 2:F:533:ASP:O    | 2:F:534:PRO:C    | 2.52                     | 0.47              |
| 1:G:215:LEU:O    | 1:G:216:VAL:C    | 2.54                     | 0.47              |
| 1:G:278:THR:HG22 | 1:G:279:GLU:N    | 2.30                     | 0.47              |
| 1:G:478:TRP:CE3  | 1:G:478:TRP:CA   | 2.98                     | 0.47              |
| 2:H:55:VAL:O     | 2:H:58:MET:CB    | 2.60                     | 0.47              |
| 2:H:72:TYR:O     | 2:H:73:LEU:C     | 2.52                     | 0.47              |
| 2:H:88:VAL:O     | 2:H:89:ASN:C     | 2.53                     | 0.47              |
| 2:H:414:ILE:O    | 2:H:415:LYS:C    | 2.53                     | 0.47              |
| 2:H:426:GLU:CA   | 2:H:429:ILE:HD13 | 2.44                     | 0.47              |
| 1:I:27:ILE:HD12  | 1:I:61:TYR:CZ    | 2.50                     | 0.47              |
| 1:I:53:LEU:O     | 1:I:56:MET:N     | 2.47                     | 0.47              |
| 1:I:159:LEU:HB2  | 4:X:119:MET:HE1  | 1.97                     | 0.47              |
| 1:I:347:ARG:O    | 1:I:348:SER:C    | 2.54                     | 0.47              |
| 1:I:362:LYS:O    | 1:I:363:ARG:C    | 2.52                     | 0.47              |
| 2:J:32:GLU:O     | 2:J:33:ALA:C     | 2.53                     | 0.47              |
| 2:J:55:VAL:O     | 2:J:58:MET:CB    | 2.60                     | 0.47              |
| 2:J:130:LEU:HD23 | 2:J:130:LEU:HA   | 1.44                     | 0.47              |
| 2:J:451:ILE:O    | 2:J:452:VAL:C    | 2.53                     | 0.47              |
| 2:J:519:LEU:C    | 2:J:519:LEU:HD13 | 2.36                     | 0.47              |
| 2:J:533:ASP:O    | 2:J:534:PRO:C    | 2.52                     | 0.47              |
| 1:K:196:VAL:CG1  | 1:K:248:ARG:HD2  | 2.44                     | 0.47              |
| 1:K:212:PHE:O    | 1:K:216:VAL:CG2  | 2.55                     | 0.47              |
| 2:L:351:ILE:HD11 | 2:L:384:VAL:HG11 | 1.97                     | 0.47              |
| 2:L:499:THR:O    | 2:L:500:GLN:C    | 2.53                     | 0.47              |
| 3:N:104:ARG:CA   | 3:N:107:PHE:CE1  | 2.94                     | 0.47              |
| 3:N:131:LEU:C    | 3:N:133:GLU:N    | 2.68                     | 0.47              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:N:239:HIS:O    | 3:N:240:GLN:C    | 2.53                     | 0.47              |
| 3:O:333:LYS:HB2  | 3:O:333:LYS:NZ   | 2.30                     | 0.47              |
| 3:P:131:LEU:C    | 3:P:133:GLU:N    | 2.68                     | 0.47              |
| 4:Q:117:PHE:C    | 4:Q:117:PHE:CD1  | 2.86                     | 0.47              |
| 4:S:53:ARG:O     | 4:S:54:ASP:CB    | 2.63                     | 0.47              |
| 4:S:80:THR:O     | 4:S:81:LEU:C     | 2.54                     | 0.47              |
| 4:T:50:LEU:HD23  | 4:T:50:LEU:C     | 2.34                     | 0.47              |
| 4:T:50:LEU:HB3   | 4:T:57:VAL:HG23  | 1.96                     | 0.47              |
| 4:T:85:HIS:C     | 4:T:88:VAL:HG22  | 2.34                     | 0.47              |
| 4:U:50:LEU:HB3   | 4:U:57:VAL:HG23  | 1.96                     | 0.47              |
| 3:V:203:PHE:CD1  | 3:V:203:PHE:N    | 2.83                     | 0.47              |
| 4:W:31:MET:O     | 4:W:32:VAL:O     | 2.32                     | 0.47              |
| 4:W:71:ILE:CG2   | 4:W:75:ASP:HB3   | 2.43                     | 0.47              |
| 4:W:80:THR:O     | 4:W:81:LEU:C     | 2.54                     | 0.47              |
| 4:X:35:LEU:O     | 4:X:36:MET:C     | 2.54                     | 0.47              |
| 1:A:5:ILE:HB     | 1:A:52:LYS:NZ    | 2.27                     | 0.46              |
| 1:A:10:LEU:O     | 1:A:11:ILE:C     | 2.53                     | 0.46              |
| 1:A:237:VAL:HG22 | 4:S:86:ARG:HH12  | 1.80                     | 0.46              |
| 1:A:255:ILE:HG23 | 1:A:256:LEU:N    | 2.29                     | 0.46              |
| 1:A:350:ILE:HG21 | 1:A:368:LEU:CD2  | 2.45                     | 0.46              |
| 1:A:478:TRP:CE3  | 1:A:478:TRP:CA   | 2.98                     | 0.46              |
| 1:A:561:GLN:HE21 | 1:A:565:GLU:HG3  | 1.79                     | 0.46              |
| 2:B:327:LYS:HB2  | 2:B:330:ASP:OD1  | 2.15                     | 0.46              |
| 1:C:47:CYS:SG    | 1:C:48:ARG:N     | 2.87                     | 0.46              |
| 1:C:532:LYS:CA   | 1:C:581:LEU:HD13 | 2.35                     | 0.46              |
| 1:C:558:GLU:OE2  | 2:D:482:LEU:HD23 | 2.15                     | 0.46              |
| 2:D:130:LEU:HD23 | 2:D:130:LEU:HA   | 1.44                     | 0.46              |
| 2:D:154:GLN:CB   | 2:D:158:ASP:OD2  | 2.53                     | 0.46              |
| 2:D:323:VAL:CG2  | 2:D:324:PHE:HD1  | 2.17                     | 0.46              |
| 2:D:385:GLU:O    | 2:D:387:SER:N    | 2.47                     | 0.46              |
| 2:D:489:VAL:O    | 2:D:490:LYS:C    | 2.53                     | 0.46              |
| 2:D:494:LYS:HA   | 2:D:494:LYS:HD2  | 1.75                     | 0.46              |
| 2:D:499:THR:O    | 2:D:500:GLN:C    | 2.53                     | 0.46              |
| 1:E:176:LEU:N    | 1:E:177:PRO:CD   | 2.78                     | 0.46              |
| 1:E:237:VAL:HG22 | 4:U:86:ARG:HH12  | 1.80                     | 0.46              |
| 1:E:502:GLU:HG3  | 1:E:537:PHE:CD2  | 2.50                     | 0.46              |
| 2:F:102:ILE:O    | 2:F:105:LEU:N    | 2.48                     | 0.46              |
| 2:F:175:MET:O    | 2:F:178:ALA:CB   | 2.63                     | 0.46              |
| 2:F:216:GLU:HB2  | 2:F:217:TRP:HE3  | 1.67                     | 0.46              |
| 2:F:468:SER:OG   | 2:F:469:PHE:N    | 2.47                     | 0.46              |
| 2:F:534:PRO:O    | 2:F:535:VAL:C    | 2.53                     | 0.46              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:138:LEU:O    | 1:G:139:ALA:C    | 2.52                     | 0.46              |
| 1:G:223:LEU:O    | 1:G:224:LYS:C    | 2.54                     | 0.46              |
| 1:G:551:TYR:C    | 1:G:553:SER:N    | 2.69                     | 0.46              |
| 2:H:7:PHE:HD2    | 4:Q:99:CYS:HA    | 1.81                     | 0.46              |
| 2:H:411:ILE:HD12 | 2:H:411:ILE:N    | 2.30                     | 0.46              |
| 1:I:151:SER:O    | 1:I:152:TYR:C    | 2.53                     | 0.46              |
| 1:I:176:LEU:N    | 1:I:177:PRO:CD   | 2.78                     | 0.46              |
| 1:I:178:ALA:O    | 1:I:182:LEU:HG   | 2.14                     | 0.46              |
| 1:I:301:SER:HB2  | 1:I:305:LEU:HD23 | 1.96                     | 0.46              |
| 1:I:366:MET:O    | 1:I:369:SER:OG   | 2.24                     | 0.46              |
| 1:I:405:PHE:O    | 1:I:406:LEU:C    | 2.54                     | 0.46              |
| 1:I:430:GLY:C    | 1:I:432:TYR:H    | 2.19                     | 0.46              |
| 1:I:502:GLU:HG3  | 1:I:537:PHE:CD2  | 2.50                     | 0.46              |
| 1:I:535:THR:O    | 1:I:535:THR:HG22 | 2.15                     | 0.46              |
| 2:J:30:LYS:O     | 2:J:34:VAL:HG23  | 2.15                     | 0.46              |
| 2:J:67:LYS:O     | 2:J:70:TYR:N     | 2.47                     | 0.46              |
| 2:J:73:LEU:O     | 2:J:74:MET:C     | 2.53                     | 0.46              |
| 2:J:399:ILE:HG23 | 2:J:407:VAL:HG13 | 1.97                     | 0.46              |
| 2:J:507:LEU:O    | 2:J:508:SER:C    | 2.53                     | 0.46              |
| 1:K:10:LEU:O     | 1:K:11:ILE:C     | 2.53                     | 0.46              |
| 1:K:310:ILE:O    | 1:K:313:LEU:N    | 2.48                     | 0.46              |
| 1:K:474:GLN:O    | 1:K:475:VAL:C    | 2.53                     | 0.46              |
| 1:K:551:TYR:C    | 1:K:553:SER:N    | 2.68                     | 0.46              |
| 1:K:558:GLU:OE2  | 2:L:482:LEU:HD23 | 2.15                     | 0.46              |
| 2:L:7:PHE:HD2    | 4:W:99:CYS:HA    | 1.81                     | 0.46              |
| 2:L:32:GLU:O     | 2:L:33:ALA:C     | 2.53                     | 0.46              |
| 2:L:390:ARG:NH1  | 2:L:390:ARG:HG2  | 2.30                     | 0.46              |
| 2:L:556:GLU:HB3  | 2:L:557:PRO:CD   | 2.45                     | 0.46              |
| 3:M:198:ILE:HD12 | 3:M:265:MET:HB3  | 1.96                     | 0.46              |
| 3:M:408:TRP:N    | 3:M:408:TRP:HD1  | 2.12                     | 0.46              |
| 3:N:36:ILE:HG22  | 3:N:50:LEU:HD23  | 1.96                     | 0.46              |
| 3:N:100:GLU:O    | 3:N:101:GLU:C    | 2.53                     | 0.46              |
| 3:P:107:PHE:O    | 3:P:108:VAL:C    | 2.52                     | 0.46              |
| 3:P:239:HIS:O    | 3:P:240:GLN:C    | 2.53                     | 0.46              |
| 3:P:333:LYS:HB2  | 3:P:333:LYS:NZ   | 2.30                     | 0.46              |
| 3:R:22:ARG:CG    | 3:R:23:GLY:N     | 2.76                     | 0.46              |
| 3:R:374:PRO:HA   | 3:R:375:PRO:HD3  | 1.76                     | 0.46              |
| 3:V:253:ILE:N    | 3:V:253:ILE:CD1  | 2.78                     | 0.46              |
| 1:A:79:PHE:O     | 1:A:80:THR:C     | 2.54                     | 0.46              |
| 1:A:123:LEU:O    | 1:A:124:CYS:C    | 2.54                     | 0.46              |
| 2:B:32:GLU:O     | 2:B:33:ALA:C     | 2.53                     | 0.46              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:45:LYS:HG2   | 2:B:46:ASP:N     | 2.30                     | 0.46              |
| 2:B:144:CYS:C    | 2:B:148:LEU:HD13 | 2.36                     | 0.46              |
| 2:B:239:SER:O    | 2:B:243:ARG:HG2  | 2.16                     | 0.46              |
| 2:B:337:GLU:O    | 2:B:338:LYS:C    | 2.53                     | 0.46              |
| 2:B:451:ILE:O    | 2:B:452:VAL:C    | 2.53                     | 0.46              |
| 2:B:556:GLU:HB3  | 2:B:557:PRO:CD   | 2.45                     | 0.46              |
| 1:C:223:LEU:O    | 1:C:224:LYS:C    | 2.54                     | 0.46              |
| 1:C:350:ILE:HG21 | 1:C:368:LEU:CD2  | 2.45                     | 0.46              |
| 2:D:102:ILE:O    | 2:D:105:LEU:N    | 2.48                     | 0.46              |
| 2:D:390:ARG:CG   | 2:D:390:ARG:HH11 | 2.26                     | 0.46              |
| 2:D:411:ILE:HD12 | 2:D:411:ILE:N    | 2.30                     | 0.46              |
| 1:E:23:GLU:O     | 1:E:24:ARG:C     | 2.54                     | 0.46              |
| 1:E:254:ARG:CB   | 1:E:295:THR:HG23 | 2.45                     | 0.46              |
| 1:E:278:THR:HG22 | 1:E:279:GLU:N    | 2.30                     | 0.46              |
| 2:F:88:VAL:O     | 2:F:89:ASN:C     | 2.53                     | 0.46              |
| 2:F:399:ILE:HG23 | 2:F:407:VAL:HG13 | 1.97                     | 0.46              |
| 1:G:5:ILE:HB     | 1:G:52:LYS:NZ    | 2.27                     | 0.46              |
| 1:G:7:LEU:O      | 1:G:10:LEU:N     | 2.49                     | 0.46              |
| 1:G:237:VAL:HG22 | 4:Q:86:ARG:HH12  | 1.80                     | 0.46              |
| 1:G:254:ARG:CA   | 1:G:295:THR:HG23 | 2.44                     | 0.46              |
| 1:G:535:THR:O    | 1:G:535:THR:CG2  | 2.63                     | 0.46              |
| 2:H:157:GLU:O    | 2:H:161:PHE:CD1  | 2.68                     | 0.46              |
| 2:H:323:VAL:CG2  | 2:H:324:PHE:HD1  | 2.17                     | 0.46              |
| 1:I:5:ILE:HB     | 1:I:52:LYS:NZ    | 2.27                     | 0.46              |
| 1:I:7:LEU:O      | 1:I:10:LEU:N     | 2.49                     | 0.46              |
| 1:I:414:SER:HA   | 1:I:415:LYS:NZ   | 2.29                     | 0.46              |
| 1:I:502:GLU:O    | 1:I:506:LEU:HG   | 2.16                     | 0.46              |
| 1:I:551:TYR:C    | 1:I:553:SER:N    | 2.69                     | 0.46              |
| 2:J:13:GLY:O     | 2:J:14:GLU:C     | 2.53                     | 0.46              |
| 2:J:38:ILE:O     | 2:J:42:THR:HG23  | 2.15                     | 0.46              |
| 2:J:351:ILE:HD11 | 2:J:384:VAL:HG11 | 1.97                     | 0.46              |
| 2:J:394:THR:O    | 2:J:395:LEU:C    | 2.54                     | 0.46              |
| 2:J:411:ILE:HD12 | 2:J:411:ILE:N    | 2.30                     | 0.46              |
| 2:J:411:ILE:HG22 | 2:J:412:VAL:N    | 2.29                     | 0.46              |
| 1:K:347:ARG:O    | 1:K:348:SER:C    | 2.54                     | 0.46              |
| 1:K:502:GLU:HG3  | 1:K:537:PHE:CD2  | 2.50                     | 0.46              |
| 2:L:38:ILE:O     | 2:L:42:THR:HG23  | 2.15                     | 0.46              |
| 2:L:45:LYS:HG2   | 2:L:46:ASP:N     | 2.30                     | 0.46              |
| 2:L:71:LEU:O     | 2:L:72:TYR:C     | 2.53                     | 0.46              |
| 2:L:173:ASN:O    | 2:L:177:VAL:HG23 | 2.15                     | 0.46              |
| 2:L:297:GLU:OE2  | 3:V:60:ILE:HG22  | 2.15                     | 0.46              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:M:202:VAL:HG12 | 3:M:203:PHE:N    | 2.30                     | 0.46              |
| 3:N:62:HIS:CD2   | 3:N:98:LEU:HD23  | 2.50                     | 0.46              |
| 3:N:240:GLN:O    | 3:N:242:VAL:N    | 2.48                     | 0.46              |
| 3:N:327:THR:OG1  | 3:N:356:MET:HG2  | 2.14                     | 0.46              |
| 3:O:203:PHE:N    | 3:O:203:PHE:CD1  | 2.83                     | 0.46              |
| 3:O:325:PHE:CD2  | 3:O:358:ALA:HB1  | 2.50                     | 0.46              |
| 3:P:408:TRP:N    | 3:P:408:TRP:HD1  | 2.12                     | 0.46              |
| 4:Q:108:GLU:O    | 4:Q:111:TYR:HB2  | 2.15                     | 0.46              |
| 3:R:131:LEU:C    | 3:R:133:GLU:N    | 2.68                     | 0.46              |
| 4:U:71:ILE:HG21  | 4:U:75:ASP:CB    | 2.44                     | 0.46              |
| 4:U:132:LEU:O    | 4:U:133:LYS:C    | 2.54                     | 0.46              |
| 3:V:355:LEU:HD12 | 3:V:356:MET:H    | 1.78                     | 0.46              |
| 4:W:35:LEU:O     | 4:W:36:MET:C     | 2.53                     | 0.46              |
| 4:W:88:VAL:HG23  | 4:W:89:GLU:H     | 1.78                     | 0.46              |
| 4:W:108:GLU:O    | 4:W:111:TYR:HB2  | 2.15                     | 0.46              |
| 4:X:87:TYR:CE2   | 4:X:91:LEU:HD11  | 2.50                     | 0.46              |
| 1:A:23:GLU:O     | 1:A:24:ARG:C     | 2.54                     | 0.46              |
| 1:A:176:LEU:N    | 1:A:177:PRO:CD   | 2.78                     | 0.46              |
| 2:B:173:ASN:O    | 2:B:177:VAL:HG23 | 2.15                     | 0.46              |
| 2:B:216:GLU:HB2  | 2:B:217:TRP:HE3  | 1.67                     | 0.46              |
| 2:B:297:GLU:OE2  | 3:M:60:ILE:HG22  | 2.15                     | 0.46              |
| 2:B:390:ARG:HG2  | 2:B:390:ARG:NH1  | 2.30                     | 0.46              |
| 2:B:411:ILE:H    | 2:B:411:ILE:CD1  | 2.28                     | 0.46              |
| 2:B:436:LEU:O    | 2:B:436:LEU:HD22 | 2.16                     | 0.46              |
| 1:C:271:LEU:O    | 1:C:272:ALA:C    | 2.52                     | 0.46              |
| 1:C:430:GLY:C    | 1:C:432:TYR:H    | 2.18                     | 0.46              |
| 1:C:451:MET:H    | 1:C:451:MET:HE2  | 1.81                     | 0.46              |
| 2:D:18:LEU:N     | 2:D:18:LEU:CD2   | 2.78                     | 0.46              |
| 2:D:27:LYS:HA    | 2:D:30:LYS:HD2   | 1.97                     | 0.46              |
| 2:D:436:LEU:O    | 2:D:436:LEU:HD22 | 2.16                     | 0.46              |
| 2:D:451:ILE:O    | 2:D:452:VAL:C    | 2.53                     | 0.46              |
| 1:E:344:GLN:OE1  | 1:E:372:LEU:HD23 | 2.15                     | 0.46              |
| 2:F:61:ASP:O     | 2:F:62:ASN:C     | 2.52                     | 0.46              |
| 2:F:436:LEU:O    | 2:F:436:LEU:HD22 | 2.16                     | 0.46              |
| 2:F:569:THR:HG23 | 3:O:74:ASN:CG    | 2.35                     | 0.46              |
| 1:G:115:THR:HB   | 1:G:118:VAL:HG23 | 1.97                     | 0.46              |
| 1:G:123:LEU:O    | 1:G:124:CYS:C    | 2.54                     | 0.46              |
| 1:G:173:GLU:O    | 1:G:175:PHE:N    | 2.48                     | 0.46              |
| 1:G:271:LEU:O    | 1:G:272:ALA:C    | 2.52                     | 0.46              |
| 2:H:30:LYS:O     | 2:H:34:VAL:HG23  | 2.15                     | 0.46              |
| 2:H:239:SER:O    | 2:H:243:ARG:HG2  | 2.16                     | 0.46              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:241:CYS:C    | 2:H:243:ARG:H    | 2.17                     | 0.46              |
| 2:H:304:ARG:HG3  | 2:H:575:HIS:NE2  | 2.31                     | 0.46              |
| 2:H:411:ILE:HG22 | 2:H:412:VAL:N    | 2.29                     | 0.46              |
| 2:H:516:ASN:O    | 2:H:519:LEU:HB3  | 2.14                     | 0.46              |
| 2:H:519:LEU:HD13 | 2:H:519:LEU:C    | 2.36                     | 0.46              |
| 1:I:115:THR:HB   | 1:I:118:VAL:HG23 | 1.97                     | 0.46              |
| 1:I:482:GLU:CD   | 1:I:584:MET:HG2  | 2.36                     | 0.46              |
| 2:J:12:LYS:CG    | 2:J:13:GLY:N     | 2.73                     | 0.46              |
| 2:J:45:LYS:HG2   | 2:J:46:ASP:N     | 2.30                     | 0.46              |
| 2:J:115:VAL:HG12 | 2:J:116:ASP:N    | 2.31                     | 0.46              |
| 2:J:175:MET:O    | 2:J:178:ALA:CB   | 2.63                     | 0.46              |
| 2:J:311:GLN:CG   | 2:J:555:ILE:HD12 | 2.45                     | 0.46              |
| 2:J:506:VAL:O    | 2:J:507:LEU:C    | 2.53                     | 0.46              |
| 1:K:254:ARG:CB   | 1:K:295:THR:HG23 | 2.45                     | 0.46              |
| 1:K:401:ALA:O    | 1:K:402:SER:C    | 2.52                     | 0.46              |
| 1:K:502:GLU:O    | 1:K:506:LEU:HG   | 2.16                     | 0.46              |
| 2:L:39:ALA:C     | 2:L:41:MET:H     | 2.18                     | 0.46              |
| 2:L:102:ILE:O    | 2:L:105:LEU:N    | 2.48                     | 0.46              |
| 2:L:144:CYS:C    | 2:L:148:LEU:HD13 | 2.36                     | 0.46              |
| 2:L:241:CYS:C    | 2:L:243:ARG:H    | 2.17                     | 0.46              |
| 2:L:411:ILE:HG22 | 2:L:412:VAL:N    | 2.29                     | 0.46              |
| 2:L:519:LEU:C    | 2:L:519:LEU:HD13 | 2.36                     | 0.46              |
| 3:M:192:SER:OG   | 3:M:271:THR:O    | 2.33                     | 0.46              |
| 3:N:215:ASN:HB2  | 3:N:391:GLN:O    | 2.14                     | 0.46              |
| 3:O:84:LEU:O     | 3:O:87:VAL:N     | 2.49                     | 0.46              |
| 3:O:380:PHE:CD1  | 3:O:380:PHE:C    | 2.87                     | 0.46              |
| 4:S:108:GLU:O    | 4:S:111:TYR:HB2  | 2.15                     | 0.46              |
| 4:U:87:TYR:CE2   | 4:U:91:LEU:HD11  | 2.50                     | 0.46              |
| 3:V:333:LYS:HB2  | 3:V:333:LYS:NZ   | 2.30                     | 0.46              |
| 4:W:132:LEU:O    | 4:W:133:LYS:C    | 2.54                     | 0.46              |
| 4:X:7:LEU:CD2    | 4:X:66:TYR:O     | 2.64                     | 0.46              |
| 4:X:86:ARG:O     | 4:X:87:TYR:C     | 2.52                     | 0.46              |
| 1:A:55:TYR:C     | 1:A:55:TYR:CD1   | 2.87                     | 0.46              |
| 1:A:254:ARG:CB   | 1:A:295:THR:HG23 | 2.45                     | 0.46              |
| 1:A:430:GLY:C    | 1:A:432:TYR:H    | 2.19                     | 0.46              |
| 1:A:502:GLU:HG3  | 1:A:537:PHE:CD2  | 2.50                     | 0.46              |
| 1:A:508:ILE:O    | 1:A:509:LEU:C    | 2.54                     | 0.46              |
| 1:A:535:THR:HG22 | 1:A:535:THR:O    | 2.15                     | 0.46              |
| 2:B:204:ILE:HA   | 2:B:207:LEU:CD1  | 2.44                     | 0.46              |
| 2:B:519:LEU:C    | 2:B:519:LEU:HD13 | 2.36                     | 0.46              |
| 2:D:99:ASN:HA    | 2:D:100:PRO:HD2  | 1.75                     | 0.46              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:175:MET:O    | 2:D:178:ALA:N    | 2.49                     | 0.46              |
| 2:D:297:GLU:OE2  | 3:N:60:ILE:HG22  | 2.15                     | 0.46              |
| 2:D:304:ARG:HG3  | 2:D:575:HIS:NE2  | 2.31                     | 0.46              |
| 2:D:411:ILE:HG22 | 2:D:412:VAL:N    | 2.29                     | 0.46              |
| 2:D:419:ARG:HB3  | 2:D:548:ILE:HD13 | 1.98                     | 0.46              |
| 2:D:467:GLU:O    | 2:D:468:SER:C    | 2.54                     | 0.46              |
| 1:E:27:ILE:HD12  | 1:E:61:TYR:CZ    | 2.50                     | 0.46              |
| 1:E:147:LYS:HA   | 1:E:147:LYS:CE   | 2.39                     | 0.46              |
| 1:E:482:GLU:CD   | 1:E:584:MET:HG2  | 2.36                     | 0.46              |
| 1:E:508:ILE:O    | 1:E:509:LEU:C    | 2.54                     | 0.46              |
| 2:F:38:ILE:O     | 2:F:42:THR:HG23  | 2.15                     | 0.46              |
| 2:F:239:SER:O    | 2:F:243:ARG:HG2  | 2.16                     | 0.46              |
| 2:F:305:ASN:N    | 2:F:305:ASN:HD22 | 2.13                     | 0.46              |
| 2:F:327:LYS:HB2  | 2:F:330:ASP:OD1  | 2.15                     | 0.46              |
| 2:F:394:THR:O    | 2:F:395:LEU:C    | 2.54                     | 0.46              |
| 2:F:395:LEU:O    | 2:F:396:LEU:C    | 2.53                     | 0.46              |
| 1:G:86:TYR:HD2   | 1:G:125:THR:HG1  | 1.60                     | 0.46              |
| 1:G:395:GLU:HB2  | 1:G:396:PHE:HD1  | 1.81                     | 0.46              |
| 1:G:494:GLU:HA   | 1:G:494:GLU:OE1  | 2.15                     | 0.46              |
| 2:H:506:VAL:O    | 2:H:507:LEU:C    | 2.53                     | 0.46              |
| 2:H:556:GLU:HB3  | 2:H:557:PRO:CD   | 2.45                     | 0.46              |
| 1:I:70:CYS:O     | 1:I:73:LEU:HB2   | 2.16                     | 0.46              |
| 1:I:467:TYR:OH   | 1:I:511:SER:CB   | 2.64                     | 0.46              |
| 1:I:494:GLU:HA   | 1:I:494:GLU:OE1  | 2.16                     | 0.46              |
| 1:I:526:ALA:O    | 1:I:527:LEU:C    | 2.54                     | 0.46              |
| 2:J:304:ARG:HG3  | 2:J:575:HIS:NE2  | 2.31                     | 0.46              |
| 2:J:326:VAL:HG22 | 2:J:361:TYR:CZ   | 2.50                     | 0.46              |
| 2:J:556:GLU:HB3  | 2:J:557:PRO:CD   | 2.45                     | 0.46              |
| 1:K:21:ALA:O     | 1:K:24:ARG:HB2   | 2.15                     | 0.46              |
| 1:K:430:GLY:C    | 1:K:432:TYR:H    | 2.18                     | 0.46              |
| 1:K:556:ASP:O    | 1:K:557:VAL:C    | 2.54                     | 0.46              |
| 2:L:175:MET:O    | 2:L:178:ALA:N    | 2.49                     | 0.46              |
| 2:L:261:LYS:HA   | 2:L:567:ILE:HD12 | 1.97                     | 0.46              |
| 2:L:411:ILE:HD12 | 2:L:411:ILE:N    | 2.30                     | 0.46              |
| 2:L:433:CYS:HA   | 2:L:448:MET:HE1  | 1.97                     | 0.46              |
| 3:N:203:PHE:CD1  | 3:N:203:PHE:N    | 2.83                     | 0.46              |
| 3:P:42:GLU:HG3   | 3:P:302:LYS:HB3  | 1.98                     | 0.46              |
| 3:P:380:PHE:CD1  | 3:P:380:PHE:C    | 2.87                     | 0.46              |
| 4:Q:50:LEU:HB3   | 4:Q:57:VAL:HG23  | 1.96                     | 0.46              |
| 4:Q:87:TYR:CZ    | 4:Q:114:LEU:HB2  | 2.49                     | 0.46              |
| 3:R:325:PHE:CD2  | 3:R:358:ALA:HB1  | 2.50                     | 0.46              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:T:86:ARG:O     | 4:T:87:TYR:C     | 2.52                     | 0.46              |
| 4:U:31:MET:HE3   | 4:U:53:ARG:NH1   | 2.30                     | 0.46              |
| 4:X:53:ARG:O     | 4:X:54:ASP:CB    | 2.63                     | 0.46              |
| 4:X:147:SER:O    | 4:X:149:ARG:N    | 2.49                     | 0.46              |
| 1:A:5:ILE:O      | 1:A:52:LYS:NZ    | 2.46                     | 0.46              |
| 1:A:14:ILE:H     | 1:A:14:ILE:CD1   | 2.17                     | 0.46              |
| 1:A:46:ARG:O     | 1:A:50:VAL:HG23  | 2.16                     | 0.46              |
| 1:A:185:GLU:HG3  | 1:A:186:LYS:N    | 2.30                     | 0.46              |
| 1:A:189:GLY:O    | 1:A:190:VAL:C    | 2.54                     | 0.46              |
| 1:A:414:SER:HA   | 1:A:415:LYS:NZ   | 2.30                     | 0.46              |
| 2:B:71:LEU:O     | 2:B:72:TYR:C     | 2.53                     | 0.46              |
| 2:B:102:ILE:O    | 2:B:105:LEU:N    | 2.48                     | 0.46              |
| 1:C:123:LEU:O    | 1:C:124:CYS:C    | 2.54                     | 0.46              |
| 1:C:535:THR:O    | 1:C:535:THR:HG22 | 2.15                     | 0.46              |
| 2:D:239:SER:O    | 2:D:243:ARG:HG2  | 2.16                     | 0.46              |
| 2:D:506:VAL:O    | 2:D:507:LEU:C    | 2.53                     | 0.46              |
| 2:D:569:THR:HG23 | 3:N:74:ASN:CG    | 2.35                     | 0.46              |
| 2:F:297:GLU:OE2  | 3:O:60:ILE:HG22  | 2.15                     | 0.46              |
| 1:G:169:PRO:O    | 1:G:172:MET:HE2  | 2.15                     | 0.46              |
| 1:G:386:LEU:O    | 1:G:387:TYR:C    | 2.54                     | 0.46              |
| 2:H:102:ILE:O    | 2:H:105:LEU:N    | 2.48                     | 0.46              |
| 2:H:468:SER:OG   | 2:H:469:PHE:N    | 2.47                     | 0.46              |
| 2:H:534:PRO:O    | 2:H:535:VAL:C    | 2.54                     | 0.46              |
| 2:H:570:LEU:CD1  | 3:P:75:ALA:H     | 2.28                     | 0.46              |
| 2:J:175:MET:O    | 2:J:178:ALA:N    | 2.49                     | 0.46              |
| 2:J:179:ASN:HD22 | 2:J:179:ASN:N    | 2.14                     | 0.46              |
| 2:J:436:LEU:O    | 2:J:439:ASP:OD2  | 2.33                     | 0.46              |
| 1:K:79:PHE:O     | 1:K:80:THR:C     | 2.54                     | 0.46              |
| 1:K:223:LEU:O    | 1:K:224:LYS:C    | 2.54                     | 0.46              |
| 1:K:526:ALA:O    | 1:K:527:LEU:C    | 2.54                     | 0.46              |
| 1:K:535:THR:O    | 1:K:535:THR:CG2  | 2.63                     | 0.46              |
| 2:L:157:GLU:O    | 2:L:161:PHE:CD1  | 2.68                     | 0.46              |
| 2:L:239:SER:O    | 2:L:243:ARG:HG2  | 2.16                     | 0.46              |
| 3:M:104:ARG:CA   | 3:M:107:PHE:HE1  | 2.25                     | 0.46              |
| 3:M:204:LEU:HD23 | 3:M:204:LEU:HA   | 1.73                     | 0.46              |
| 3:N:323:PRO:HB3  | 3:N:325:PHE:HE2  | 1.81                     | 0.46              |
| 3:N:380:PHE:CD1  | 3:N:380:PHE:N    | 2.76                     | 0.46              |
| 3:O:202:VAL:HG12 | 3:O:203:PHE:N    | 2.30                     | 0.46              |
| 3:P:202:VAL:HG12 | 3:P:203:PHE:N    | 2.30                     | 0.46              |
| 3:P:255:PHE:N    | 3:P:255:PHE:HD2  | 2.14                     | 0.46              |
| 4:Q:7:LEU:CD2    | 4:Q:66:TYR:O     | 2.64                     | 0.46              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:Q:87:TYR:O     | 4:Q:88:VAL:C     | 2.51                     | 0.46              |
| 3:R:84:LEU:O     | 3:R:87:VAL:N     | 2.49                     | 0.46              |
| 3:R:194:ILE:HD11 | 3:R:269:LEU:HD12 | 1.98                     | 0.46              |
| 4:S:7:LEU:CD2    | 4:S:66:TYR:O     | 2.64                     | 0.46              |
| 4:U:71:ILE:CG2   | 4:U:72:GLU:H     | 2.26                     | 0.46              |
| 4:U:107:PHE:CD2  | 4:U:107:PHE:N    | 2.82                     | 0.46              |
| 4:W:31:MET:CE    | 4:W:52:TRP:HH2   | 2.27                     | 0.46              |
| 4:X:71:ILE:CG2   | 4:X:75:ASP:HB3   | 2.43                     | 0.46              |
| 4:X:108:GLU:O    | 4:X:111:TYR:HB2  | 2.15                     | 0.46              |
| 1:A:243:PRO:O    | 1:A:246:GLN:HB2  | 2.16                     | 0.46              |
| 1:A:443:GLN:HA   | 1:A:446:THR:CG2  | 2.45                     | 0.46              |
| 1:A:482:GLU:CD   | 1:A:584:MET:HG2  | 2.36                     | 0.46              |
| 1:A:526:ALA:O    | 1:A:527:LEU:C    | 2.54                     | 0.46              |
| 2:B:34:VAL:O     | 2:B:37:VAL:HB    | 2.16                     | 0.46              |
| 2:B:411:ILE:HG22 | 2:B:412:VAL:N    | 2.29                     | 0.46              |
| 1:C:79:PHE:O     | 1:C:80:THR:C     | 2.54                     | 0.46              |
| 1:C:140:GLY:O    | 1:C:141:GLU:C    | 2.53                     | 0.46              |
| 1:C:324:ILE:O    | 1:C:325:ARG:C    | 2.54                     | 0.46              |
| 1:C:556:ASP:O    | 1:C:557:VAL:C    | 2.54                     | 0.46              |
| 2:D:175:MET:O    | 2:D:178:ALA:CB   | 2.63                     | 0.46              |
| 2:D:351:ILE:HD11 | 2:D:384:VAL:HG11 | 1.97                     | 0.46              |
| 2:D:499:THR:O    | 2:D:500:GLN:O    | 2.34                     | 0.46              |
| 2:D:534:PRO:O    | 2:D:535:VAL:C    | 2.53                     | 0.46              |
| 2:D:570:LEU:CD1  | 3:N:75:ALA:H     | 2.28                     | 0.46              |
| 1:E:21:ALA:O     | 1:E:24:ARG:HB2   | 2.15                     | 0.46              |
| 1:E:467:TYR:OH   | 1:E:511:SER:CB   | 2.64                     | 0.46              |
| 1:E:494:GLU:HA   | 1:E:494:GLU:OE1  | 2.15                     | 0.46              |
| 1:E:556:ASP:O    | 1:E:557:VAL:C    | 2.54                     | 0.46              |
| 2:F:71:LEU:O     | 2:F:72:TYR:C     | 2.53                     | 0.46              |
| 2:F:304:ARG:HG3  | 2:F:575:HIS:NE2  | 2.31                     | 0.46              |
| 2:F:436:LEU:HD13 | 2:F:436:LEU:O    | 2.16                     | 0.46              |
| 2:F:483:GLN:OE1  | 2:F:483:GLN:N    | 2.49                     | 0.46              |
| 2:F:489:VAL:O    | 2:F:490:LYS:C    | 2.53                     | 0.46              |
| 1:G:10:LEU:O     | 1:G:11:ILE:C     | 2.53                     | 0.46              |
| 1:G:502:GLU:O    | 1:G:506:LEU:HG   | 2.16                     | 0.46              |
| 1:G:526:ALA:O    | 1:G:527:LEU:C    | 2.54                     | 0.46              |
| 2:H:115:VAL:HG12 | 2:H:116:ASP:N    | 2.31                     | 0.46              |
| 2:H:175:MET:O    | 2:H:178:ALA:N    | 2.49                     | 0.46              |
| 2:H:179:ASN:N    | 2:H:179:ASN:HD22 | 2.14                     | 0.46              |
| 2:H:297:GLU:OE2  | 3:P:60:ILE:HG22  | 2.15                     | 0.46              |
| 2:H:400:GLN:HE21 | 2:H:400:GLN:HA   | 1.81                     | 0.46              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:415:LYS:HG2  | 2:H:416:ASP:N    | 2.30                     | 0.46              |
| 1:I:185:GLU:HG3  | 1:I:186:LYS:N    | 2.30                     | 0.46              |
| 1:I:250:LEU:O    | 1:I:251:ARG:C    | 2.53                     | 0.46              |
| 1:I:326:TYR:O    | 1:I:327:VAL:C    | 2.54                     | 0.46              |
| 1:I:344:GLN:OE1  | 1:I:372:LEU:HD23 | 2.15                     | 0.46              |
| 1:I:350:ILE:HG21 | 1:I:368:LEU:CD2  | 2.45                     | 0.46              |
| 1:I:370:PHE:HD2  | 1:I:370:PHE:HA   | 1.65                     | 0.46              |
| 1:I:522:THR:O    | 1:I:523:ARG:C    | 2.53                     | 0.46              |
| 2:J:18:LEU:N     | 2:J:18:LEU:CD2   | 2.78                     | 0.46              |
| 2:J:321:MET:O    | 2:J:323:VAL:N    | 2.49                     | 0.46              |
| 1:K:7:LEU:O      | 1:K:10:LEU:N     | 2.49                     | 0.46              |
| 1:K:443:GLN:HA   | 1:K:446:THR:CG2  | 2.45                     | 0.46              |
| 2:L:34:VAL:O     | 2:L:37:VAL:HB    | 2.16                     | 0.46              |
| 2:L:55:VAL:O     | 2:L:58:MET:CB    | 2.60                     | 0.46              |
| 2:L:115:VAL:HG12 | 2:L:116:ASP:N    | 2.31                     | 0.46              |
| 2:L:400:GLN:HE21 | 2:L:400:GLN:HA   | 1.81                     | 0.46              |
| 2:L:411:ILE:CD1  | 2:L:411:ILE:H    | 2.28                     | 0.46              |
| 3:M:62:HIS:CD2   | 3:M:98:LEU:HD23  | 2.50                     | 0.46              |
| 3:M:343:TRP:CZ2  | 3:M:356:MET:HB2  | 2.51                     | 0.46              |
| 3:M:380:PHE:C    | 3:M:380:PHE:HD1  | 2.19                     | 0.46              |
| 3:N:83:PHE:C     | 3:N:83:PHE:CD1   | 2.89                     | 0.46              |
| 3:N:87:VAL:HG12  | 3:N:91:PHE:CE2   | 2.50                     | 0.46              |
| 3:N:253:ILE:N    | 3:N:253:ILE:CD1  | 2.78                     | 0.46              |
| 3:P:380:PHE:C    | 3:P:380:PHE:HD1  | 2.19                     | 0.46              |
| 4:Q:30:LYS:HZ3   | 4:Q:33:ARG:HH21  | 1.63                     | 0.46              |
| 4:Q:147:SER:O    | 4:Q:149:ARG:N    | 2.49                     | 0.46              |
| 3:R:203:PHE:CD1  | 3:R:203:PHE:N    | 2.83                     | 0.46              |
| 3:R:240:GLN:O    | 3:R:242:VAL:N    | 2.48                     | 0.46              |
| 3:R:323:PRO:HB3  | 3:R:325:PHE:HE2  | 1.81                     | 0.46              |
| 4:U:50:LEU:HD23  | 4:U:50:LEU:C     | 2.34                     | 0.46              |
| 4:U:88:VAL:HG23  | 4:U:89:GLU:H     | 1.78                     | 0.46              |
| 3:V:84:LEU:O     | 3:V:87:VAL:N     | 2.49                     | 0.46              |
| 3:V:380:PHE:HD1  | 3:V:380:PHE:C    | 2.19                     | 0.46              |
| 4:W:53:ARG:O     | 4:W:54:ASP:CB    | 2.63                     | 0.46              |
| 4:X:7:LEU:HD21   | 4:X:67:PHE:CG    | 2.51                     | 0.46              |
| 4:X:30:LYS:CB    | 4:X:30:LYS:NZ    | 2.78                     | 0.46              |
| 4:X:80:THR:O     | 4:X:81:LEU:C     | 2.54                     | 0.46              |
| 1:A:326:TYR:O    | 1:A:327:VAL:C    | 2.54                     | 0.46              |
| 1:C:278:THR:HG22 | 1:C:279:GLU:N    | 2.30                     | 0.46              |
| 1:C:425:VAL:HG13 | 1:C:426:LEU:HD22 | 1.97                     | 0.46              |
| 2:D:55:VAL:O     | 2:D:58:MET:CB    | 2.60                     | 0.46              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:310:VAL:CG1  | 2:D:317:LEU:HD21 | 2.42                     | 0.46              |
| 2:D:400:GLN:HE21 | 2:D:400:GLN:HA   | 1.81                     | 0.46              |
| 1:E:7:LEU:O      | 1:E:10:LEU:N     | 2.49                     | 0.46              |
| 1:E:488:VAL:C    | 1:E:500:VAL:HG11 | 2.36                     | 0.46              |
| 2:F:27:LYS:HA    | 2:F:30:LYS:HD2   | 1.97                     | 0.46              |
| 2:F:506:VAL:O    | 2:F:507:LEU:C    | 2.53                     | 0.46              |
| 1:G:176:LEU:N    | 1:G:177:PRO:CD   | 2.78                     | 0.46              |
| 1:G:293:VAL:O    | 1:G:294:LEU:C    | 2.54                     | 0.46              |
| 1:G:324:ILE:O    | 1:G:325:ARG:C    | 2.54                     | 0.46              |
| 1:G:422:ILE:O    | 1:G:423:MET:C    | 2.50                     | 0.46              |
| 1:G:558:GLU:OE2  | 2:H:482:LEU:HD23 | 2.15                     | 0.46              |
| 2:H:32:GLU:O     | 2:H:33:ALA:C     | 2.53                     | 0.46              |
| 2:H:175:MET:O    | 2:H:178:ALA:CB   | 2.63                     | 0.46              |
| 2:H:255:VAL:O    | 2:H:256:VAL:C    | 2.52                     | 0.46              |
| 1:I:278:THR:HG22 | 1:I:279:GLU:N    | 2.30                     | 0.46              |
| 1:I:395:GLU:HB2  | 1:I:396:PHE:HD1  | 1.81                     | 0.46              |
| 1:I:443:GLN:HA   | 1:I:446:THR:CG2  | 2.45                     | 0.46              |
| 1:I:558:GLU:OE2  | 2:J:482:LEU:HD23 | 2.16                     | 0.46              |
| 2:J:154:GLN:CB   | 2:J:158:ASP:OD2  | 2.52                     | 0.46              |
| 2:J:390:ARG:HG2  | 2:J:390:ARG:NH1  | 2.30                     | 0.46              |
| 2:J:419:ARG:HB3  | 2:J:548:ILE:HD13 | 1.98                     | 0.46              |
| 2:J:468:SER:OG   | 2:J:469:PHE:N    | 2.47                     | 0.46              |
| 2:J:494:LYS:HA   | 2:J:494:LYS:HD2  | 1.75                     | 0.46              |
| 2:J:517:PRO:O    | 2:J:518:ASP:C    | 2.52                     | 0.46              |
| 2:J:570:LEU:CD1  | 3:R:74:ASN:HA    | 2.44                     | 0.46              |
| 1:K:46:ARG:O     | 1:K:50:VAL:HG23  | 2.16                     | 0.46              |
| 1:K:151:SER:O    | 1:K:152:TYR:C    | 2.53                     | 0.46              |
| 1:K:187:ASN:HD22 | 1:K:187:ASN:C    | 2.19                     | 0.46              |
| 1:K:236:ASP:CG   | 1:K:237:VAL:N    | 2.69                     | 0.46              |
| 1:K:250:LEU:O    | 1:K:251:ARG:C    | 2.53                     | 0.46              |
| 1:K:405:PHE:O    | 1:K:406:LEU:C    | 2.54                     | 0.46              |
| 2:L:30:LYS:O     | 2:L:34:VAL:HG23  | 2.15                     | 0.46              |
| 2:L:327:LYS:HB2  | 2:L:330:ASP:OD1  | 2.15                     | 0.46              |
| 2:L:467:GLU:O    | 2:L:468:SER:C    | 2.54                     | 0.46              |
| 3:N:33:PHE:O     | 3:N:34:MET:C     | 2.54                     | 0.46              |
| 3:N:343:TRP:CZ2  | 3:N:356:MET:HB2  | 2.51                     | 0.46              |
| 3:O:213:GLY:HA3  | 3:O:394:TYR:CE1  | 2.51                     | 0.46              |
| 4:Q:31:MET:CE    | 4:Q:52:TRP:HH2   | 2.27                     | 0.46              |
| 3:R:42:GLU:HG3   | 3:R:302:LYS:HB3  | 1.98                     | 0.46              |
| 4:S:90:LEU:CD2   | 4:S:90:LEU:N     | 2.79                     | 0.46              |
| 4:U:108:GLU:O    | 4:U:111:TYR:HB2  | 2.15                     | 0.46              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:V:194:ILE:HD11 | 3:V:269:LEU:HD12 | 1.98                     | 0.46              |
| 4:W:31:MET:HE3   | 4:W:53:ARG:NH1   | 2.31                     | 0.46              |
| 4:W:59:TYR:CD2   | 4:W:59:TYR:N     | 2.83                     | 0.46              |
| 4:X:132:LEU:O    | 4:X:133:LYS:C    | 2.54                     | 0.46              |
| 1:A:183:LEU:HD23 | 1:A:183:LEU:HA   | 1.63                     | 0.46              |
| 1:A:187:ASN:HD22 | 1:A:187:ASN:C    | 2.19                     | 0.46              |
| 1:A:278:THR:HG22 | 1:A:279:GLU:N    | 2.30                     | 0.46              |
| 1:A:494:GLU:HA   | 1:A:494:GLU:OE1  | 2.16                     | 0.46              |
| 1:A:535:THR:O    | 1:A:535:THR:CG2  | 2.63                     | 0.46              |
| 1:A:558:GLU:OE2  | 2:B:482:LEU:HD23 | 2.15                     | 0.46              |
| 2:B:41:MET:HE3   | 2:B:72:TYR:HE1   | 1.81                     | 0.46              |
| 2:B:225:CYS:O    | 2:B:227:GLY:N    | 2.49                     | 0.46              |
| 2:B:304:ARG:HG3  | 2:B:575:HIS:NE2  | 2.31                     | 0.46              |
| 2:B:467:GLU:O    | 2:B:468:SER:C    | 2.54                     | 0.46              |
| 1:C:7:LEU:O      | 1:C:10:LEU:N     | 2.49                     | 0.46              |
| 1:C:237:VAL:HG22 | 4:T:86:ARG:HH12  | 1.80                     | 0.46              |
| 1:C:478:TRP:CE3  | 1:C:478:TRP:CA   | 2.98                     | 0.46              |
| 2:D:34:VAL:O     | 2:D:37:VAL:HB    | 2.16                     | 0.46              |
| 2:D:157:GLU:O    | 2:D:161:PHE:CD1  | 2.68                     | 0.46              |
| 2:D:436:LEU:HD13 | 2:D:436:LEU:O    | 2.16                     | 0.46              |
| 2:D:465:LEU:O    | 2:D:466:LEU:C    | 2.54                     | 0.46              |
| 2:D:556:GLU:HB3  | 2:D:557:PRO:CD   | 2.45                     | 0.46              |
| 1:E:10:LEU:O     | 1:E:11:ILE:C     | 2.53                     | 0.46              |
| 1:E:395:GLU:HB2  | 1:E:396:PHE:HD1  | 1.81                     | 0.46              |
| 1:E:411:TYR:CD1  | 1:E:411:TYR:N    | 2.80                     | 0.46              |
| 2:F:32:GLU:O     | 2:F:33:ALA:C     | 2.53                     | 0.46              |
| 2:F:58:MET:O     | 2:F:60:THR:N     | 2.42                     | 0.46              |
| 2:F:136:TYR:CD1  | 3:O:134:PHE:HE2  | 2.33                     | 0.46              |
| 2:F:321:MET:O    | 2:F:323:VAL:N    | 2.49                     | 0.46              |
| 2:F:337:GLU:O    | 2:F:338:LYS:C    | 2.53                     | 0.46              |
| 2:F:351:ILE:HD11 | 2:F:384:VAL:HG11 | 1.97                     | 0.46              |
| 2:F:467:GLU:O    | 2:F:468:SER:C    | 2.54                     | 0.46              |
| 2:F:507:LEU:O    | 2:F:508:SER:C    | 2.53                     | 0.46              |
| 1:G:254:ARG:CB   | 1:G:295:THR:HG23 | 2.45                     | 0.46              |
| 1:G:535:THR:O    | 1:G:535:THR:HG22 | 2.15                     | 0.46              |
| 1:G:556:ASP:O    | 1:G:557:VAL:C    | 2.54                     | 0.46              |
| 2:H:18:LEU:O     | 2:H:19:LYS:C     | 2.53                     | 0.46              |
| 2:H:34:VAL:O     | 2:H:37:VAL:HB    | 2.16                     | 0.46              |
| 2:H:405:TYR:O    | 2:H:406:VAL:C    | 2.53                     | 0.46              |
| 2:H:489:VAL:O    | 2:H:490:LYS:C    | 2.53                     | 0.46              |
| 1:I:79:PHE:O     | 1:I:80:THR:C     | 2.54                     | 0.46              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:270:ILE:HG23 | 1:I:271:LEU:CD2  | 2.44                     | 0.46              |
| 1:I:532:LYS:CA   | 1:I:581:LEU:HD13 | 2.35                     | 0.46              |
| 2:J:337:GLU:O    | 2:J:338:LYS:C    | 2.53                     | 0.46              |
| 2:J:415:LYS:HG2  | 2:J:416:ASP:N    | 2.30                     | 0.46              |
| 2:J:465:LEU:O    | 2:J:466:LEU:C    | 2.54                     | 0.46              |
| 1:K:36:SER:CA    | 1:K:39:ARG:HG2   | 2.41                     | 0.46              |
| 1:K:215:LEU:O    | 1:K:216:VAL:C    | 2.54                     | 0.46              |
| 1:K:310:ILE:C    | 1:K:312:ILE:N    | 2.68                     | 0.46              |
| 1:K:326:TYR:O    | 1:K:327:VAL:C    | 2.54                     | 0.46              |
| 1:K:330:THR:HG22 | 1:K:331:SER:N    | 2.31                     | 0.46              |
| 1:K:344:GLN:OE1  | 1:K:372:LEU:HD23 | 2.15                     | 0.46              |
| 1:K:467:TYR:OH   | 1:K:511:SER:CB   | 2.64                     | 0.46              |
| 2:L:308:LEU:HD21 | 2:L:575:HIS:CG   | 2.51                     | 0.46              |
| 2:L:395:LEU:O    | 2:L:396:LEU:C    | 2.53                     | 0.46              |
| 2:L:534:PRO:O    | 2:L:535:VAL:C    | 2.53                     | 0.46              |
| 2:L:545:LYS:HA   | 2:L:546:PRO:HD3  | 1.44                     | 0.46              |
| 3:M:84:LEU:O     | 3:M:87:VAL:N     | 2.49                     | 0.46              |
| 3:N:57:PHE:CD1   | 3:N:57:PHE:N     | 2.84                     | 0.46              |
| 3:O:194:ILE:HD11 | 3:O:269:LEU:HD12 | 1.98                     | 0.46              |
| 3:O:380:PHE:C    | 3:O:380:PHE:HD1  | 2.19                     | 0.46              |
| 3:P:32:HIS:ND1   | 3:P:52:HIS:CD2   | 2.81                     | 0.46              |
| 3:P:62:HIS:CD2   | 3:P:98:LEU:HD23  | 2.50                     | 0.46              |
| 3:P:84:LEU:O     | 3:P:87:VAL:N     | 2.49                     | 0.46              |
| 3:P:240:GLN:O    | 3:P:242:VAL:N    | 2.48                     | 0.46              |
| 4:S:8:PHE:HE1    | 4:S:36:MET:HA    | 1.80                     | 0.46              |
| 4:S:147:SER:O    | 4:S:149:ARG:N    | 2.49                     | 0.46              |
| 4:U:31:MET:CE    | 4:U:52:TRP:HH2   | 2.27                     | 0.46              |
| 4:U:61:ARG:HG2   | 4:U:61:ARG:NH1   | 2.31                     | 0.46              |
| 3:V:380:PHE:CD1  | 3:V:380:PHE:C    | 2.87                     | 0.46              |
| 3:V:399:GLU:HG3  | 3:V:401:SER:N    | 2.29                     | 0.46              |
| 1:A:467:TYR:OH   | 1:A:511:SER:CB   | 2.64                     | 0.46              |
| 2:B:39:ALA:C     | 2:B:41:MET:H     | 2.18                     | 0.46              |
| 2:B:79:SER:O     | 2:B:81:PRO:HD3   | 2.16                     | 0.46              |
| 2:B:394:THR:O    | 2:B:395:LEU:C    | 2.54                     | 0.46              |
| 2:B:395:LEU:O    | 2:B:396:LEU:C    | 2.53                     | 0.46              |
| 2:B:489:VAL:O    | 2:B:490:LYS:C    | 2.53                     | 0.46              |
| 2:B:499:THR:O    | 2:B:500:GLN:C    | 2.53                     | 0.46              |
| 1:C:215:LEU:O    | 1:C:216:VAL:C    | 2.54                     | 0.46              |
| 1:C:310:ILE:C    | 1:C:312:ILE:N    | 2.68                     | 0.46              |
| 1:C:526:ALA:O    | 1:C:527:LEU:C    | 2.54                     | 0.46              |
| 1:E:68:LEU:CG    | 1:E:69:GLU:H     | 2.08                     | 0.46              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:70:CYS:O     | 1:E:73:LEU:HB2   | 2.16                     | 0.46              |
| 1:E:169:PRO:O    | 1:E:172:MET:HE2  | 2.16                     | 0.46              |
| 1:E:270:ILE:HG23 | 1:E:271:LEU:CD2  | 2.44                     | 0.46              |
| 1:E:293:VAL:O    | 1:E:294:LEU:C    | 2.54                     | 0.46              |
| 1:E:386:LEU:O    | 1:E:387:TYR:C    | 2.54                     | 0.46              |
| 1:E:502:GLU:O    | 1:E:506:LEU:HG   | 2.16                     | 0.46              |
| 1:E:558:GLU:OE2  | 2:F:482:LEU:HD23 | 2.16                     | 0.46              |
| 2:F:110:MET:HE3  | 2:F:122:LEU:HB2  | 1.97                     | 0.46              |
| 2:F:175:MET:O    | 2:F:178:ALA:N    | 2.49                     | 0.46              |
| 2:F:499:THR:O    | 2:F:500:GLN:O    | 2.34                     | 0.46              |
| 1:G:233:PRO:CD   | 2:J:464:GLU:OE2  | 2.63                     | 0.46              |
| 1:G:488:VAL:C    | 1:G:500:VAL:HG11 | 2.36                     | 0.46              |
| 2:H:261:LYS:HA   | 2:H:567:ILE:HD12 | 1.97                     | 0.46              |
| 2:H:351:ILE:HD11 | 2:H:384:VAL:HG11 | 1.97                     | 0.46              |
| 2:H:390:ARG:NH1  | 2:H:390:ARG:HG2  | 2.30                     | 0.46              |
| 2:H:419:ARG:HB3  | 2:H:548:ILE:HD13 | 1.98                     | 0.46              |
| 2:H:499:THR:O    | 2:H:500:GLN:O    | 2.34                     | 0.46              |
| 1:I:243:PRO:O    | 1:I:246:GLN:HB2  | 2.16                     | 0.46              |
| 1:I:272:ALA:O    | 1:I:275:ALA:HB3  | 2.16                     | 0.46              |
| 2:J:18:LEU:O     | 2:J:19:LYS:C     | 2.53                     | 0.46              |
| 2:J:102:ILE:O    | 2:J:105:LEU:N    | 2.48                     | 0.46              |
| 2:J:136:TYR:CD1  | 3:R:134:PHE:HE2  | 2.33                     | 0.46              |
| 2:J:426:GLU:CA   | 2:J:429:ILE:HD13 | 2.44                     | 0.46              |
| 1:K:278:THR:HG22 | 1:K:279:GLU:N    | 2.30                     | 0.46              |
| 2:L:225:CYS:O    | 2:L:227:GLY:N    | 2.49                     | 0.46              |
| 2:L:304:ARG:HG3  | 2:L:575:HIS:NE2  | 2.31                     | 0.46              |
| 2:L:308:LEU:H    | 2:L:308:LEU:HG   | 1.61                     | 0.46              |
| 2:L:436:LEU:O    | 2:L:436:LEU:HD22 | 2.16                     | 0.46              |
| 3:N:194:ILE:HD11 | 3:N:269:LEU:HD12 | 1.98                     | 0.46              |
| 3:O:323:PRO:HB3  | 3:O:325:PHE:HE2  | 1.81                     | 0.46              |
| 3:P:253:ILE:N    | 3:P:253:ILE:CD1  | 2.77                     | 0.46              |
| 3:P:399:GLU:HG3  | 3:P:401:SER:N    | 2.29                     | 0.46              |
| 4:Q:107:PHE:CD2  | 4:Q:107:PHE:N    | 2.82                     | 0.46              |
| 4:T:9:SER:O      | 4:T:10:ARG:C     | 2.54                     | 0.46              |
| 4:T:132:LEU:O    | 4:T:133:LYS:C    | 2.54                     | 0.46              |
| 4:U:9:SER:O      | 4:U:10:ARG:C     | 2.54                     | 0.46              |
| 3:V:83:PHE:O     | 3:V:84:LEU:C     | 2.54                     | 0.46              |
| 3:V:202:VAL:HG12 | 3:V:203:PHE:N    | 2.30                     | 0.46              |
| 4:W:112:PHE:O    | 4:W:113:ILE:C    | 2.52                     | 0.46              |
| 4:W:114:LEU:O    | 4:W:117:PHE:N    | 2.44                     | 0.46              |
| 4:X:71:ILE:HG21  | 4:X:75:ASP:CB    | 2.44                     | 0.46              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:7:LEU:O      | 1:A:10:LEU:N     | 2.49                     | 0.46              |
| 1:A:115:THR:HB   | 1:A:118:VAL:HG23 | 1.97                     | 0.46              |
| 1:A:353:CYS:C    | 1:A:355:LYS:N    | 2.69                     | 0.46              |
| 1:A:386:LEU:O    | 1:A:387:TYR:C    | 2.54                     | 0.46              |
| 1:A:551:TYR:C    | 1:A:553:SER:N    | 2.68                     | 0.46              |
| 2:B:308:LEU:HD21 | 2:B:575:HIS:CG   | 2.51                     | 0.46              |
| 2:B:405:TYR:O    | 2:B:406:VAL:C    | 2.53                     | 0.46              |
| 2:B:570:LEU:CD1  | 3:M:75:ALA:H     | 2.28                     | 0.46              |
| 1:C:176:LEU:N    | 1:C:177:PRO:CD   | 2.78                     | 0.46              |
| 1:C:257:GLY:O    | 1:C:299:ILE:HG23 | 2.16                     | 0.46              |
| 1:C:326:TYR:O    | 1:C:327:VAL:C    | 2.54                     | 0.46              |
| 1:C:330:THR:HG22 | 1:C:331:SER:N    | 2.31                     | 0.46              |
| 1:C:522:THR:O    | 1:C:523:ARG:C    | 2.53                     | 0.46              |
| 2:D:38:ILE:O     | 2:D:42:THR:HG23  | 2.15                     | 0.46              |
| 2:D:225:CYS:O    | 2:D:227:GLY:N    | 2.49                     | 0.46              |
| 2:D:326:VAL:HG22 | 2:D:361:TYR:CZ   | 2.50                     | 0.46              |
| 1:E:189:GLY:O    | 1:E:190:VAL:C    | 2.54                     | 0.46              |
| 1:E:223:LEU:O    | 1:E:224:LYS:C    | 2.54                     | 0.46              |
| 1:E:243:PRO:O    | 1:E:246:GLN:HB2  | 2.16                     | 0.46              |
| 1:E:347:ARG:O    | 1:E:348:SER:C    | 2.54                     | 0.46              |
| 2:F:144:CYS:C    | 2:F:148:LEU:HD13 | 2.36                     | 0.46              |
| 2:F:405:TYR:O    | 2:F:406:VAL:C    | 2.53                     | 0.46              |
| 1:G:79:PHE:O     | 1:G:80:THR:C     | 2.54                     | 0.46              |
| 1:G:243:PRO:O    | 1:G:246:GLN:HB2  | 2.16                     | 0.46              |
| 1:G:482:GLU:CD   | 1:G:584:MET:HG2  | 2.36                     | 0.46              |
| 1:G:519:THR:CG2  | 1:G:520:SER:N    | 2.79                     | 0.46              |
| 2:H:130:LEU:HD23 | 2:H:130:LEU:HA   | 1.44                     | 0.46              |
| 2:H:305:ASN:N    | 2:H:305:ASN:HD22 | 2.13                     | 0.46              |
| 2:H:305:ASN:ND2  | 2:H:572:SER:OG   | 2.49                     | 0.46              |
| 2:H:533:ASP:O    | 2:H:534:PRO:C    | 2.52                     | 0.46              |
| 1:I:23:GLU:O     | 1:I:24:ARG:C     | 2.54                     | 0.46              |
| 1:I:172:MET:HB2  | 1:I:201:MET:CE   | 2.46                     | 0.46              |
| 1:I:237:VAL:HG22 | 4:X:86:ARG:HH12  | 1.80                     | 0.46              |
| 2:J:373:ALA:O    | 2:J:376:ALA:CB   | 2.63                     | 0.46              |
| 2:J:400:GLN:HA   | 2:J:400:GLN:HE21 | 1.81                     | 0.46              |
| 2:J:436:LEU:HD13 | 2:J:436:LEU:O    | 2.16                     | 0.46              |
| 1:K:115:THR:HB   | 1:K:118:VAL:HG23 | 1.97                     | 0.46              |
| 1:K:243:PRO:O    | 1:K:246:GLN:HB2  | 2.16                     | 0.46              |
| 1:K:257:GLY:O    | 1:K:299:ILE:HG23 | 2.17                     | 0.46              |
| 2:L:18:LEU:N     | 2:L:18:LEU:CD2   | 2.78                     | 0.46              |
| 2:L:175:MET:O    | 2:L:178:ALA:CB   | 2.63                     | 0.46              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:M:241:CYS:O    | 3:M:255:PHE:CB   | 2.57                     | 0.46              |
| 3:M:306:THR:HG22 | 3:M:349:PRO:CA   | 2.35                     | 0.46              |
| 3:O:83:PHE:CD1   | 3:O:83:PHE:C     | 2.89                     | 0.46              |
| 3:O:255:PHE:N    | 3:O:255:PHE:HD2  | 2.14                     | 0.46              |
| 3:P:162:GLU:CG   | 3:P:163:GLY:N    | 2.79                     | 0.46              |
| 4:Q:7:LEU:HD21   | 4:Q:67:PHE:CG    | 2.51                     | 0.46              |
| 4:Q:9:SER:O      | 4:Q:10:ARG:C     | 2.54                     | 0.46              |
| 3:R:314:ILE:HA   | 3:R:315:PRO:HD3  | 1.83                     | 0.46              |
| 4:T:8:PHE:HE1    | 4:T:36:MET:HA    | 1.80                     | 0.46              |
| 4:T:80:THR:O     | 4:T:81:LEU:C     | 2.54                     | 0.46              |
| 4:T:96:GLY:O     | 4:T:97:SER:C     | 2.55                     | 0.46              |
| 4:U:7:LEU:CD2    | 4:U:66:TYR:O     | 2.64                     | 0.46              |
| 4:U:59:TYR:CD2   | 4:U:59:TYR:N     | 2.83                     | 0.46              |
| 4:U:114:LEU:O    | 4:U:117:PHE:N    | 2.44                     | 0.46              |
| 3:V:42:GLU:HG3   | 3:V:302:LYS:HB3  | 1.98                     | 0.46              |
| 3:V:323:PRO:HB3  | 3:V:325:PHE:HE2  | 1.81                     | 0.46              |
| 4:W:9:SER:O      | 4:W:10:ARG:C     | 2.54                     | 0.46              |
| 4:W:30:LYS:HZ3   | 4:W:33:ARG:NH2   | 2.13                     | 0.46              |
| 4:W:61:ARG:HG2   | 4:W:61:ARG:NH1   | 2.31                     | 0.46              |
| 1:A:151:SER:O    | 1:A:152:TYR:C    | 2.53                     | 0.45              |
| 1:A:257:GLY:O    | 1:A:299:ILE:HG23 | 2.16                     | 0.45              |
| 1:A:395:GLU:HB2  | 1:A:396:PHE:HD1  | 1.80                     | 0.45              |
| 1:A:502:GLU:O    | 1:A:506:LEU:HG   | 2.16                     | 0.45              |
| 2:B:179:ASN:HD22 | 2:B:179:ASN:N    | 2.14                     | 0.45              |
| 2:B:321:MET:O    | 2:B:323:VAL:N    | 2.49                     | 0.45              |
| 2:B:351:ILE:HD11 | 2:B:384:VAL:HG11 | 1.97                     | 0.45              |
| 2:B:400:GLN:HA   | 2:B:400:GLN:HE21 | 1.81                     | 0.45              |
| 2:B:483:GLN:OE1  | 2:B:483:GLN:N    | 2.49                     | 0.45              |
| 1:C:467:TYR:OH   | 1:C:511:SER:CB   | 2.64                     | 0.45              |
| 1:C:551:TYR:C    | 1:C:553:SER:H    | 2.20                     | 0.45              |
| 2:D:112:CYS:C    | 2:D:113:ILE:HD12 | 2.37                     | 0.45              |
| 2:D:415:LYS:HG2  | 2:D:416:ASP:N    | 2.30                     | 0.45              |
| 1:E:57:HIS:C     | 1:E:59:LEU:N     | 2.70                     | 0.45              |
| 1:E:272:ALA:O    | 1:E:275:ALA:HB3  | 2.16                     | 0.45              |
| 1:E:324:ILE:O    | 1:E:325:ARG:C    | 2.54                     | 0.45              |
| 1:E:526:ALA:O    | 1:E:527:LEU:C    | 2.54                     | 0.45              |
| 2:F:18:LEU:O     | 2:F:19:LYS:C     | 2.53                     | 0.45              |
| 2:F:305:ASN:ND2  | 2:F:572:SER:OG   | 2.49                     | 0.45              |
| 1:G:46:ARG:O     | 1:G:50:VAL:HG23  | 2.16                     | 0.45              |
| 1:G:70:CYS:O     | 1:G:73:LEU:HB2   | 2.16                     | 0.45              |
| 1:G:353:CYS:C    | 1:G:355:LYS:N    | 2.69                     | 0.45              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:467:TYR:OH   | 1:G:511:SER:CB   | 2.64                     | 0.45              |
| 1:G:502:GLU:HG3  | 1:G:537:PHE:CD2  | 2.50                     | 0.45              |
| 2:H:225:CYS:O    | 2:H:227:GLY:N    | 2.49                     | 0.45              |
| 2:H:311:GLN:CG   | 2:H:555:ILE:HD12 | 2.45                     | 0.45              |
| 2:H:467:GLU:O    | 2:H:468:SER:C    | 2.54                     | 0.45              |
| 1:I:189:GLY:O    | 1:I:190:VAL:C    | 2.54                     | 0.45              |
| 1:I:198:LEU:O    | 1:I:201:MET:HB2  | 2.17                     | 0.45              |
| 1:I:430:GLY:O    | 1:I:433:VAL:N    | 2.46                     | 0.45              |
| 1:I:458:ARG:O    | 1:I:459:LEU:C    | 2.55                     | 0.45              |
| 1:I:526:ALA:O    | 1:I:529:ALA:N    | 2.49                     | 0.45              |
| 2:J:239:SER:O    | 2:J:243:ARG:HG2  | 2.16                     | 0.45              |
| 2:J:395:LEU:O    | 2:J:396:LEU:C    | 2.53                     | 0.45              |
| 2:J:483:GLN:OE1  | 2:J:483:GLN:N    | 2.49                     | 0.45              |
| 2:J:570:LEU:CD1  | 3:R:75:ALA:H     | 2.28                     | 0.45              |
| 1:K:185:GLU:HG3  | 1:K:186:LYS:N    | 2.30                     | 0.45              |
| 1:K:508:ILE:O    | 1:K:509:LEU:C    | 2.54                     | 0.45              |
| 2:L:305:ASN:N    | 2:L:305:ASN:HD22 | 2.13                     | 0.45              |
| 2:L:414:ILE:O    | 2:L:415:LYS:C    | 2.53                     | 0.45              |
| 2:L:419:ARG:HB3  | 2:L:548:ILE:HD13 | 1.98                     | 0.45              |
| 2:L:506:VAL:O    | 2:L:507:LEU:C    | 2.53                     | 0.45              |
| 3:M:104:ARG:CA   | 3:M:107:PHE:CE1  | 2.94                     | 0.45              |
| 3:M:131:LEU:C    | 3:M:133:GLU:N    | 2.68                     | 0.45              |
| 3:N:106:ASN:O    | 3:N:109:ILE:CG1  | 2.65                     | 0.45              |
| 3:N:162:GLU:CG   | 3:N:163:GLY:N    | 2.79                     | 0.45              |
| 3:O:42:GLU:HG3   | 3:O:302:LYS:HB3  | 1.98                     | 0.45              |
| 3:O:126:THR:CG2  | 3:O:131:LEU:HD13 | 2.40                     | 0.45              |
| 3:P:109:ILE:HD13 | 3:P:139:GLY:HA3  | 1.98                     | 0.45              |
| 3:P:194:ILE:HD11 | 3:P:269:LEU:HD12 | 1.98                     | 0.45              |
| 4:Q:65:LEU:HD12  | 4:Q:65:LEU:HA    | 1.75                     | 0.45              |
| 4:Q:132:LEU:O    | 4:Q:133:LYS:C    | 2.54                     | 0.45              |
| 4:S:9:SER:O      | 4:S:10:ARG:C     | 2.54                     | 0.45              |
| 4:S:35:LEU:O     | 4:S:36:MET:C     | 2.53                     | 0.45              |
| 4:S:132:LEU:O    | 4:S:133:LYS:C    | 2.54                     | 0.45              |
| 4:U:147:SER:O    | 4:U:149:ARG:N    | 2.49                     | 0.45              |
| 3:V:57:PHE:N     | 3:V:57:PHE:CD1   | 2.84                     | 0.45              |
| 3:V:126:THR:CG2  | 3:V:131:LEU:HD13 | 2.40                     | 0.45              |
| 3:V:213:GLY:HA3  | 3:V:394:TYR:CE1  | 2.51                     | 0.45              |
| 3:V:386:THR:CG2  | 3:V:389:GLY:H    | 2.21                     | 0.45              |
| 4:W:7:LEU:HD21   | 4:W:67:PHE:CG    | 2.51                     | 0.45              |
| 4:W:65:LEU:HD12  | 4:W:65:LEU:HA    | 1.75                     | 0.45              |
| 4:X:9:SER:O      | 4:X:10:ARG:C     | 2.54                     | 0.45              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:13:THR:C     | 1:A:26:MET:HE1   | 2.34                     | 0.45              |
| 1:A:103:MET:HA   | 1:A:103:MET:HE3  | 1.98                     | 0.45              |
| 1:A:488:VAL:C    | 1:A:500:VAL:HG11 | 2.36                     | 0.45              |
| 2:B:18:LEU:N     | 2:B:18:LEU:CD2   | 2.78                     | 0.45              |
| 2:B:18:LEU:O     | 2:B:19:LYS:C     | 2.53                     | 0.45              |
| 2:B:115:VAL:HG12 | 2:B:116:ASP:N    | 2.31                     | 0.45              |
| 2:B:139:LYS:HE2  | 2:B:175:MET:HG2  | 1.98                     | 0.45              |
| 1:C:19:THR:O     | 1:C:22:GLU:N     | 2.50                     | 0.45              |
| 1:C:243:PRO:O    | 1:C:246:GLN:HB2  | 2.16                     | 0.45              |
| 1:C:254:ARG:CB   | 1:C:295:THR:HG23 | 2.45                     | 0.45              |
| 1:C:451:MET:SD   | 1:C:451:MET:N    | 2.85                     | 0.45              |
| 2:D:7:PHE:HD2    | 4:T:99:CYS:HA    | 1.81                     | 0.45              |
| 2:D:139:LYS:HE2  | 2:D:175:MET:HG2  | 1.98                     | 0.45              |
| 2:D:144:CYS:C    | 2:D:148:LEU:HD13 | 2.36                     | 0.45              |
| 2:D:151:ILE:HG22 | 2:D:152:ASN:N    | 2.32                     | 0.45              |
| 2:D:337:GLU:O    | 2:D:338:LYS:C    | 2.53                     | 0.45              |
| 1:E:68:LEU:HG    | 1:E:69:GLU:N     | 2.14                     | 0.45              |
| 1:E:187:ASN:HD22 | 1:E:187:ASN:C    | 2.19                     | 0.45              |
| 1:E:197:LEU:C    | 1:E:197:LEU:CD1  | 2.85                     | 0.45              |
| 1:E:279:GLU:N    | 1:E:279:GLU:OE1  | 2.45                     | 0.45              |
| 2:F:308:LEU:HD21 | 2:F:575:HIS:CG   | 2.51                     | 0.45              |
| 1:G:247:VAL:O    | 1:G:250:LEU:N    | 2.49                     | 0.45              |
| 1:G:526:ALA:O    | 1:G:529:ALA:N    | 2.49                     | 0.45              |
| 2:H:38:ILE:O     | 2:H:42:THR:HG23  | 2.16                     | 0.45              |
| 2:H:45:LYS:HG2   | 2:H:46:ASP:N     | 2.30                     | 0.45              |
| 2:H:97:ASP:HA    | 2:H:98:PRO:HD3   | 1.51                     | 0.45              |
| 2:H:128:LYS:O    | 2:H:129:CYS:C    | 2.55                     | 0.45              |
| 2:H:151:ILE:HG22 | 2:H:152:ASN:N    | 2.32                     | 0.45              |
| 2:H:155:MET:H    | 2:H:158:ASP:CB   | 2.29                     | 0.45              |
| 2:H:307:ASN:ND2  | 2:H:344:ARG:NH1  | 2.62                     | 0.45              |
| 2:H:411:ILE:CD1  | 2:H:411:ILE:H    | 2.28                     | 0.45              |
| 2:H:436:LEU:O    | 2:H:436:LEU:HD22 | 2.16                     | 0.45              |
| 1:I:10:LEU:O     | 1:I:11:ILE:C     | 2.53                     | 0.45              |
| 1:I:46:ARG:O     | 1:I:50:VAL:HG23  | 2.16                     | 0.45              |
| 1:I:331:SER:O    | 1:I:332:LEU:C    | 2.52                     | 0.45              |
| 1:I:508:ILE:O    | 1:I:509:LEU:C    | 2.54                     | 0.45              |
| 1:I:556:ASP:O    | 1:I:557:VAL:C    | 2.54                     | 0.45              |
| 2:J:467:GLU:O    | 2:J:468:SER:C    | 2.54                     | 0.45              |
| 1:K:247:VAL:O    | 1:K:250:LEU:N    | 2.49                     | 0.45              |
| 1:K:395:GLU:HB2  | 1:K:396:PHE:HD1  | 1.81                     | 0.45              |
| 1:K:406:LEU:HD23 | 1:K:406:LEU:HA   | 1.81                     | 0.45              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:482:GLU:CD   | 1:K:584:MET:HG2  | 2.36                     | 0.45              |
| 1:K:526:ALA:O    | 1:K:529:ALA:N    | 2.49                     | 0.45              |
| 2:L:18:LEU:O     | 2:L:19:LYS:C     | 2.53                     | 0.45              |
| 2:L:59:GLN:HE21  | 2:L:59:GLN:HB3   | 1.59                     | 0.45              |
| 2:L:139:LYS:HE2  | 2:L:175:MET:HG2  | 1.98                     | 0.45              |
| 2:L:321:MET:O    | 2:L:323:VAL:N    | 2.49                     | 0.45              |
| 2:L:499:THR:O    | 2:L:500:GLN:O    | 2.34                     | 0.45              |
| 2:L:533:ASP:O    | 2:L:534:PRO:C    | 2.52                     | 0.45              |
| 3:M:33:PHE:O     | 3:M:34:MET:C     | 2.54                     | 0.45              |
| 3:M:83:PHE:O     | 3:M:84:LEU:C     | 2.54                     | 0.45              |
| 3:M:100:GLU:O    | 3:M:101:GLU:C    | 2.53                     | 0.45              |
| 3:O:33:PHE:O     | 3:O:34:MET:C     | 2.54                     | 0.45              |
| 3:P:106:ASN:O    | 3:P:109:ILE:CG1  | 2.65                     | 0.45              |
| 4:Q:31:MET:HE3   | 4:Q:53:ARG:NH1   | 2.31                     | 0.45              |
| 4:Q:59:TYR:CD2   | 4:Q:59:TYR:N     | 2.83                     | 0.45              |
| 4:Q:86:ARG:O     | 4:Q:87:TYR:C     | 2.52                     | 0.45              |
| 3:R:83:PHE:C     | 3:R:83:PHE:CD1   | 2.89                     | 0.45              |
| 4:S:87:TYR:CE2   | 4:S:91:LEU:HD11  | 2.50                     | 0.45              |
| 4:S:96:GLY:O     | 4:S:97:SER:C     | 2.55                     | 0.45              |
| 4:T:61:ARG:HG2   | 4:T:61:ARG:NH1   | 2.31                     | 0.45              |
| 4:U:7:LEU:HD21   | 4:U:67:PHE:CG    | 2.51                     | 0.45              |
| 3:V:255:PHE:N    | 3:V:255:PHE:HD2  | 2.14                     | 0.45              |
| 1:A:198:LEU:O    | 1:A:201:MET:HB2  | 2.17                     | 0.45              |
| 1:A:272:ALA:O    | 1:A:275:ALA:HB3  | 2.16                     | 0.45              |
| 1:A:293:VAL:O    | 1:A:294:LEU:C    | 2.54                     | 0.45              |
| 1:A:324:ILE:O    | 1:A:325:ARG:C    | 2.54                     | 0.45              |
| 1:A:509:LEU:HD12 | 1:A:530:ILE:HG12 | 1.97                     | 0.45              |
| 1:A:519:THR:CG2  | 1:A:520:SER:N    | 2.79                     | 0.45              |
| 1:A:556:ASP:O    | 1:A:557:VAL:C    | 2.54                     | 0.45              |
| 2:B:175:MET:O    | 2:B:178:ALA:N    | 2.49                     | 0.45              |
| 1:C:23:GLU:O     | 1:C:24:ARG:C     | 2.54                     | 0.45              |
| 1:C:27:ILE:HD12  | 1:C:61:TYR:CZ    | 2.50                     | 0.45              |
| 1:C:152:TYR:HA   | 1:C:155:LYS:CE   | 2.47                     | 0.45              |
| 1:C:247:VAL:O    | 1:C:250:LEU:N    | 2.49                     | 0.45              |
| 1:C:353:CYS:C    | 1:C:355:LYS:N    | 2.69                     | 0.45              |
| 1:C:466:ASP:O    | 1:C:467:TYR:CD1  | 2.53                     | 0.45              |
| 1:C:502:GLU:O    | 1:C:506:LEU:HG   | 2.16                     | 0.45              |
| 2:D:18:LEU:O     | 2:D:19:LYS:C     | 2.53                     | 0.45              |
| 2:D:179:ASN:N    | 2:D:179:ASN:HD22 | 2.14                     | 0.45              |
| 2:D:305:ASN:ND2  | 2:D:572:SER:OG   | 2.49                     | 0.45              |
| 1:E:152:TYR:HA   | 1:E:155:LYS:CE   | 2.47                     | 0.45              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:172:MET:HB2  | 1:E:201:MET:CE   | 2.46                     | 0.45              |
| 1:E:535:THR:O    | 1:E:535:THR:HG22 | 2.15                     | 0.45              |
| 2:F:179:ASN:HD22 | 2:F:179:ASN:H    | 1.64                     | 0.45              |
| 2:F:179:ASN:HD22 | 2:F:179:ASN:N    | 2.14                     | 0.45              |
| 2:F:304:ARG:HG2  | 2:F:573:VAL:CA   | 2.47                     | 0.45              |
| 2:F:436:LEU:C    | 2:F:436:LEU:CD1  | 2.83                     | 0.45              |
| 1:G:172:MET:HB2  | 1:G:201:MET:CE   | 2.46                     | 0.45              |
| 2:H:483:GLN:OE1  | 2:H:483:GLN:N    | 2.49                     | 0.45              |
| 2:H:570:LEU:CD1  | 3:P:74:ASN:HA    | 2.44                     | 0.45              |
| 1:I:215:LEU:O    | 1:I:216:VAL:C    | 2.54                     | 0.45              |
| 1:I:223:LEU:O    | 1:I:224:LYS:C    | 2.54                     | 0.45              |
| 1:I:247:VAL:O    | 1:I:250:LEU:N    | 2.49                     | 0.45              |
| 1:I:310:ILE:C    | 1:I:312:ILE:N    | 2.68                     | 0.45              |
| 1:I:502:GLU:OE1  | 1:I:537:PHE:HB3  | 2.17                     | 0.45              |
| 2:J:6:TYR:O      | 2:J:8:THR:OG1    | 2.35                     | 0.45              |
| 2:J:112:CYS:C    | 2:J:113:ILE:HD12 | 2.37                     | 0.45              |
| 2:J:144:CYS:C    | 2:J:148:LEU:HD13 | 2.36                     | 0.45              |
| 2:J:200:LYS:HB2  | 2:J:203:SER:HG   | 1.80                     | 0.45              |
| 2:J:305:ASN:N    | 2:J:305:ASN:HD22 | 2.13                     | 0.45              |
| 2:J:436:LEU:O    | 2:J:436:LEU:HD22 | 2.16                     | 0.45              |
| 2:J:534:PRO:O    | 2:J:535:VAL:C    | 2.54                     | 0.45              |
| 1:K:140:GLY:O    | 1:K:141:GLU:C    | 2.53                     | 0.45              |
| 1:K:293:VAL:O    | 1:K:294:LEU:C    | 2.54                     | 0.45              |
| 1:K:351:VAL:HG23 | 1:K:352:ASP:N    | 2.32                     | 0.45              |
| 1:K:353:CYS:C    | 1:K:355:LYS:N    | 2.69                     | 0.45              |
| 1:K:458:ARG:O    | 1:K:459:LEU:C    | 2.55                     | 0.45              |
| 1:K:555:ILE:H    | 1:K:555:ILE:HG13 | 1.51                     | 0.45              |
| 2:L:112:CYS:C    | 2:L:113:ILE:HD12 | 2.37                     | 0.45              |
| 2:L:122:LEU:HG   | 2:L:123:CYS:N    | 2.32                     | 0.45              |
| 2:L:415:LYS:HG2  | 2:L:416:ASP:N    | 2.30                     | 0.45              |
| 3:M:57:PHE:N     | 3:M:57:PHE:CD1   | 2.84                     | 0.45              |
| 3:N:84:LEU:O     | 3:N:87:VAL:N     | 2.49                     | 0.45              |
| 3:N:109:ILE:HD13 | 3:N:139:GLY:HA3  | 1.98                     | 0.45              |
| 3:N:173:LEU:C    | 3:N:174:ASP:OD2  | 2.55                     | 0.45              |
| 3:N:196:GLY:HA3  | 3:N:267:TYR:CZ   | 2.52                     | 0.45              |
| 3:N:380:PHE:CE1  | 3:N:414:GLN:C    | 2.86                     | 0.45              |
| 3:O:416:GLY:C    | 3:O:418:TYR:N    | 2.65                     | 0.45              |
| 3:P:83:PHE:O     | 3:P:84:LEU:C     | 2.54                     | 0.45              |
| 3:P:213:GLY:HA3  | 3:P:394:TYR:CE1  | 2.51                     | 0.45              |
| 4:Q:56:LYS:O     | 4:Q:71:ILE:N     | 2.43                     | 0.45              |
| 4:Q:61:ARG:HG2   | 4:Q:61:ARG:NH1   | 2.31                     | 0.45              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:Q:87:TYR:CE2   | 4:Q:91:LEU:HD11  | 2.50                     | 0.45              |
| 3:R:196:GLY:HA3  | 3:R:267:TYR:CZ   | 2.52                     | 0.45              |
| 3:R:202:VAL:HG12 | 3:R:203:PHE:N    | 2.30                     | 0.45              |
| 3:R:380:PHE:C    | 3:R:380:PHE:HD1  | 2.19                     | 0.45              |
| 4:S:80:THR:O     | 4:S:83:LEU:N     | 2.47                     | 0.45              |
| 4:U:35:LEU:O     | 4:U:36:MET:C     | 2.53                     | 0.45              |
| 4:U:100:GLU:O    | 4:U:103:ILE:N    | 2.50                     | 0.45              |
| 4:W:147:SER:O    | 4:W:149:ARG:N    | 2.49                     | 0.45              |
| 1:A:11:ILE:CA    | 1:A:14:ILE:HD13  | 2.40                     | 0.45              |
| 1:A:70:CYS:O     | 1:A:73:LEU:HB2   | 2.16                     | 0.45              |
| 1:A:236:ASP:CG   | 1:A:237:VAL:N    | 2.69                     | 0.45              |
| 2:B:102:ILE:HG22 | 2:B:103:ARG:N    | 2.32                     | 0.45              |
| 2:B:112:CYS:C    | 2:B:113:ILE:HD12 | 2.37                     | 0.45              |
| 2:B:483:GLN:O    | 2:B:484:LEU:C    | 2.55                     | 0.45              |
| 1:C:151:SER:O    | 1:C:152:TYR:C    | 2.53                     | 0.45              |
| 1:C:257:GLY:O    | 1:C:258:ARG:C    | 2.55                     | 0.45              |
| 1:C:526:ALA:O    | 1:C:529:ALA:N    | 2.50                     | 0.45              |
| 2:D:136:TYR:CD1  | 3:N:134:PHE:HE2  | 2.33                     | 0.45              |
| 2:D:321:MET:O    | 2:D:323:VAL:N    | 2.49                     | 0.45              |
| 2:F:34:VAL:O     | 2:F:37:VAL:HB    | 2.16                     | 0.45              |
| 2:F:79:SER:O     | 2:F:81:PRO:HD3   | 2.16                     | 0.45              |
| 2:F:411:ILE:HD12 | 2:F:411:ILE:N    | 2.30                     | 0.45              |
| 1:G:458:ARG:O    | 1:G:459:LEU:C    | 2.55                     | 0.45              |
| 1:G:479:CYS:O    | 1:G:483:TYR:N    | 2.31                     | 0.45              |
| 2:H:124:GLU:HB2  | 2:H:125:PRO:CD   | 2.36                     | 0.45              |
| 1:I:411:TYR:CD1  | 1:I:411:TYR:N    | 2.80                     | 0.45              |
| 2:J:27:LYS:HA    | 2:J:30:LYS:HD2   | 1.97                     | 0.45              |
| 2:J:34:VAL:O     | 2:J:37:VAL:HB    | 2.16                     | 0.45              |
| 2:J:97:ASP:HA    | 2:J:98:PRO:HD3   | 1.52                     | 0.45              |
| 2:J:225:CYS:O    | 2:J:227:GLY:N    | 2.49                     | 0.45              |
| 2:J:414:ILE:O    | 2:J:415:LYS:C    | 2.53                     | 0.45              |
| 2:J:563:LEU:C    | 2:J:565:CYS:N    | 2.70                     | 0.45              |
| 1:K:169:PRO:O    | 1:K:172:MET:HE2  | 2.17                     | 0.45              |
| 1:K:172:MET:HB2  | 1:K:201:MET:CE   | 2.46                     | 0.45              |
| 1:K:425:VAL:HG13 | 1:K:426:LEU:HD22 | 1.96                     | 0.45              |
| 1:K:551:TYR:C    | 1:K:553:SER:H    | 2.20                     | 0.45              |
| 2:L:27:LYS:HA    | 2:L:30:LYS:HD2   | 1.97                     | 0.45              |
| 2:L:391:CYS:O    | 2:L:394:THR:N    | 2.50                     | 0.45              |
| 2:L:436:LEU:HD13 | 2:L:436:LEU:O    | 2.16                     | 0.45              |
| 3:M:42:GLU:HG3   | 3:M:302:LYS:HB3  | 1.98                     | 0.45              |
| 3:M:162:GLU:CG   | 3:M:163:GLY:N    | 2.79                     | 0.45              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:M:173:LEU:C    | 3:M:174:ASP:OD2  | 2.55                     | 0.45              |
| 3:M:384:TYR:N    | 3:M:384:TYR:HD2  | 2.15                     | 0.45              |
| 3:M:384:TYR:CA   | 3:M:411:TYR:HB2  | 2.44                     | 0.45              |
| 3:N:202:VAL:HG12 | 3:N:203:PHE:N    | 2.30                     | 0.45              |
| 3:N:213:GLY:HA3  | 3:N:394:TYR:CE1  | 2.51                     | 0.45              |
| 3:N:285:LYS:O    | 3:N:286:HIS:CB   | 2.63                     | 0.45              |
| 3:P:104:ARG:O    | 3:P:107:PHE:CE1  | 2.70                     | 0.45              |
| 4:Q:30:LYS:HB2   | 4:Q:30:LYS:NZ    | 2.30                     | 0.45              |
| 3:R:213:GLY:HA3  | 3:R:394:TYR:CE1  | 2.51                     | 0.45              |
| 4:S:61:ARG:HG2   | 4:S:61:ARG:NH1   | 2.31                     | 0.45              |
| 3:V:83:PHE:C     | 3:V:83:PHE:CD1   | 2.89                     | 0.45              |
| 3:V:106:ASN:O    | 3:V:109:ILE:CG1  | 2.65                     | 0.45              |
| 3:V:109:ILE:HD13 | 3:V:139:GLY:HA3  | 1.99                     | 0.45              |
| 1:A:79:PHE:CE2   | 1:A:83:ARG:HD2   | 2.52                     | 0.45              |
| 1:A:147:LYS:HA   | 1:A:147:LYS:CE   | 2.39                     | 0.45              |
| 1:A:215:LEU:O    | 1:A:216:VAL:C    | 2.54                     | 0.45              |
| 1:A:502:GLU:OE1  | 1:A:537:PHE:HB3  | 2.17                     | 0.45              |
| 2:B:179:ASN:HD22 | 2:B:179:ASN:H    | 1.64                     | 0.45              |
| 1:C:46:ARG:O     | 1:C:50:VAL:HG23  | 2.16                     | 0.45              |
| 1:C:236:ASP:CG   | 1:C:237:VAL:N    | 2.69                     | 0.45              |
| 1:C:272:ALA:O    | 1:C:275:ALA:HB3  | 2.16                     | 0.45              |
| 1:C:482:GLU:OE1  | 1:C:532:LYS:HE2  | 2.16                     | 0.45              |
| 1:C:482:GLU:CD   | 1:C:584:MET:HG2  | 2.36                     | 0.45              |
| 1:C:519:THR:CG2  | 1:C:520:SER:N    | 2.79                     | 0.45              |
| 2:D:102:ILE:O    | 2:D:104:ALA:N    | 2.50                     | 0.45              |
| 2:D:102:ILE:HG22 | 2:D:103:ARG:N    | 2.32                     | 0.45              |
| 2:D:115:VAL:HG12 | 2:D:116:ASP:N    | 2.31                     | 0.45              |
| 2:D:208:LEU:HD11 | 2:D:243:ARG:CD   | 2.41                     | 0.45              |
| 2:D:285:ALA:CB   | 2:D:286:PRO:CD   | 2.87                     | 0.45              |
| 2:D:313:ARG:HB2  | 2:D:316:ILE:HD11 | 1.99                     | 0.45              |
| 1:E:236:ASP:CG   | 1:E:237:VAL:N    | 2.69                     | 0.45              |
| 1:E:426:LEU:O    | 1:E:428:THR:N    | 2.50                     | 0.45              |
| 1:E:519:THR:CG2  | 1:E:520:SER:N    | 2.79                     | 0.45              |
| 2:F:102:ILE:O    | 2:F:104:ALA:N    | 2.50                     | 0.45              |
| 2:F:313:ARG:HB2  | 2:F:316:ILE:HD11 | 1.99                     | 0.45              |
| 2:F:490:LYS:NZ   | 2:F:545:LYS:HZ2  | 2.14                     | 0.45              |
| 2:F:545:LYS:HA   | 2:F:546:PRO:HD3  | 1.44                     | 0.45              |
| 1:G:57:HIS:C     | 1:G:59:LEU:N     | 2.70                     | 0.45              |
| 1:G:183:LEU:HA   | 1:G:183:LEU:HD23 | 1.63                     | 0.45              |
| 1:G:236:ASP:CG   | 1:G:237:VAL:N    | 2.69                     | 0.45              |
| 2:H:327:LYS:HB2  | 2:H:330:ASP:OD1  | 2.15                     | 0.45              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:236:ASP:CG   | 1:I:237:VAL:N    | 2.69                     | 0.45              |
| 1:I:324:ILE:O    | 1:I:325:ARG:C    | 2.54                     | 0.45              |
| 1:I:353:CYS:C    | 1:I:355:LYS:N    | 2.69                     | 0.45              |
| 1:I:488:VAL:C    | 1:I:500:VAL:HG11 | 2.36                     | 0.45              |
| 2:J:71:LEU:O     | 2:J:72:TYR:C     | 2.53                     | 0.45              |
| 2:J:102:ILE:HG22 | 2:J:103:ARG:N    | 2.31                     | 0.45              |
| 1:K:5:ILE:O      | 1:K:52:LYS:NZ    | 2.46                     | 0.45              |
| 1:K:195:VAL:O    | 1:K:196:VAL:C    | 2.55                     | 0.45              |
| 1:K:272:ALA:O    | 1:K:275:ALA:HB3  | 2.16                     | 0.45              |
| 1:K:494:GLU:OE1  | 1:K:494:GLU:HA   | 2.16                     | 0.45              |
| 1:K:502:GLU:OE1  | 1:K:537:PHE:HB3  | 2.17                     | 0.45              |
| 2:L:6:TYR:O      | 2:L:8:THR:OG1    | 2.35                     | 0.45              |
| 2:L:79:SER:O     | 2:L:81:PRO:HD3   | 2.16                     | 0.45              |
| 2:L:102:ILE:O    | 2:L:104:ALA:N    | 2.50                     | 0.45              |
| 2:L:136:TYR:CD1  | 3:V:134:PHE:HE2  | 2.33                     | 0.45              |
| 2:L:179:ASN:H    | 2:L:179:ASN:HD22 | 1.64                     | 0.45              |
| 2:L:241:CYS:C    | 2:L:243:ARG:N    | 2.70                     | 0.45              |
| 2:L:563:LEU:C    | 2:L:565:CYS:N    | 2.70                     | 0.45              |
| 3:M:194:ILE:HD11 | 3:M:269:LEU:HD12 | 1.98                     | 0.45              |
| 3:N:240:GLN:C    | 3:N:242:VAL:H    | 2.20                     | 0.45              |
| 3:N:255:PHE:N    | 3:N:255:PHE:HD2  | 2.14                     | 0.45              |
| 3:R:104:ARG:O    | 3:R:107:PHE:CE1  | 2.70                     | 0.45              |
| 3:R:323:PRO:HG2  | 3:R:334:TRP:CE3  | 2.52                     | 0.45              |
| 4:S:100:GLU:O    | 4:S:103:ILE:N    | 2.50                     | 0.45              |
| 4:T:7:LEU:CD2    | 4:T:66:TYR:O     | 2.64                     | 0.45              |
| 4:W:100:GLU:O    | 4:W:103:ILE:N    | 2.50                     | 0.45              |
| 4:X:61:ARG:HG2   | 4:X:61:ARG:NH1   | 2.31                     | 0.45              |
| 4:X:100:GLU:O    | 4:X:103:ILE:N    | 2.50                     | 0.45              |
| 1:A:195:VAL:O    | 1:A:196:VAL:C    | 2.55                     | 0.45              |
| 1:A:264:SER:O    | 1:A:266:ALA:N    | 2.50                     | 0.45              |
| 2:B:9:THR:HG22   | 2:B:11:LYS:N     | 2.29                     | 0.45              |
| 2:B:128:LYS:O    | 2:B:129:CYS:C    | 2.55                     | 0.45              |
| 2:B:220:ILE:HD12 | 2:B:220:ILE:N    | 2.32                     | 0.45              |
| 2:B:305:ASN:N    | 2:B:305:ASN:HD22 | 2.13                     | 0.45              |
| 2:B:392:VAL:O    | 2:B:395:LEU:N    | 2.50                     | 0.45              |
| 2:B:419:ARG:HB3  | 2:B:548:ILE:HD13 | 1.98                     | 0.45              |
| 1:C:79:PHE:CE2   | 1:C:83:ARG:HD2   | 2.52                     | 0.45              |
| 1:C:172:MET:HB2  | 1:C:201:MET:CE   | 2.46                     | 0.45              |
| 1:C:187:ASN:ND2  | 1:C:189:GLY:H    | 2.15                     | 0.45              |
| 1:C:198:LEU:O    | 1:C:201:MET:HB2  | 2.17                     | 0.45              |
| 1:C:506:LEU:N    | 1:C:506:LEU:HD23 | 2.32                     | 0.45              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:508:ILE:O    | 1:C:509:LEU:C    | 2.54                     | 0.45              |
| 2:D:373:ALA:O    | 2:D:376:ALA:CB   | 2.63                     | 0.45              |
| 2:D:483:GLN:OE1  | 2:D:483:GLN:N    | 2.49                     | 0.45              |
| 1:E:198:LEU:O    | 1:E:201:MET:HB2  | 2.17                     | 0.45              |
| 2:F:115:VAL:HG12 | 2:F:116:ASP:N    | 2.31                     | 0.45              |
| 2:F:220:ILE:HD12 | 2:F:220:ILE:N    | 2.32                     | 0.45              |
| 2:F:241:CYS:C    | 2:F:243:ARG:N    | 2.70                     | 0.45              |
| 2:F:519:LEU:C    | 2:F:519:LEU:HD13 | 2.36                     | 0.45              |
| 2:F:567:ILE:HA   | 2:F:572:SER:OG   | 2.17                     | 0.45              |
| 1:G:35:ARG:CD    | 1:G:65:PHE:HE2   | 2.21                     | 0.45              |
| 1:G:44:THR:O     | 1:G:45:TYR:CB    | 2.65                     | 0.45              |
| 1:G:252:LEU:HD23 | 1:G:252:LEU:C    | 2.37                     | 0.45              |
| 1:G:382:MET:SD   | 1:G:404:ILE:HG23 | 2.57                     | 0.45              |
| 2:H:6:TYR:O      | 2:H:8:THR:OG1    | 2.35                     | 0.45              |
| 2:H:102:ILE:O    | 2:H:104:ALA:N    | 2.50                     | 0.45              |
| 2:H:241:CYS:C    | 2:H:243:ARG:N    | 2.70                     | 0.45              |
| 2:H:304:ARG:HG2  | 2:H:573:VAL:CA   | 2.47                     | 0.45              |
| 2:H:321:MET:O    | 2:H:323:VAL:N    | 2.49                     | 0.45              |
| 2:H:451:ILE:O    | 2:H:452:VAL:C    | 2.53                     | 0.45              |
| 2:H:483:GLN:O    | 2:H:484:LEU:C    | 2.55                     | 0.45              |
| 1:I:79:PHE:CE2   | 1:I:83:ARG:HD2   | 2.52                     | 0.45              |
| 1:I:197:LEU:C    | 1:I:197:LEU:CD1  | 2.85                     | 0.45              |
| 1:I:482:GLU:OE1  | 1:I:532:LYS:HE2  | 2.16                     | 0.45              |
| 2:J:220:ILE:HD12 | 2:J:220:ILE:N    | 2.31                     | 0.45              |
| 2:J:305:ASN:ND2  | 2:J:572:SER:OG   | 2.49                     | 0.45              |
| 1:K:27:ILE:HD12  | 1:K:61:TYR:CZ    | 2.50                     | 0.45              |
| 1:K:237:VAL:HG22 | 4:W:86:ARG:HH12  | 1.80                     | 0.45              |
| 1:K:252:LEU:HD23 | 1:K:252:LEU:C    | 2.37                     | 0.45              |
| 1:K:257:GLY:O    | 1:K:258:ARG:C    | 2.55                     | 0.45              |
| 2:L:465:LEU:O    | 2:L:466:LEU:C    | 2.54                     | 0.45              |
| 2:L:483:GLN:O    | 2:L:484:LEU:C    | 2.55                     | 0.45              |
| 3:M:109:ILE:HD13 | 3:M:139:GLY:HA3  | 1.98                     | 0.45              |
| 3:M:213:GLY:HA3  | 3:M:394:TYR:CE1  | 2.51                     | 0.45              |
| 3:O:196:GLY:HA3  | 3:O:267:TYR:CZ   | 2.52                     | 0.45              |
| 4:Q:96:GLY:O     | 4:Q:97:SER:C     | 2.55                     | 0.45              |
| 3:R:106:ASN:O    | 3:R:109:ILE:CG1  | 2.65                     | 0.45              |
| 3:R:173:LEU:C    | 3:R:174:ASP:OD2  | 2.55                     | 0.45              |
| 4:T:7:LEU:HD21   | 4:T:67:PHE:CG    | 2.51                     | 0.45              |
| 4:T:90:LEU:H     | 4:T:90:LEU:HD22  | 1.79                     | 0.45              |
| 4:U:80:THR:O     | 4:U:81:LEU:C     | 2.54                     | 0.45              |
| 4:W:7:LEU:CD2    | 4:W:66:TYR:O     | 2.64                     | 0.45              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:X:90:LEU:CD2   | 4:X:90:LEU:N     | 2.79                     | 0.45              |
| 1:A:5:ILE:HD12   | 1:A:30:GLU:OE1   | 2.17                     | 0.45              |
| 1:A:223:LEU:O    | 1:A:224:LYS:C    | 2.54                     | 0.45              |
| 1:A:330:THR:HG22 | 1:A:331:SER:N    | 2.31                     | 0.45              |
| 1:A:482:GLU:OE1  | 1:A:532:LYS:HE2  | 2.16                     | 0.45              |
| 2:B:313:ARG:HB2  | 2:B:316:ILE:HD11 | 1.99                     | 0.45              |
| 1:C:70:CYS:O     | 1:C:73:LEU:HB2   | 2.16                     | 0.45              |
| 1:C:79:PHE:O     | 1:C:82:LYS:N     | 2.50                     | 0.45              |
| 1:C:197:LEU:C    | 1:C:197:LEU:CD1  | 2.85                     | 0.45              |
| 1:C:405:PHE:O    | 1:C:406:LEU:C    | 2.54                     | 0.45              |
| 1:C:494:GLU:HA   | 1:C:494:GLU:OE1  | 2.16                     | 0.45              |
| 2:D:45:LYS:HG2   | 2:D:46:ASP:N     | 2.30                     | 0.45              |
| 2:D:219:GLN:OE1  | 2:D:255:VAL:HG11 | 2.17                     | 0.45              |
| 2:D:230:MET:CE   | 2:D:240:ILE:HD12 | 2.47                     | 0.45              |
| 2:D:392:VAL:O    | 2:D:395:LEU:N    | 2.50                     | 0.45              |
| 2:D:449:ILE:O    | 2:D:450:TRP:C    | 2.52                     | 0.45              |
| 1:E:257:GLY:O    | 1:E:258:ARG:C    | 2.55                     | 0.45              |
| 1:E:478:TRP:CZ3  | 2:F:521:ASP:OD1  | 2.70                     | 0.45              |
| 2:F:128:LYS:O    | 2:F:129:CYS:C    | 2.55                     | 0.45              |
| 1:G:187:ASN:ND2  | 1:G:189:GLY:H    | 2.15                     | 0.45              |
| 1:G:264:SER:O    | 1:G:266:ALA:N    | 2.50                     | 0.45              |
| 1:G:439:PRO:O    | 1:G:440:ASN:C    | 2.55                     | 0.45              |
| 2:H:54:VAL:O     | 2:H:57:CYS:HB3   | 2.17                     | 0.45              |
| 2:H:179:ASN:HD22 | 2:H:179:ASN:H    | 1.64                     | 0.45              |
| 2:H:486:THR:OG1  | 2:H:522:ARG:NH2  | 2.50                     | 0.45              |
| 1:I:35:ARG:CD    | 1:I:65:PHE:HE2   | 2.21                     | 0.45              |
| 1:I:187:ASN:ND2  | 1:I:189:GLY:H    | 2.15                     | 0.45              |
| 1:I:252:LEU:HD23 | 1:I:252:LEU:C    | 2.37                     | 0.45              |
| 1:I:406:LEU:HD23 | 1:I:406:LEU:HA   | 1.81                     | 0.45              |
| 1:I:557:VAL:HG22 | 2:J:419:ARG:NH1  | 2.32                     | 0.45              |
| 1:I:565:GLU:OE2  | 2:J:522:ARG:NH2  | 2.30                     | 0.45              |
| 2:J:128:LYS:O    | 2:J:129:CYS:C    | 2.55                     | 0.45              |
| 2:J:483:GLN:O    | 2:J:487:ALA:N    | 2.45                     | 0.45              |
| 1:K:6:ARG:CZ     | 3:P:336:PRO:HB2  | 2.47                     | 0.45              |
| 1:K:19:THR:O     | 1:K:22:GLU:N     | 2.50                     | 0.45              |
| 1:K:23:GLU:O     | 1:K:24:ARG:C     | 2.54                     | 0.45              |
| 1:K:189:GLY:O    | 1:K:190:VAL:C    | 2.54                     | 0.45              |
| 1:K:198:LEU:O    | 1:K:201:MET:HB2  | 2.16                     | 0.45              |
| 1:K:264:SER:O    | 1:K:266:ALA:N    | 2.50                     | 0.45              |
| 1:K:382:MET:SD   | 1:K:404:ILE:HG23 | 2.57                     | 0.45              |
| 1:K:386:LEU:O    | 1:K:387:TYR:C    | 2.54                     | 0.45              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:448:SER:HB3  | 1:K:451:MET:HE1  | 1.99                     | 0.45              |
| 1:K:482:GLU:OE1  | 1:K:532:LYS:HE2  | 2.16                     | 0.45              |
| 1:K:519:THR:CG2  | 1:K:520:SER:N    | 2.79                     | 0.45              |
| 1:K:522:THR:O    | 1:K:523:ARG:C    | 2.53                     | 0.45              |
| 2:L:219:GLN:OE1  | 2:L:255:VAL:HG11 | 2.17                     | 0.45              |
| 2:L:394:THR:O    | 2:L:395:LEU:C    | 2.54                     | 0.45              |
| 3:M:106:ASN:O    | 3:M:109:ILE:CG1  | 2.65                     | 0.45              |
| 3:M:144:THR:CG2  | 3:M:145:GLY:N    | 2.73                     | 0.45              |
| 3:N:380:PHE:C    | 3:N:380:PHE:HD1  | 2.19                     | 0.45              |
| 3:O:109:ILE:HD13 | 3:O:139:GLY:HA3  | 1.98                     | 0.45              |
| 3:O:173:LEU:C    | 3:O:174:ASP:OD2  | 2.55                     | 0.45              |
| 3:O:323:PRO:HG2  | 3:O:334:TRP:CE3  | 2.52                     | 0.45              |
| 3:P:203:PHE:N    | 3:P:203:PHE:CD1  | 2.83                     | 0.45              |
| 3:P:204:LEU:HD23 | 3:P:204:LEU:HA   | 1.73                     | 0.45              |
| 4:Q:7:LEU:HD23   | 4:Q:7:LEU:HA     | 1.55                     | 0.45              |
| 4:Q:8:PHE:HE1    | 4:Q:36:MET:HA    | 1.80                     | 0.45              |
| 4:Q:53:ARG:O     | 4:Q:54:ASP:CB    | 2.63                     | 0.45              |
| 4:Q:100:GLU:O    | 4:Q:103:ILE:N    | 2.50                     | 0.45              |
| 4:U:50:LEU:HD22  | 4:U:52:TRP:HB2   | 1.99                     | 0.45              |
| 3:V:33:PHE:O     | 3:V:34:MET:C     | 2.54                     | 0.45              |
| 3:V:173:LEU:C    | 3:V:174:ASP:OD2  | 2.55                     | 0.45              |
| 3:V:321:ASP:OD1  | 3:V:322:SER:N    | 2.38                     | 0.45              |
| 4:W:96:GLY:O     | 4:W:97:SER:C     | 2.55                     | 0.45              |
| 1:A:152:TYR:HA   | 1:A:155:LYS:CE   | 2.47                     | 0.45              |
| 1:A:155:LYS:CG   | 1:A:156:LYS:N    | 2.80                     | 0.45              |
| 1:A:187:ASN:ND2  | 1:A:189:GLY:H    | 2.15                     | 0.45              |
| 1:A:247:VAL:O    | 1:A:250:LEU:N    | 2.49                     | 0.45              |
| 2:B:436:LEU:HD13 | 2:B:436:LEU:O    | 2.16                     | 0.45              |
| 2:B:478:THR:CA   | 2:B:481:GLN:HE21 | 2.18                     | 0.45              |
| 2:B:486:THR:OG1  | 2:B:522:ARG:NH2  | 2.50                     | 0.45              |
| 1:C:10:LEU:O     | 1:C:11:ILE:C     | 2.53                     | 0.45              |
| 1:C:147:LYS:HA   | 1:C:147:LYS:CE   | 2.39                     | 0.45              |
| 1:C:267:MET:HE1  | 1:C:299:ILE:CD1  | 2.46                     | 0.45              |
| 1:C:395:GLU:CD   | 1:C:395:GLU:H    | 2.21                     | 0.45              |
| 1:C:533:LEU:O    | 1:C:534:SER:C    | 2.56                     | 0.45              |
| 2:D:437:ASP:C    | 2:D:439:ASP:H    | 2.20                     | 0.45              |
| 1:E:526:ALA:O    | 1:E:529:ALA:N    | 2.49                     | 0.45              |
| 1:E:551:TYR:C    | 1:E:553:SER:H    | 2.20                     | 0.45              |
| 2:F:102:ILE:HG22 | 2:F:103:ARG:N    | 2.32                     | 0.45              |
| 2:F:154:GLN:CB   | 2:F:158:ASP:OD2  | 2.53                     | 0.45              |
| 2:F:230:MET:CE   | 2:F:240:ILE:HD12 | 2.47                     | 0.45              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:373:ALA:O    | 2:F:376:ALA:CB   | 2.63                     | 0.45              |
| 1:G:197:LEU:C    | 1:G:197:LEU:CD1  | 2.85                     | 0.45              |
| 1:G:416:ARG:HD3  | 1:G:454:TYR:HE1  | 1.82                     | 0.45              |
| 1:G:426:LEU:O    | 1:G:428:THR:N    | 2.50                     | 0.45              |
| 1:G:478:TRP:CZ3  | 2:H:521:ASP:OD1  | 2.70                     | 0.45              |
| 1:G:502:GLU:HG3  | 1:G:537:PHE:CE2  | 2.52                     | 0.45              |
| 1:G:508:ILE:O    | 1:G:509:LEU:C    | 2.54                     | 0.45              |
| 2:H:27:LYS:HA    | 2:H:30:LYS:HD2   | 1.97                     | 0.45              |
| 2:H:112:CYS:C    | 2:H:113:ILE:HD12 | 2.37                     | 0.45              |
| 2:H:308:LEU:HD21 | 2:H:575:HIS:CG   | 2.51                     | 0.45              |
| 1:I:257:GLY:O    | 1:I:299:ILE:HG23 | 2.16                     | 0.45              |
| 1:I:264:SER:O    | 1:I:266:ALA:N    | 2.50                     | 0.45              |
| 1:I:426:LEU:O    | 1:I:428:THR:N    | 2.50                     | 0.45              |
| 2:J:335:LYS:O    | 2:J:338:LYS:HB2  | 2.17                     | 0.45              |
| 2:J:567:ILE:HA   | 2:J:572:SER:OG   | 2.17                     | 0.45              |
| 1:K:488:VAL:C    | 1:K:500:VAL:HG11 | 2.36                     | 0.45              |
| 1:K:561:GLN:HG3  | 1:K:565:GLU:OE2  | 2.17                     | 0.45              |
| 1:K:566:TYR:O    | 1:K:567:ASN:C    | 2.55                     | 0.45              |
| 2:L:56:ASN:N     | 2:L:56:ASN:ND2   | 2.65                     | 0.45              |
| 2:L:179:ASN:HD22 | 2:L:179:ASN:N    | 2.14                     | 0.45              |
| 2:L:311:GLN:CD   | 2:L:555:ILE:HB   | 2.38                     | 0.45              |
| 3:M:240:GLN:C    | 3:M:242:VAL:H    | 2.20                     | 0.45              |
| 3:O:57:PHE:N     | 3:O:57:PHE:CD1   | 2.84                     | 0.45              |
| 3:O:240:GLN:O    | 3:O:242:VAL:N    | 2.48                     | 0.45              |
| 3:P:63:ASN:O     | 3:P:64:ASN:CB    | 2.65                     | 0.45              |
| 3:R:83:PHE:O     | 3:R:84:LEU:C     | 2.54                     | 0.45              |
| 3:R:180:ASN:HA   | 3:R:417:ASP:HB2  | 1.99                     | 0.45              |
| 4:T:100:GLU:O    | 4:T:103:ILE:N    | 2.50                     | 0.45              |
| 4:T:147:SER:O    | 4:T:149:ARG:N    | 2.49                     | 0.45              |
| 1:A:218:GLN:O    | 1:A:219:LEU:C    | 2.55                     | 0.45              |
| 1:A:426:LEU:O    | 1:A:428:THR:N    | 2.50                     | 0.45              |
| 1:A:478:TRP:CZ3  | 2:B:521:ASP:OD1  | 2.70                     | 0.45              |
| 1:A:526:ALA:O    | 1:A:529:ALA:N    | 2.49                     | 0.45              |
| 2:B:6:TYR:O      | 2:B:8:THR:OG1    | 2.35                     | 0.45              |
| 2:B:219:GLN:OE1  | 2:B:255:VAL:HG11 | 2.17                     | 0.45              |
| 2:B:437:ASP:C    | 2:B:439:ASP:H    | 2.20                     | 0.45              |
| 2:B:563:LEU:C    | 2:B:565:CYS:N    | 2.70                     | 0.45              |
| 1:C:155:LYS:CG   | 1:C:156:LYS:N    | 2.80                     | 0.45              |
| 1:C:386:LEU:O    | 1:C:387:TYR:C    | 2.54                     | 0.45              |
| 1:C:502:GLU:HG3  | 1:C:537:PHE:CE2  | 2.52                     | 0.45              |
| 2:D:56:ASN:N     | 2:D:56:ASN:ND2   | 2.65                     | 0.45              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:307:ASN:OD1  | 2:D:344:ARG:NH1  | 2.50                     | 0.45              |
| 2:D:308:LEU:HD21 | 2:D:575:HIS:CG   | 2.51                     | 0.45              |
| 2:D:394:THR:O    | 2:D:395:LEU:C    | 2.54                     | 0.45              |
| 2:D:486:THR:OG1  | 2:D:522:ARG:NH2  | 2.50                     | 0.45              |
| 1:E:5:ILE:HD12   | 1:E:30:GLU:OE1   | 2.17                     | 0.45              |
| 1:E:247:VAL:O    | 1:E:250:LEU:N    | 2.49                     | 0.45              |
| 1:E:326:TYR:O    | 1:E:327:VAL:C    | 2.54                     | 0.45              |
| 1:E:458:ARG:O    | 1:E:459:LEU:C    | 2.55                     | 0.45              |
| 1:E:561:GLN:HG3  | 1:E:565:GLU:OE2  | 2.17                     | 0.45              |
| 2:F:39:ALA:C     | 2:F:41:MET:H     | 2.18                     | 0.45              |
| 2:F:122:LEU:HG   | 2:F:123:CYS:N    | 2.32                     | 0.45              |
| 2:F:419:ARG:HB3  | 2:F:548:ILE:HD13 | 1.98                     | 0.45              |
| 1:G:5:ILE:O      | 1:G:52:LYS:NZ    | 2.46                     | 0.45              |
| 1:G:566:TYR:O    | 1:G:567:ASN:C    | 2.55                     | 0.45              |
| 2:H:102:ILE:HG22 | 2:H:103:ARG:N    | 2.32                     | 0.45              |
| 1:I:155:LYS:CG   | 1:I:156:LYS:N    | 2.80                     | 0.45              |
| 2:J:179:ASN:HD22 | 2:J:179:ASN:H    | 1.64                     | 0.45              |
| 2:J:311:GLN:CD   | 2:J:555:ILE:HB   | 2.38                     | 0.45              |
| 1:K:79:PHE:CE2   | 1:K:83:ARG:HD2   | 2.52                     | 0.45              |
| 1:K:187:ASN:ND2  | 1:K:189:GLY:H    | 2.15                     | 0.45              |
| 2:L:179:ASN:O    | 2:L:180:ARG:C    | 2.55                     | 0.45              |
| 3:M:83:PHE:C     | 3:M:83:PHE:CD1   | 2.89                     | 0.45              |
| 3:N:180:ASN:HA   | 3:N:417:ASP:HB2  | 1.99                     | 0.45              |
| 3:P:180:ASN:HA   | 3:P:417:ASP:HB2  | 1.99                     | 0.45              |
| 3:P:343:TRP:CZ2  | 3:P:356:MET:HB2  | 2.51                     | 0.45              |
| 4:T:71:ILE:CG2   | 4:T:72:GLU:H     | 2.26                     | 0.45              |
| 4:T:114:LEU:O    | 4:T:117:PHE:N    | 2.44                     | 0.45              |
| 4:U:90:LEU:CD2   | 4:U:90:LEU:N     | 2.79                     | 0.45              |
| 3:V:63:ASN:O     | 3:V:64:ASN:CB    | 2.65                     | 0.45              |
| 3:V:240:GLN:C    | 3:V:242:VAL:H    | 2.20                     | 0.45              |
| 1:A:74:ILE:CG2   | 1:A:86:TYR:HE1   | 2.22                     | 0.45              |
| 1:A:313:LEU:O    | 1:A:314:GLY:C    | 2.55                     | 0.45              |
| 1:A:395:GLU:CD   | 1:A:395:GLU:H    | 2.20                     | 0.45              |
| 1:A:439:PRO:O    | 1:A:440:ASN:C    | 2.55                     | 0.45              |
| 2:B:122:LEU:HG   | 2:B:123:CYS:N    | 2.32                     | 0.45              |
| 2:B:305:ASN:ND2  | 2:B:572:SER:OG   | 2.49                     | 0.45              |
| 2:B:307:ASN:OD1  | 2:B:344:ARG:NH1  | 2.50                     | 0.45              |
| 1:C:57:HIS:C     | 1:C:59:LEU:N     | 2.70                     | 0.45              |
| 1:C:264:SER:O    | 1:C:266:ALA:N    | 2.50                     | 0.45              |
| 2:D:179:ASN:O    | 2:D:180:ARG:C    | 2.55                     | 0.45              |
| 1:E:11:ILE:CA    | 1:E:14:ILE:HD13  | 2.40                     | 0.45              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:252:LEU:HD23 | 1:E:252:LEU:C    | 2.37                     | 0.45              |
| 1:E:482:GLU:OE1  | 1:E:532:LYS:HE2  | 2.16                     | 0.45              |
| 2:F:45:LYS:HG2   | 2:F:46:ASP:N     | 2.30                     | 0.45              |
| 2:F:465:LEU:O    | 2:F:466:LEU:C    | 2.54                     | 0.45              |
| 1:G:79:PHE:CE2   | 1:G:83:ARG:HD2   | 2.52                     | 0.45              |
| 1:G:140:GLY:O    | 1:G:141:GLU:C    | 2.53                     | 0.45              |
| 1:G:448:SER:HB3  | 1:G:451:MET:HE1  | 1.98                     | 0.45              |
| 1:G:482:GLU:OE1  | 1:G:532:LYS:HE2  | 2.16                     | 0.45              |
| 1:G:533:LEU:O    | 1:G:534:SER:C    | 2.56                     | 0.45              |
| 2:H:79:SER:O     | 2:H:81:PRO:HD3   | 2.16                     | 0.45              |
| 2:H:324:PHE:CD2  | 2:H:341:ILE:HG21 | 2.52                     | 0.45              |
| 2:H:565:CYS:HB2  | 2:H:566:TYR:HD1  | 1.82                     | 0.45              |
| 1:I:36:SER:CA    | 1:I:39:ARG:HG2   | 2.41                     | 0.45              |
| 1:I:330:THR:HG22 | 1:I:331:SER:N    | 2.31                     | 0.45              |
| 1:I:439:PRO:O    | 1:I:440:ASN:C    | 2.55                     | 0.45              |
| 1:I:583:ARG:HB2  | 2:J:528:ARG:NH2  | 2.33                     | 0.45              |
| 2:J:230:MET:CE   | 2:J:240:ILE:HD12 | 2.47                     | 0.45              |
| 2:J:241:CYS:C    | 2:J:243:ARG:N    | 2.70                     | 0.45              |
| 2:J:308:LEU:HD21 | 2:J:575:HIS:CG   | 2.51                     | 0.45              |
| 2:J:486:THR:OG1  | 2:J:522:ARG:NH2  | 2.50                     | 0.45              |
| 2:J:537:ALA:O    | 2:J:538:LYS:C    | 2.56                     | 0.45              |
| 1:K:5:ILE:HD12   | 1:K:30:GLU:OE1   | 2.17                     | 0.45              |
| 1:K:478:TRP:CZ3  | 2:L:521:ASP:OD1  | 2.70                     | 0.45              |
| 1:K:557:VAL:HG22 | 2:L:419:ARG:NH1  | 2.32                     | 0.45              |
| 2:L:128:LYS:O    | 2:L:129:CYS:C    | 2.55                     | 0.45              |
| 2:L:151:ILE:HG22 | 2:L:152:ASN:N    | 2.32                     | 0.45              |
| 2:L:155:MET:H    | 2:L:158:ASP:CB   | 2.29                     | 0.45              |
| 2:L:208:LEU:HD11 | 2:L:243:ARG:CD   | 2.41                     | 0.45              |
| 2:L:220:ILE:HD12 | 2:L:220:ILE:N    | 2.31                     | 0.45              |
| 3:M:380:PHE:CE1  | 3:M:414:GLN:C    | 2.86                     | 0.45              |
| 3:N:104:ARG:O    | 3:N:107:PHE:CE1  | 2.70                     | 0.45              |
| 3:N:323:PRO:HG2  | 3:N:334:TRP:CE3  | 2.52                     | 0.45              |
| 4:Q:71:ILE:CG2   | 4:Q:75:ASP:CB    | 2.95                     | 0.45              |
| 4:Q:98:VAL:CG2   | 4:Q:99:CYS:N     | 2.80                     | 0.45              |
| 3:R:162:GLU:CG   | 3:R:163:GLY:N    | 2.79                     | 0.45              |
| 3:R:239:HIS:O    | 3:R:241:CYS:N    | 2.51                     | 0.45              |
| 4:T:80:THR:O     | 4:T:83:LEU:N     | 2.47                     | 0.45              |
| 3:V:278:TRP:C    | 3:V:279:ILE:HG13 | 2.38                     | 0.45              |
| 4:X:50:LEU:HD22  | 4:X:52:TRP:HB2   | 1.99                     | 0.45              |
| 4:X:96:GLY:O     | 4:X:97:SER:C     | 2.55                     | 0.45              |
| 1:A:172:MET:HB2  | 1:A:201:MET:CE   | 2.46                     | 0.44              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:366:MET:O    | 1:A:369:SER:OG   | 2.24                     | 0.44              |
| 1:A:382:MET:SD   | 1:A:404:ILE:HG23 | 2.57                     | 0.44              |
| 2:B:155:MET:H    | 2:B:158:ASP:CB   | 2.29                     | 0.44              |
| 2:B:577:PRO:O    | 2:B:579:ASN:N    | 2.50                     | 0.44              |
| 1:C:189:GLY:O    | 1:C:190:VAL:C    | 2.54                     | 0.44              |
| 1:C:252:LEU:HD23 | 1:C:252:LEU:C    | 2.37                     | 0.44              |
| 1:C:351:VAL:HG23 | 1:C:352:ASP:N    | 2.32                     | 0.44              |
| 1:C:458:ARG:O    | 1:C:459:LEU:C    | 2.55                     | 0.44              |
| 1:C:566:TYR:O    | 1:C:567:ASN:C    | 2.55                     | 0.44              |
| 1:C:583:ARG:HB2  | 2:D:528:ARG:NH2  | 2.32                     | 0.44              |
| 2:D:54:VAL:O     | 2:D:57:CYS:HB3   | 2.17                     | 0.44              |
| 2:D:55:VAL:C     | 2:D:57:CYS:N     | 2.71                     | 0.44              |
| 2:D:79:SER:O     | 2:D:81:PRO:HD3   | 2.16                     | 0.44              |
| 2:D:390:ARG:HG2  | 2:D:390:ARG:HH11 | 1.82                     | 0.44              |
| 2:D:477:SER:O    | 2:D:478:THR:C    | 2.55                     | 0.44              |
| 1:E:19:THR:O     | 1:E:22:GLU:N     | 2.50                     | 0.44              |
| 1:E:46:ARG:O     | 1:E:50:VAL:HG23  | 2.16                     | 0.44              |
| 1:E:115:THR:HB   | 1:E:118:VAL:HG23 | 1.97                     | 0.44              |
| 1:E:155:LYS:CG   | 1:E:156:LYS:N    | 2.80                     | 0.44              |
| 1:E:159:LEU:O    | 1:E:160:CYS:C    | 2.55                     | 0.44              |
| 1:E:264:SER:O    | 1:E:266:ALA:N    | 2.50                     | 0.44              |
| 1:E:351:VAL:HG23 | 1:E:352:ASP:N    | 2.32                     | 0.44              |
| 1:E:382:MET:SD   | 1:E:404:ILE:HG23 | 2.57                     | 0.44              |
| 1:E:498:ILE:CG2  | 1:E:499:GLN:N    | 2.65                     | 0.44              |
| 1:E:566:TYR:O    | 1:E:567:ASN:C    | 2.55                     | 0.44              |
| 2:F:225:CYS:O    | 2:F:227:GLY:N    | 2.49                     | 0.44              |
| 2:F:324:PHE:CD2  | 2:F:341:ILE:HG21 | 2.52                     | 0.44              |
| 2:F:400:GLN:HA   | 2:F:400:GLN:HE21 | 1.81                     | 0.44              |
| 1:G:5:ILE:HD12   | 1:G:30:GLU:OE1   | 2.17                     | 0.44              |
| 1:G:19:THR:O     | 1:G:22:GLU:N     | 2.50                     | 0.44              |
| 1:G:51:ALA:HA    | 1:G:54:LEU:HD12  | 1.99                     | 0.44              |
| 1:G:67:GLN:O     | 1:G:70:CYS:CB    | 2.56                     | 0.44              |
| 1:G:80:THR:O     | 1:G:81:ASP:C     | 2.55                     | 0.44              |
| 1:G:351:VAL:HG23 | 1:G:352:ASP:N    | 2.32                     | 0.44              |
| 1:G:561:GLN:HG3  | 1:G:565:GLU:OE2  | 2.17                     | 0.44              |
| 2:H:18:LEU:N     | 2:H:18:LEU:CD2   | 2.78                     | 0.44              |
| 2:H:43:VAL:HG12  | 2:H:43:VAL:O     | 2.17                     | 0.44              |
| 2:H:65:LEU:O     | 2:H:66:LYS:C     | 2.56                     | 0.44              |
| 2:H:99:ASN:HA    | 2:H:100:PRO:HD2  | 1.75                     | 0.44              |
| 2:H:220:ILE:HD12 | 2:H:220:ILE:N    | 2.32                     | 0.44              |
| 2:H:385:GLU:C    | 2:H:387:SER:N    | 2.67                     | 0.44              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:392:VAL:O    | 2:H:395:LEU:N    | 2.50                     | 0.44              |
| 2:H:465:LEU:O    | 2:H:466:LEU:C    | 2.54                     | 0.44              |
| 2:H:577:PRO:O    | 2:H:579:ASN:N    | 2.50                     | 0.44              |
| 1:I:19:THR:O     | 1:I:22:GLU:N     | 2.50                     | 0.44              |
| 1:I:478:TRP:CZ3  | 2:J:521:ASP:OD1  | 2.70                     | 0.44              |
| 1:I:506:LEU:HD23 | 1:I:506:LEU:N    | 2.32                     | 0.44              |
| 2:J:151:ILE:HG22 | 2:J:152:ASN:N    | 2.32                     | 0.44              |
| 2:J:363:THR:O    | 2:J:364:GLU:O    | 2.35                     | 0.44              |
| 2:J:577:PRO:O    | 2:J:579:ASN:N    | 2.51                     | 0.44              |
| 1:K:70:CYS:O     | 1:K:73:LEU:HB2   | 2.16                     | 0.44              |
| 1:K:79:PHE:O     | 1:K:82:LYS:N     | 2.50                     | 0.44              |
| 1:K:80:THR:O     | 1:K:81:ASP:C     | 2.55                     | 0.44              |
| 1:K:506:LEU:N    | 1:K:506:LEU:HD23 | 2.32                     | 0.44              |
| 2:L:567:ILE:HA   | 2:L:572:SER:OG   | 2.17                     | 0.44              |
| 3:M:255:PHE:N    | 3:M:255:PHE:HD2  | 2.14                     | 0.44              |
| 3:O:162:GLU:CG   | 3:O:163:GLY:N    | 2.79                     | 0.44              |
| 3:O:241:CYS:O    | 3:O:255:PHE:CB   | 2.57                     | 0.44              |
| 3:O:327:THR:HG23 | 3:O:355:LEU:O    | 2.18                     | 0.44              |
| 3:O:384:TYR:CA   | 3:O:411:TYR:HB2  | 2.44                     | 0.44              |
| 3:P:33:PHE:O     | 3:P:34:MET:C     | 2.54                     | 0.44              |
| 3:P:57:PHE:N     | 3:P:57:PHE:CD1   | 2.84                     | 0.44              |
| 4:Q:80:THR:O     | 4:Q:81:LEU:C     | 2.54                     | 0.44              |
| 3:R:255:PHE:N    | 3:R:255:PHE:HD2  | 2.14                     | 0.44              |
| 3:R:343:TRP:CZ2  | 3:R:356:MET:HB2  | 2.51                     | 0.44              |
| 4:S:114:LEU:O    | 4:S:117:PHE:N    | 2.44                     | 0.44              |
| 4:T:71:ILE:CG2   | 4:T:75:ASP:CB    | 2.95                     | 0.44              |
| 4:U:72:GLU:O     | 4:U:75:ASP:HB2   | 2.17                     | 0.44              |
| 3:V:22:ARG:CG    | 3:V:23:GLY:N     | 2.76                     | 0.44              |
| 3:V:323:PRO:HG2  | 3:V:334:TRP:CE3  | 2.52                     | 0.44              |
| 4:W:71:ILE:HG21  | 4:W:75:ASP:CB    | 2.44                     | 0.44              |
| 4:W:87:TYR:CE2   | 4:W:91:LEU:HD11  | 2.50                     | 0.44              |
| 1:A:19:THR:O     | 1:A:22:GLU:N     | 2.50                     | 0.44              |
| 1:A:80:THR:O     | 1:A:81:ASP:C     | 2.55                     | 0.44              |
| 1:A:197:LEU:C    | 1:A:197:LEU:CD1  | 2.85                     | 0.44              |
| 1:A:389:LEU:CD1  | 1:A:400:CYS:CB   | 2.96                     | 0.44              |
| 1:A:557:VAL:HG22 | 2:B:419:ARG:NH1  | 2.32                     | 0.44              |
| 1:A:561:GLN:HG3  | 1:A:565:GLU:OE2  | 2.17                     | 0.44              |
| 1:A:566:TYR:O    | 1:A:567:ASN:C    | 2.55                     | 0.44              |
| 2:B:102:ILE:O    | 2:B:104:ALA:N    | 2.50                     | 0.44              |
| 2:B:311:GLN:CD   | 2:B:555:ILE:HB   | 2.38                     | 0.44              |
| 2:B:376:ALA:C    | 2:B:378:GLY:N    | 2.70                     | 0.44              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:477:SER:O    | 2:B:478:THR:C    | 2.56                     | 0.44              |
| 1:C:382:MET:SD   | 1:C:404:ILE:HG23 | 2.57                     | 0.44              |
| 1:C:478:TRP:CZ3  | 2:D:521:ASP:OD1  | 2.70                     | 0.44              |
| 1:C:502:GLU:OE1  | 1:C:537:PHE:HB3  | 2.17                     | 0.44              |
| 1:C:561:GLN:HG3  | 1:C:565:GLU:OE2  | 2.17                     | 0.44              |
| 2:D:165:LEU:O    | 2:D:169:ILE:N    | 2.49                     | 0.44              |
| 2:D:405:TYR:O    | 2:D:406:VAL:C    | 2.53                     | 0.44              |
| 2:D:577:PRO:O    | 2:D:579:ASN:N    | 2.50                     | 0.44              |
| 1:E:46:ARG:HE    | 1:E:69:GLU:HG3   | 1.82                     | 0.44              |
| 1:E:257:GLY:O    | 1:E:299:ILE:HG23 | 2.16                     | 0.44              |
| 1:E:313:LEU:O    | 1:E:314:GLY:C    | 2.55                     | 0.44              |
| 1:E:370:PHE:HD2  | 1:E:370:PHE:HA   | 1.65                     | 0.44              |
| 1:E:506:LEU:HD23 | 1:E:506:LEU:N    | 2.32                     | 0.44              |
| 2:F:6:TYR:O      | 2:F:8:THR:OG1    | 2.35                     | 0.44              |
| 2:F:139:LYS:HE2  | 2:F:175:MET:HG2  | 1.98                     | 0.44              |
| 2:F:376:ALA:C    | 2:F:378:GLY:N    | 2.70                     | 0.44              |
| 2:F:392:VAL:O    | 2:F:395:LEU:N    | 2.50                     | 0.44              |
| 1:G:152:TYR:HA   | 1:G:155:LYS:CE   | 2.47                     | 0.44              |
| 1:G:195:VAL:O    | 1:G:196:VAL:C    | 2.55                     | 0.44              |
| 1:G:441:LEU:HD23 | 1:G:441:LEU:O    | 2.17                     | 0.44              |
| 2:H:139:LYS:HE2  | 2:H:175:MET:HG2  | 1.98                     | 0.44              |
| 2:H:313:ARG:HB2  | 2:H:316:ILE:HD11 | 1.99                     | 0.44              |
| 1:I:68:LEU:HG    | 1:I:69:GLU:N     | 2.14                     | 0.44              |
| 1:I:86:TYR:HD2   | 1:I:125:THR:HG1  | 1.62                     | 0.44              |
| 1:I:519:THR:CG2  | 1:I:520:SER:N    | 2.79                     | 0.44              |
| 1:I:561:GLN:HG3  | 1:I:565:GLU:OE2  | 2.17                     | 0.44              |
| 2:J:65:LEU:O     | 2:J:66:LYS:C     | 2.56                     | 0.44              |
| 2:J:102:ILE:O    | 2:J:104:ALA:N    | 2.50                     | 0.44              |
| 2:J:390:ARG:HH11 | 2:J:390:ARG:HG2  | 1.83                     | 0.44              |
| 2:J:391:CYS:O    | 2:J:394:THR:N    | 2.50                     | 0.44              |
| 1:K:46:ARG:HE    | 1:K:69:GLU:HG3   | 1.83                     | 0.44              |
| 2:L:102:ILE:HG22 | 2:L:103:ARG:N    | 2.32                     | 0.44              |
| 2:L:335:LYS:O    | 2:L:338:LYS:HB2  | 2.17                     | 0.44              |
| 2:L:486:THR:OG1  | 2:L:522:ARG:NH2  | 2.50                     | 0.44              |
| 2:L:577:PRO:O    | 2:L:579:ASN:N    | 2.50                     | 0.44              |
| 3:M:42:GLU:HB3   | 3:M:302:LYS:CB   | 2.48                     | 0.44              |
| 3:M:104:ARG:O    | 3:M:107:PHE:CE1  | 2.70                     | 0.44              |
| 3:O:239:HIS:O    | 3:O:241:CYS:N    | 2.51                     | 0.44              |
| 3:O:240:GLN:C    | 3:O:242:VAL:H    | 2.20                     | 0.44              |
| 3:O:312:ILE:CA   | 3:O:378:VAL:HG12 | 2.34                     | 0.44              |
| 3:O:376:ILE:HG23 | 3:O:376:ILE:O    | 2.18                     | 0.44              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:P:278:TRP:C    | 3:P:279:ILE:HG13 | 2.38                     | 0.44              |
| 3:P:323:PRO:HG2  | 3:P:334:TRP:CE3  | 2.52                     | 0.44              |
| 4:Q:56:LYS:HG3   | 4:Q:73:GLY:HA2   | 1.99                     | 0.44              |
| 4:S:71:ILE:HG21  | 4:S:75:ASP:CB    | 2.44                     | 0.44              |
| 3:V:118:MET:CB   | 3:V:123:PRO:HA   | 2.41                     | 0.44              |
| 3:V:162:GLU:CG   | 3:V:163:GLY:N    | 2.79                     | 0.44              |
| 3:V:180:ASN:HA   | 3:V:417:ASP:HB2  | 1.99                     | 0.44              |
| 3:V:196:GLY:HA3  | 3:V:267:TYR:CZ   | 2.52                     | 0.44              |
| 4:W:72:GLU:O     | 4:W:75:ASP:HB2   | 2.17                     | 0.44              |
| 4:W:80:THR:O     | 4:W:83:LEU:N     | 2.47                     | 0.44              |
| 1:A:14:ILE:HG22  | 1:A:14:ILE:O     | 2.18                     | 0.44              |
| 1:A:236:ASP:OD2  | 1:A:239:GLY:N    | 2.51                     | 0.44              |
| 1:A:522:THR:C    | 1:A:524:GLY:N    | 2.70                     | 0.44              |
| 2:B:97:ASP:HA    | 2:B:98:PRO:HD3   | 1.51                     | 0.44              |
| 2:B:230:MET:CE   | 2:B:240:ILE:HD12 | 2.47                     | 0.44              |
| 2:B:436:LEU:C    | 2:B:436:LEU:CD1  | 2.83                     | 0.44              |
| 2:B:551:GLU:C    | 2:B:553:ASP:H    | 2.21                     | 0.44              |
| 2:D:6:TYR:O      | 2:D:8:THR:OG1    | 2.35                     | 0.44              |
| 2:D:122:LEU:HG   | 2:D:123:CYS:N    | 2.31                     | 0.44              |
| 2:D:128:LYS:O    | 2:D:129:CYS:C    | 2.55                     | 0.44              |
| 2:D:363:THR:O    | 2:D:364:GLU:O    | 2.35                     | 0.44              |
| 2:F:7:PHE:HD2    | 4:U:99:CYS:HA    | 1.81                     | 0.44              |
| 2:F:38:ILE:HD13  | 2:F:38:ILE:N     | 2.31                     | 0.44              |
| 2:F:151:ILE:HG22 | 2:F:152:ASN:N    | 2.32                     | 0.44              |
| 2:F:363:THR:O    | 2:F:364:GLU:O    | 2.35                     | 0.44              |
| 2:F:493:LEU:C    | 2:F:495:LYS:N    | 2.62                     | 0.44              |
| 1:G:139:ALA:O    | 1:G:142:VAL:HB   | 2.18                     | 0.44              |
| 1:G:272:ALA:O    | 1:G:275:ALA:HB3  | 2.16                     | 0.44              |
| 2:H:310:VAL:CG1  | 2:H:317:LEU:HD21 | 2.42                     | 0.44              |
| 1:I:14:ILE:HG22  | 1:I:14:ILE:O     | 2.18                     | 0.44              |
| 1:I:31:CYS:HA    | 1:I:34:ILE:HB    | 2.00                     | 0.44              |
| 1:I:57:HIS:C     | 1:I:59:LEU:N     | 2.70                     | 0.44              |
| 1:I:74:ILE:CG2   | 1:I:86:TYR:HE1   | 2.22                     | 0.44              |
| 1:I:218:GLN:O    | 1:I:219:LEU:C    | 2.55                     | 0.44              |
| 1:I:522:THR:O    | 1:I:524:GLY:N    | 2.51                     | 0.44              |
| 2:J:43:VAL:HG12  | 2:J:43:VAL:O     | 2.17                     | 0.44              |
| 2:J:79:SER:O     | 2:J:81:PRO:HD3   | 2.16                     | 0.44              |
| 2:J:107:VAL:O    | 2:J:108:ARG:C    | 2.56                     | 0.44              |
| 2:J:307:ASN:OD1  | 2:J:344:ARG:NH1  | 2.50                     | 0.44              |
| 2:J:308:LEU:H    | 2:J:308:LEU:HG   | 1.61                     | 0.44              |
| 2:J:324:PHE:CD2  | 2:J:341:ILE:HG21 | 2.52                     | 0.44              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:44:THR:O     | 1:K:45:TYR:CB    | 2.65                     | 0.44              |
| 1:K:218:GLN:O    | 1:K:219:LEU:C    | 2.55                     | 0.44              |
| 1:K:236:ASP:OD2  | 1:K:239:GLY:N    | 2.51                     | 0.44              |
| 1:K:264:SER:C    | 1:K:266:ALA:N    | 2.71                     | 0.44              |
| 2:L:305:ASN:ND2  | 2:L:572:SER:OG   | 2.49                     | 0.44              |
| 2:L:442:PRO:O    | 2:L:443:GLU:C    | 2.56                     | 0.44              |
| 2:L:551:GLU:C    | 2:L:553:ASP:H    | 2.21                     | 0.44              |
| 3:M:171:VAL:HG13 | 3:M:202:VAL:CG2  | 2.36                     | 0.44              |
| 3:N:306:THR:HG22 | 3:N:349:PRO:CA   | 2.35                     | 0.44              |
| 3:O:278:TRP:C    | 3:O:279:ILE:HG13 | 2.38                     | 0.44              |
| 3:O:374:PRO:HA   | 3:O:375:PRO:HD3  | 1.76                     | 0.44              |
| 3:P:119:ASP:C    | 3:P:121:GLY:N    | 2.71                     | 0.44              |
| 3:P:196:GLY:HA3  | 3:P:267:TYR:CZ   | 2.52                     | 0.44              |
| 3:P:376:ILE:HG23 | 3:P:376:ILE:O    | 2.18                     | 0.44              |
| 4:Q:18:LYS:CG    | 4:Q:20:TYR:HE1   | 2.30                     | 0.44              |
| 3:R:57:PHE:N     | 3:R:57:PHE:CD1   | 2.84                     | 0.44              |
| 3:R:240:GLN:C    | 3:R:242:VAL:H    | 2.20                     | 0.44              |
| 4:S:14:LEU:CD1   | 4:S:16:LEU:N     | 2.81                     | 0.44              |
| 4:S:109:LYS:CA   | 4:S:112:PHE:HD1  | 2.24                     | 0.44              |
| 4:T:88:VAL:CG2   | 4:T:89:GLU:H     | 2.31                     | 0.44              |
| 3:V:104:ARG:O    | 3:V:107:PHE:CE1  | 2.70                     | 0.44              |
| 1:A:351:VAL:HG23 | 1:A:352:ASP:N    | 2.32                     | 0.44              |
| 2:B:35:LYS:HE2   | 3:M:137:GLN:NE2  | 2.32                     | 0.44              |
| 2:B:179:ASN:O    | 2:B:180:ARG:C    | 2.55                     | 0.44              |
| 1:C:46:ARG:HE    | 1:C:69:GLU:HG3   | 1.83                     | 0.44              |
| 1:C:218:GLN:O    | 1:C:219:LEU:C    | 2.55                     | 0.44              |
| 1:C:474:GLN:O    | 1:C:475:VAL:C    | 2.53                     | 0.44              |
| 1:C:522:THR:O    | 1:C:524:GLY:N    | 2.51                     | 0.44              |
| 2:D:130:LEU:C    | 2:D:132:ASP:H    | 2.21                     | 0.44              |
| 2:D:151:ILE:O    | 2:D:153:ALA:N    | 2.51                     | 0.44              |
| 2:D:304:ARG:HG2  | 2:D:573:VAL:CA   | 2.47                     | 0.44              |
| 1:E:236:ASP:OD2  | 1:E:239:GLY:N    | 2.51                     | 0.44              |
| 1:E:308:LEU:O    | 1:E:309:ALA:C    | 2.56                     | 0.44              |
| 1:E:344:GLN:NE2  | 1:E:374:ASN:ND2  | 2.66                     | 0.44              |
| 2:F:107:VAL:O    | 2:F:108:ARG:C    | 2.56                     | 0.44              |
| 2:F:112:CYS:C    | 2:F:113:ILE:HD12 | 2.37                     | 0.44              |
| 2:F:151:ILE:O    | 2:F:153:ALA:N    | 2.51                     | 0.44              |
| 2:F:179:ASN:O    | 2:F:180:ARG:C    | 2.55                     | 0.44              |
| 2:F:437:ASP:C    | 2:F:439:ASP:H    | 2.20                     | 0.44              |
| 1:G:79:PHE:O     | 1:G:82:LYS:N     | 2.50                     | 0.44              |
| 1:G:189:GLY:O    | 1:G:190:VAL:C    | 2.54                     | 0.44              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:326:TYR:O    | 1:G:327:VAL:C    | 2.54                     | 0.44              |
| 1:G:330:THR:HG22 | 1:G:331:SER:N    | 2.31                     | 0.44              |
| 1:G:405:PHE:O    | 1:G:406:LEU:C    | 2.54                     | 0.44              |
| 1:G:565:GLU:OE2  | 2:H:522:ARG:NH2  | 2.30                     | 0.44              |
| 2:H:107:VAL:O    | 2:H:108:ARG:C    | 2.56                     | 0.44              |
| 2:H:307:ASN:OD1  | 2:H:344:ARG:NH1  | 2.50                     | 0.44              |
| 2:H:363:THR:O    | 2:H:364:GLU:O    | 2.35                     | 0.44              |
| 2:H:390:ARG:HH11 | 2:H:390:ARG:HG2  | 1.83                     | 0.44              |
| 2:H:398:LEU:O    | 2:H:401:THR:OG1  | 2.30                     | 0.44              |
| 2:H:570:LEU:HG   | 3:P:75:ALA:N     | 2.33                     | 0.44              |
| 1:I:43:ASN:N     | 1:I:43:ASN:ND2   | 2.66                     | 0.44              |
| 1:I:80:THR:O     | 1:I:81:ASP:C     | 2.55                     | 0.44              |
| 1:I:159:LEU:O    | 1:I:160:CYS:C    | 2.55                     | 0.44              |
| 1:I:236:ASP:OD2  | 1:I:239:GLY:N    | 2.51                     | 0.44              |
| 1:I:344:GLN:NE2  | 1:I:374:ASN:ND2  | 2.66                     | 0.44              |
| 1:I:423:MET:O    | 1:I:424:ARG:C    | 2.56                     | 0.44              |
| 2:J:139:LYS:HE2  | 2:J:175:MET:HG2  | 1.98                     | 0.44              |
| 2:J:442:PRO:O    | 2:J:443:GLU:C    | 2.56                     | 0.44              |
| 1:K:31:CYS:HA    | 1:K:34:ILE:HB    | 2.00                     | 0.44              |
| 1:K:324:ILE:O    | 1:K:325:ARG:C    | 2.54                     | 0.44              |
| 1:K:426:LEU:O    | 1:K:428:THR:N    | 2.50                     | 0.44              |
| 1:K:522:THR:O    | 1:K:524:GLY:N    | 2.51                     | 0.44              |
| 1:K:533:LEU:O    | 1:K:534:SER:C    | 2.56                     | 0.44              |
| 2:L:54:VAL:O     | 2:L:57:CYS:HB3   | 2.17                     | 0.44              |
| 2:L:191:HIS:O    | 2:L:191:HIS:CG   | 2.64                     | 0.44              |
| 2:L:307:ASN:OD1  | 2:L:344:ARG:NH1  | 2.50                     | 0.44              |
| 2:L:363:THR:O    | 2:L:364:GLU:O    | 2.35                     | 0.44              |
| 2:L:451:ILE:HG22 | 2:L:452:VAL:N    | 2.33                     | 0.44              |
| 3:M:239:HIS:O    | 3:M:241:CYS:N    | 2.51                     | 0.44              |
| 3:M:278:TRP:C    | 3:M:279:ILE:HG13 | 2.38                     | 0.44              |
| 3:M:327:THR:HG23 | 3:M:355:LEU:O    | 2.17                     | 0.44              |
| 3:N:42:GLU:HB3   | 3:N:302:LYS:CB   | 2.48                     | 0.44              |
| 3:N:376:ILE:HG23 | 3:N:376:ILE:O    | 2.18                     | 0.44              |
| 3:O:83:PHE:O     | 3:O:84:LEU:C     | 2.54                     | 0.44              |
| 3:O:192:SER:OG   | 3:O:271:THR:O    | 2.33                     | 0.44              |
| 3:P:173:LEU:C    | 3:P:174:ASP:OD2  | 2.55                     | 0.44              |
| 4:Q:50:LEU:HD22  | 4:Q:52:TRP:HB2   | 1.99                     | 0.44              |
| 3:R:33:PHE:O     | 3:R:34:MET:C     | 2.54                     | 0.44              |
| 4:S:7:LEU:HD21   | 4:S:67:PHE:CG    | 2.51                     | 0.44              |
| 4:T:98:VAL:CG2   | 4:T:99:CYS:N     | 2.80                     | 0.44              |
| 4:X:71:ILE:CG2   | 4:X:75:ASP:CB    | 2.95                     | 0.44              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:X:107:PHE:HD2  | 4:X:107:PHE:N    | 2.16                     | 0.44              |
| 1:A:252:LEU:HD23 | 1:A:252:LEU:C    | 2.37                     | 0.44              |
| 2:B:324:PHE:CD2  | 2:B:341:ILE:HG21 | 2.52                     | 0.44              |
| 2:B:506:VAL:O    | 2:B:507:LEU:C    | 2.53                     | 0.44              |
| 2:B:530:LEU:C    | 2:B:532:THR:H    | 2.20                     | 0.44              |
| 1:C:11:ILE:CA    | 1:C:14:ILE:HD13  | 2.40                     | 0.44              |
| 1:C:51:ALA:HA    | 1:C:54:LEU:HD12  | 1.99                     | 0.44              |
| 1:C:293:VAL:O    | 1:C:294:LEU:C    | 2.54                     | 0.44              |
| 1:C:426:LEU:O    | 1:C:428:THR:N    | 2.50                     | 0.44              |
| 2:D:220:ILE:HD12 | 2:D:220:ILE:N    | 2.32                     | 0.44              |
| 2:D:241:CYS:C    | 2:D:243:ARG:N    | 2.70                     | 0.44              |
| 2:D:305:ASN:N    | 2:D:305:ASN:HD22 | 2.13                     | 0.44              |
| 2:D:308:LEU:H    | 2:D:308:LEU:HG   | 1.61                     | 0.44              |
| 2:D:391:CYS:O    | 2:D:394:THR:N    | 2.50                     | 0.44              |
| 2:D:516:ASN:O    | 2:D:517:PRO:C    | 2.56                     | 0.44              |
| 2:D:570:LEU:HG   | 3:N:75:ALA:N     | 2.33                     | 0.44              |
| 1:E:8:ARG:HD2    | 3:M:337:GLU:HB2  | 1.98                     | 0.44              |
| 1:E:419:ILE:O    | 1:E:420:ASP:C    | 2.56                     | 0.44              |
| 1:E:463:ILE:HG13 | 1:E:463:ILE:H    | 1.56                     | 0.44              |
| 1:E:500:VAL:O    | 1:E:500:VAL:HG22 | 2.18                     | 0.44              |
| 1:E:522:THR:O    | 1:E:524:GLY:N    | 2.51                     | 0.44              |
| 1:E:557:VAL:HG22 | 2:F:419:ARG:NH1  | 2.32                     | 0.44              |
| 2:F:43:VAL:HG12  | 2:F:43:VAL:O     | 2.17                     | 0.44              |
| 2:F:313:ARG:HA   | 2:F:313:ARG:HD3  | 1.82                     | 0.44              |
| 1:G:257:GLY:O    | 1:G:299:ILE:HG23 | 2.16                     | 0.44              |
| 1:G:522:THR:O    | 1:G:524:GLY:N    | 2.51                     | 0.44              |
| 1:G:522:THR:C    | 1:G:524:GLY:N    | 2.70                     | 0.44              |
| 1:G:572:LYS:HG2  | 1:G:573:TYR:CE1  | 2.53                     | 0.44              |
| 2:H:437:ASP:C    | 2:H:439:ASP:H    | 2.20                     | 0.44              |
| 2:H:451:ILE:HG22 | 2:H:452:VAL:N    | 2.33                     | 0.44              |
| 2:H:466:LEU:O    | 2:H:467:GLU:C    | 2.56                     | 0.44              |
| 2:H:486:THR:HG22 | 2:H:487:ALA:H    | 1.76                     | 0.44              |
| 1:I:5:ILE:HD12   | 1:I:30:GLU:OE1   | 2.17                     | 0.44              |
| 1:I:152:TYR:HA   | 1:I:155:LYS:CE   | 2.47                     | 0.44              |
| 1:I:264:SER:C    | 1:I:266:ALA:N    | 2.71                     | 0.44              |
| 1:I:293:VAL:O    | 1:I:294:LEU:C    | 2.54                     | 0.44              |
| 2:J:374:VAL:C    | 2:J:376:ALA:N    | 2.71                     | 0.44              |
| 2:J:392:VAL:O    | 2:J:395:LEU:N    | 2.50                     | 0.44              |
| 2:J:499:THR:O    | 2:J:500:GLN:O    | 2.34                     | 0.44              |
| 1:K:51:ALA:HA    | 1:K:54:LEU:HD12  | 1.99                     | 0.44              |
| 1:K:57:HIS:C     | 1:K:59:LEU:N     | 2.70                     | 0.44              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:86:TYR:HD2   | 1:K:125:THR:HG1  | 1.63                     | 0.44              |
| 1:K:139:ALA:O    | 1:K:142:VAL:HB   | 2.18                     | 0.44              |
| 1:K:281:SER:OG   | 1:K:282:LYS:N    | 2.50                     | 0.44              |
| 1:K:374:ASN:HB3  | 1:K:375:GLY:H    | 1.60                     | 0.44              |
| 1:K:439:PRO:O    | 1:K:440:ASN:C    | 2.55                     | 0.44              |
| 1:K:502:GLU:HG3  | 1:K:537:PHE:CE2  | 2.52                     | 0.44              |
| 1:K:583:ARG:HB2  | 2:L:528:ARG:NH2  | 2.33                     | 0.44              |
| 2:L:376:ALA:C    | 2:L:378:GLY:N    | 2.70                     | 0.44              |
| 2:L:390:ARG:HH11 | 2:L:390:ARG:HG2  | 1.83                     | 0.44              |
| 2:L:570:LEU:HG   | 3:V:75:ALA:N     | 2.33                     | 0.44              |
| 3:M:323:PRO:HB3  | 3:M:325:PHE:HE2  | 1.81                     | 0.44              |
| 3:N:83:PHE:O     | 3:N:84:LEU:C     | 2.54                     | 0.44              |
| 3:N:121:GLY:O    | 3:N:122:TYR:C    | 2.56                     | 0.44              |
| 3:N:278:TRP:C    | 3:N:279:ILE:HG13 | 2.38                     | 0.44              |
| 3:R:109:ILE:HD13 | 3:R:139:GLY:HA3  | 1.98                     | 0.44              |
| 4:T:50:LEU:HD22  | 4:T:52:TRP:HB2   | 1.99                     | 0.44              |
| 4:U:14:LEU:CD1   | 4:U:16:LEU:N     | 2.81                     | 0.44              |
| 4:U:71:ILE:CG2   | 4:U:75:ASP:CB    | 2.95                     | 0.44              |
| 3:V:118:MET:CG   | 3:V:119:ASP:N    | 2.81                     | 0.44              |
| 3:V:239:HIS:O    | 3:V:241:CYS:N    | 2.51                     | 0.44              |
| 4:X:14:LEU:CD1   | 4:X:16:LEU:N     | 2.81                     | 0.44              |
| 1:A:257:GLY:O    | 1:A:258:ARG:C    | 2.55                     | 0.44              |
| 1:A:419:ILE:O    | 1:A:420:ASP:C    | 2.56                     | 0.44              |
| 1:A:531:MET:C    | 1:A:533:LEU:N    | 2.71                     | 0.44              |
| 1:A:551:TYR:C    | 1:A:553:SER:H    | 2.20                     | 0.44              |
| 2:B:54:VAL:O     | 2:B:57:CYS:HB3   | 2.17                     | 0.44              |
| 2:B:414:ILE:O    | 2:B:415:LYS:C    | 2.53                     | 0.44              |
| 2:B:499:THR:O    | 2:B:500:GLN:O    | 2.34                     | 0.44              |
| 2:B:516:ASN:O    | 2:B:517:PRO:C    | 2.56                     | 0.44              |
| 2:B:537:ALA:O    | 2:B:538:LYS:C    | 2.56                     | 0.44              |
| 2:B:567:ILE:HA   | 2:B:572:SER:OG   | 2.17                     | 0.44              |
| 1:C:5:ILE:HD12   | 1:C:30:GLU:OE1   | 2.17                     | 0.44              |
| 1:C:488:VAL:C    | 1:C:500:VAL:HG11 | 2.36                     | 0.44              |
| 1:C:531:MET:C    | 1:C:533:LEU:N    | 2.71                     | 0.44              |
| 2:D:43:VAL:O     | 2:D:43:VAL:HG12  | 2.17                     | 0.44              |
| 2:D:324:PHE:CD2  | 2:D:341:ILE:HG21 | 2.52                     | 0.44              |
| 2:D:330:ASP:HA   | 2:D:331:PRO:HD3  | 1.84                     | 0.44              |
| 2:D:335:LYS:O    | 2:D:338:LYS:HB2  | 2.17                     | 0.44              |
| 2:D:530:LEU:C    | 2:D:532:THR:H    | 2.21                     | 0.44              |
| 2:D:540:VAL:O    | 2:D:543:ALA:HB2  | 2.18                     | 0.44              |
| 2:D:551:GLU:C    | 2:D:553:ASP:H    | 2.21                     | 0.44              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:22:GLU:O     | 1:E:23:GLU:C     | 2.56                     | 0.44              |
| 1:E:103:MET:HA   | 1:E:103:MET:HE3  | 2.00                     | 0.44              |
| 1:E:187:ASN:ND2  | 1:E:189:GLY:H    | 2.15                     | 0.44              |
| 1:E:330:THR:HG22 | 1:E:331:SER:N    | 2.31                     | 0.44              |
| 2:F:219:GLN:OE1  | 2:F:255:VAL:HG11 | 2.17                     | 0.44              |
| 2:F:360:GLU:O    | 2:F:363:THR:HB   | 2.17                     | 0.44              |
| 2:F:486:THR:OG1  | 2:F:522:ARG:NH2  | 2.50                     | 0.44              |
| 1:G:23:GLU:O     | 1:G:24:ARG:C     | 2.54                     | 0.44              |
| 1:G:46:ARG:HE    | 1:G:69:GLU:HG3   | 1.83                     | 0.44              |
| 1:G:83:ARG:HG3   | 4:Q:112:PHE:CE2  | 2.53                     | 0.44              |
| 1:G:313:LEU:O    | 1:G:314:GLY:C    | 2.55                     | 0.44              |
| 1:G:423:MET:O    | 1:G:424:ARG:C    | 2.56                     | 0.44              |
| 1:G:557:VAL:HG22 | 2:H:419:ARG:NH1  | 2.32                     | 0.44              |
| 2:H:74:MET:O     | 2:H:77:ALA:N     | 2.39                     | 0.44              |
| 2:H:122:LEU:HG   | 2:H:123:CYS:N    | 2.31                     | 0.44              |
| 2:H:151:ILE:O    | 2:H:153:ALA:N    | 2.51                     | 0.44              |
| 2:H:335:LYS:O    | 2:H:338:LYS:HB2  | 2.17                     | 0.44              |
| 2:H:442:PRO:O    | 2:H:443:GLU:C    | 2.56                     | 0.44              |
| 1:I:22:GLU:O     | 1:I:23:GLU:C     | 2.56                     | 0.44              |
| 1:I:195:VAL:O    | 1:I:196:VAL:C    | 2.55                     | 0.44              |
| 1:I:308:LEU:O    | 1:I:309:ALA:C    | 2.56                     | 0.44              |
| 1:I:351:VAL:HG23 | 1:I:352:ASP:N    | 2.32                     | 0.44              |
| 1:I:500:VAL:O    | 1:I:500:VAL:HG22 | 2.18                     | 0.44              |
| 1:I:502:GLU:HG3  | 1:I:537:PHE:CE2  | 2.52                     | 0.44              |
| 1:I:566:TYR:O    | 1:I:567:ASN:C    | 2.55                     | 0.44              |
| 2:J:151:ILE:O    | 2:J:153:ALA:N    | 2.51                     | 0.44              |
| 2:J:551:GLU:C    | 2:J:553:ASP:H    | 2.21                     | 0.44              |
| 2:J:565:CYS:HB2  | 2:J:566:TYR:HD1  | 1.82                     | 0.44              |
| 1:K:22:GLU:O     | 1:K:23:GLU:C     | 2.56                     | 0.44              |
| 1:K:83:ARG:HG3   | 4:W:112:PHE:CE2  | 2.53                     | 0.44              |
| 1:K:486:LEU:H    | 1:K:486:LEU:HG   | 1.59                     | 0.44              |
| 2:L:43:VAL:HG12  | 2:L:43:VAL:O     | 2.17                     | 0.44              |
| 2:L:184:LEU:O    | 2:L:185:SER:C    | 2.56                     | 0.44              |
| 2:L:313:ARG:HB2  | 2:L:316:ILE:HD11 | 1.99                     | 0.44              |
| 3:M:196:GLY:HA3  | 3:M:267:TYR:CZ   | 2.52                     | 0.44              |
| 3:N:32:HIS:ND1   | 3:N:52:HIS:CD2   | 2.81                     | 0.44              |
| 3:N:42:GLU:HG3   | 3:N:302:LYS:HB3  | 1.98                     | 0.44              |
| 3:N:119:ASP:C    | 3:N:121:GLY:H    | 2.21                     | 0.44              |
| 3:N:119:ASP:C    | 3:N:121:GLY:N    | 2.71                     | 0.44              |
| 3:N:395:LEU:HD12 | 3:N:395:LEU:HA   | 1.70                     | 0.44              |
| 3:O:106:ASN:O    | 3:O:109:ILE:CG1  | 2.65                     | 0.44              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:O:180:ASN:HA   | 3:O:417:ASP:HB2  | 1.99                     | 0.44              |
| 3:P:84:LEU:O     | 3:P:85:TYR:C     | 2.56                     | 0.44              |
| 3:P:118:MET:CB   | 3:P:123:PRO:HA   | 2.41                     | 0.44              |
| 3:P:119:ASP:C    | 3:P:121:GLY:H    | 2.21                     | 0.44              |
| 3:P:121:GLY:O    | 3:P:122:TYR:C    | 2.56                     | 0.44              |
| 3:P:129:LYS:C    | 3:P:131:LEU:N    | 2.71                     | 0.44              |
| 3:P:162:GLU:CG   | 3:P:163:GLY:H    | 2.31                     | 0.44              |
| 3:P:239:HIS:O    | 3:P:241:CYS:N    | 2.50                     | 0.44              |
| 3:P:240:GLN:C    | 3:P:242:VAL:H    | 2.20                     | 0.44              |
| 3:R:42:GLU:HB3   | 3:R:302:LYS:CB   | 2.48                     | 0.44              |
| 4:S:50:LEU:HD22  | 4:S:52:TRP:HB2   | 1.99                     | 0.44              |
| 4:S:72:GLU:O     | 4:S:75:ASP:HB2   | 2.17                     | 0.44              |
| 4:T:14:LEU:CD1   | 4:T:16:LEU:N     | 2.81                     | 0.44              |
| 4:T:30:LYS:HZ3   | 4:T:33:ARG:NH2   | 2.16                     | 0.44              |
| 4:T:72:GLU:O     | 4:T:75:ASP:HB2   | 2.17                     | 0.44              |
| 4:U:88:VAL:CG2   | 4:U:89:GLU:H     | 2.31                     | 0.44              |
| 4:W:107:PHE:HD2  | 4:W:107:PHE:N    | 2.16                     | 0.44              |
| 1:A:139:ALA:O    | 1:A:142:VAL:HB   | 2.18                     | 0.44              |
| 1:A:344:GLN:NE2  | 1:A:374:ASN:ND2  | 2.66                     | 0.44              |
| 1:A:583:ARG:HB2  | 2:B:528:ARG:NH2  | 2.32                     | 0.44              |
| 2:B:130:LEU:C    | 2:B:132:ASP:H    | 2.21                     | 0.44              |
| 1:C:83:ARG:HG3   | 4:T:112:PHE:CE2  | 2.53                     | 0.44              |
| 1:C:160:CYS:O    | 1:C:164:VAL:HG23 | 2.18                     | 0.44              |
| 2:D:451:ILE:HG22 | 2:D:452:VAL:N    | 2.33                     | 0.44              |
| 1:E:79:PHE:CE2   | 1:E:83:ARG:HD2   | 2.52                     | 0.44              |
| 1:E:160:CYS:O    | 1:E:164:VAL:HG23 | 2.18                     | 0.44              |
| 1:E:389:LEU:CD1  | 1:E:400:CYS:CB   | 2.96                     | 0.44              |
| 1:E:551:TYR:C    | 1:E:553:SER:N    | 2.69                     | 0.44              |
| 1:G:22:GLU:O     | 1:G:23:GLU:C     | 2.56                     | 0.44              |
| 1:G:43:ASN:N     | 1:G:43:ASN:ND2   | 2.66                     | 0.44              |
| 1:G:198:LEU:O    | 1:G:201:MET:HB2  | 2.17                     | 0.44              |
| 1:G:271:LEU:O    | 1:G:274:VAL:HB   | 2.18                     | 0.44              |
| 1:G:389:LEU:CD1  | 1:G:400:CYS:CB   | 2.96                     | 0.44              |
| 1:G:419:ILE:O    | 1:G:420:ASP:C    | 2.56                     | 0.44              |
| 1:G:551:TYR:C    | 1:G:553:SER:H    | 2.20                     | 0.44              |
| 2:H:2:THR:CG2    | 3:R:408:TRP:HH2  | 2.30                     | 0.44              |
| 2:H:87:ALA:O     | 2:H:90:THR:HB    | 2.18                     | 0.44              |
| 2:H:220:ILE:O    | 2:H:222:ILE:N    | 2.51                     | 0.44              |
| 2:H:311:GLN:CD   | 2:H:555:ILE:HB   | 2.37                     | 0.44              |
| 2:H:495:LYS:N    | 2:H:496:PRO:CD   | 2.81                     | 0.44              |
| 2:H:537:ALA:O    | 2:H:538:LYS:C    | 2.56                     | 0.44              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:382:MET:SD   | 1:I:404:ILE:HG23 | 2.57                     | 0.44              |
| 1:I:419:ILE:O    | 1:I:420:ASP:C    | 2.56                     | 0.44              |
| 1:I:551:TYR:C    | 1:I:553:SER:H    | 2.20                     | 0.44              |
| 2:J:33:ALA:O     | 2:J:34:VAL:C     | 2.56                     | 0.44              |
| 2:J:54:VAL:O     | 2:J:57:CYS:HB3   | 2.17                     | 0.44              |
| 2:J:180:ARG:O    | 2:J:181:VAL:C    | 2.56                     | 0.44              |
| 2:J:299:GLN:O    | 2:J:300:TYR:O    | 2.36                     | 0.44              |
| 2:J:483:GLN:O    | 2:J:484:LEU:C    | 2.55                     | 0.44              |
| 1:K:271:LEU:O    | 1:K:274:VAL:HB   | 2.18                     | 0.44              |
| 1:K:329:LEU:O    | 1:K:330:THR:C    | 2.56                     | 0.44              |
| 2:L:373:ALA:O    | 2:L:376:ALA:CB   | 2.63                     | 0.44              |
| 2:L:392:VAL:O    | 2:L:395:LEU:N    | 2.50                     | 0.44              |
| 2:L:466:LEU:CD2  | 2:L:488:ILE:HD13 | 2.48                     | 0.44              |
| 2:L:565:CYS:HB2  | 2:L:566:TYR:HD1  | 1.83                     | 0.44              |
| 3:M:337:GLU:C    | 3:M:339:SER:H    | 2.21                     | 0.44              |
| 3:N:118:MET:CG   | 3:N:119:ASP:N    | 2.81                     | 0.44              |
| 3:N:129:LYS:C    | 3:N:131:LEU:N    | 2.71                     | 0.44              |
| 3:O:104:ARG:O    | 3:O:107:PHE:CE1  | 2.70                     | 0.44              |
| 3:O:118:MET:CB   | 3:O:123:PRO:HA   | 2.41                     | 0.44              |
| 3:P:118:MET:CG   | 3:P:119:ASP:N    | 2.81                     | 0.44              |
| 3:P:327:THR:HG23 | 3:P:355:LEU:O    | 2.18                     | 0.44              |
| 4:Q:90:LEU:CD2   | 4:Q:90:LEU:N     | 2.79                     | 0.44              |
| 4:Q:107:PHE:HD2  | 4:Q:107:PHE:N    | 2.16                     | 0.44              |
| 4:S:71:ILE:CG2   | 4:S:75:ASP:CB    | 2.95                     | 0.44              |
| 4:T:90:LEU:CD2   | 4:T:90:LEU:N     | 2.79                     | 0.44              |
| 4:T:107:PHE:HD2  | 4:T:107:PHE:N    | 2.16                     | 0.44              |
| 4:U:32:VAL:HG12  | 4:U:33:ARG:N     | 2.33                     | 0.44              |
| 4:U:96:GLY:O     | 4:U:97:SER:C     | 2.55                     | 0.44              |
| 3:V:8:VAL:HG22   | 3:V:67:LEU:CD1   | 2.48                     | 0.44              |
| 4:W:14:LEU:CD1   | 4:W:16:LEU:N     | 2.81                     | 0.44              |
| 4:W:50:LEU:HD22  | 4:W:52:TRP:HB2   | 1.99                     | 0.44              |
| 4:W:71:ILE:CG2   | 4:W:75:ASP:CB    | 2.95                     | 0.44              |
| 4:W:98:VAL:CG2   | 4:W:99:CYS:N     | 2.80                     | 0.44              |
| 4:X:88:VAL:CG2   | 4:X:89:GLU:H     | 2.31                     | 0.44              |
| 1:A:48:ARG:O     | 1:A:51:ALA:HB3   | 2.18                     | 0.44              |
| 1:A:169:PRO:O    | 1:A:172:MET:HE2  | 2.18                     | 0.44              |
| 2:B:43:VAL:HG12  | 2:B:43:VAL:O     | 2.17                     | 0.44              |
| 2:B:56:ASN:N     | 2:B:56:ASN:ND2   | 2.65                     | 0.44              |
| 2:B:151:ILE:HG22 | 2:B:152:ASN:N    | 2.32                     | 0.44              |
| 2:B:241:CYS:C    | 2:B:243:ARG:N    | 2.70                     | 0.44              |
| 2:B:433:CYS:HA   | 2:B:448:MET:CE   | 2.48                     | 0.44              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:510:ALA:HB1  | 2:B:519:LEU:CD1  | 2.41                     | 0.44              |
| 2:B:545:LYS:HA   | 2:B:546:PRO:HD3  | 1.44                     | 0.44              |
| 2:B:570:LEU:HG   | 3:M:75:ALA:N     | 2.33                     | 0.44              |
| 1:C:14:ILE:O     | 1:C:14:ILE:HG22  | 2.18                     | 0.44              |
| 1:C:43:ASN:N     | 1:C:43:ASN:ND2   | 2.66                     | 0.44              |
| 1:C:375:GLY:C    | 1:C:377:ASN:N    | 2.71                     | 0.44              |
| 1:C:459:LEU:HD23 | 1:C:459:LEU:HA   | 1.91                     | 0.44              |
| 2:D:179:ASN:HD22 | 2:D:179:ASN:H    | 1.64                     | 0.44              |
| 2:D:180:ARG:O    | 2:D:181:VAL:C    | 2.56                     | 0.44              |
| 2:D:466:LEU:CD2  | 2:D:488:ILE:HD13 | 2.48                     | 0.44              |
| 2:D:495:LYS:N    | 2:D:496:PRO:CD   | 2.81                     | 0.44              |
| 1:E:10:LEU:HD12  | 1:E:14:ILE:HD11  | 2.00                     | 0.44              |
| 1:E:79:PHE:O     | 1:E:82:LYS:N     | 2.50                     | 0.44              |
| 1:E:80:THR:O     | 1:E:81:ASP:C     | 2.55                     | 0.44              |
| 1:E:83:ARG:HG3   | 4:U:112:PHE:CE2  | 2.53                     | 0.44              |
| 1:E:218:GLN:O    | 1:E:219:LEU:C    | 2.55                     | 0.44              |
| 1:E:257:GLY:HA3  | 1:E:299:ILE:HD13 | 2.00                     | 0.44              |
| 1:E:439:PRO:O    | 1:E:440:ASN:C    | 2.55                     | 0.44              |
| 2:F:477:SER:O    | 2:F:478:THR:C    | 2.56                     | 0.44              |
| 2:F:495:LYS:N    | 2:F:496:PRO:CD   | 2.81                     | 0.44              |
| 1:G:329:LEU:O    | 1:G:330:THR:C    | 2.56                     | 0.44              |
| 1:G:500:VAL:O    | 1:G:500:VAL:HG22 | 2.18                     | 0.44              |
| 1:G:506:LEU:N    | 1:G:506:LEU:HD23 | 2.32                     | 0.44              |
| 2:H:34:VAL:O     | 2:H:35:LYS:C     | 2.56                     | 0.44              |
| 2:H:56:ASN:N     | 2:H:56:ASN:ND2   | 2.65                     | 0.44              |
| 2:H:436:LEU:HD13 | 2:H:436:LEU:O    | 2.16                     | 0.44              |
| 2:H:510:ALA:HB1  | 2:H:519:LEU:CD1  | 2.41                     | 0.44              |
| 1:I:323:ASN:O    | 1:I:326:TYR:N    | 2.45                     | 0.44              |
| 2:J:56:ASN:N     | 2:J:56:ASN:ND2   | 2.65                     | 0.44              |
| 2:J:148:LEU:N    | 2:J:148:LEU:CD1  | 2.80                     | 0.44              |
| 2:J:220:ILE:O    | 2:J:222:ILE:N    | 2.51                     | 0.44              |
| 2:J:451:ILE:HG22 | 2:J:452:VAL:N    | 2.33                     | 0.44              |
| 2:J:516:ASN:O    | 2:J:517:PRO:C    | 2.56                     | 0.44              |
| 1:K:155:LYS:CG   | 1:K:156:LYS:N    | 2.80                     | 0.44              |
| 1:K:197:LEU:C    | 1:K:197:LEU:CD1  | 2.85                     | 0.44              |
| 1:K:279:GLU:N    | 1:K:279:GLU:OE1  | 2.45                     | 0.44              |
| 1:K:389:LEU:CD1  | 1:K:400:CYS:CB   | 2.96                     | 0.44              |
| 1:K:522:THR:C    | 1:K:524:GLY:N    | 2.70                     | 0.44              |
| 2:L:107:VAL:O    | 2:L:108:ARG:C    | 2.56                     | 0.44              |
| 2:L:437:ASP:C    | 2:L:439:ASP:H    | 2.20                     | 0.44              |
| 2:L:516:ASN:O    | 2:L:517:PRO:C    | 2.56                     | 0.44              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:M:118:MET:CB   | 3:M:123:PRO:HA   | 2.41                     | 0.44              |
| 3:M:323:PRO:HG2  | 3:M:334:TRP:CE3  | 2.52                     | 0.44              |
| 3:M:376:ILE:HG23 | 3:M:376:ILE:O    | 2.18                     | 0.44              |
| 3:O:118:MET:CG   | 3:O:119:ASP:N    | 2.81                     | 0.44              |
| 3:P:8:VAL:HG22   | 3:P:67:LEU:CD1   | 2.48                     | 0.44              |
| 3:P:384:TYR:CA   | 3:P:411:TYR:HB2  | 2.44                     | 0.44              |
| 4:Q:72:GLU:O     | 4:Q:75:ASP:HB2   | 2.17                     | 0.44              |
| 3:R:121:GLY:O    | 3:R:122:TYR:C    | 2.56                     | 0.44              |
| 4:T:32:VAL:HG12  | 4:T:33:ARG:N     | 2.33                     | 0.44              |
| 4:U:56:LYS:O     | 4:U:71:ILE:N     | 2.43                     | 0.44              |
| 4:U:80:THR:O     | 4:U:83:LEU:N     | 2.47                     | 0.44              |
| 4:W:56:LYS:HG3   | 4:W:73:GLY:HA2   | 1.99                     | 0.44              |
| 4:X:72:GLU:O     | 4:X:75:ASP:HB2   | 2.17                     | 0.44              |
| 1:A:57:HIS:C     | 1:A:59:LEU:N     | 2.70                     | 0.44              |
| 1:A:422:ILE:CG2  | 1:A:441:LEU:HD12 | 2.48                     | 0.44              |
| 1:A:458:ARG:O    | 1:A:459:LEU:C    | 2.55                     | 0.44              |
| 2:B:74:MET:O     | 2:B:77:ALA:N     | 2.39                     | 0.44              |
| 2:B:309:ILE:HG22 | 2:B:310:VAL:N    | 2.33                     | 0.44              |
| 2:B:335:LYS:O    | 2:B:338:LYS:HB2  | 2.17                     | 0.44              |
| 2:B:374:VAL:C    | 2:B:376:ALA:N    | 2.71                     | 0.44              |
| 2:B:540:VAL:O    | 2:B:543:ALA:HB2  | 2.18                     | 0.44              |
| 1:C:22:GLU:O     | 1:C:23:GLU:C     | 2.56                     | 0.44              |
| 1:C:46:ARG:HH21  | 1:C:69:GLU:HG3   | 1.83                     | 0.44              |
| 1:C:80:THR:O     | 1:C:81:ASP:C     | 2.55                     | 0.44              |
| 1:C:422:ILE:CG2  | 1:C:441:LEU:HD12 | 2.48                     | 0.44              |
| 1:C:439:PRO:O    | 1:C:440:ASN:C    | 2.55                     | 0.44              |
| 1:C:572:LYS:HG2  | 1:C:573:TYR:CE1  | 2.53                     | 0.44              |
| 2:D:107:VAL:O    | 2:D:108:ARG:C    | 2.56                     | 0.44              |
| 2:D:155:MET:H    | 2:D:158:ASP:CB   | 2.29                     | 0.44              |
| 2:D:395:LEU:O    | 2:D:396:LEU:C    | 2.53                     | 0.44              |
| 2:D:433:CYS:HA   | 2:D:448:MET:CE   | 2.48                     | 0.44              |
| 1:E:422:ILE:CG2  | 1:E:441:LEU:HD12 | 2.48                     | 0.44              |
| 2:F:299:GLN:O    | 2:F:300:TYR:O    | 2.36                     | 0.44              |
| 2:F:307:ASN:OD1  | 2:F:344:ARG:NH1  | 2.50                     | 0.44              |
| 2:F:335:LYS:O    | 2:F:338:LYS:HB2  | 2.17                     | 0.44              |
| 2:F:390:ARG:HH11 | 2:F:390:ARG:HG2  | 1.83                     | 0.44              |
| 2:F:563:LEU:C    | 2:F:565:CYS:N    | 2.70                     | 0.44              |
| 1:G:31:CYS:HA    | 1:G:34:ILE:HB    | 2.00                     | 0.44              |
| 1:G:155:LYS:CG   | 1:G:156:LYS:N    | 2.80                     | 0.44              |
| 1:G:232:SER:CB   | 2:J:464:GLU:OE1  | 2.66                     | 0.44              |
| 1:G:583:ARG:HB2  | 2:H:528:ARG:NH2  | 2.32                     | 0.44              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:55:VAL:C     | 2:H:57:CYS:N     | 2.71                     | 0.44              |
| 2:H:71:LEU:O     | 2:H:72:TYR:C     | 2.53                     | 0.44              |
| 2:H:219:GLN:OE1  | 2:H:255:VAL:HG11 | 2.17                     | 0.44              |
| 2:H:230:MET:CE   | 2:H:240:ILE:HD12 | 2.47                     | 0.44              |
| 2:H:299:GLN:O    | 2:H:300:TYR:O    | 2.36                     | 0.44              |
| 2:H:360:GLU:O    | 2:H:363:THR:HB   | 2.17                     | 0.44              |
| 2:H:516:ASN:O    | 2:H:517:PRO:C    | 2.56                     | 0.44              |
| 2:H:567:ILE:HA   | 2:H:572:SER:OG   | 2.17                     | 0.44              |
| 1:I:139:ALA:O    | 1:I:142:VAL:HB   | 2.18                     | 0.44              |
| 1:I:271:LEU:O    | 1:I:274:VAL:HB   | 2.18                     | 0.44              |
| 1:I:422:ILE:CG2  | 1:I:441:LEU:HD12 | 2.48                     | 0.44              |
| 2:J:130:LEU:C    | 2:J:132:ASP:H    | 2.21                     | 0.44              |
| 2:J:466:LEU:N    | 2:J:466:LEU:CD1  | 2.79                     | 0.44              |
| 2:J:540:VAL:O    | 2:J:543:ALA:HB2  | 2.18                     | 0.44              |
| 1:K:416:ARG:HD3  | 1:K:454:TYR:HE1  | 1.82                     | 0.44              |
| 1:K:460:TYR:O    | 1:K:464:LEU:HD23 | 2.18                     | 0.44              |
| 2:L:34:VAL:O     | 2:L:35:LYS:C     | 2.56                     | 0.44              |
| 2:L:35:LYS:CE    | 3:V:137:GLN:HE21 | 2.31                     | 0.44              |
| 2:L:384:VAL:O    | 2:L:387:SER:OG   | 2.27                     | 0.44              |
| 2:L:433:CYS:HA   | 2:L:448:MET:CE   | 2.48                     | 0.44              |
| 2:L:495:LYS:N    | 2:L:496:PRO:CD   | 2.81                     | 0.44              |
| 3:M:107:PHE:O    | 3:M:110:ILE:HB   | 2.18                     | 0.44              |
| 3:M:395:LEU:HD12 | 3:M:395:LEU:HA   | 1.70                     | 0.44              |
| 3:N:177:GLU:OE2  | 3:N:388:SER:HB3  | 2.18                     | 0.44              |
| 3:N:239:HIS:O    | 3:N:241:CYS:N    | 2.50                     | 0.44              |
| 3:O:43:GLU:O     | 3:O:45:MET:N     | 2.51                     | 0.44              |
| 3:O:119:ASP:C    | 3:O:121:GLY:N    | 2.71                     | 0.44              |
| 3:O:121:GLY:O    | 3:O:122:TYR:C    | 2.56                     | 0.44              |
| 3:O:162:GLU:CG   | 3:O:163:GLY:H    | 2.31                     | 0.44              |
| 3:O:277:ILE:HG22 | 3:O:277:ILE:O    | 2.18                     | 0.44              |
| 3:P:107:PHE:O    | 3:P:110:ILE:HB   | 2.18                     | 0.44              |
| 3:P:177:GLU:OE2  | 3:P:388:SER:HB3  | 2.18                     | 0.44              |
| 3:P:337:GLU:C    | 3:P:339:SER:H    | 2.21                     | 0.44              |
| 3:R:126:THR:CG2  | 3:R:131:LEU:HD13 | 2.40                     | 0.44              |
| 3:R:129:LYS:C    | 3:R:131:LEU:N    | 2.71                     | 0.44              |
| 3:R:327:THR:HG23 | 3:R:355:LEU:O    | 2.17                     | 0.44              |
| 4:S:114:LEU:HD23 | 4:S:115:ASP:N    | 2.33                     | 0.44              |
| 4:T:18:LYS:CG    | 4:T:20:TYR:HE1   | 2.30                     | 0.44              |
| 4:U:56:LYS:HG3   | 4:U:73:GLY:HA2   | 1.99                     | 0.44              |
| 3:V:119:ASP:C    | 3:V:121:GLY:H    | 2.21                     | 0.44              |
| 3:V:327:THR:HG23 | 3:V:355:LEU:O    | 2.17                     | 0.44              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:V:337:GLU:C    | 3:V:339:SER:H    | 2.21                     | 0.44              |
| 4:W:18:LYS:CG    | 4:W:20:TYR:HE1   | 2.30                     | 0.44              |
| 4:X:98:VAL:CG2   | 4:X:99:CYS:N     | 2.80                     | 0.44              |
| 1:A:46:ARG:HE    | 1:A:69:GLU:HG3   | 1.82                     | 0.43              |
| 1:A:103:MET:O    | 1:A:107:ILE:HG12 | 2.19                     | 0.43              |
| 1:A:436:ASP:O    | 1:A:439:PRO:HD2  | 2.18                     | 0.43              |
| 1:A:491:GLN:OE1  | 1:G:276:THR:CG2  | 2.66                     | 0.43              |
| 1:A:533:LEU:O    | 1:A:534:SER:C    | 2.56                     | 0.43              |
| 2:B:41:MET:HE3   | 2:B:47:VAL:HG21  | 2.00                     | 0.43              |
| 2:B:355:LEU:O    | 2:B:357:GLU:N    | 2.52                     | 0.43              |
| 2:B:390:ARG:HH11 | 2:B:390:ARG:HG2  | 1.83                     | 0.43              |
| 2:B:391:CYS:O    | 2:B:394:THR:N    | 2.50                     | 0.43              |
| 1:C:236:ASP:OD2  | 1:C:239:GLY:N    | 2.51                     | 0.43              |
| 1:C:562:ARG:O    | 1:C:563:ALA:C    | 2.56                     | 0.43              |
| 2:D:16:PHE:O     | 2:D:19:LYS:N     | 2.51                     | 0.43              |
| 2:D:34:VAL:O     | 2:D:35:LYS:C     | 2.56                     | 0.43              |
| 2:D:163:ASP:O    | 2:D:164:THR:C    | 2.57                     | 0.43              |
| 2:D:570:LEU:CD2  | 3:N:77:VAL:HG22  | 2.47                     | 0.43              |
| 1:E:43:ASN:ND2   | 1:E:43:ASN:N     | 2.66                     | 0.43              |
| 2:F:220:ILE:O    | 2:F:222:ILE:N    | 2.51                     | 0.43              |
| 2:F:374:VAL:C    | 2:F:376:ALA:N    | 2.71                     | 0.43              |
| 2:F:442:PRO:O    | 2:F:443:GLU:C    | 2.56                     | 0.43              |
| 2:F:516:ASN:O    | 2:F:517:PRO:C    | 2.56                     | 0.43              |
| 2:F:565:CYS:HB2  | 2:F:566:TYR:HD1  | 1.82                     | 0.43              |
| 1:G:48:ARG:O     | 1:G:51:ALA:HB3   | 2.18                     | 0.43              |
| 1:G:159:LEU:O    | 1:G:160:CYS:C    | 2.55                     | 0.43              |
| 1:G:257:GLY:HA3  | 1:G:299:ILE:HD13 | 2.00                     | 0.43              |
| 1:G:375:GLY:O    | 1:G:377:ASN:N    | 2.51                     | 0.43              |
| 2:H:180:ARG:O    | 2:H:181:VAL:C    | 2.56                     | 0.43              |
| 2:H:355:LEU:O    | 2:H:357:GLU:N    | 2.51                     | 0.43              |
| 2:H:487:ALA:HA   | 2:H:490:LYS:HD2  | 2.00                     | 0.43              |
| 2:H:540:VAL:O    | 2:H:543:ALA:HB2  | 2.18                     | 0.43              |
| 2:H:563:LEU:C    | 2:H:565:CYS:N    | 2.70                     | 0.43              |
| 1:I:434:ARG:HE   | 1:I:434:ARG:HB3  | 1.63                     | 0.43              |
| 1:I:572:LYS:HG2  | 1:I:573:TYR:CE1  | 2.53                     | 0.43              |
| 2:J:7:PHE:HD2    | 4:X:99:CYS:HA    | 1.81                     | 0.43              |
| 2:J:34:VAL:O     | 2:J:35:LYS:C     | 2.56                     | 0.43              |
| 2:J:155:MET:H    | 2:J:158:ASP:CB   | 2.29                     | 0.43              |
| 2:J:433:CYS:HA   | 2:J:448:MET:CE   | 2.48                     | 0.43              |
| 2:J:466:LEU:CD2  | 2:J:488:ILE:HD13 | 2.48                     | 0.43              |
| 2:J:477:SER:O    | 2:J:478:THR:C    | 2.55                     | 0.43              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:313:LEU:O    | 1:K:314:GLY:C    | 2.55                     | 0.43              |
| 2:L:130:LEU:C    | 2:L:132:ASP:H    | 2.21                     | 0.43              |
| 2:L:487:ALA:HA   | 2:L:490:LYS:HD2  | 2.00                     | 0.43              |
| 2:L:530:LEU:C    | 2:L:532:THR:H    | 2.21                     | 0.43              |
| 2:L:537:ALA:O    | 2:L:538:LYS:C    | 2.56                     | 0.43              |
| 3:M:177:GLU:OE2  | 3:M:388:SER:HB3  | 2.18                     | 0.43              |
| 3:M:180:ASN:HA   | 3:M:417:ASP:HB2  | 1.99                     | 0.43              |
| 3:M:399:GLU:HG3  | 3:M:401:SER:N    | 2.29                     | 0.43              |
| 3:N:84:LEU:O     | 3:N:85:TYR:C     | 2.56                     | 0.43              |
| 3:N:192:SER:OG   | 3:N:271:THR:O    | 2.33                     | 0.43              |
| 3:O:32:HIS:ND1   | 3:O:52:HIS:CD2   | 2.81                     | 0.43              |
| 3:O:86:LYS:O     | 3:O:89:GLN:CB    | 2.64                     | 0.43              |
| 3:O:119:ASP:C    | 3:O:121:GLY:H    | 2.21                     | 0.43              |
| 3:O:380:PHE:HB2  | 3:O:381:GLU:H    | 1.66                     | 0.43              |
| 3:R:277:ILE:O    | 3:R:277:ILE:HG22 | 2.18                     | 0.43              |
| 3:R:278:TRP:C    | 3:R:279:ILE:HG13 | 2.38                     | 0.43              |
| 3:R:321:ASP:OD1  | 3:R:322:SER:N    | 2.38                     | 0.43              |
| 4:T:56:LYS:HG3   | 4:T:73:GLY:HA2   | 1.99                     | 0.43              |
| 4:T:59:TYR:CD2   | 4:T:59:TYR:N     | 2.83                     | 0.43              |
| 4:U:98:VAL:CG2   | 4:U:99:CYS:N     | 2.80                     | 0.43              |
| 4:X:32:VAL:HG12  | 4:X:33:ARG:N     | 2.33                     | 0.43              |
| 4:X:56:LYS:HG3   | 4:X:73:GLY:HA2   | 1.99                     | 0.43              |
| 1:A:83:ARG:HG3   | 4:S:112:PHE:CE2  | 2.53                     | 0.43              |
| 1:A:264:SER:C    | 1:A:266:ALA:N    | 2.71                     | 0.43              |
| 1:A:502:GLU:HG3  | 1:A:537:PHE:CE2  | 2.52                     | 0.43              |
| 1:A:522:THR:O    | 1:A:524:GLY:N    | 2.51                     | 0.43              |
| 1:A:557:VAL:HG21 | 2:B:415:LYS:NZ   | 2.33                     | 0.43              |
| 2:B:7:PHE:HD2    | 4:S:99:CYS:HA    | 1.81                     | 0.43              |
| 2:B:34:VAL:O     | 2:B:35:LYS:C     | 2.56                     | 0.43              |
| 2:B:151:ILE:O    | 2:B:153:ALA:N    | 2.51                     | 0.43              |
| 2:B:220:ILE:O    | 2:B:222:ILE:N    | 2.51                     | 0.43              |
| 2:B:399:ILE:C    | 2:B:401:THR:N    | 2.72                     | 0.43              |
| 2:B:485:LEU:C    | 2:B:485:LEU:CD2  | 2.87                     | 0.43              |
| 2:B:570:LEU:CD2  | 3:M:77:VAL:HG22  | 2.47                     | 0.43              |
| 1:C:5:ILE:O      | 1:C:52:LYS:NZ    | 2.46                     | 0.43              |
| 1:C:36:SER:CA    | 1:C:39:ARG:HG2   | 2.41                     | 0.43              |
| 1:C:48:ARG:O     | 1:C:51:ALA:HB3   | 2.18                     | 0.43              |
| 1:C:224:LYS:O    | 1:C:225:ASN:C    | 2.57                     | 0.43              |
| 2:D:190:SER:C    | 2:D:192:PRO:HD2  | 2.34                     | 0.43              |
| 2:D:299:GLN:O    | 2:D:300:TYR:O    | 2.36                     | 0.43              |
| 2:D:537:ALA:O    | 2:D:538:LYS:C    | 2.56                     | 0.43              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:553:ASP:O    | 2:D:554:LEU:HB2  | 2.18                     | 0.43              |
| 1:E:68:LEU:HD23  | 1:E:68:LEU:H     | 1.83                     | 0.43              |
| 1:E:103:MET:O    | 1:E:107:ILE:HG12 | 2.18                     | 0.43              |
| 1:E:139:ALA:O    | 1:E:142:VAL:HB   | 2.18                     | 0.43              |
| 1:E:436:ASP:O    | 1:E:439:PRO:HD2  | 2.19                     | 0.43              |
| 1:E:533:LEU:O    | 1:E:534:SER:C    | 2.56                     | 0.43              |
| 1:E:557:VAL:HG21 | 2:F:415:LYS:NZ   | 2.33                     | 0.43              |
| 2:F:34:VAL:O     | 2:F:35:LYS:C     | 2.56                     | 0.43              |
| 2:F:124:GLU:CB   | 2:F:125:PRO:HD3  | 2.42                     | 0.43              |
| 2:F:165:LEU:O    | 2:F:169:ILE:N    | 2.49                     | 0.43              |
| 2:F:391:CYS:O    | 2:F:394:THR:N    | 2.50                     | 0.43              |
| 2:F:460:ASP:O    | 2:F:462:ALA:N    | 2.51                     | 0.43              |
| 2:F:483:GLN:O    | 2:F:484:LEU:C    | 2.55                     | 0.43              |
| 2:F:487:ALA:HA   | 2:F:490:LYS:HD2  | 2.00                     | 0.43              |
| 1:G:10:LEU:HD12  | 1:G:14:ILE:HD11  | 2.00                     | 0.43              |
| 1:G:218:GLN:O    | 1:G:219:LEU:C    | 2.55                     | 0.43              |
| 1:G:375:GLY:C    | 1:G:377:ASN:N    | 2.71                     | 0.43              |
| 1:G:436:ASP:O    | 1:G:439:PRO:HD2  | 2.19                     | 0.43              |
| 1:G:502:GLU:OE1  | 1:G:537:PHE:HB3  | 2.17                     | 0.43              |
| 2:H:208:LEU:HD11 | 2:H:243:ARG:CD   | 2.41                     | 0.43              |
| 2:H:466:LEU:CD2  | 2:H:488:ILE:HD13 | 2.48                     | 0.43              |
| 2:H:477:SER:O    | 2:H:478:THR:C    | 2.55                     | 0.43              |
| 2:H:577:PRO:HA   | 2:H:578:PRO:HD3  | 1.89                     | 0.43              |
| 1:I:48:ARG:O     | 1:I:51:ALA:HB3   | 2.18                     | 0.43              |
| 1:I:375:GLY:O    | 1:I:377:ASN:N    | 2.51                     | 0.43              |
| 1:I:460:TYR:O    | 1:I:464:LEU:HD23 | 2.19                     | 0.43              |
| 2:J:184:LEU:O    | 2:J:185:SER:C    | 2.56                     | 0.43              |
| 2:J:219:GLN:OE1  | 2:J:255:VAL:HG11 | 2.17                     | 0.43              |
| 2:J:570:LEU:HG   | 3:R:75:ALA:N     | 2.33                     | 0.43              |
| 1:K:232:SER:HA   | 1:K:233:PRO:HD3  | 1.71                     | 0.43              |
| 1:K:395:GLU:CD   | 1:K:395:GLU:H    | 2.21                     | 0.43              |
| 1:K:422:ILE:CG2  | 1:K:441:LEU:HD12 | 2.48                     | 0.43              |
| 1:K:531:MET:C    | 1:K:533:LEU:N    | 2.71                     | 0.43              |
| 2:L:16:PHE:O     | 2:L:19:LYS:N     | 2.51                     | 0.43              |
| 2:L:360:GLU:O    | 2:L:363:THR:HB   | 2.17                     | 0.43              |
| 2:L:426:GLU:CA   | 2:L:429:ILE:HD13 | 2.44                     | 0.43              |
| 2:L:452:VAL:HG13 | 2:L:453:GLY:H    | 1.80                     | 0.43              |
| 3:M:277:ILE:HG22 | 3:M:277:ILE:O    | 2.18                     | 0.43              |
| 3:N:247:PHE:HB2  | 3:N:248:GLU:H    | 1.62                     | 0.43              |
| 3:N:384:TYR:CA   | 3:N:411:TYR:HB2  | 2.44                     | 0.43              |
| 3:O:343:TRP:CZ2  | 3:O:356:MET:HB2  | 2.51                     | 0.43              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:P:314:ILE:HA   | 3:P:315:PRO:HD3  | 1.83                     | 0.43              |
| 4:Q:14:LEU:CD1   | 4:Q:16:LEU:N     | 2.81                     | 0.43              |
| 3:R:8:VAL:HG22   | 3:R:67:LEU:CD1   | 2.48                     | 0.43              |
| 3:R:107:PHE:O    | 3:R:110:ILE:HB   | 2.18                     | 0.43              |
| 3:R:329:VAL:CG1  | 3:R:330:GLY:N    | 2.81                     | 0.43              |
| 3:R:337:GLU:C    | 3:R:339:SER:H    | 2.21                     | 0.43              |
| 4:S:18:LYS:CG    | 4:S:20:TYR:HE1   | 2.30                     | 0.43              |
| 4:U:16:LEU:C     | 4:U:16:LEU:CD1   | 2.79                     | 0.43              |
| 4:X:114:LEU:HD23 | 4:X:115:ASP:N    | 2.33                     | 0.43              |
| 1:A:86:TYR:HD2   | 1:A:125:THR:HG1  | 1.62                     | 0.43              |
| 1:A:308:LEU:O    | 1:A:309:ALA:C    | 2.56                     | 0.43              |
| 1:A:506:LEU:HD23 | 1:A:506:LEU:N    | 2.32                     | 0.43              |
| 2:B:35:LYS:CE    | 3:M:137:GLN:HE21 | 2.31                     | 0.43              |
| 2:B:360:GLU:O    | 2:B:363:THR:HB   | 2.17                     | 0.43              |
| 2:B:411:ILE:HD12 | 2:B:411:ILE:H    | 1.84                     | 0.43              |
| 2:B:460:ASP:O    | 2:B:462:ALA:N    | 2.51                     | 0.43              |
| 2:B:495:LYS:N    | 2:B:496:PRO:CD   | 2.81                     | 0.43              |
| 1:C:436:ASP:O    | 1:C:439:PRO:HD2  | 2.19                     | 0.43              |
| 1:C:463:ILE:HG13 | 1:C:463:ILE:H    | 1.56                     | 0.43              |
| 1:C:557:VAL:HG22 | 2:D:419:ARG:NH1  | 2.32                     | 0.43              |
| 2:D:399:ILE:C    | 2:D:401:THR:N    | 2.72                     | 0.43              |
| 2:D:460:ASP:O    | 2:D:462:ALA:N    | 2.51                     | 0.43              |
| 2:D:466:LEU:O    | 2:D:467:GLU:C    | 2.56                     | 0.43              |
| 1:E:46:ARG:HH21  | 1:E:69:GLU:HG3   | 1.83                     | 0.43              |
| 1:E:51:ALA:HA    | 1:E:54:LEU:HD12  | 1.99                     | 0.43              |
| 1:E:215:LEU:O    | 1:E:216:VAL:C    | 2.54                     | 0.43              |
| 1:E:419:ILE:O    | 1:E:423:MET:HG3  | 2.19                     | 0.43              |
| 1:E:459:LEU:HD23 | 1:E:459:LEU:HA   | 1.91                     | 0.43              |
| 1:E:463:ILE:CD1  | 1:E:476:ALA:CB   | 2.96                     | 0.43              |
| 1:E:531:MET:C    | 1:E:533:LEU:N    | 2.71                     | 0.43              |
| 2:F:387:SER:HB2  | 2:F:390:ARG:HD3  | 2.00                     | 0.43              |
| 2:F:530:LEU:C    | 2:F:532:THR:H    | 2.21                     | 0.43              |
| 1:G:329:LEU:O    | 1:G:332:LEU:CB   | 2.67                     | 0.43              |
| 1:G:508:ILE:N    | 1:G:508:ILE:CD1  | 2.82                     | 0.43              |
| 2:H:38:ILE:HD13  | 2:H:38:ILE:N     | 2.31                     | 0.43              |
| 2:H:88:VAL:O     | 2:H:91:PHE:N     | 2.50                     | 0.43              |
| 1:I:68:LEU:HD23  | 1:I:68:LEU:H     | 1.84                     | 0.43              |
| 1:I:208:MET:HE3  | 1:I:208:MET:HB3  | 1.88                     | 0.43              |
| 1:I:363:ARG:O    | 1:I:366:MET:HB3  | 2.19                     | 0.43              |
| 1:I:389:LEU:CD1  | 1:I:400:CYS:CB   | 2.96                     | 0.43              |
| 2:J:487:ALA:HA   | 2:J:490:LYS:HD2  | 2.00                     | 0.43              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:14:ILE:HG22  | 1:K:14:ILE:O     | 2.18                     | 0.43              |
| 1:K:48:ARG:O     | 1:K:51:ALA:HB3   | 2.18                     | 0.43              |
| 1:K:54:LEU:HD23  | 1:K:54:LEU:HA    | 1.88                     | 0.43              |
| 1:K:329:LEU:O    | 1:K:332:LEU:CB   | 2.67                     | 0.43              |
| 1:K:434:ARG:HE   | 1:K:434:ARG:HB3  | 1.63                     | 0.43              |
| 2:L:151:ILE:O    | 2:L:153:ALA:N    | 2.51                     | 0.43              |
| 2:L:230:MET:CE   | 2:L:240:ILE:HD12 | 2.47                     | 0.43              |
| 2:L:466:LEU:O    | 2:L:467:GLU:C    | 2.56                     | 0.43              |
| 3:M:162:GLU:CG   | 3:M:163:GLY:H    | 2.31                     | 0.43              |
| 3:M:183:VAL:HB   | 3:M:420:LEU:HD22 | 2.01                     | 0.43              |
| 3:N:241:CYS:O    | 3:N:255:PHE:CB   | 2.57                     | 0.43              |
| 3:O:8:VAL:HG22   | 3:O:67:LEU:CD1   | 2.48                     | 0.43              |
| 3:O:107:PHE:O    | 3:O:110:ILE:HB   | 2.18                     | 0.43              |
| 3:O:328:THR:HB   | 3:O:329:VAL:HG23 | 2.01                     | 0.43              |
| 3:P:171:VAL:HG13 | 3:P:202:VAL:CG2  | 2.36                     | 0.43              |
| 3:P:285:LYS:O    | 3:P:286:HIS:CB   | 2.64                     | 0.43              |
| 3:R:108:VAL:O    | 3:R:111:TYR:N    | 2.52                     | 0.43              |
| 3:R:119:ASP:C    | 3:R:121:GLY:H    | 2.21                     | 0.43              |
| 4:U:18:LYS:CG    | 4:U:20:TYR:HE1   | 2.30                     | 0.43              |
| 4:U:30:LYS:HZ3   | 4:U:33:ARG:NH2   | 2.16                     | 0.43              |
| 3:V:107:PHE:O    | 3:V:110:ILE:HB   | 2.18                     | 0.43              |
| 4:W:32:VAL:HG12  | 4:W:33:ARG:N     | 2.33                     | 0.43              |
| 4:X:30:LYS:HZ3   | 4:X:33:ARG:NH2   | 2.16                     | 0.43              |
| 1:A:46:ARG:HH21  | 1:A:69:GLU:HG3   | 1.83                     | 0.43              |
| 1:A:79:PHE:O     | 1:A:82:LYS:N     | 2.50                     | 0.43              |
| 1:A:159:LEU:O    | 1:A:160:CYS:C    | 2.55                     | 0.43              |
| 1:A:363:ARG:O    | 1:A:366:MET:HB3  | 2.19                     | 0.43              |
| 1:A:416:ARG:CD   | 1:A:454:TYR:CE1  | 2.96                     | 0.43              |
| 1:A:500:VAL:O    | 1:A:500:VAL:HG22 | 2.18                     | 0.43              |
| 2:B:255:VAL:HG23 | 2:B:256:VAL:HG23 | 2.01                     | 0.43              |
| 2:B:363:THR:O    | 2:B:364:GLU:O    | 2.35                     | 0.43              |
| 2:B:487:ALA:HA   | 2:B:490:LYS:HD2  | 2.00                     | 0.43              |
| 1:C:103:MET:O    | 1:C:107:ILE:HG12 | 2.18                     | 0.43              |
| 1:C:139:ALA:O    | 1:C:142:VAL:HB   | 2.18                     | 0.43              |
| 1:C:313:LEU:O    | 1:C:314:GLY:C    | 2.55                     | 0.43              |
| 1:C:329:LEU:O    | 1:C:330:THR:C    | 2.56                     | 0.43              |
| 1:C:375:GLY:O    | 1:C:377:ASN:N    | 2.51                     | 0.43              |
| 1:C:389:LEU:CD1  | 1:C:400:CYS:CB   | 2.96                     | 0.43              |
| 1:C:441:LEU:HD23 | 1:C:441:LEU:O    | 2.17                     | 0.43              |
| 1:C:508:ILE:N    | 1:C:508:ILE:CD1  | 2.82                     | 0.43              |
| 1:C:557:VAL:HG21 | 2:D:415:LYS:NZ   | 2.33                     | 0.43              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:65:LEU:O     | 2:D:66:LYS:C     | 2.56                     | 0.43              |
| 2:D:393:SER:O    | 2:D:397:ASP:HB2  | 2.19                     | 0.43              |
| 1:E:5:ILE:HB     | 1:E:52:LYS:NZ    | 2.27                     | 0.43              |
| 1:E:19:THR:HG21  | 3:O:142:LEU:HD21 | 2.01                     | 0.43              |
| 1:E:195:VAL:O    | 1:E:196:VAL:C    | 2.55                     | 0.43              |
| 1:E:353:CYS:C    | 1:E:355:LYS:N    | 2.69                     | 0.43              |
| 1:E:375:GLY:C    | 1:E:377:ASN:N    | 2.72                     | 0.43              |
| 1:E:502:GLU:OE1  | 1:E:537:PHE:HB3  | 2.17                     | 0.43              |
| 1:E:585:PRO:C    | 1:E:586:VAL:CG2  | 2.87                     | 0.43              |
| 2:F:54:VAL:O     | 2:F:57:CYS:HB3   | 2.17                     | 0.43              |
| 2:F:87:ALA:O     | 2:F:90:THR:HB    | 2.18                     | 0.43              |
| 2:F:97:ASP:HA    | 2:F:98:PRO:HD3   | 1.51                     | 0.43              |
| 2:F:393:SER:O    | 2:F:397:ASP:HB2  | 2.19                     | 0.43              |
| 2:F:540:VAL:O    | 2:F:543:ALA:HB2  | 2.18                     | 0.43              |
| 1:G:11:ILE:O     | 1:G:13:THR:N     | 2.52                     | 0.43              |
| 1:G:257:GLY:O    | 1:G:258:ARG:C    | 2.55                     | 0.43              |
| 1:G:419:ILE:O    | 1:G:423:MET:HG3  | 2.18                     | 0.43              |
| 2:H:33:ALA:O     | 2:H:34:VAL:C     | 2.56                     | 0.43              |
| 2:H:58:MET:CE    | 2:H:90:THR:HG21  | 2.49                     | 0.43              |
| 2:H:59:GLN:HE21  | 2:H:59:GLN:HB3   | 1.59                     | 0.43              |
| 2:H:255:VAL:HG23 | 2:H:256:VAL:HG23 | 2.01                     | 0.43              |
| 2:H:387:SER:HB2  | 2:H:390:ARG:HD3  | 2.00                     | 0.43              |
| 1:I:11:ILE:O     | 1:I:13:THR:N     | 2.52                     | 0.43              |
| 1:I:51:ALA:HA    | 1:I:54:LEU:HD12  | 1.99                     | 0.43              |
| 1:I:83:ARG:HG3   | 4:X:112:PHE:CE2  | 2.53                     | 0.43              |
| 2:J:58:MET:O     | 2:J:60:THR:N     | 2.42                     | 0.43              |
| 2:J:59:GLN:HE21  | 2:J:59:GLN:HB3   | 1.59                     | 0.43              |
| 2:J:122:LEU:HG   | 2:J:123:CYS:N    | 2.32                     | 0.43              |
| 2:J:179:ASN:O    | 2:J:180:ARG:C    | 2.55                     | 0.43              |
| 2:J:217:TRP:NE1  | 3:R:123:PRO:HB2  | 2.34                     | 0.43              |
| 2:J:355:LEU:O    | 2:J:357:GLU:N    | 2.51                     | 0.43              |
| 2:J:495:LYS:N    | 2:J:496:PRO:CD   | 2.81                     | 0.43              |
| 1:K:67:GLN:O     | 1:K:70:CYS:CB    | 2.56                     | 0.43              |
| 1:K:68:LEU:HG    | 1:K:69:GLU:N     | 2.15                     | 0.43              |
| 1:K:308:LEU:O    | 1:K:309:ALA:C    | 2.56                     | 0.43              |
| 1:K:375:GLY:O    | 1:K:377:ASN:N    | 2.51                     | 0.43              |
| 1:K:419:ILE:O    | 1:K:420:ASP:C    | 2.56                     | 0.43              |
| 1:K:423:MET:O    | 1:K:424:ARG:C    | 2.56                     | 0.43              |
| 2:L:33:ALA:O     | 2:L:34:VAL:C     | 2.56                     | 0.43              |
| 2:L:220:ILE:O    | 2:L:222:ILE:N    | 2.51                     | 0.43              |
| 2:L:304:ARG:HG2  | 2:L:573:VAL:CA   | 2.47                     | 0.43              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:L:355:LEU:O    | 2:L:357:GLU:N    | 2.52                     | 0.43              |
| 3:M:4:SER:OG     | 3:M:22:ARG:HD3   | 2.19                     | 0.43              |
| 3:M:356:MET:SD   | 3:M:356:MET:C    | 2.97                     | 0.43              |
| 3:N:32:HIS:O     | 3:N:33:PHE:C     | 2.57                     | 0.43              |
| 3:N:214:LEU:HA   | 3:N:214:LEU:HD23 | 1.82                     | 0.43              |
| 3:N:399:GLU:HG3  | 3:N:401:SER:N    | 2.29                     | 0.43              |
| 3:P:91:PHE:O     | 3:P:93:GLU:N     | 2.52                     | 0.43              |
| 3:P:108:VAL:O    | 3:P:111:TYR:N    | 2.52                     | 0.43              |
| 3:P:183:VAL:HB   | 3:P:420:LEU:HD22 | 2.01                     | 0.43              |
| 4:Q:84:ILE:O     | 4:Q:85:HIS:C     | 2.57                     | 0.43              |
| 4:Q:87:TYR:CZ    | 4:Q:91:LEU:HD11  | 2.54                     | 0.43              |
| 4:Q:114:LEU:HD23 | 4:Q:115:ASP:N    | 2.33                     | 0.43              |
| 3:R:118:MET:CG   | 3:R:119:ASP:N    | 2.81                     | 0.43              |
| 3:R:356:MET:SD   | 3:R:356:MET:C    | 2.97                     | 0.43              |
| 4:S:84:ILE:O     | 4:S:85:HIS:C     | 2.57                     | 0.43              |
| 4:S:88:VAL:CG2   | 4:S:89:GLU:H     | 2.31                     | 0.43              |
| 4:T:84:ILE:O     | 4:T:85:HIS:C     | 2.57                     | 0.43              |
| 3:V:42:GLU:HB3   | 3:V:302:LYS:CB   | 2.48                     | 0.43              |
| 4:X:31:MET:HE3   | 4:X:53:ARG:NH1   | 2.34                     | 0.43              |
| 4:X:84:ILE:O     | 4:X:85:HIS:C     | 2.57                     | 0.43              |
| 1:A:339:ASP:O    | 1:A:342:ALA:HB3  | 2.19                     | 0.43              |
| 1:A:372:LEU:H    | 1:A:372:LEU:CD1  | 2.31                     | 0.43              |
| 1:A:419:ILE:O    | 1:A:423:MET:HG3  | 2.19                     | 0.43              |
| 2:B:16:PHE:O     | 2:B:19:LYS:N     | 2.51                     | 0.43              |
| 2:B:16:PHE:CZ    | 3:N:416:GLY:HA3  | 2.54                     | 0.43              |
| 2:B:565:CYS:HB2  | 2:B:566:TYR:HD1  | 1.82                     | 0.43              |
| 1:C:257:GLY:HA3  | 1:C:299:ILE:HD13 | 2.00                     | 0.43              |
| 2:D:220:ILE:O    | 2:D:222:ILE:N    | 2.51                     | 0.43              |
| 2:D:313:ARG:HD3  | 2:D:313:ARG:HA   | 1.82                     | 0.43              |
| 2:D:367:VAL:O    | 2:D:369:PHE:N    | 2.52                     | 0.43              |
| 2:D:376:ALA:C    | 2:D:378:GLY:N    | 2.70                     | 0.43              |
| 1:E:583:ARG:HB2  | 2:F:528:ARG:NH2  | 2.33                     | 0.43              |
| 2:F:65:LEU:O     | 2:F:66:LYS:C     | 2.56                     | 0.43              |
| 2:F:311:GLN:CD   | 2:F:555:ILE:HB   | 2.38                     | 0.43              |
| 2:F:330:ASP:O    | 2:F:335:LYS:HE3  | 2.19                     | 0.43              |
| 1:G:59:LEU:HD12  | 1:G:59:LEU:HA    | 1.86                     | 0.43              |
| 1:G:103:MET:O    | 1:G:107:ILE:HG12 | 2.18                     | 0.43              |
| 1:G:160:CYS:O    | 1:G:164:VAL:HG23 | 2.18                     | 0.43              |
| 1:G:232:SER:HA   | 1:G:233:PRO:HD3  | 1.71                     | 0.43              |
| 1:G:236:ASP:OD2  | 1:G:239:GLY:N    | 2.51                     | 0.43              |
| 1:G:460:TYR:O    | 1:G:464:LEU:HD23 | 2.19                     | 0.43              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:585:PRO:C    | 1:G:586:VAL:CG2  | 2.87                     | 0.43              |
| 1:I:208:MET:C    | 1:I:212:PHE:HB2  | 2.39                     | 0.43              |
| 1:I:257:GLY:O    | 1:I:258:ARG:C    | 2.55                     | 0.43              |
| 1:I:329:LEU:O    | 1:I:332:LEU:CB   | 2.67                     | 0.43              |
| 1:I:506:LEU:O    | 1:I:508:ILE:N    | 2.52                     | 0.43              |
| 1:I:562:ARG:O    | 1:I:563:ALA:C    | 2.56                     | 0.43              |
| 2:J:58:MET:CE    | 2:J:90:THR:HG21  | 2.49                     | 0.43              |
| 2:J:256:VAL:O    | 2:J:259:ALA:HB3  | 2.19                     | 0.43              |
| 2:J:436:LEU:C    | 2:J:436:LEU:CD1  | 2.83                     | 0.43              |
| 1:K:19:THR:HG21  | 3:V:142:LEU:HD21 | 2.01                     | 0.43              |
| 1:K:46:ARG:HH21  | 1:K:69:GLU:HG3   | 1.83                     | 0.43              |
| 2:L:367:VAL:O    | 2:L:369:PHE:N    | 2.52                     | 0.43              |
| 2:L:460:ASP:O    | 2:L:462:ALA:N    | 2.51                     | 0.43              |
| 2:L:485:LEU:C    | 2:L:485:LEU:CD2  | 2.87                     | 0.43              |
| 3:M:121:GLY:O    | 3:M:122:TYR:C    | 2.56                     | 0.43              |
| 3:N:91:PHE:O     | 3:N:93:GLU:N     | 2.52                     | 0.43              |
| 3:N:327:THR:HG23 | 3:N:355:LEU:O    | 2.17                     | 0.43              |
| 3:O:337:GLU:C    | 3:O:339:SER:H    | 2.22                     | 0.43              |
| 3:O:380:PHE:CE1  | 3:O:414:GLN:C    | 2.86                     | 0.43              |
| 3:O:384:TYR:N    | 3:O:384:TYR:HD2  | 2.15                     | 0.43              |
| 3:P:32:HIS:O     | 3:P:33:PHE:C     | 2.57                     | 0.43              |
| 3:P:395:LEU:HD12 | 3:P:395:LEU:HA   | 1.70                     | 0.43              |
| 4:Q:88:VAL:CG2   | 4:Q:89:GLU:H     | 2.31                     | 0.43              |
| 4:S:56:LYS:HG3   | 4:S:73:GLY:HA2   | 1.99                     | 0.43              |
| 4:U:84:ILE:O     | 4:U:85:HIS:C     | 2.57                     | 0.43              |
| 3:V:4:SER:OG     | 3:V:22:ARG:HD3   | 2.19                     | 0.43              |
| 3:V:108:VAL:O    | 3:V:111:TYR:N    | 2.52                     | 0.43              |
| 3:V:277:ILE:O    | 3:V:277:ILE:HG22 | 2.18                     | 0.43              |
| 3:V:356:MET:SD   | 3:V:356:MET:C    | 2.97                     | 0.43              |
| 4:W:70:ALA:O     | 4:W:71:ILE:HD13  | 2.19                     | 0.43              |
| 4:W:84:ILE:O     | 4:W:85:HIS:C     | 2.57                     | 0.43              |
| 4:X:18:LYS:CG    | 4:X:20:TYR:HE1   | 2.30                     | 0.43              |
| 4:X:80:THR:O     | 4:X:83:LEU:N     | 2.47                     | 0.43              |
| 1:A:11:ILE:O     | 1:A:13:THR:N     | 2.52                     | 0.43              |
| 1:A:101:LEU:O    | 1:A:104:THR:HB   | 2.19                     | 0.43              |
| 1:A:375:GLY:C    | 1:A:377:ASN:N    | 2.71                     | 0.43              |
| 2:B:330:ASP:O    | 2:B:335:LYS:HE3  | 2.19                     | 0.43              |
| 2:B:404:ASN:O    | 2:B:407:VAL:HB   | 2.19                     | 0.43              |
| 2:B:466:LEU:CD2  | 2:B:488:ILE:HD13 | 2.48                     | 0.43              |
| 2:B:553:ASP:O    | 2:B:554:LEU:HB2  | 2.19                     | 0.43              |
| 1:C:44:THR:O     | 1:C:45:TYR:CB    | 2.65                     | 0.43              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:57:HIS:O     | 1:C:58:MET:C     | 2.57                     | 0.43              |
| 1:C:329:LEU:O    | 1:C:332:LEU:CB   | 2.67                     | 0.43              |
| 1:C:339:ASP:O    | 1:C:342:ALA:HB3  | 2.19                     | 0.43              |
| 1:C:453:ALA:C    | 1:C:455:THR:N    | 2.72                     | 0.43              |
| 1:C:519:THR:CG2  | 1:C:521:VAL:HG12 | 2.49                     | 0.43              |
| 1:C:522:THR:C    | 1:C:524:GLY:N    | 2.70                     | 0.43              |
| 1:C:555:ILE:H    | 1:C:555:ILE:HG13 | 1.51                     | 0.43              |
| 2:D:229:TYR:HB3  | 2:D:230:MET:H    | 1.21                     | 0.43              |
| 2:D:256:VAL:O    | 2:D:259:ALA:HB3  | 2.19                     | 0.43              |
| 2:D:524:TYR:O    | 2:D:527:TRP:N    | 2.52                     | 0.43              |
| 2:F:5:LYS:NZ     | 3:M:261:GLU:OE2  | 2.51                     | 0.43              |
| 2:F:56:ASN:N     | 2:F:56:ASN:ND2   | 2.65                     | 0.43              |
| 2:F:353:GLN:O    | 2:F:354:VAL:C    | 2.57                     | 0.43              |
| 2:F:404:ASN:O    | 2:F:407:VAL:HB   | 2.19                     | 0.43              |
| 2:F:453:GLY:O    | 2:F:454:GLU:C    | 2.57                     | 0.43              |
| 2:F:524:TYR:O    | 2:F:527:TRP:N    | 2.52                     | 0.43              |
| 2:F:577:PRO:O    | 2:F:579:ASN:N    | 2.51                     | 0.43              |
| 2:H:5:LYS:NZ     | 3:R:261:GLU:OE2  | 2.48                     | 0.43              |
| 2:H:16:PHE:O     | 2:H:19:LYS:N     | 2.51                     | 0.43              |
| 2:H:217:TRP:NE1  | 3:P:123:PRO:HB2  | 2.34                     | 0.43              |
| 2:H:373:ALA:O    | 2:H:376:ALA:CB   | 2.63                     | 0.43              |
| 2:H:460:ASP:O    | 2:H:462:ALA:N    | 2.51                     | 0.43              |
| 1:I:79:PHE:O     | 1:I:82:LYS:N     | 2.50                     | 0.43              |
| 1:I:103:MET:O    | 1:I:107:ILE:HG12 | 2.18                     | 0.43              |
| 1:I:281:SER:OG   | 1:I:282:LYS:N    | 2.50                     | 0.43              |
| 1:I:441:LEU:HD23 | 1:I:441:LEU:O    | 2.17                     | 0.43              |
| 2:J:16:PHE:O     | 2:J:19:LYS:N     | 2.51                     | 0.43              |
| 2:J:353:GLN:O    | 2:J:354:VAL:C    | 2.57                     | 0.43              |
| 2:J:460:ASP:O    | 2:J:462:ALA:N    | 2.51                     | 0.43              |
| 1:K:152:TYR:HA   | 1:K:155:LYS:CE   | 2.47                     | 0.43              |
| 1:K:557:VAL:HG21 | 2:L:415:LYS:NZ   | 2.33                     | 0.43              |
| 2:L:65:LEU:O     | 2:L:66:LYS:C     | 2.56                     | 0.43              |
| 2:L:86:MET:HE2   | 3:P:237:LYS:HD3  | 2.01                     | 0.43              |
| 2:L:175:MET:O    | 2:L:176:VAL:C    | 2.57                     | 0.43              |
| 2:L:399:ILE:C    | 2:L:401:THR:N    | 2.72                     | 0.43              |
| 2:L:569:THR:HG23 | 3:V:74:ASN:CG    | 2.34                     | 0.43              |
| 3:M:119:ASP:C    | 3:M:121:GLY:H    | 2.21                     | 0.43              |
| 3:N:107:PHE:O    | 3:N:110:ILE:HB   | 2.18                     | 0.43              |
| 3:N:356:MET:SD   | 3:N:356:MET:C    | 2.97                     | 0.43              |
| 3:O:183:VAL:HB   | 3:O:420:LEU:HD22 | 2.01                     | 0.43              |
| 3:P:86:LYS:O     | 3:P:89:GLN:CB    | 2.64                     | 0.43              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:P:323:PRO:HB3  | 3:P:325:PHE:HE2  | 1.81                     | 0.43              |
| 3:P:356:MET:SD   | 3:P:356:MET:C    | 2.97                     | 0.43              |
| 3:R:177:GLU:OE2  | 3:R:388:SER:HB3  | 2.18                     | 0.43              |
| 3:R:376:ILE:HG23 | 3:R:376:ILE:O    | 2.18                     | 0.43              |
| 3:R:384:TYR:N    | 3:R:384:TYR:HD2  | 2.15                     | 0.43              |
| 4:S:70:ALA:O     | 4:S:71:ILE:HD13  | 2.19                     | 0.43              |
| 4:S:87:TYR:CZ    | 4:S:91:LEU:HD11  | 2.54                     | 0.43              |
| 4:T:70:ALA:O     | 4:T:71:ILE:HD13  | 2.19                     | 0.43              |
| 4:T:87:TYR:CZ    | 4:T:91:LEU:HD11  | 2.54                     | 0.43              |
| 4:T:131:VAL:HG12 | 4:T:132:LEU:N    | 2.34                     | 0.43              |
| 4:U:87:TYR:CZ    | 4:U:91:LEU:HD11  | 2.54                     | 0.43              |
| 3:V:84:LEU:O     | 3:V:85:TYR:C     | 2.56                     | 0.43              |
| 3:V:86:LYS:O     | 3:V:87:VAL:C     | 2.57                     | 0.43              |
| 4:W:88:VAL:CG2   | 4:W:89:GLU:H     | 2.31                     | 0.43              |
| 4:X:87:TYR:CZ    | 4:X:91:LEU:HD11  | 2.54                     | 0.43              |
| 1:A:135:CYS:O    | 1:A:139:ALA:HB2  | 2.19                     | 0.43              |
| 1:A:257:GLY:HA3  | 1:A:299:ILE:HD13 | 2.00                     | 0.43              |
| 1:A:519:THR:CG2  | 1:A:521:VAL:HG12 | 2.49                     | 0.43              |
| 1:A:562:ARG:O    | 1:A:563:ALA:C    | 2.56                     | 0.43              |
| 2:B:58:MET:CE    | 2:B:90:THR:HG21  | 2.49                     | 0.43              |
| 2:B:87:ALA:O     | 2:B:90:THR:HB    | 2.18                     | 0.43              |
| 2:B:136:TYR:CD1  | 3:M:134:PHE:HE2  | 2.33                     | 0.43              |
| 2:B:184:LEU:O    | 2:B:185:SER:C    | 2.56                     | 0.43              |
| 2:B:304:ARG:HG2  | 2:B:573:VAL:CA   | 2.47                     | 0.43              |
| 2:B:451:ILE:HG22 | 2:B:452:VAL:N    | 2.33                     | 0.43              |
| 2:B:483:GLN:O    | 2:B:487:ALA:N    | 2.45                     | 0.43              |
| 1:C:68:LEU:H     | 1:C:68:LEU:HD23  | 1.83                     | 0.43              |
| 1:C:208:MET:C    | 1:C:212:PHE:HB2  | 2.39                     | 0.43              |
| 1:C:419:ILE:O    | 1:C:420:ASP:C    | 2.56                     | 0.43              |
| 1:C:573:TYR:O    | 1:C:574:ASP:O    | 2.37                     | 0.43              |
| 2:D:442:PRO:O    | 2:D:443:GLU:C    | 2.56                     | 0.43              |
| 2:D:527:TRP:HA   | 2:D:527:TRP:HE3  | 1.84                     | 0.43              |
| 1:E:264:SER:C    | 1:E:266:ALA:N    | 2.71                     | 0.43              |
| 1:E:339:ASP:O    | 1:E:342:ALA:HB3  | 2.19                     | 0.43              |
| 1:E:405:PHE:O    | 1:E:406:LEU:C    | 2.54                     | 0.43              |
| 1:E:565:GLU:OE2  | 2:F:522:ARG:NH2  | 2.30                     | 0.43              |
| 2:F:16:PHE:O     | 2:F:19:LYS:N     | 2.51                     | 0.43              |
| 2:F:104:ALA:O    | 2:F:107:VAL:HB   | 2.19                     | 0.43              |
| 2:F:217:TRP:NE1  | 3:O:123:PRO:HB2  | 2.34                     | 0.43              |
| 2:F:255:VAL:HG23 | 2:F:256:VAL:HG23 | 2.01                     | 0.43              |
| 2:F:452:VAL:HG11 | 2:F:466:LEU:HD11 | 2.01                     | 0.43              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:466:LEU:CD2  | 2:F:488:ILE:HD13 | 2.48                     | 0.43              |
| 2:F:491:LEU:CD1  | 2:F:491:LEU:C    | 2.87                     | 0.43              |
| 2:F:551:GLU:C    | 2:F:553:ASP:N    | 2.72                     | 0.43              |
| 1:G:46:ARG:HH21  | 1:G:69:GLU:HG3   | 1.83                     | 0.43              |
| 1:G:68:LEU:HD23  | 1:G:68:LEU:H     | 1.83                     | 0.43              |
| 1:G:363:ARG:O    | 1:G:366:MET:HB3  | 2.19                     | 0.43              |
| 1:G:372:LEU:H    | 1:G:372:LEU:CD1  | 2.31                     | 0.43              |
| 1:G:519:THR:CG2  | 1:G:521:VAL:HG12 | 2.49                     | 0.43              |
| 1:G:562:ARG:O    | 1:G:563:ALA:C    | 2.56                     | 0.43              |
| 2:H:353:GLN:O    | 2:H:354:VAL:C    | 2.57                     | 0.43              |
| 2:H:367:VAL:O    | 2:H:369:PHE:N    | 2.52                     | 0.43              |
| 2:H:404:ASN:O    | 2:H:407:VAL:HB   | 2.19                     | 0.43              |
| 2:H:411:ILE:HD12 | 2:H:411:ILE:H    | 1.84                     | 0.43              |
| 2:H:433:CYS:HA   | 2:H:448:MET:CE   | 2.48                     | 0.43              |
| 2:H:524:TYR:O    | 2:H:527:TRP:N    | 2.52                     | 0.43              |
| 1:I:19:THR:HG21  | 3:R:142:LEU:HD21 | 2.01                     | 0.43              |
| 1:I:38:PHE:N     | 1:I:38:PHE:CD2   | 2.86                     | 0.43              |
| 1:I:57:HIS:O     | 1:I:58:MET:C     | 2.57                     | 0.43              |
| 1:I:313:LEU:O    | 1:I:314:GLY:C    | 2.55                     | 0.43              |
| 1:I:382:MET:CE   | 1:I:404:ILE:HG23 | 2.49                     | 0.43              |
| 1:I:557:VAL:HG21 | 2:J:415:LYS:NZ   | 2.33                     | 0.43              |
| 2:J:55:VAL:C     | 2:J:57:CYS:N     | 2.71                     | 0.43              |
| 2:J:99:ASN:HA    | 2:J:100:PRO:HD2  | 1.75                     | 0.43              |
| 2:J:104:ALA:O    | 2:J:107:VAL:HB   | 2.19                     | 0.43              |
| 2:J:163:ASP:O    | 2:J:164:THR:C    | 2.57                     | 0.43              |
| 2:J:330:ASP:O    | 2:J:335:LYS:HE3  | 2.19                     | 0.43              |
| 2:J:367:VAL:O    | 2:J:369:PHE:N    | 2.52                     | 0.43              |
| 2:J:452:VAL:HG11 | 2:J:466:LEU:HD11 | 2.01                     | 0.43              |
| 2:J:491:LEU:CD1  | 2:J:491:LEU:C    | 2.87                     | 0.43              |
| 2:J:551:GLU:C    | 2:J:553:ASP:N    | 2.72                     | 0.43              |
| 1:K:43:ASN:N     | 1:K:43:ASN:ND2   | 2.66                     | 0.43              |
| 1:K:101:LEU:O    | 1:K:104:THR:HB   | 2.19                     | 0.43              |
| 1:K:135:CYS:O    | 1:K:139:ALA:HB2  | 2.19                     | 0.43              |
| 2:L:58:MET:CE    | 2:L:90:THR:HG21  | 2.49                     | 0.43              |
| 2:L:540:VAL:O    | 2:L:543:ALA:HB2  | 2.18                     | 0.43              |
| 2:L:553:ASP:O    | 2:L:554:LEU:HB2  | 2.19                     | 0.43              |
| 3:M:86:LYS:O     | 3:M:87:VAL:C     | 2.57                     | 0.43              |
| 3:M:118:MET:CG   | 3:M:119:ASP:N    | 2.81                     | 0.43              |
| 3:M:129:LYS:C    | 3:M:131:LEU:N    | 2.71                     | 0.43              |
| 3:M:356:MET:SD   | 3:M:357:ARG:N    | 2.92                     | 0.43              |
| 3:N:162:GLU:CG   | 3:N:163:GLY:H    | 2.31                     | 0.43              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:N:329:VAL:CG1  | 3:N:330:GLY:N    | 2.81                     | 0.43              |
| 3:O:32:HIS:O     | 3:O:33:PHE:C     | 2.57                     | 0.43              |
| 3:O:42:GLU:HB3   | 3:O:302:LYS:CB   | 2.48                     | 0.43              |
| 3:O:307:ALA:HA   | 3:O:382:ILE:HG12 | 2.01                     | 0.43              |
| 3:O:356:MET:SD   | 3:O:356:MET:C    | 2.97                     | 0.43              |
| 4:Q:32:VAL:HG12  | 4:Q:33:ARG:N     | 2.33                     | 0.43              |
| 3:R:241:CYS:O    | 3:R:255:PHE:CB   | 2.57                     | 0.43              |
| 3:R:247:PHE:HB2  | 3:R:248:GLU:H    | 1.62                     | 0.43              |
| 4:T:87:TYR:O     | 4:T:90:LEU:HB2   | 2.19                     | 0.43              |
| 3:V:129:LYS:C    | 3:V:131:LEU:N    | 2.71                     | 0.43              |
| 3:V:307:ALA:HA   | 3:V:382:ILE:HG12 | 2.01                     | 0.43              |
| 4:W:84:ILE:C     | 4:W:86:ARG:N     | 2.72                     | 0.43              |
| 1:A:160:CYS:O    | 1:A:164:VAL:HG23 | 2.18                     | 0.43              |
| 1:A:329:LEU:O    | 1:A:332:LEU:CB   | 2.67                     | 0.43              |
| 1:A:463:ILE:HG13 | 1:A:463:ILE:H    | 1.56                     | 0.43              |
| 1:A:508:ILE:N    | 1:A:508:ILE:CD1  | 2.82                     | 0.43              |
| 2:B:367:VAL:O    | 2:B:369:PHE:N    | 2.52                     | 0.43              |
| 2:B:413:VAL:HG12 | 2:B:414:ILE:N    | 2.34                     | 0.43              |
| 2:B:453:GLY:O    | 2:B:454:GLU:C    | 2.57                     | 0.43              |
| 1:C:31:CYS:HA    | 1:C:34:ILE:HB    | 2.00                     | 0.43              |
| 1:C:126:LEU:HD22 | 1:C:160:CYS:SG   | 2.59                     | 0.43              |
| 1:C:416:ARG:CD   | 1:C:454:TYR:CE1  | 2.96                     | 0.43              |
| 1:C:434:ARG:HE   | 1:C:434:ARG:HB3  | 1.63                     | 0.43              |
| 2:D:58:MET:CE    | 2:D:90:THR:HG21  | 2.49                     | 0.43              |
| 2:D:360:GLU:O    | 2:D:363:THR:HB   | 2.17                     | 0.43              |
| 2:D:374:VAL:C    | 2:D:376:ALA:N    | 2.71                     | 0.43              |
| 2:D:483:GLN:O    | 2:D:484:LEU:C    | 2.55                     | 0.43              |
| 2:D:487:ALA:HA   | 2:D:490:LYS:HD2  | 2.00                     | 0.43              |
| 2:D:567:ILE:HA   | 2:D:572:SER:OG   | 2.17                     | 0.43              |
| 1:E:8:ARG:HD2    | 3:M:337:GLU:HB3  | 1.99                     | 0.43              |
| 1:E:11:ILE:O     | 1:E:13:THR:N     | 2.52                     | 0.43              |
| 1:E:135:CYS:O    | 1:E:139:ALA:HB2  | 2.19                     | 0.43              |
| 1:E:329:LEU:O    | 1:E:332:LEU:CB   | 2.67                     | 0.43              |
| 1:E:434:ARG:HE   | 1:E:434:ARG:HB3  | 1.63                     | 0.43              |
| 1:E:572:LYS:HG2  | 1:E:573:TYR:CE1  | 2.53                     | 0.43              |
| 1:E:573:TYR:O    | 1:E:574:ASP:O    | 2.37                     | 0.43              |
| 2:F:130:LEU:C    | 2:F:132:ASP:H    | 2.21                     | 0.43              |
| 2:F:148:LEU:CA   | 2:F:151:ILE:HG13 | 2.49                     | 0.43              |
| 2:F:256:VAL:O    | 2:F:259:ALA:HB3  | 2.19                     | 0.43              |
| 2:F:411:ILE:H    | 2:F:411:ILE:HD12 | 1.83                     | 0.43              |
| 2:F:537:ALA:O    | 2:F:538:LYS:C    | 2.56                     | 0.43              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:551:GLU:C    | 2:F:553:ASP:H    | 2.21                     | 0.43              |
| 1:G:14:ILE:HG22  | 1:G:14:ILE:O     | 2.18                     | 0.43              |
| 1:G:101:LEU:O    | 1:G:104:THR:HB   | 2.19                     | 0.43              |
| 1:G:557:VAL:HG21 | 2:H:415:LYS:NZ   | 2.33                     | 0.43              |
| 2:H:130:LEU:C    | 2:H:132:ASP:H    | 2.21                     | 0.43              |
| 2:H:491:LEU:CD1  | 2:H:491:LEU:C    | 2.87                     | 0.43              |
| 1:I:135:CYS:O    | 1:I:139:ALA:HB2  | 2.19                     | 0.43              |
| 1:I:232:SER:O    | 1:I:235:HIS:N    | 2.49                     | 0.43              |
| 1:I:377:ASN:C    | 1:I:377:ASN:HD22 | 2.22                     | 0.43              |
| 1:I:419:ILE:O    | 1:I:423:MET:HG3  | 2.18                     | 0.43              |
| 2:J:313:ARG:HB2  | 2:J:316:ILE:HD11 | 1.99                     | 0.43              |
| 2:J:404:ASN:O    | 2:J:407:VAL:HB   | 2.19                     | 0.43              |
| 2:J:437:ASP:C    | 2:J:439:ASP:H    | 2.20                     | 0.43              |
| 2:J:453:GLY:O    | 2:J:454:GLU:C    | 2.57                     | 0.43              |
| 1:K:19:THR:O     | 1:K:22:GLU:HB3   | 2.19                     | 0.43              |
| 1:K:436:ASP:O    | 1:K:439:PRO:HD2  | 2.18                     | 0.43              |
| 1:K:441:LEU:HD23 | 1:K:441:LEU:O    | 2.17                     | 0.43              |
| 2:L:55:VAL:C     | 2:L:57:CYS:N     | 2.71                     | 0.43              |
| 2:L:87:ALA:O     | 2:L:90:THR:HB    | 2.18                     | 0.43              |
| 2:L:163:ASP:O    | 2:L:164:THR:C    | 2.57                     | 0.43              |
| 2:L:180:ARG:O    | 2:L:181:VAL:C    | 2.56                     | 0.43              |
| 2:L:324:PHE:CD2  | 2:L:341:ILE:HG21 | 2.52                     | 0.43              |
| 2:L:444:ALA:O    | 2:L:445:ARG:C    | 2.57                     | 0.43              |
| 2:L:477:SER:O    | 2:L:478:THR:C    | 2.56                     | 0.43              |
| 2:L:494:LYS:HA   | 2:L:494:LYS:HD2  | 1.75                     | 0.43              |
| 3:M:86:LYS:O     | 3:M:89:GLN:CB    | 2.64                     | 0.43              |
| 3:N:8:VAL:HG22   | 3:N:67:LEU:CD1   | 2.48                     | 0.43              |
| 3:N:356:MET:SD   | 3:N:357:ARG:N    | 2.92                     | 0.43              |
| 4:Q:21:LEU:O     | 4:Q:22:ALA:C     | 2.57                     | 0.43              |
| 4:Q:70:ALA:O     | 4:Q:71:ILE:HD13  | 2.18                     | 0.43              |
| 4:Q:80:THR:O     | 4:Q:83:LEU:N     | 2.47                     | 0.43              |
| 3:R:86:LYS:O     | 3:R:87:VAL:C     | 2.57                     | 0.43              |
| 3:R:183:VAL:HB   | 3:R:420:LEU:HD22 | 2.01                     | 0.43              |
| 4:T:84:ILE:C     | 4:T:86:ARG:N     | 2.72                     | 0.43              |
| 4:T:135:ILE:HD12 | 4:T:135:ILE:HA   | 1.90                     | 0.43              |
| 3:V:214:LEU:HD23 | 3:V:214:LEU:HA   | 1.82                     | 0.43              |
| 3:V:256:ILE:HA   | 3:V:257:PRO:HD3  | 1.62                     | 0.43              |
| 3:V:376:ILE:HG23 | 3:V:376:ILE:O    | 2.18                     | 0.43              |
| 1:A:19:THR:HG21  | 3:M:142:LEU:HD21 | 2.01                     | 0.43              |
| 1:A:51:ALA:HA    | 1:A:54:LEU:HD12  | 1.99                     | 0.43              |
| 1:A:73:LEU:O     | 1:A:75:ALA:N     | 2.52                     | 0.43              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:73:LEU:C     | 1:A:75:ALA:N     | 2.71                     | 0.43              |
| 1:A:126:LEU:HD22 | 1:A:160:CYS:SG   | 2.59                     | 0.43              |
| 1:A:224:LYS:O    | 1:A:225:ASN:C    | 2.57                     | 0.43              |
| 1:A:329:LEU:O    | 1:A:330:THR:C    | 2.56                     | 0.43              |
| 1:A:375:GLY:O    | 1:A:377:ASN:N    | 2.51                     | 0.43              |
| 2:B:55:VAL:O     | 2:B:58:MET:CB    | 2.60                     | 0.43              |
| 2:B:442:PRO:O    | 2:B:443:GLU:C    | 2.56                     | 0.43              |
| 2:B:473:PHE:O    | 2:B:475:ASP:OD1  | 2.37                     | 0.43              |
| 1:C:396:PHE:N    | 1:C:396:PHE:HD1  | 2.17                     | 0.43              |
| 1:C:506:LEU:O    | 1:C:508:ILE:N    | 2.52                     | 0.43              |
| 2:D:148:LEU:N    | 2:D:148:LEU:CD1  | 2.80                     | 0.43              |
| 2:D:311:GLN:CD   | 2:D:555:ILE:HB   | 2.38                     | 0.43              |
| 2:D:384:VAL:O    | 2:D:387:SER:OG   | 2.27                     | 0.43              |
| 1:E:44:THR:O     | 1:E:45:TYR:CB    | 2.65                     | 0.43              |
| 2:F:55:VAL:C     | 2:F:57:CYS:N     | 2.71                     | 0.43              |
| 2:F:163:ASP:O    | 2:F:164:THR:C    | 2.57                     | 0.43              |
| 2:F:175:MET:O    | 2:F:176:VAL:C    | 2.57                     | 0.43              |
| 2:F:180:ARG:O    | 2:F:181:VAL:C    | 2.56                     | 0.43              |
| 2:F:418:PHE:HE1  | 2:F:425:TYR:HB2  | 1.82                     | 0.43              |
| 2:F:433:CYS:HA   | 2:F:448:MET:CE   | 2.48                     | 0.43              |
| 2:F:553:ASP:O    | 2:F:554:LEU:HB2  | 2.18                     | 0.43              |
| 1:G:57:HIS:O     | 1:G:58:MET:C     | 2.57                     | 0.43              |
| 1:G:422:ILE:CG2  | 1:G:441:LEU:HD12 | 2.48                     | 0.43              |
| 1:G:463:ILE:CD1  | 1:G:476:ALA:CB   | 2.96                     | 0.43              |
| 2:H:179:ASN:O    | 2:H:180:ARG:C    | 2.55                     | 0.43              |
| 2:H:184:LEU:O    | 2:H:185:SER:C    | 2.56                     | 0.43              |
| 2:H:256:VAL:O    | 2:H:259:ALA:HB3  | 2.19                     | 0.43              |
| 2:H:491:LEU:CD1  | 2:H:499:THR:HG22 | 2.49                     | 0.43              |
| 1:I:46:ARG:HH21  | 1:I:69:GLU:HG3   | 1.83                     | 0.43              |
| 1:I:214:LYS:O    | 1:I:217:PRO:HD2  | 2.19                     | 0.43              |
| 1:I:329:LEU:O    | 1:I:330:THR:C    | 2.57                     | 0.43              |
| 1:I:358:ASP:HB3  | 1:I:361:ILE:CD1  | 2.38                     | 0.43              |
| 1:I:436:ASP:O    | 1:I:439:PRO:HD2  | 2.19                     | 0.43              |
| 1:I:533:LEU:O    | 1:I:534:SER:C    | 2.56                     | 0.43              |
| 2:J:148:LEU:CA   | 2:J:151:ILE:HG13 | 2.49                     | 0.43              |
| 2:J:387:SER:HB2  | 2:J:390:ARG:HD3  | 2.00                     | 0.43              |
| 2:J:432:LEU:O    | 2:J:433:CYS:C    | 2.57                     | 0.43              |
| 2:J:466:LEU:O    | 2:J:467:GLU:C    | 2.56                     | 0.43              |
| 1:K:224:LYS:O    | 1:K:225:ASN:C    | 2.57                     | 0.43              |
| 1:K:476:ALA:C    | 1:K:478:TRP:N    | 2.72                     | 0.43              |
| 2:L:217:TRP:NE1  | 3:V:123:PRO:HB2  | 2.34                     | 0.43              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:L:299:GLN:O    | 2:L:300:TYR:O    | 2.36                     | 0.43              |
| 2:L:426:GLU:O    | 2:L:429:ILE:N    | 2.28                     | 0.43              |
| 2:L:483:GLN:O    | 2:L:487:ALA:N    | 2.45                     | 0.43              |
| 3:M:143:GLU:O    | 3:M:143:GLU:HG3  | 2.19                     | 0.43              |
| 3:O:143:GLU:O    | 3:O:143:GLU:HG3  | 2.19                     | 0.43              |
| 4:Q:131:VAL:HG12 | 4:Q:132:LEU:N    | 2.34                     | 0.43              |
| 3:R:118:MET:CB   | 3:R:123:PRO:HA   | 2.41                     | 0.43              |
| 3:R:307:ALA:HA   | 3:R:382:ILE:HG12 | 2.01                     | 0.43              |
| 3:R:380:PHE:CE1  | 3:R:414:GLN:C    | 2.86                     | 0.43              |
| 4:S:107:PHE:HD2  | 4:S:107:PHE:N    | 2.16                     | 0.43              |
| 4:T:117:PHE:O    | 4:T:117:PHE:CD1  | 2.72                     | 0.43              |
| 4:U:70:ALA:O     | 4:U:71:ILE:HD13  | 2.19                     | 0.43              |
| 4:U:117:PHE:O    | 4:U:117:PHE:CD1  | 2.72                     | 0.43              |
| 3:V:67:LEU:HD12  | 3:V:67:LEU:HA    | 1.74                     | 0.43              |
| 1:A:19:THR:O     | 1:A:22:GLU:HB3   | 2.19                     | 0.43              |
| 1:A:416:ARG:HD3  | 1:A:454:TYR:HE1  | 1.82                     | 0.43              |
| 1:A:506:LEU:O    | 1:A:508:ILE:N    | 2.52                     | 0.43              |
| 2:B:244:VAL:O    | 2:B:247:ARG:HB2  | 2.19                     | 0.43              |
| 2:B:393:SER:O    | 2:B:397:ASP:HB2  | 2.19                     | 0.43              |
| 2:B:491:LEU:CD1  | 2:B:491:LEU:C    | 2.87                     | 0.43              |
| 1:C:195:VAL:O    | 1:C:196:VAL:C    | 2.55                     | 0.43              |
| 1:C:232:SER:HA   | 1:C:233:PRO:HD3  | 1.71                     | 0.43              |
| 1:C:308:LEU:O    | 1:C:309:ALA:C    | 2.56                     | 0.43              |
| 1:C:382:MET:CE   | 1:C:404:ILE:HG23 | 2.49                     | 0.43              |
| 1:C:416:ARG:HD3  | 1:C:454:TYR:HE1  | 1.82                     | 0.43              |
| 2:D:148:LEU:CA   | 2:D:151:ILE:HG13 | 2.49                     | 0.43              |
| 2:D:175:MET:O    | 2:D:176:VAL:C    | 2.57                     | 0.43              |
| 2:D:347:SER:O    | 2:D:350:ASN:HB2  | 2.19                     | 0.43              |
| 2:D:413:VAL:HG12 | 2:D:414:ILE:N    | 2.34                     | 0.43              |
| 2:D:565:CYS:HB2  | 2:D:566:TYR:HD1  | 1.82                     | 0.43              |
| 1:E:54:LEU:HD23  | 1:E:54:LEU:HA    | 1.88                     | 0.43              |
| 1:E:375:GLY:O    | 1:E:377:ASN:N    | 2.51                     | 0.43              |
| 1:E:457:GLN:O    | 1:E:460:TYR:HB3  | 2.19                     | 0.43              |
| 1:E:460:TYR:O    | 1:E:464:LEU:HD23 | 2.18                     | 0.43              |
| 1:E:502:GLU:HG3  | 1:E:537:PHE:CE2  | 2.52                     | 0.43              |
| 1:E:519:THR:CG2  | 1:E:521:VAL:HG12 | 2.49                     | 0.43              |
| 1:E:522:THR:C    | 1:E:524:GLY:N    | 2.70                     | 0.43              |
| 2:F:58:MET:CE    | 2:F:90:THR:HG21  | 2.49                     | 0.43              |
| 2:F:155:MET:H    | 2:F:158:ASP:CB   | 2.29                     | 0.43              |
| 2:F:413:VAL:HG12 | 2:F:414:ILE:N    | 2.34                     | 0.43              |
| 2:F:570:LEU:HG   | 3:O:75:ALA:N     | 2.33                     | 0.43              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:570:LEU:CD2  | 3:O:77:VAL:HG22  | 2.47                     | 0.43              |
| 1:G:126:LEU:HD22 | 1:G:160:CYS:SG   | 2.59                     | 0.43              |
| 1:G:137:ASP:CB   | 1:G:138:LEU:HD22 | 2.49                     | 0.43              |
| 1:G:172:MET:HB2  | 1:G:201:MET:HE1  | 2.00                     | 0.43              |
| 1:G:413:PRO:HG2  | 1:G:414:SER:H    | 1.84                     | 0.43              |
| 2:H:530:LEU:C    | 2:H:532:THR:H    | 2.21                     | 0.43              |
| 1:I:46:ARG:HE    | 1:I:69:GLU:HG3   | 1.83                     | 0.43              |
| 1:I:154:ARG:O    | 1:I:155:LYS:C    | 2.57                     | 0.43              |
| 1:I:508:ILE:N    | 1:I:508:ILE:CD1  | 2.82                     | 0.43              |
| 1:I:585:PRO:C    | 1:I:586:VAL:CG2  | 2.87                     | 0.43              |
| 2:J:88:VAL:O     | 2:J:91:PHE:N     | 2.50                     | 0.43              |
| 2:J:255:VAL:HG23 | 2:J:256:VAL:HG23 | 2.01                     | 0.43              |
| 2:J:304:ARG:HG2  | 2:J:573:VAL:CA   | 2.47                     | 0.43              |
| 2:J:360:GLU:O    | 2:J:363:THR:HB   | 2.17                     | 0.43              |
| 2:J:399:ILE:C    | 2:J:401:THR:N    | 2.72                     | 0.43              |
| 2:J:413:VAL:HG12 | 2:J:414:ILE:N    | 2.34                     | 0.43              |
| 2:J:428:VAL:HG23 | 2:J:429:ILE:HD12 | 2.01                     | 0.43              |
| 2:J:444:ALA:O    | 2:J:445:ARG:C    | 2.57                     | 0.43              |
| 2:J:527:TRP:HA   | 2:J:527:TRP:HE3  | 1.84                     | 0.43              |
| 2:J:530:LEU:C    | 2:J:532:THR:H    | 2.21                     | 0.43              |
| 1:K:214:LYS:O    | 1:K:217:PRO:HD2  | 2.19                     | 0.43              |
| 1:K:257:GLY:HA3  | 1:K:299:ILE:HD13 | 2.00                     | 0.43              |
| 1:K:519:THR:CG2  | 1:K:521:VAL:HG12 | 2.49                     | 0.43              |
| 2:L:244:VAL:O    | 2:L:247:ARG:HB2  | 2.19                     | 0.43              |
| 2:L:452:VAL:HG11 | 2:L:466:LEU:HD11 | 2.01                     | 0.43              |
| 3:M:214:LEU:HD23 | 3:M:214:LEU:HA   | 1.82                     | 0.43              |
| 3:M:285:LYS:O    | 3:M:286:HIS:CB   | 2.63                     | 0.43              |
| 3:M:329:VAL:CG1  | 3:M:330:GLY:N    | 2.81                     | 0.43              |
| 3:N:384:TYR:N    | 3:N:384:TYR:HD2  | 2.15                     | 0.43              |
| 3:O:84:LEU:O     | 3:O:85:TYR:C     | 2.56                     | 0.43              |
| 3:O:91:PHE:O     | 3:O:93:GLU:N     | 2.52                     | 0.43              |
| 3:O:207:MET:N    | 3:O:208:PRO:HD3  | 2.34                     | 0.43              |
| 4:Q:117:PHE:O    | 4:Q:117:PHE:CD1  | 2.72                     | 0.43              |
| 3:R:32:HIS:O     | 3:R:33:PHE:C     | 2.57                     | 0.43              |
| 4:U:107:PHE:HD2  | 4:U:107:PHE:N    | 2.16                     | 0.43              |
| 3:V:2:SER:O      | 3:V:71:SER:HB2   | 2.19                     | 0.43              |
| 3:V:162:GLU:CG   | 3:V:163:GLY:H    | 2.31                     | 0.43              |
| 4:W:79:ILE:CG2   | 4:W:80:THR:H     | 2.32                     | 0.43              |
| 4:X:117:PHE:O    | 4:X:117:PHE:CD1  | 2.72                     | 0.43              |
| 1:A:22:GLU:O     | 1:A:23:GLU:C     | 2.56                     | 0.42              |
| 1:A:57:HIS:O     | 1:A:58:MET:C     | 2.57                     | 0.42              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:232:SER:O    | 1:A:235:HIS:N    | 2.49                     | 0.42              |
| 1:A:423:MET:O    | 1:A:424:ARG:C    | 2.56                     | 0.42              |
| 1:A:441:LEU:HD23 | 1:A:441:LEU:O    | 2.17                     | 0.42              |
| 1:A:457:GLN:O    | 1:A:460:TYR:HB3  | 2.19                     | 0.42              |
| 2:B:16:PHE:HZ    | 3:N:416:GLY:CA   | 2.32                     | 0.42              |
| 2:B:220:ILE:O    | 2:B:221:PHE:C    | 2.58                     | 0.42              |
| 2:B:299:GLN:O    | 2:B:300:TYR:O    | 2.36                     | 0.42              |
| 2:B:347:SER:O    | 2:B:350:ASN:HB2  | 2.19                     | 0.42              |
| 2:B:353:GLN:O    | 2:B:354:VAL:C    | 2.57                     | 0.42              |
| 2:B:373:ALA:O    | 2:B:376:ALA:CB   | 2.63                     | 0.42              |
| 2:B:387:SER:HB2  | 2:B:390:ARG:HD3  | 2.00                     | 0.42              |
| 2:B:452:VAL:HG11 | 2:B:466:LEU:HD11 | 2.01                     | 0.42              |
| 2:B:524:TYR:O    | 2:B:527:TRP:N    | 2.52                     | 0.42              |
| 1:C:19:THR:HG21  | 3:N:142:LEU:HD21 | 2.01                     | 0.42              |
| 1:C:239:GLY:C    | 1:C:240:ILE:HG13 | 2.32                     | 0.42              |
| 1:C:271:LEU:O    | 1:C:274:VAL:HB   | 2.18                     | 0.42              |
| 1:C:299:ILE:HG22 | 1:C:300:LYS:N    | 2.34                     | 0.42              |
| 1:C:457:GLN:O    | 1:C:460:TYR:HB3  | 2.19                     | 0.42              |
| 2:D:104:ALA:O    | 2:D:107:VAL:HB   | 2.19                     | 0.42              |
| 2:D:355:LEU:O    | 2:D:357:GLU:N    | 2.52                     | 0.42              |
| 2:D:449:ILE:O    | 2:D:451:ILE:N    | 2.52                     | 0.42              |
| 2:D:491:LEU:CD1  | 2:D:491:LEU:C    | 2.87                     | 0.42              |
| 1:E:14:ILE:HG22  | 1:E:14:ILE:O     | 2.18                     | 0.42              |
| 1:E:19:THR:O     | 1:E:22:GLU:HB3   | 2.19                     | 0.42              |
| 1:E:48:ARG:O     | 1:E:51:ALA:HB3   | 2.18                     | 0.42              |
| 1:E:57:HIS:O     | 1:E:58:MET:C     | 2.57                     | 0.42              |
| 1:E:363:ARG:O    | 1:E:366:MET:HB3  | 2.19                     | 0.42              |
| 1:E:406:LEU:HD23 | 1:E:406:LEU:HA   | 1.81                     | 0.42              |
| 1:E:562:ARG:O    | 1:E:563:ALA:C    | 2.56                     | 0.42              |
| 2:F:151:ILE:C    | 2:F:153:ALA:H    | 2.23                     | 0.42              |
| 1:G:264:SER:C    | 1:G:266:ALA:N    | 2.71                     | 0.42              |
| 1:G:308:LEU:O    | 1:G:309:ALA:C    | 2.56                     | 0.42              |
| 1:G:377:ASN:C    | 1:G:377:ASN:HD22 | 2.22                     | 0.42              |
| 1:G:382:MET:CE   | 1:G:404:ILE:HG23 | 2.49                     | 0.42              |
| 2:H:85:ILE:H     | 2:H:85:ILE:HG13  | 1.66                     | 0.42              |
| 2:H:244:VAL:O    | 2:H:247:ARG:HB2  | 2.19                     | 0.42              |
| 2:H:330:ASP:O    | 2:H:335:LYS:HE3  | 2.19                     | 0.42              |
| 2:H:391:CYS:O    | 2:H:394:THR:N    | 2.50                     | 0.42              |
| 2:H:400:GLN:HA   | 2:H:400:GLN:NE2  | 2.34                     | 0.42              |
| 2:H:551:GLU:C    | 2:H:553:ASP:H    | 2.21                     | 0.42              |
| 1:I:10:LEU:HD12  | 1:I:14:ILE:HD11  | 2.00                     | 0.42              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:44:THR:O     | 1:I:45:TYR:CB    | 2.65                     | 0.42              |
| 1:I:137:ASP:CB   | 1:I:138:LEU:HD22 | 2.49                     | 0.42              |
| 1:I:160:CYS:O    | 1:I:164:VAL:HG23 | 2.18                     | 0.42              |
| 1:I:183:LEU:HD23 | 1:I:183:LEU:HA   | 1.63                     | 0.42              |
| 1:I:375:GLY:C    | 1:I:377:ASN:N    | 2.72                     | 0.42              |
| 1:I:417:TRP:CE2  | 1:I:421:THR:HG21 | 2.54                     | 0.42              |
| 2:J:393:SER:O    | 2:J:397:ASP:HB2  | 2.19                     | 0.42              |
| 2:J:449:ILE:O    | 2:J:451:ILE:N    | 2.52                     | 0.42              |
| 1:K:10:LEU:HD12  | 1:K:14:ILE:HD11  | 2.00                     | 0.42              |
| 1:K:68:LEU:HD23  | 1:K:68:LEU:H     | 1.84                     | 0.42              |
| 1:K:73:LEU:O     | 1:K:75:ALA:N     | 2.52                     | 0.42              |
| 1:K:417:TRP:CE2  | 1:K:421:THR:HG21 | 2.54                     | 0.42              |
| 1:K:562:ARG:O    | 1:K:563:ALA:C    | 2.56                     | 0.42              |
| 1:K:572:LYS:HG2  | 1:K:573:TYR:CE1  | 2.53                     | 0.42              |
| 2:L:99:ASN:HA    | 2:L:100:PRO:HD2  | 1.76                     | 0.42              |
| 2:L:359:LYS:O    | 2:L:360:GLU:C    | 2.57                     | 0.42              |
| 2:L:404:ASN:O    | 2:L:407:VAL:HB   | 2.19                     | 0.42              |
| 2:L:491:LEU:CD1  | 2:L:491:LEU:C    | 2.87                     | 0.42              |
| 3:M:8:VAL:HG22   | 3:M:67:LEU:CD1   | 2.48                     | 0.42              |
| 3:M:43:GLU:C     | 3:M:45:MET:N     | 2.72                     | 0.42              |
| 3:M:307:ALA:HA   | 3:M:382:ILE:HG12 | 2.01                     | 0.42              |
| 3:N:2:SER:O      | 3:N:71:SER:HB2   | 2.19                     | 0.42              |
| 3:N:118:MET:HA   | 3:N:123:PRO:HA   | 2.01                     | 0.42              |
| 3:N:133:GLU:OE2  | 3:N:134:PHE:HE1  | 2.02                     | 0.42              |
| 3:N:277:ILE:O    | 3:N:277:ILE:HG22 | 2.18                     | 0.42              |
| 3:N:337:GLU:C    | 3:N:339:SER:H    | 2.21                     | 0.42              |
| 3:O:129:LYS:C    | 3:O:131:LEU:N    | 2.71                     | 0.42              |
| 3:P:277:ILE:HG22 | 3:P:277:ILE:O    | 2.18                     | 0.42              |
| 3:P:328:THR:HB   | 3:P:329:VAL:HG23 | 2.01                     | 0.42              |
| 4:Q:10:ARG:HB3   | 4:Q:11:GLN:OE1   | 2.19                     | 0.42              |
| 4:Q:114:LEU:O    | 4:Q:117:PHE:N    | 2.44                     | 0.42              |
| 3:R:4:SER:OG     | 3:R:22:ARG:HD3   | 2.19                     | 0.42              |
| 3:R:43:GLU:O     | 3:R:45:MET:N     | 2.51                     | 0.42              |
| 3:R:119:ASP:C    | 3:R:121:GLY:N    | 2.71                     | 0.42              |
| 3:R:207:MET:N    | 3:R:208:PRO:HD3  | 2.34                     | 0.42              |
| 3:R:356:MET:SD   | 3:R:357:ARG:N    | 2.92                     | 0.42              |
| 4:S:21:LEU:O     | 4:S:22:ALA:C     | 2.57                     | 0.42              |
| 4:S:117:PHE:O    | 4:S:117:PHE:CD1  | 2.72                     | 0.42              |
| 3:V:133:GLU:OE2  | 3:V:134:PHE:HE1  | 2.02                     | 0.42              |
| 4:W:21:LEU:O     | 4:W:22:ALA:C     | 2.57                     | 0.42              |
| 4:X:28:ARG:O     | 4:X:32:VAL:HG23  | 2.19                     | 0.42              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:413:PRO:HG2  | 1:A:414:SER:H    | 1.84                     | 0.42              |
| 1:A:460:TYR:O    | 1:A:464:LEU:HD23 | 2.19                     | 0.42              |
| 1:A:585:PRO:C    | 1:A:586:VAL:CG2  | 2.87                     | 0.42              |
| 2:B:387:SER:O    | 2:B:390:ARG:HB2  | 2.19                     | 0.42              |
| 1:C:214:LYS:O    | 1:C:217:PRO:HD2  | 2.19                     | 0.42              |
| 1:C:585:PRO:C    | 1:C:586:VAL:CG2  | 2.87                     | 0.42              |
| 2:D:38:ILE:HD13  | 2:D:38:ILE:N     | 2.31                     | 0.42              |
| 2:D:91:PHE:O     | 2:D:92:VAL:C     | 2.58                     | 0.42              |
| 2:D:411:ILE:H    | 2:D:411:ILE:HD12 | 1.84                     | 0.42              |
| 2:D:463:ASP:N    | 2:D:463:ASP:OD1  | 2.45                     | 0.42              |
| 2:D:577:PRO:HA   | 2:D:578:PRO:HD3  | 1.89                     | 0.42              |
| 1:E:126:LEU:HD22 | 1:E:160:CYS:SG   | 2.59                     | 0.42              |
| 1:E:271:LEU:O    | 1:E:274:VAL:HB   | 2.18                     | 0.42              |
| 2:F:323:VAL:CG2  | 2:F:324:PHE:N    | 2.82                     | 0.42              |
| 2:F:432:LEU:O    | 2:F:433:CYS:C    | 2.57                     | 0.42              |
| 1:G:11:ILE:C     | 1:G:13:THR:N     | 2.72                     | 0.42              |
| 1:G:74:ILE:CG2   | 1:G:86:TYR:HE1   | 2.22                     | 0.42              |
| 1:G:196:VAL:O    | 1:G:197:LEU:C    | 2.58                     | 0.42              |
| 1:G:224:LYS:O    | 1:G:225:ASN:C    | 2.57                     | 0.42              |
| 1:G:323:ASN:O    | 1:G:326:TYR:N    | 2.45                     | 0.42              |
| 1:G:453:ALA:C    | 1:G:455:THR:N    | 2.72                     | 0.42              |
| 2:H:393:SER:O    | 2:H:397:ASP:HB2  | 2.19                     | 0.42              |
| 2:H:394:THR:O    | 2:H:395:LEU:C    | 2.54                     | 0.42              |
| 2:H:444:ALA:O    | 2:H:445:ARG:C    | 2.57                     | 0.42              |
| 1:I:101:LEU:O    | 1:I:104:THR:HB   | 2.19                     | 0.42              |
| 1:I:196:VAL:O    | 1:I:197:LEU:C    | 2.58                     | 0.42              |
| 1:I:224:LYS:O    | 1:I:225:ASN:C    | 2.57                     | 0.42              |
| 1:I:490:GLY:O    | 1:I:492:CYS:N    | 2.53                     | 0.42              |
| 2:J:165:LEU:O    | 2:J:169:ILE:N    | 2.49                     | 0.42              |
| 2:J:323:VAL:CG2  | 2:J:324:PHE:HD1  | 2.17                     | 0.42              |
| 2:J:387:SER:O    | 2:J:390:ARG:HB2  | 2.19                     | 0.42              |
| 1:K:154:ARG:O    | 1:K:155:LYS:C    | 2.57                     | 0.42              |
| 1:K:382:MET:CE   | 1:K:404:ILE:HG23 | 2.49                     | 0.42              |
| 1:K:500:VAL:O    | 1:K:500:VAL:HG22 | 2.18                     | 0.42              |
| 1:K:506:LEU:O    | 1:K:508:ILE:N    | 2.52                     | 0.42              |
| 1:K:585:PRO:C    | 1:K:586:VAL:CG2  | 2.87                     | 0.42              |
| 2:L:428:VAL:HG23 | 2:L:429:ILE:HD12 | 2.01                     | 0.42              |
| 2:L:449:ILE:O    | 2:L:451:ILE:N    | 2.52                     | 0.42              |
| 2:L:483:GLN:OE1  | 2:L:483:GLN:N    | 2.49                     | 0.42              |
| 3:M:108:VAL:O    | 3:M:111:TYR:N    | 2.52                     | 0.42              |
| 3:M:119:ASP:C    | 3:M:121:GLY:N    | 2.71                     | 0.42              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:N:47:SER:C     | 3:N:49:ILE:H     | 2.23                     | 0.42              |
| 3:N:143:GLU:O    | 3:N:143:GLU:HG3  | 2.19                     | 0.42              |
| 3:N:183:VAL:HB   | 3:N:420:LEU:HD22 | 2.01                     | 0.42              |
| 3:N:210:LEU:HD22 | 3:N:210:LEU:HA   | 1.87                     | 0.42              |
| 3:N:314:ILE:HA   | 3:N:315:PRO:HD3  | 1.83                     | 0.42              |
| 3:N:384:TYR:HD2  | 3:N:384:TYR:H    | 1.67                     | 0.42              |
| 3:O:47:SER:C     | 3:O:49:ILE:H     | 2.23                     | 0.42              |
| 3:O:108:VAL:O    | 3:O:111:TYR:N    | 2.52                     | 0.42              |
| 3:O:329:VAL:CG1  | 3:O:330:GLY:N    | 2.81                     | 0.42              |
| 3:P:4:SER:OG     | 3:P:22:ARG:HD3   | 2.19                     | 0.42              |
| 4:S:32:VAL:HG12  | 4:S:33:ARG:N     | 2.33                     | 0.42              |
| 4:U:87:TYR:O     | 4:U:90:LEU:HB2   | 2.19                     | 0.42              |
| 3:V:119:ASP:C    | 3:V:121:GLY:N    | 2.71                     | 0.42              |
| 3:V:192:SER:OG   | 3:V:271:THR:O    | 2.33                     | 0.42              |
| 3:V:314:ILE:HA   | 3:V:315:PRO:HD3  | 1.83                     | 0.42              |
| 1:A:118:VAL:O    | 1:A:119:GLN:C    | 2.58                     | 0.42              |
| 2:B:107:VAL:O    | 2:B:108:ARG:C    | 2.56                     | 0.42              |
| 2:B:151:ILE:C    | 2:B:153:ALA:H    | 2.23                     | 0.42              |
| 2:B:551:GLU:C    | 2:B:553:ASP:N    | 2.72                     | 0.42              |
| 1:C:137:ASP:CB   | 1:C:138:LEU:HD22 | 2.49                     | 0.42              |
| 1:C:363:ARG:O    | 1:C:366:MET:HB3  | 2.19                     | 0.42              |
| 2:D:79:SER:C     | 2:D:81:PRO:HD3   | 2.40                     | 0.42              |
| 2:D:87:ALA:O     | 2:D:90:THR:HB    | 2.18                     | 0.42              |
| 2:D:244:VAL:O    | 2:D:247:ARG:HB2  | 2.19                     | 0.42              |
| 2:D:353:GLN:O    | 2:D:354:VAL:C    | 2.57                     | 0.42              |
| 2:D:432:LEU:O    | 2:D:433:CYS:C    | 2.57                     | 0.42              |
| 2:D:452:VAL:HG13 | 2:D:453:GLY:H    | 1.80                     | 0.42              |
| 2:D:473:PHE:O    | 2:D:475:ASP:OD1  | 2.37                     | 0.42              |
| 1:E:101:LEU:O    | 1:E:104:THR:HB   | 2.19                     | 0.42              |
| 1:E:389:LEU:HD13 | 1:E:400:CYS:HB3  | 2.02                     | 0.42              |
| 2:F:169:ILE:CG2  | 2:F:170:SER:N    | 2.70                     | 0.42              |
| 2:F:344:ARG:O    | 2:F:345:LEU:HD23 | 2.20                     | 0.42              |
| 2:F:399:ILE:C    | 2:F:401:THR:N    | 2.72                     | 0.42              |
| 1:G:281:SER:OG   | 1:G:282:LYS:N    | 2.50                     | 0.42              |
| 1:G:438:VAL:CB   | 1:G:439:PRO:HD3  | 2.28                     | 0.42              |
| 1:G:489:SER:N    | 1:G:500:VAL:CG1  | 2.74                     | 0.42              |
| 1:G:555:ILE:H    | 1:G:555:ILE:HG13 | 1.51                     | 0.42              |
| 2:H:163:ASP:O    | 2:H:164:THR:C    | 2.57                     | 0.42              |
| 2:H:376:ALA:C    | 2:H:378:GLY:N    | 2.70                     | 0.42              |
| 2:H:413:VAL:HG12 | 2:H:414:ILE:N    | 2.34                     | 0.42              |
| 2:H:494:LYS:HD2  | 2:H:494:LYS:HA   | 1.75                     | 0.42              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:551:GLU:C    | 2:H:553:ASP:N    | 2.72                     | 0.42              |
| 1:I:11:ILE:C     | 1:I:13:THR:N     | 2.72                     | 0.42              |
| 1:I:339:ASP:O    | 1:I:342:ALA:HB3  | 2.19                     | 0.42              |
| 1:I:413:PRO:HG2  | 1:I:414:SER:H    | 1.84                     | 0.42              |
| 1:I:443:GLN:O    | 1:I:446:THR:HG23 | 2.20                     | 0.42              |
| 2:J:175:MET:O    | 2:J:176:VAL:C    | 2.57                     | 0.42              |
| 2:J:309:ILE:HG22 | 2:J:310:VAL:N    | 2.33                     | 0.42              |
| 2:J:452:VAL:HG13 | 2:J:453:GLY:H    | 1.80                     | 0.42              |
| 2:J:478:THR:CA   | 2:J:481:GLN:HE21 | 2.18                     | 0.42              |
| 2:J:553:ASP:O    | 2:J:554:LEU:HB2  | 2.18                     | 0.42              |
| 1:K:126:LEU:HD22 | 1:K:160:CYS:SG   | 2.59                     | 0.42              |
| 1:K:375:GLY:C    | 1:K:377:ASN:N    | 2.72                     | 0.42              |
| 1:K:453:ALA:C    | 1:K:455:THR:N    | 2.72                     | 0.42              |
| 1:K:463:ILE:HG13 | 1:K:463:ILE:H    | 1.56                     | 0.42              |
| 1:K:490:GLY:O    | 1:K:492:CYS:N    | 2.53                     | 0.42              |
| 2:L:344:ARG:O    | 2:L:345:LEU:HD23 | 2.20                     | 0.42              |
| 2:L:393:SER:O    | 2:L:397:ASP:HB2  | 2.19                     | 0.42              |
| 2:L:400:GLN:HA   | 2:L:400:GLN:NE2  | 2.34                     | 0.42              |
| 2:L:411:ILE:HG13 | 2:L:432:LEU:HD11 | 2.02                     | 0.42              |
| 3:M:91:PHE:O     | 3:M:93:GLU:N     | 2.52                     | 0.42              |
| 3:M:202:VAL:CG1  | 3:M:203:PHE:N    | 2.82                     | 0.42              |
| 3:N:86:LYS:O     | 3:N:87:VAL:C     | 2.57                     | 0.42              |
| 3:N:207:MET:N    | 3:N:208:PRO:HD3  | 2.34                     | 0.42              |
| 3:N:322:SER:HA   | 3:N:323:PRO:HD3  | 1.78                     | 0.42              |
| 3:O:118:MET:HA   | 3:O:123:PRO:HA   | 2.01                     | 0.42              |
| 3:O:177:GLU:OE2  | 3:O:388:SER:HB3  | 2.18                     | 0.42              |
| 3:O:202:VAL:CG1  | 3:O:203:PHE:N    | 2.82                     | 0.42              |
| 3:P:47:SER:C     | 3:P:49:ILE:H     | 2.23                     | 0.42              |
| 3:P:91:PHE:C     | 3:P:93:GLU:N     | 2.73                     | 0.42              |
| 3:P:314:ILE:HG12 | 3:P:376:ILE:CD1  | 2.50                     | 0.42              |
| 3:R:285:LYS:O    | 3:R:286:HIS:CB   | 2.64                     | 0.42              |
| 4:T:28:ARG:O     | 4:T:32:VAL:HG23  | 2.19                     | 0.42              |
| 4:U:10:ARG:HB3   | 4:U:11:GLN:OE1   | 2.20                     | 0.42              |
| 4:U:21:LEU:O     | 4:U:22:ALA:C     | 2.57                     | 0.42              |
| 3:V:177:GLU:OE2  | 3:V:388:SER:HB3  | 2.18                     | 0.42              |
| 4:X:70:ALA:O     | 4:X:71:ILE:HD13  | 2.19                     | 0.42              |
| 1:A:11:ILE:C     | 1:A:13:THR:N     | 2.72                     | 0.42              |
| 1:A:137:ASP:CB   | 1:A:138:LEU:HD22 | 2.49                     | 0.42              |
| 1:A:271:LEU:O    | 1:A:274:VAL:HB   | 2.18                     | 0.42              |
| 1:A:281:SER:OG   | 1:A:282:LYS:N    | 2.50                     | 0.42              |
| 2:B:5:LYS:HE3    | 3:N:201:ARG:NH1  | 2.34                     | 0.42              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:79:SER:C     | 2:B:81:PRO:HD3   | 2.40                     | 0.42              |
| 2:B:180:ARG:O    | 2:B:181:VAL:C    | 2.56                     | 0.42              |
| 2:B:217:TRP:NE1  | 3:M:123:PRO:HB2  | 2.34                     | 0.42              |
| 2:B:374:VAL:O    | 2:B:377:ILE:N    | 2.53                     | 0.42              |
| 2:B:428:VAL:HG23 | 2:B:429:ILE:HD12 | 2.01                     | 0.42              |
| 2:B:432:LEU:O    | 2:B:433:CYS:C    | 2.57                     | 0.42              |
| 1:C:28:GLN:O     | 1:C:32:ALA:HB2   | 2.20                     | 0.42              |
| 1:C:73:LEU:O     | 1:C:75:ALA:N     | 2.52                     | 0.42              |
| 1:C:183:LEU:HD23 | 1:C:183:LEU:HA   | 1.63                     | 0.42              |
| 1:C:423:MET:O    | 1:C:424:ARG:C    | 2.56                     | 0.42              |
| 1:C:476:ALA:C    | 1:C:478:TRP:N    | 2.72                     | 0.42              |
| 2:D:88:VAL:O     | 2:D:91:PHE:N     | 2.50                     | 0.42              |
| 2:D:255:VAL:HG23 | 2:D:256:VAL:HG23 | 2.01                     | 0.42              |
| 2:D:341:ILE:N    | 2:D:341:ILE:HD12 | 2.35                     | 0.42              |
| 2:D:400:GLN:HA   | 2:D:400:GLN:NE2  | 2.34                     | 0.42              |
| 2:D:404:ASN:O    | 2:D:407:VAL:HB   | 2.19                     | 0.42              |
| 1:E:73:LEU:O     | 1:E:75:ALA:N     | 2.52                     | 0.42              |
| 1:E:224:LYS:O    | 1:E:225:ASN:C    | 2.57                     | 0.42              |
| 1:E:417:TRP:CE2  | 1:E:421:THR:HG21 | 2.54                     | 0.42              |
| 2:F:91:PHE:O     | 2:F:92:VAL:C     | 2.57                     | 0.42              |
| 2:F:309:ILE:HG22 | 2:F:310:VAL:N    | 2.33                     | 0.42              |
| 2:F:355:LEU:O    | 2:F:357:GLU:N    | 2.52                     | 0.42              |
| 2:F:400:GLN:HA   | 2:F:400:GLN:NE2  | 2.34                     | 0.42              |
| 2:F:428:VAL:HG23 | 2:F:429:ILE:HD12 | 2.01                     | 0.42              |
| 2:F:466:LEU:O    | 2:F:467:GLU:C    | 2.56                     | 0.42              |
| 1:G:154:ARG:O    | 1:G:155:LYS:C    | 2.57                     | 0.42              |
| 1:G:214:LYS:O    | 1:G:217:PRO:HD2  | 2.19                     | 0.42              |
| 1:G:417:TRP:CE2  | 1:G:421:THR:HG21 | 2.54                     | 0.42              |
| 1:G:573:TYR:O    | 1:G:574:ASP:O    | 2.37                     | 0.42              |
| 2:H:79:SER:C     | 2:H:81:PRO:HD3   | 2.40                     | 0.42              |
| 2:H:165:LEU:O    | 2:H:169:ILE:N    | 2.49                     | 0.42              |
| 2:H:347:SER:O    | 2:H:350:ASN:HB2  | 2.19                     | 0.42              |
| 2:H:387:SER:O    | 2:H:390:ARG:HB2  | 2.19                     | 0.42              |
| 2:H:432:LEU:O    | 2:H:433:CYS:C    | 2.58                     | 0.42              |
| 2:H:433:CYS:O    | 2:H:435:ASN:N    | 2.53                     | 0.42              |
| 1:I:126:LEU:HD22 | 1:I:160:CYS:SG   | 2.59                     | 0.42              |
| 1:I:152:TYR:O    | 1:I:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:I:257:GLY:HA3  | 1:I:299:ILE:HD13 | 2.00                     | 0.42              |
| 2:J:74:MET:O     | 2:J:77:ALA:HB2   | 2.20                     | 0.42              |
| 2:J:79:SER:C     | 2:J:81:PRO:HD3   | 2.40                     | 0.42              |
| 2:J:87:ALA:O     | 2:J:90:THR:HB    | 2.18                     | 0.42              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:J:359:LYS:O    | 2:J:360:GLU:C    | 2.57                     | 0.42              |
| 2:J:491:LEU:CD1  | 2:J:499:THR:HG22 | 2.49                     | 0.42              |
| 2:J:524:TYR:O    | 2:J:527:TRP:N    | 2.52                     | 0.42              |
| 1:K:6:ARG:CD     | 3:P:337:GLU:HG2  | 2.38                     | 0.42              |
| 1:K:57:HIS:O     | 1:K:58:MET:C     | 2.57                     | 0.42              |
| 1:K:103:MET:O    | 1:K:107:ILE:HG12 | 2.18                     | 0.42              |
| 1:K:137:ASP:CB   | 1:K:138:LEU:HD22 | 2.49                     | 0.42              |
| 1:K:339:ASP:O    | 1:K:342:ALA:HB3  | 2.19                     | 0.42              |
| 1:K:457:GLN:O    | 1:K:460:TYR:HB3  | 2.19                     | 0.42              |
| 1:K:470:GLN:CB   | 1:K:471:PRO:HD3  | 2.39                     | 0.42              |
| 1:K:508:ILE:N    | 1:K:508:ILE:CD1  | 2.82                     | 0.42              |
| 2:L:104:ALA:O    | 2:L:107:VAL:HB   | 2.19                     | 0.42              |
| 2:L:220:ILE:O    | 2:L:221:PHE:C    | 2.58                     | 0.42              |
| 2:L:256:VAL:O    | 2:L:259:ALA:HB3  | 2.19                     | 0.42              |
| 2:L:347:SER:O    | 2:L:350:ASN:HB2  | 2.19                     | 0.42              |
| 3:M:84:LEU:O     | 3:M:85:TYR:C     | 2.56                     | 0.42              |
| 3:M:388:SER:HG   | 3:M:390:ILE:HG13 | 1.85                     | 0.42              |
| 3:N:328:THR:HB   | 3:N:329:VAL:HG23 | 2.01                     | 0.42              |
| 3:O:356:MET:SD   | 3:O:357:ARG:N    | 2.92                     | 0.42              |
| 3:P:42:GLU:HB3   | 3:P:302:LYS:CB   | 2.48                     | 0.42              |
| 3:P:103:ILE:O    | 3:P:105:ASP:N    | 2.53                     | 0.42              |
| 3:P:118:MET:HA   | 3:P:123:PRO:HA   | 2.01                     | 0.42              |
| 3:P:207:MET:N    | 3:P:208:PRO:HD3  | 2.34                     | 0.42              |
| 3:P:256:ILE:HA   | 3:P:257:PRO:HD3  | 1.62                     | 0.42              |
| 3:P:356:MET:SD   | 3:P:357:ARG:N    | 2.92                     | 0.42              |
| 3:R:91:PHE:C     | 3:R:93:GLU:N     | 2.73                     | 0.42              |
| 3:R:202:VAL:CG1  | 3:R:203:PHE:N    | 2.82                     | 0.42              |
| 4:S:131:VAL:HG12 | 4:S:132:LEU:N    | 2.34                     | 0.42              |
| 4:U:28:ARG:O     | 4:U:32:VAL:HG23  | 2.19                     | 0.42              |
| 3:V:47:SER:C     | 3:V:49:ILE:H     | 2.23                     | 0.42              |
| 3:V:94:TYR:HD2   | 3:V:94:TYR:HA    | 1.69                     | 0.42              |
| 3:V:202:VAL:CG1  | 3:V:203:PHE:N    | 2.82                     | 0.42              |
| 3:V:207:MET:N    | 3:V:208:PRO:HD3  | 2.34                     | 0.42              |
| 3:V:343:TRP:CZ2  | 3:V:356:MET:HB2  | 2.51                     | 0.42              |
| 4:W:87:TYR:CZ    | 4:W:91:LEU:HD11  | 2.54                     | 0.42              |
| 4:W:90:LEU:CD2   | 4:W:90:LEU:N     | 2.79                     | 0.42              |
| 4:W:114:LEU:HD23 | 4:W:115:ASP:N    | 2.33                     | 0.42              |
| 1:A:10:LEU:HD12  | 1:A:14:ILE:HD11  | 2.00                     | 0.42              |
| 1:A:28:GLN:O     | 1:A:32:ALA:HB2   | 2.20                     | 0.42              |
| 1:A:38:PHE:N     | 1:A:38:PHE:CD2   | 2.86                     | 0.42              |
| 1:A:43:ASN:N     | 1:A:43:ASN:ND2   | 2.66                     | 0.42              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:299:ILE:HG22 | 1:A:300:LYS:N    | 2.34                     | 0.42              |
| 2:B:148:LEU:CA   | 2:B:151:ILE:HG13 | 2.49                     | 0.42              |
| 2:B:433:CYS:O    | 2:B:435:ASN:N    | 2.53                     | 0.42              |
| 2:B:527:TRP:HA   | 2:B:527:TRP:HE3  | 1.84                     | 0.42              |
| 2:B:569:THR:HG23 | 3:M:74:ASN:CG    | 2.34                     | 0.42              |
| 1:C:11:ILE:O     | 1:C:13:THR:N     | 2.52                     | 0.42              |
| 1:C:287:ALA:HA   | 4:T:78:LEU:HD13  | 2.02                     | 0.42              |
| 1:C:419:ILE:O    | 1:C:423:MET:HG3  | 2.19                     | 0.42              |
| 1:C:500:VAL:O    | 1:C:500:VAL:HG22 | 2.18                     | 0.42              |
| 2:D:563:LEU:C    | 2:D:565:CYS:N    | 2.70                     | 0.42              |
| 1:E:14:ILE:HA    | 1:E:26:MET:HE2   | 2.02                     | 0.42              |
| 1:E:159:LEU:O    | 1:E:162:VAL:CB   | 2.62                     | 0.42              |
| 1:E:215:LEU:H    | 1:E:215:LEU:HG   | 1.53                     | 0.42              |
| 1:E:281:SER:OG   | 1:E:282:LYS:N    | 2.50                     | 0.42              |
| 1:E:306:ARG:HD3  | 1:E:339:ASP:OD1  | 2.20                     | 0.42              |
| 1:E:416:ARG:CD   | 1:E:454:TYR:CE1  | 2.96                     | 0.42              |
| 1:E:506:LEU:O    | 1:E:508:ILE:N    | 2.52                     | 0.42              |
| 2:F:184:LEU:O    | 2:F:185:SER:C    | 2.56                     | 0.42              |
| 2:F:449:ILE:O    | 2:F:451:ILE:N    | 2.52                     | 0.42              |
| 1:G:19:THR:O     | 1:G:22:GLU:HB3   | 2.19                     | 0.42              |
| 1:G:389:LEU:HD13 | 1:G:400:CYS:HB3  | 2.02                     | 0.42              |
| 1:G:531:MET:C    | 1:G:533:LEU:N    | 2.71                     | 0.42              |
| 2:H:148:LEU:N    | 2:H:148:LEU:CD1  | 2.80                     | 0.42              |
| 2:H:309:ILE:HG22 | 2:H:310:VAL:N    | 2.33                     | 0.42              |
| 2:H:449:ILE:O    | 2:H:451:ILE:N    | 2.52                     | 0.42              |
| 1:I:13:THR:HG22  | 1:I:26:MET:HE3   | 1.99                     | 0.42              |
| 1:I:372:LEU:H    | 1:I:372:LEU:CD1  | 2.31                     | 0.42              |
| 1:I:389:LEU:HD13 | 1:I:400:CYS:HB3  | 2.02                     | 0.42              |
| 1:I:395:GLU:CD   | 1:I:395:GLU:H    | 2.20                     | 0.42              |
| 1:I:457:GLN:O    | 1:I:460:TYR:HB3  | 2.19                     | 0.42              |
| 1:I:470:GLN:CB   | 1:I:471:PRO:CD   | 2.97                     | 0.42              |
| 1:I:531:MET:C    | 1:I:533:LEU:N    | 2.71                     | 0.42              |
| 2:J:91:PHE:O     | 2:J:92:VAL:C     | 2.58                     | 0.42              |
| 2:J:347:SER:O    | 2:J:350:ASN:HB2  | 2.19                     | 0.42              |
| 2:J:461:ASN:HB3  | 2:J:465:LEU:CD1  | 2.49                     | 0.42              |
| 1:K:160:CYS:O    | 1:K:164:VAL:HG23 | 2.18                     | 0.42              |
| 1:K:573:TYR:O    | 1:K:574:ASP:O    | 2.37                     | 0.42              |
| 2:L:74:MET:O     | 2:L:77:ALA:HB2   | 2.20                     | 0.42              |
| 2:L:96:GLU:O     | 2:L:97:ASP:C     | 2.58                     | 0.42              |
| 2:L:330:ASP:O    | 2:L:335:LYS:HE3  | 2.19                     | 0.42              |
| 2:L:432:LEU:O    | 2:L:433:CYS:C    | 2.57                     | 0.42              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:L:473:PHE:O    | 2:L:475:ASP:OD1  | 2.37                     | 0.42              |
| 2:L:524:TYR:O    | 2:L:527:TRP:N    | 2.52                     | 0.42              |
| 3:M:43:GLU:O     | 3:M:45:MET:N     | 2.51                     | 0.42              |
| 3:M:91:PHE:C     | 3:M:93:GLU:N     | 2.73                     | 0.42              |
| 3:M:328:THR:HB   | 3:M:329:VAL:HG23 | 2.01                     | 0.42              |
| 3:N:91:PHE:C     | 3:N:93:GLU:N     | 2.73                     | 0.42              |
| 3:N:103:ILE:O    | 3:N:105:ASP:N    | 2.53                     | 0.42              |
| 3:N:108:VAL:O    | 3:N:111:TYR:N    | 2.52                     | 0.42              |
| 3:N:307:ALA:HA   | 3:N:382:ILE:HG12 | 2.01                     | 0.42              |
| 3:O:4:SER:OG     | 3:O:22:ARG:HD3   | 2.19                     | 0.42              |
| 3:P:192:SER:OG   | 3:P:271:THR:O    | 2.33                     | 0.42              |
| 3:P:307:ALA:HA   | 3:P:382:ILE:HG12 | 2.01                     | 0.42              |
| 3:R:91:PHE:O     | 3:R:93:GLU:N     | 2.52                     | 0.42              |
| 4:S:62:TYR:O     | 4:S:63:ALA:C     | 2.57                     | 0.42              |
| 4:S:87:TYR:O     | 4:S:90:LEU:HB2   | 2.19                     | 0.42              |
| 3:V:121:GLY:O    | 3:V:122:TYR:C    | 2.56                     | 0.42              |
| 4:W:10:ARG:HB3   | 4:W:11:GLN:OE1   | 2.19                     | 0.42              |
| 4:W:87:TYR:O     | 4:W:90:LEU:HB2   | 2.19                     | 0.42              |
| 1:A:214:LYS:O    | 1:A:217:PRO:HD2  | 2.19                     | 0.42              |
| 1:A:287:ALA:HA   | 4:S:78:LEU:HD13  | 2.02                     | 0.42              |
| 1:A:443:GLN:O    | 1:A:446:THR:HG23 | 2.20                     | 0.42              |
| 1:A:453:ALA:C    | 1:A:455:THR:N    | 2.72                     | 0.42              |
| 2:B:91:PHE:O     | 2:B:92:VAL:C     | 2.58                     | 0.42              |
| 2:B:163:ASP:O    | 2:B:164:THR:C    | 2.57                     | 0.42              |
| 2:B:256:VAL:O    | 2:B:259:ALA:HB3  | 2.19                     | 0.42              |
| 2:B:449:ILE:O    | 2:B:451:ILE:N    | 2.52                     | 0.42              |
| 1:C:101:LEU:O    | 1:C:104:THR:HB   | 2.19                     | 0.42              |
| 1:C:131:SER:O    | 1:C:132:SER:O    | 2.38                     | 0.42              |
| 1:C:417:TRP:CE2  | 1:C:421:THR:HG21 | 2.54                     | 0.42              |
| 2:D:162:LEU:HA   | 2:D:165:LEU:CD1  | 2.24                     | 0.42              |
| 2:D:323:VAL:CG2  | 2:D:324:PHE:N    | 2.82                     | 0.42              |
| 2:D:405:TYR:CE1  | 2:D:406:VAL:HG23 | 2.55                     | 0.42              |
| 2:D:483:GLN:O    | 2:D:487:ALA:N    | 2.45                     | 0.42              |
| 2:D:491:LEU:HD12 | 2:D:491:LEU:C    | 2.39                     | 0.42              |
| 1:E:31:CYS:HA    | 1:E:34:ILE:HB    | 2.00                     | 0.42              |
| 1:E:48:ARG:O     | 1:E:49:ASN:C     | 2.58                     | 0.42              |
| 1:E:73:LEU:C     | 1:E:75:ALA:N     | 2.71                     | 0.42              |
| 1:E:208:MET:C    | 1:E:212:PHE:HB2  | 2.39                     | 0.42              |
| 1:E:508:ILE:N    | 1:E:508:ILE:CD1  | 2.82                     | 0.42              |
| 2:F:304:ARG:NE   | 2:F:573:VAL:O    | 2.42                     | 0.42              |
| 2:F:341:ILE:N    | 2:F:341:ILE:HD12 | 2.35                     | 0.42              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:347:SER:O    | 2:F:350:ASN:HB2  | 2.19                     | 0.42              |
| 2:F:367:VAL:O    | 2:F:369:PHE:N    | 2.52                     | 0.42              |
| 2:F:374:VAL:O    | 2:F:377:ILE:N    | 2.53                     | 0.42              |
| 2:F:387:SER:O    | 2:F:390:ARG:HB2  | 2.20                     | 0.42              |
| 2:F:411:ILE:HG13 | 2:F:432:LEU:HD11 | 2.02                     | 0.42              |
| 2:F:433:CYS:O    | 2:F:435:ASN:N    | 2.53                     | 0.42              |
| 2:F:444:ALA:O    | 2:F:445:ARG:C    | 2.57                     | 0.42              |
| 2:F:494:LYS:HA   | 2:F:494:LYS:HD2  | 1.75                     | 0.42              |
| 2:F:527:TRP:HA   | 2:F:527:TRP:HE3  | 1.84                     | 0.42              |
| 1:G:215:LEU:H    | 1:G:215:LEU:HG   | 1.53                     | 0.42              |
| 1:G:457:GLN:O    | 1:G:460:TYR:HB3  | 2.19                     | 0.42              |
| 1:G:476:ALA:C    | 1:G:478:TRP:N    | 2.72                     | 0.42              |
| 2:H:344:ARG:O    | 2:H:345:LEU:HD23 | 2.20                     | 0.42              |
| 2:H:428:VAL:HG23 | 2:H:429:ILE:HD12 | 2.01                     | 0.42              |
| 2:H:453:GLY:O    | 2:H:454:GLU:C    | 2.57                     | 0.42              |
| 2:H:485:LEU:C    | 2:H:485:LEU:CD2  | 2.87                     | 0.42              |
| 2:H:553:ASP:O    | 2:H:554:LEU:HB2  | 2.19                     | 0.42              |
| 1:I:306:ARG:HD3  | 1:I:339:ASP:OD1  | 2.20                     | 0.42              |
| 2:J:344:ARG:O    | 2:J:345:LEU:HD23 | 2.20                     | 0.42              |
| 2:J:400:GLN:HA   | 2:J:400:GLN:NE2  | 2.34                     | 0.42              |
| 2:J:411:ILE:H    | 2:J:411:ILE:HD12 | 1.84                     | 0.42              |
| 1:K:28:GLN:O     | 1:K:32:ALA:HB2   | 2.20                     | 0.42              |
| 1:K:73:LEU:C     | 1:K:75:ALA:N     | 2.71                     | 0.42              |
| 1:K:413:PRO:HG2  | 1:K:414:SER:H    | 1.84                     | 0.42              |
| 2:L:79:SER:C     | 2:L:81:PRO:HD3   | 2.40                     | 0.42              |
| 2:L:151:ILE:C    | 2:L:153:ALA:H    | 2.23                     | 0.42              |
| 2:L:353:GLN:O    | 2:L:354:VAL:C    | 2.57                     | 0.42              |
| 2:L:436:LEU:C    | 2:L:436:LEU:CD1  | 2.84                     | 0.42              |
| 2:L:461:ASN:HB3  | 2:L:465:LEU:CD1  | 2.49                     | 0.42              |
| 3:M:2:SER:O      | 3:M:71:SER:HB2   | 2.19                     | 0.42              |
| 3:M:118:MET:HA   | 3:M:123:PRO:HA   | 2.01                     | 0.42              |
| 3:M:213:GLY:HA3  | 3:M:394:TYR:CZ   | 2.55                     | 0.42              |
| 3:O:50:LEU:CD1   | 3:O:59:TRP:HE1   | 2.33                     | 0.42              |
| 3:O:213:GLY:HA3  | 3:O:394:TYR:CZ   | 2.55                     | 0.42              |
| 3:O:269:LEU:N    | 3:O:269:LEU:CD2  | 2.70                     | 0.42              |
| 3:P:67:LEU:HD12  | 3:P:67:LEU:HA    | 1.73                     | 0.42              |
| 3:P:374:PRO:HA   | 3:P:375:PRO:HD3  | 1.76                     | 0.42              |
| 4:Q:79:ILE:CG2   | 4:Q:80:THR:H     | 2.32                     | 0.42              |
| 3:R:118:MET:HA   | 3:R:123:PRO:HA   | 2.01                     | 0.42              |
| 3:V:91:PHE:O     | 3:V:93:GLU:N     | 2.52                     | 0.42              |
| 3:V:241:CYS:O    | 3:V:255:PHE:CB   | 2.57                     | 0.42              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:V:285:LYS:O    | 3:V:286:HIS:CB   | 2.63                     | 0.42              |
| 3:V:384:TYR:HD2  | 3:V:384:TYR:H    | 1.67                     | 0.42              |
| 3:V:390:ILE:HG13 | 3:V:390:ILE:H    | 1.72                     | 0.42              |
| 4:W:108:GLU:CG   | 4:W:109:LYS:N    | 2.72                     | 0.42              |
| 4:W:117:PHE:O    | 4:W:117:PHE:CD1  | 2.72                     | 0.42              |
| 4:X:56:LYS:O     | 4:X:71:ILE:N     | 2.43                     | 0.42              |
| 4:X:62:TYR:O     | 4:X:63:ALA:C     | 2.57                     | 0.42              |
| 1:A:68:LEU:HG    | 1:A:69:GLU:N     | 2.15                     | 0.42              |
| 1:A:154:ARG:O    | 1:A:155:LYS:C    | 2.57                     | 0.42              |
| 1:A:187:ASN:O    | 1:A:188:HIS:C    | 2.58                     | 0.42              |
| 1:A:208:MET:C    | 1:A:212:PHE:HB2  | 2.39                     | 0.42              |
| 1:A:317:LEU:HD23 | 1:A:328:ALA:HB1  | 2.02                     | 0.42              |
| 2:B:65:LEU:O     | 2:B:66:LYS:C     | 2.56                     | 0.42              |
| 2:B:96:GLU:O     | 2:B:97:ASP:C     | 2.58                     | 0.42              |
| 2:B:175:MET:O    | 2:B:176:VAL:C    | 2.57                     | 0.42              |
| 2:B:430:ALA:C    | 2:B:432:LEU:N    | 2.73                     | 0.42              |
| 2:B:466:LEU:O    | 2:B:467:GLU:C    | 2.56                     | 0.42              |
| 2:B:491:LEU:CD1  | 2:B:499:THR:HG22 | 2.49                     | 0.42              |
| 1:C:48:ARG:O     | 1:C:49:ASN:C     | 2.58                     | 0.42              |
| 1:C:105:ASN:HD22 | 1:C:105:ASN:HA   | 1.64                     | 0.42              |
| 1:C:159:LEU:O    | 1:C:160:CYS:C    | 2.55                     | 0.42              |
| 2:D:33:ALA:O     | 2:D:34:VAL:C     | 2.56                     | 0.42              |
| 2:D:217:TRP:NE1  | 3:N:123:PRO:HB2  | 2.34                     | 0.42              |
| 2:D:262:VAL:CG2  | 2:D:263:LEU:N    | 2.83                     | 0.42              |
| 2:D:309:ILE:HG22 | 2:D:310:VAL:N    | 2.33                     | 0.42              |
| 2:D:330:ASP:O    | 2:D:335:LYS:HE3  | 2.19                     | 0.42              |
| 2:D:374:VAL:O    | 2:D:377:ILE:N    | 2.53                     | 0.42              |
| 1:E:11:ILE:HG12  | 1:E:55:TYR:CD2   | 2.55                     | 0.42              |
| 1:E:111:LEU:HD23 | 1:E:111:LEU:HA   | 1.90                     | 0.42              |
| 1:E:232:SER:O    | 1:E:235:HIS:N    | 2.50                     | 0.42              |
| 1:E:316:PHE:O    | 1:E:318:LEU:N    | 2.53                     | 0.42              |
| 1:E:382:MET:CE   | 1:E:404:ILE:HG23 | 2.49                     | 0.42              |
| 1:E:441:LEU:HD23 | 1:E:441:LEU:O    | 2.17                     | 0.42              |
| 1:E:443:GLN:O    | 1:E:446:THR:HG23 | 2.20                     | 0.42              |
| 1:E:446:THR:HG23 | 1:E:447:ASN:N    | 2.35                     | 0.42              |
| 1:E:493:GLU:HG2  | 1:E:494:GLU:N    | 2.35                     | 0.42              |
| 1:E:504:GLU:O    | 1:E:505:VAL:C    | 2.58                     | 0.42              |
| 2:F:88:VAL:O     | 2:F:91:PHE:N     | 2.50                     | 0.42              |
| 2:F:190:SER:C    | 2:F:192:PRO:HD2  | 2.34                     | 0.42              |
| 2:F:473:PHE:O    | 2:F:475:ASP:OD1  | 2.37                     | 0.42              |
| 2:F:485:LEU:C    | 2:F:485:LEU:CD2  | 2.87                     | 0.42              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:11:ILE:HG12  | 1:G:55:TYR:CD2   | 2.55                     | 0.42              |
| 1:G:135:CYS:O    | 1:G:139:ALA:HB2  | 2.19                     | 0.42              |
| 1:G:219:LEU:HD13 | 1:G:253:LEU:CD2  | 2.50                     | 0.42              |
| 1:G:317:LEU:HD23 | 1:G:328:ALA:HB1  | 2.02                     | 0.42              |
| 1:G:506:LEU:O    | 1:G:508:ILE:N    | 2.52                     | 0.42              |
| 2:H:35:LYS:CE    | 3:P:137:GLN:HE21 | 2.31                     | 0.42              |
| 2:H:359:LYS:O    | 2:H:360:GLU:C    | 2.57                     | 0.42              |
| 2:H:436:LEU:C    | 2:H:436:LEU:CD1  | 2.83                     | 0.42              |
| 2:H:570:LEU:CD2  | 3:P:77:VAL:HG22  | 2.47                     | 0.42              |
| 1:I:28:GLN:O     | 1:I:32:ALA:HB2   | 2.20                     | 0.42              |
| 1:I:131:SER:O    | 1:I:132:SER:O    | 2.38                     | 0.42              |
| 1:I:187:ASN:O    | 1:I:188:HIS:C    | 2.58                     | 0.42              |
| 1:I:299:ILE:HG22 | 1:I:300:LYS:N    | 2.34                     | 0.42              |
| 1:I:522:THR:C    | 1:I:524:GLY:N    | 2.70                     | 0.42              |
| 2:J:71:LEU:O     | 2:J:74:MET:CB    | 2.67                     | 0.42              |
| 2:J:151:ILE:C    | 2:J:153:ALA:H    | 2.23                     | 0.42              |
| 2:J:473:PHE:O    | 2:J:475:ASP:OD1  | 2.37                     | 0.42              |
| 2:J:573:VAL:CG1  | 2:J:574:TYR:N    | 2.83                     | 0.42              |
| 1:K:11:ILE:O     | 1:K:13:THR:N     | 2.52                     | 0.42              |
| 1:K:11:ILE:C     | 1:K:13:THR:N     | 2.72                     | 0.42              |
| 1:K:118:VAL:O    | 1:K:119:GLN:C    | 2.58                     | 0.42              |
| 1:K:396:PHE:N    | 1:K:396:PHE:HD1  | 2.17                     | 0.42              |
| 1:K:419:ILE:O    | 1:K:423:MET:HG3  | 2.19                     | 0.42              |
| 1:K:443:GLN:O    | 1:K:446:THR:HG23 | 2.20                     | 0.42              |
| 2:L:130:LEU:HD23 | 2:L:130:LEU:HA   | 1.44                     | 0.42              |
| 2:L:255:VAL:HG23 | 2:L:256:VAL:HG23 | 2.01                     | 0.42              |
| 2:L:309:ILE:HG22 | 2:L:310:VAL:N    | 2.33                     | 0.42              |
| 3:N:202:VAL:CG1  | 3:N:203:PHE:N    | 2.82                     | 0.42              |
| 3:P:2:SER:O      | 3:P:71:SER:HB2   | 2.19                     | 0.42              |
| 3:P:143:GLU:O    | 3:P:143:GLU:HG3  | 2.19                     | 0.42              |
| 3:R:143:GLU:O    | 3:R:143:GLU:HG3  | 2.19                     | 0.42              |
| 3:R:396:LYS:HD3  | 3:R:396:LYS:HA   | 1.90                     | 0.42              |
| 4:S:28:ARG:O     | 4:S:32:VAL:HG23  | 2.19                     | 0.42              |
| 4:T:114:LEU:HD23 | 4:T:115:ASP:N    | 2.33                     | 0.42              |
| 4:U:114:LEU:HD23 | 4:U:115:ASP:N    | 2.33                     | 0.42              |
| 3:V:356:MET:SD   | 3:V:357:ARG:N    | 2.92                     | 0.42              |
| 3:V:374:PRO:HA   | 3:V:375:PRO:HD3  | 1.76                     | 0.42              |
| 4:W:28:ARG:O     | 4:W:32:VAL:HG23  | 2.19                     | 0.42              |
| 4:W:131:VAL:HG12 | 4:W:132:LEU:N    | 2.34                     | 0.42              |
| 4:X:10:ARG:HB3   | 4:X:11:GLN:OE1   | 2.20                     | 0.42              |
| 4:X:87:TYR:O     | 4:X:90:LEU:HB2   | 2.19                     | 0.42              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:44:THR:O     | 1:A:45:TYR:CB    | 2.65                     | 0.42              |
| 1:A:68:LEU:HD23  | 1:A:68:LEU:H     | 1.83                     | 0.42              |
| 1:A:382:MET:CE   | 1:A:404:ILE:HG23 | 2.49                     | 0.42              |
| 1:A:417:TRP:CE2  | 1:A:421:THR:HG21 | 2.54                     | 0.42              |
| 2:B:86:MET:HE2   | 3:N:237:LYS:HB3  | 2.00                     | 0.42              |
| 2:B:99:ASN:HA    | 2:B:100:PRO:HD2  | 1.75                     | 0.42              |
| 2:B:104:ALA:O    | 2:B:107:VAL:HB   | 2.19                     | 0.42              |
| 2:B:344:ARG:O    | 2:B:345:LEU:HD23 | 2.20                     | 0.42              |
| 2:B:400:GLN:HA   | 2:B:400:GLN:NE2  | 2.34                     | 0.42              |
| 1:C:121:LEU:O    | 1:C:122:ALA:C    | 2.58                     | 0.42              |
| 1:C:183:LEU:HD12 | 1:C:215:LEU:HB3  | 2.02                     | 0.42              |
| 1:C:287:ALA:O    | 1:C:288:ILE:C    | 2.58                     | 0.42              |
| 1:C:317:LEU:HD23 | 1:C:328:ALA:HB1  | 2.02                     | 0.42              |
| 1:E:154:ARG:O    | 1:E:155:LYS:C    | 2.57                     | 0.42              |
| 1:E:164:VAL:O    | 1:E:165:ILE:C    | 2.58                     | 0.42              |
| 1:E:329:LEU:O    | 1:E:330:THR:C    | 2.56                     | 0.42              |
| 1:E:416:ARG:HD3  | 1:E:454:TYR:HE1  | 1.82                     | 0.42              |
| 2:F:244:VAL:O    | 2:F:247:ARG:HB2  | 2.19                     | 0.42              |
| 1:G:6:ARG:HD3    | 3:R:337:GLU:HG2  | 2.02                     | 0.42              |
| 1:G:316:PHE:O    | 1:G:318:LEU:N    | 2.53                     | 0.42              |
| 2:H:74:MET:O     | 2:H:77:ALA:HB2   | 2.20                     | 0.42              |
| 2:H:323:VAL:CG2  | 2:H:324:PHE:N    | 2.82                     | 0.42              |
| 1:I:19:THR:O     | 1:I:22:GLU:HB3   | 2.19                     | 0.42              |
| 1:I:219:LEU:HD13 | 1:I:253:LEU:CD2  | 2.50                     | 0.42              |
| 1:I:519:THR:CG2  | 1:I:521:VAL:HG12 | 2.49                     | 0.42              |
| 1:I:540:THR:O    | 1:I:540:THR:HG22 | 2.20                     | 0.42              |
| 2:J:323:VAL:CG2  | 2:J:324:PHE:N    | 2.82                     | 0.42              |
| 1:K:13:THR:HG22  | 1:K:26:MET:HE3   | 2.01                     | 0.42              |
| 1:K:317:LEU:HD23 | 1:K:328:ALA:HB1  | 2.02                     | 0.42              |
| 1:K:363:ARG:O    | 1:K:366:MET:HB3  | 2.19                     | 0.42              |
| 1:K:496:GLU:HA   | 1:K:497:PRO:HD3  | 1.94                     | 0.42              |
| 2:L:527:TRP:HE3  | 2:L:527:TRP:HA   | 1.84                     | 0.42              |
| 2:L:551:GLU:C    | 2:L:553:ASP:N    | 2.72                     | 0.42              |
| 3:M:374:PRO:HA   | 3:M:375:PRO:HD3  | 1.76                     | 0.42              |
| 3:N:4:SER:OG     | 3:N:22:ARG:HD3   | 2.19                     | 0.42              |
| 3:N:25:VAL:O     | 3:N:27:MET:N     | 2.53                     | 0.42              |
| 3:N:242:VAL:HA   | 3:N:255:PHE:HB3  | 2.02                     | 0.42              |
| 3:O:103:ILE:O    | 3:O:105:ASP:N    | 2.53                     | 0.42              |
| 3:O:210:LEU:HD22 | 3:O:210:LEU:HA   | 1.87                     | 0.42              |
| 3:P:25:VAL:O     | 3:P:27:MET:N     | 2.53                     | 0.42              |
| 3:P:202:VAL:CG1  | 3:P:203:PHE:N    | 2.82                     | 0.42              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:R:25:VAL:O     | 3:R:27:MET:N     | 2.53                     | 0.42              |
| 3:R:29:GLU:O     | 3:R:30:VAL:C     | 2.58                     | 0.42              |
| 3:R:79:LEU:HB2   | 3:R:80:VAL:H     | 1.51                     | 0.42              |
| 4:S:65:LEU:HA    | 4:S:65:LEU:HD12  | 1.75                     | 0.42              |
| 4:T:7:LEU:HD23   | 4:T:7:LEU:HA     | 1.55                     | 0.42              |
| 4:T:10:ARG:HB3   | 4:T:11:GLN:OE1   | 2.19                     | 0.42              |
| 4:T:21:LEU:O     | 4:T:22:ALA:C     | 2.57                     | 0.42              |
| 4:U:79:ILE:CG2   | 4:U:80:THR:H     | 2.32                     | 0.42              |
| 4:U:109:LYS:CA   | 4:U:112:PHE:HD1  | 2.24                     | 0.42              |
| 3:V:112:GLU:OE1  | 3:V:135:ILE:HA   | 2.20                     | 0.42              |
| 3:V:213:GLY:HA3  | 3:V:394:TYR:CZ   | 2.55                     | 0.42              |
| 3:V:314:ILE:HG12 | 3:V:376:ILE:CD1  | 2.50                     | 0.42              |
| 4:X:21:LEU:O     | 4:X:22:ALA:C     | 2.57                     | 0.42              |
| 4:X:79:ILE:CG2   | 4:X:80:THR:H     | 2.32                     | 0.42              |
| 1:A:31:CYS:HA    | 1:A:34:ILE:HB    | 2.00                     | 0.42              |
| 1:A:152:TYR:O    | 1:A:155:LYS:HE2  | 2.20                     | 0.42              |
| 1:A:185:GLU:CG   | 1:A:186:LYS:N    | 2.83                     | 0.42              |
| 1:A:411:TYR:CD1  | 1:A:411:TYR:N    | 2.80                     | 0.42              |
| 1:A:572:LYS:HG2  | 1:A:573:TYR:CE1  | 2.53                     | 0.42              |
| 2:B:132:ASP:HB3  | 2:B:133:GLU:H    | 1.63                     | 0.42              |
| 1:C:14:ILE:HA    | 1:C:26:MET:HE2   | 2.01                     | 0.42              |
| 1:C:19:THR:O     | 1:C:22:GLU:HB3   | 2.19                     | 0.42              |
| 1:C:135:CYS:O    | 1:C:139:ALA:HB2  | 2.19                     | 0.42              |
| 1:C:152:TYR:O    | 1:C:155:LYS:HE2  | 2.20                     | 0.42              |
| 1:C:493:GLU:HG2  | 1:C:494:GLU:N    | 2.35                     | 0.42              |
| 2:D:35:LYS:CE    | 3:N:137:GLN:HE21 | 2.30                     | 0.42              |
| 2:D:142:ALA:O    | 2:D:145:VAL:HG23 | 2.20                     | 0.42              |
| 2:D:184:LEU:O    | 2:D:185:SER:C    | 2.56                     | 0.42              |
| 2:D:453:GLY:O    | 2:D:454:GLU:C    | 2.57                     | 0.42              |
| 1:E:121:LEU:O    | 1:E:122:ALA:C    | 2.58                     | 0.42              |
| 1:E:248:ARG:O    | 1:E:249:ILE:C    | 2.58                     | 0.42              |
| 1:E:251:ARG:HH22 | 4:U:75:ASP:HA    | 1.85                     | 0.42              |
| 1:E:317:LEU:HD23 | 1:E:328:ALA:HB1  | 2.02                     | 0.42              |
| 1:E:423:MET:O    | 1:E:424:ARG:C    | 2.56                     | 0.42              |
| 2:F:461:ASN:HB3  | 2:F:465:LEU:CD1  | 2.49                     | 0.42              |
| 1:G:48:ARG:O     | 1:G:49:ASN:C     | 2.58                     | 0.42              |
| 1:G:164:VAL:O    | 1:G:165:ILE:C    | 2.58                     | 0.42              |
| 1:G:183:LEU:HD12 | 1:G:215:LEU:HB3  | 2.02                     | 0.42              |
| 1:G:292:THR:O    | 1:G:296:ILE:HG13 | 2.20                     | 0.42              |
| 1:G:446:THR:OG1  | 1:G:586:VAL:HG13 | 2.20                     | 0.42              |
| 1:G:529:ALA:HA   | 1:G:532:LYS:CD   | 2.50                     | 0.42              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:30:LYS:H     | 2:H:30:LYS:HG3   | 1.69                     | 0.42              |
| 2:H:91:PHE:O     | 2:H:92:VAL:C     | 2.58                     | 0.42              |
| 2:H:399:ILE:C    | 2:H:401:THR:N    | 2.72                     | 0.42              |
| 1:I:164:VAL:O    | 1:I:165:ILE:C    | 2.58                     | 0.42              |
| 1:I:264:SER:OG   | 1:I:299:ILE:CG2  | 2.68                     | 0.42              |
| 1:I:459:LEU:HD23 | 1:I:459:LEU:HA   | 1.91                     | 0.42              |
| 2:J:122:LEU:O    | 2:J:123:CYS:C    | 2.59                     | 0.42              |
| 2:J:244:VAL:O    | 2:J:247:ARG:HB2  | 2.19                     | 0.42              |
| 2:J:374:VAL:O    | 2:J:377:ILE:N    | 2.53                     | 0.42              |
| 2:J:376:ALA:C    | 2:J:378:GLY:N    | 2.70                     | 0.42              |
| 1:K:11:ILE:HG12  | 1:K:55:TYR:CD2   | 2.55                     | 0.42              |
| 1:K:251:ARG:HH22 | 4:W:75:ASP:HA    | 1.85                     | 0.42              |
| 1:K:411:TYR:CD1  | 1:K:411:TYR:N    | 2.80                     | 0.42              |
| 2:L:35:LYS:HE2   | 3:V:137:GLN:NE2  | 2.32                     | 0.42              |
| 2:L:38:ILE:HD13  | 2:L:38:ILE:N     | 2.31                     | 0.42              |
| 2:L:92:VAL:HG22  | 2:L:110:MET:HE2  | 2.02                     | 0.42              |
| 2:L:413:VAL:HG12 | 2:L:414:ILE:N    | 2.34                     | 0.42              |
| 3:M:50:LEU:HD11  | 3:M:59:TRP:NE1   | 2.35                     | 0.42              |
| 3:N:314:ILE:HG12 | 3:N:376:ILE:CD1  | 2.50                     | 0.42              |
| 3:O:16:LEU:HD13  | 3:O:16:LEU:O     | 2.20                     | 0.42              |
| 3:O:25:VAL:O     | 3:O:27:MET:N     | 2.53                     | 0.42              |
| 3:P:29:GLU:O     | 3:P:30:VAL:C     | 2.58                     | 0.42              |
| 3:P:83:PHE:C     | 3:P:83:PHE:CD1   | 2.89                     | 0.42              |
| 3:P:247:PHE:HB2  | 3:P:248:GLU:H    | 1.62                     | 0.42              |
| 3:R:65:LEU:HD11  | 3:R:99:GLU:H     | 1.85                     | 0.42              |
| 3:R:213:GLY:HA3  | 3:R:394:TYR:CZ   | 2.55                     | 0.42              |
| 4:S:98:VAL:CG2   | 4:S:99:CYS:N     | 2.80                     | 0.42              |
| 4:U:84:ILE:C     | 4:U:86:ARG:N     | 2.72                     | 0.42              |
| 3:V:16:LEU:HD13  | 3:V:16:LEU:O     | 2.20                     | 0.42              |
| 3:V:43:GLU:O     | 3:V:45:MET:N     | 2.51                     | 0.42              |
| 3:V:91:PHE:C     | 3:V:93:GLU:N     | 2.73                     | 0.42              |
| 1:A:264:SER:OG   | 1:A:299:ILE:CG2  | 2.68                     | 0.42              |
| 1:A:287:ALA:O    | 1:A:288:ILE:C    | 2.58                     | 0.42              |
| 1:A:389:LEU:HD13 | 1:A:400:CYS:HB3  | 2.02                     | 0.42              |
| 1:A:540:THR:O    | 1:A:540:THR:HG22 | 2.20                     | 0.42              |
| 2:B:142:ALA:O    | 2:B:145:VAL:HG23 | 2.20                     | 0.42              |
| 2:B:262:VAL:CG2  | 2:B:263:LEU:N    | 2.83                     | 0.42              |
| 2:B:573:VAL:CG1  | 2:B:574:TYR:N    | 2.83                     | 0.42              |
| 1:C:185:GLU:CG   | 1:C:186:LYS:N    | 2.83                     | 0.42              |
| 1:C:232:SER:O    | 1:C:235:HIS:N    | 2.49                     | 0.42              |
| 1:C:264:SER:OG   | 1:C:299:ILE:CG2  | 2.68                     | 0.42              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:426:LEU:O    | 1:C:427:THR:C    | 2.58                     | 0.42              |
| 1:C:460:TYR:O    | 1:C:464:LEU:HD23 | 2.19                     | 0.42              |
| 2:D:344:ARG:O    | 2:D:345:LEU:HD23 | 2.19                     | 0.42              |
| 2:D:387:SER:HB2  | 2:D:390:ARG:HD3  | 2.00                     | 0.42              |
| 2:D:399:ILE:C    | 2:D:401:THR:H    | 2.23                     | 0.42              |
| 2:D:426:GLU:C    | 2:D:428:VAL:N    | 2.74                     | 0.42              |
| 1:E:152:TYR:O    | 1:E:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:E:292:THR:O    | 1:E:296:ILE:HG13 | 2.20                     | 0.42              |
| 2:F:15:ILE:O     | 2:F:16:PHE:C     | 2.58                     | 0.42              |
| 2:F:49:ALA:O     | 2:F:52:PRO:HD2   | 2.20                     | 0.42              |
| 2:F:79:SER:C     | 2:F:81:PRO:HD3   | 2.40                     | 0.42              |
| 2:F:257:LEU:O    | 2:F:259:ALA:N    | 2.53                     | 0.42              |
| 2:F:339:LEU:C    | 2:F:341:ILE:N    | 2.74                     | 0.42              |
| 2:F:405:TYR:CE1  | 2:F:406:VAL:HG23 | 2.55                     | 0.42              |
| 1:G:152:TYR:O    | 1:G:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:G:208:MET:C    | 1:G:212:PHE:HB2  | 2.39                     | 0.42              |
| 1:G:212:PHE:HZ   | 1:G:260:ASP:CB   | 2.33                     | 0.42              |
| 1:G:299:ILE:HG22 | 1:G:300:LYS:N    | 2.34                     | 0.42              |
| 2:H:71:LEU:O     | 2:H:74:MET:CB    | 2.67                     | 0.42              |
| 2:H:132:ASP:HB3  | 2:H:133:GLU:H    | 1.63                     | 0.42              |
| 2:H:262:VAL:CG2  | 2:H:263:LEU:N    | 2.83                     | 0.42              |
| 2:H:473:PHE:O    | 2:H:475:ASP:OD1  | 2.37                     | 0.42              |
| 1:I:11:ILE:HG12  | 1:I:55:TYR:CD2   | 2.55                     | 0.42              |
| 1:I:185:GLU:CG   | 1:I:186:LYS:N    | 2.83                     | 0.42              |
| 1:I:212:PHE:HZ   | 1:I:260:ASP:CB   | 2.33                     | 0.42              |
| 1:I:493:GLU:HG2  | 1:I:494:GLU:N    | 2.35                     | 0.42              |
| 2:J:405:TYR:CE1  | 2:J:406:VAL:HG23 | 2.55                     | 0.42              |
| 2:J:485:LEU:C    | 2:J:485:LEU:CD2  | 2.87                     | 0.42              |
| 2:J:525:ILE:HG22 | 2:J:526:TYR:N    | 2.35                     | 0.42              |
| 1:K:35:ARG:CD    | 1:K:65:PHE:HE2   | 2.21                     | 0.42              |
| 1:K:74:ILE:CG2   | 1:K:86:TYR:HE1   | 2.22                     | 0.42              |
| 1:K:159:LEU:O    | 1:K:162:VAL:CB   | 2.62                     | 0.42              |
| 1:K:426:LEU:O    | 1:K:427:THR:C    | 2.58                     | 0.42              |
| 2:L:387:SER:HB2  | 2:L:390:ARG:HD3  | 2.00                     | 0.42              |
| 3:M:29:GLU:O     | 3:M:30:VAL:C     | 2.58                     | 0.42              |
| 3:M:47:SER:C     | 3:M:49:ILE:H     | 2.23                     | 0.42              |
| 3:M:207:MET:N    | 3:M:208:PRO:HD3  | 2.34                     | 0.42              |
| 3:M:314:ILE:HG12 | 3:M:376:ILE:CD1  | 2.50                     | 0.42              |
| 3:N:122:TYR:HA   | 3:N:123:PRO:HD3  | 1.88                     | 0.42              |
| 3:O:65:LEU:HD11  | 3:O:99:GLU:H     | 1.85                     | 0.42              |
| 3:O:242:VAL:HA   | 3:O:255:PHE:HB3  | 2.02                     | 0.42              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:O:384:TYR:HD2  | 3:O:384:TYR:H    | 1.67                     | 0.42              |
| 4:Q:7:LEU:O      | 4:Q:15:ARG:N     | 2.41                     | 0.42              |
| 4:Q:32:VAL:O     | 4:Q:33:ARG:C     | 2.59                     | 0.42              |
| 4:Q:87:TYR:O     | 4:Q:90:LEU:HB2   | 2.19                     | 0.42              |
| 3:R:2:SER:O      | 3:R:71:SER:HB2   | 2.19                     | 0.42              |
| 3:R:130:ILE:O    | 3:R:130:ILE:CG2  | 2.67                     | 0.42              |
| 4:S:10:ARG:HB3   | 4:S:11:GLN:OE1   | 2.19                     | 0.42              |
| 4:T:53:ARG:O     | 4:T:54:ASP:CB    | 2.63                     | 0.42              |
| 3:V:86:LYS:O     | 3:V:89:GLN:CB    | 2.64                     | 0.42              |
| 3:V:103:ILE:O    | 3:V:105:ASP:N    | 2.53                     | 0.42              |
| 3:V:143:GLU:O    | 3:V:143:GLU:HG3  | 2.19                     | 0.42              |
| 3:V:183:VAL:HB   | 3:V:420:LEU:HD22 | 2.01                     | 0.42              |
| 3:V:328:THR:HB   | 3:V:329:VAL:HG23 | 2.01                     | 0.42              |
| 3:V:329:VAL:CG1  | 3:V:330:GLY:N    | 2.81                     | 0.42              |
| 1:A:36:SER:CA    | 1:A:39:ARG:HG2   | 2.41                     | 0.41              |
| 1:A:131:SER:O    | 1:A:132:SER:O    | 2.38                     | 0.41              |
| 1:A:183:LEU:HD12 | 1:A:215:LEU:HB3  | 2.02                     | 0.41              |
| 1:A:212:PHE:HZ   | 1:A:260:ASP:CB   | 2.33                     | 0.41              |
| 1:A:219:LEU:HD13 | 1:A:253:LEU:CD2  | 2.50                     | 0.41              |
| 1:A:247:VAL:HG13 | 1:A:291:GLU:HG2  | 2.02                     | 0.41              |
| 1:A:446:THR:HG23 | 1:A:447:ASN:N    | 2.35                     | 0.41              |
| 1:A:504:GLU:O    | 1:A:505:VAL:C    | 2.58                     | 0.41              |
| 1:A:524:GLY:C    | 1:A:526:ALA:N    | 2.74                     | 0.41              |
| 2:B:130:LEU:HD23 | 2:B:130:LEU:HA   | 1.44                     | 0.41              |
| 2:B:444:ALA:O    | 2:B:445:ARG:C    | 2.57                     | 0.41              |
| 2:B:523:GLY:O    | 2:B:524:TYR:C    | 2.59                     | 0.41              |
| 1:C:251:ARG:HH22 | 4:T:75:ASP:HA    | 1.85                     | 0.41              |
| 1:C:316:PHE:O    | 1:C:318:LEU:N    | 2.53                     | 0.41              |
| 1:C:413:PRO:HG2  | 1:C:414:SER:H    | 1.84                     | 0.41              |
| 1:C:453:ALA:O    | 1:C:454:TYR:C    | 2.58                     | 0.41              |
| 2:D:525:ILE:HG22 | 2:D:526:TYR:N    | 2.35                     | 0.41              |
| 1:E:185:GLU:CG   | 1:E:186:LYS:N    | 2.83                     | 0.41              |
| 1:E:196:VAL:O    | 1:E:197:LEU:C    | 2.58                     | 0.41              |
| 1:E:214:LYS:O    | 1:E:217:PRO:HD2  | 2.19                     | 0.41              |
| 1:E:299:ILE:HG22 | 1:E:300:LYS:N    | 2.34                     | 0.41              |
| 1:E:374:ASN:HB3  | 1:E:375:GLY:H    | 1.60                     | 0.41              |
| 2:F:220:ILE:O    | 2:F:221:PHE:C    | 2.58                     | 0.41              |
| 2:F:229:TYR:HB3  | 2:F:230:MET:H    | 1.21                     | 0.41              |
| 2:F:399:ILE:C    | 2:F:401:THR:H    | 2.23                     | 0.41              |
| 1:G:185:GLU:CG   | 1:G:186:LYS:N    | 2.83                     | 0.41              |
| 1:G:251:ARG:HH22 | 4:Q:75:ASP:HA    | 1.85                     | 0.41              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:264:SER:OG   | 1:G:299:ILE:CG2  | 2.68                     | 0.41              |
| 1:G:339:ASP:O    | 1:G:342:ALA:HB3  | 2.19                     | 0.41              |
| 1:G:443:GLN:O    | 1:G:446:THR:HG23 | 2.20                     | 0.41              |
| 2:H:35:LYS:HE2   | 3:P:137:GLN:NE2  | 2.32                     | 0.41              |
| 2:H:104:ALA:O    | 2:H:107:VAL:HB   | 2.19                     | 0.41              |
| 2:H:148:LEU:CA   | 2:H:151:ILE:HG13 | 2.49                     | 0.41              |
| 2:H:303:LEU:O    | 2:H:306:ILE:HB   | 2.20                     | 0.41              |
| 2:H:374:VAL:C    | 2:H:376:ALA:N    | 2.71                     | 0.41              |
| 2:H:426:GLU:C    | 2:H:428:VAL:N    | 2.74                     | 0.41              |
| 2:H:452:VAL:HG11 | 2:H:466:LEU:HD11 | 2.01                     | 0.41              |
| 2:H:495:LYS:O    | 2:H:496:PRO:O    | 2.38                     | 0.41              |
| 1:I:132:SER:O    | 1:I:133:GLU:C    | 2.58                     | 0.41              |
| 1:I:271:LEU:HD12 | 1:I:296:ILE:HG13 | 2.01                     | 0.41              |
| 1:I:460:TYR:CZ   | 1:I:464:LEU:HD21 | 2.55                     | 0.41              |
| 1:I:573:TYR:O    | 1:I:574:ASP:O    | 2.37                     | 0.41              |
| 2:J:74:MET:O     | 2:J:75:ASN:C     | 2.59                     | 0.41              |
| 2:J:220:ILE:O    | 2:J:221:PHE:C    | 2.58                     | 0.41              |
| 2:J:392:VAL:O    | 2:J:393:SER:C    | 2.59                     | 0.41              |
| 2:J:490:LYS:NZ   | 2:J:545:LYS:HZ2  | 2.18                     | 0.41              |
| 1:K:38:PHE:N     | 1:K:38:PHE:CD2   | 2.86                     | 0.41              |
| 2:L:49:ALA:O     | 2:L:52:PRO:HD2   | 2.20                     | 0.41              |
| 2:L:200:LYS:HB2  | 2:L:203:SER:HG   | 1.83                     | 0.41              |
| 3:O:2:SER:O      | 3:O:71:SER:HB2   | 2.19                     | 0.41              |
| 3:O:91:PHE:C     | 3:O:93:GLU:N     | 2.73                     | 0.41              |
| 3:O:112:GLU:OE1  | 3:O:135:ILE:HA   | 2.20                     | 0.41              |
| 3:O:256:ILE:HA   | 3:O:257:PRO:HD3  | 1.62                     | 0.41              |
| 3:P:335:VAL:O    | 3:P:337:GLU:O    | 2.38                     | 0.41              |
| 4:Q:28:ARG:O     | 4:Q:32:VAL:HG23  | 2.19                     | 0.41              |
| 4:Q:88:VAL:O     | 4:Q:89:GLU:C     | 2.59                     | 0.41              |
| 3:R:47:SER:C     | 3:R:49:ILE:H     | 2.23                     | 0.41              |
| 4:U:32:VAL:O     | 4:U:33:ARG:C     | 2.59                     | 0.41              |
| 3:V:32:HIS:O     | 3:V:33:PHE:C     | 2.57                     | 0.41              |
| 3:V:114:LEU:HD23 | 3:V:114:LEU:HA   | 1.87                     | 0.41              |
| 4:W:132:LEU:HA   | 4:W:135:ILE:HG22 | 2.02                     | 0.41              |
| 4:X:131:VAL:HG12 | 4:X:132:LEU:N    | 2.34                     | 0.41              |
| 4:X:134:ALA:O    | 4:X:135:ILE:C    | 2.59                     | 0.41              |
| 1:A:25:GLU:O     | 1:A:26:MET:C     | 2.59                     | 0.41              |
| 1:A:316:PHE:O    | 1:A:318:LEU:N    | 2.53                     | 0.41              |
| 1:A:459:LEU:HD23 | 1:A:459:LEU:HA   | 1.91                     | 0.41              |
| 2:B:49:ALA:O     | 2:B:52:PRO:HD2   | 2.20                     | 0.41              |
| 2:B:461:ASN:HB3  | 2:B:465:LEU:CD1  | 2.49                     | 0.41              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:491:LEU:HD12 | 2:B:491:LEU:C    | 2.39                     | 0.41              |
| 2:B:504:GLN:O    | 2:B:505:GLN:C    | 2.59                     | 0.41              |
| 1:C:10:LEU:HD12  | 1:C:14:ILE:HD11  | 2.00                     | 0.41              |
| 1:C:264:SER:C    | 1:C:266:ALA:N    | 2.71                     | 0.41              |
| 1:C:389:LEU:HD13 | 1:C:400:CYS:HB3  | 2.02                     | 0.41              |
| 2:D:151:ILE:C    | 2:D:153:ALA:H    | 2.23                     | 0.41              |
| 2:D:339:LEU:C    | 2:D:341:ILE:N    | 2.74                     | 0.41              |
| 2:D:359:LYS:O    | 2:D:360:GLU:C    | 2.57                     | 0.41              |
| 2:D:428:VAL:HG23 | 2:D:429:ILE:HD12 | 2.01                     | 0.41              |
| 2:D:495:LYS:O    | 2:D:496:PRO:O    | 2.38                     | 0.41              |
| 1:E:179:THR:CG2  | 1:E:180:LYS:N    | 2.77                     | 0.41              |
| 1:E:183:LEU:HA   | 1:E:183:LEU:HD23 | 1.63                     | 0.41              |
| 1:E:187:ASN:O    | 1:E:188:HIS:C    | 2.58                     | 0.41              |
| 1:E:264:SER:OG   | 1:E:299:ILE:CG2  | 2.68                     | 0.41              |
| 1:E:287:ALA:O    | 1:E:288:ILE:C    | 2.58                     | 0.41              |
| 1:E:426:LEU:O    | 1:E:427:THR:C    | 2.58                     | 0.41              |
| 1:E:478:TRP:CE3  | 1:E:478:TRP:CA   | 2.98                     | 0.41              |
| 2:F:104:ALA:CB   | 2:F:136:TYR:CD2  | 3.00                     | 0.41              |
| 2:F:122:LEU:O    | 2:F:123:CYS:C    | 2.58                     | 0.41              |
| 2:F:230:MET:HE2  | 2:F:240:ILE:HD12 | 2.01                     | 0.41              |
| 2:F:334:VAL:HG12 | 2:F:338:LYS:HE3  | 2.03                     | 0.41              |
| 2:F:451:ILE:HG22 | 2:F:452:VAL:N    | 2.33                     | 0.41              |
| 1:G:73:LEU:O     | 1:G:75:ALA:N     | 2.52                     | 0.41              |
| 1:G:305:LEU:O    | 1:G:306:ARG:C    | 2.59                     | 0.41              |
| 1:G:306:ARG:O    | 1:G:309:ALA:HB3  | 2.20                     | 0.41              |
| 1:G:306:ARG:HD3  | 1:G:339:ASP:OD1  | 2.20                     | 0.41              |
| 1:G:416:ARG:HD3  | 1:G:454:TYR:CE1  | 2.55                     | 0.41              |
| 1:G:493:GLU:HG2  | 1:G:494:GLU:N    | 2.35                     | 0.41              |
| 2:H:122:LEU:O    | 2:H:123:CYS:C    | 2.59                     | 0.41              |
| 2:H:220:ILE:O    | 2:H:221:PHE:C    | 2.58                     | 0.41              |
| 2:H:307:ASN:O    | 2:H:308:LEU:C    | 2.58                     | 0.41              |
| 2:H:374:VAL:O    | 2:H:377:ILE:N    | 2.53                     | 0.41              |
| 1:I:117:PHE:CD1  | 1:I:117:PHE:N    | 2.89                     | 0.41              |
| 1:I:147:LYS:HE2  | 1:I:147:LYS:CA   | 2.43                     | 0.41              |
| 1:I:292:THR:O    | 1:I:296:ILE:HG13 | 2.20                     | 0.41              |
| 1:I:446:THR:OG1  | 1:I:586:VAL:HG13 | 2.20                     | 0.41              |
| 2:J:74:MET:O     | 2:J:77:ALA:N     | 2.39                     | 0.41              |
| 2:J:570:LEU:CD2  | 3:R:77:VAL:HG22  | 2.47                     | 0.41              |
| 1:K:86:TYR:O     | 1:K:87:LEU:C     | 2.59                     | 0.41              |
| 1:K:132:SER:O    | 1:K:133:GLU:C    | 2.59                     | 0.41              |
| 1:K:292:THR:O    | 1:K:296:ILE:HG13 | 2.20                     | 0.41              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:306:ARG:O    | 1:K:309:ALA:HB3  | 2.20                     | 0.41              |
| 1:K:306:ARG:HD3  | 1:K:339:ASP:OD1  | 2.20                     | 0.41              |
| 1:K:344:GLN:NE2  | 1:K:374:ASN:ND2  | 2.66                     | 0.41              |
| 1:K:415:LYS:O    | 1:K:416:ARG:C    | 2.58                     | 0.41              |
| 1:K:416:ARG:HD3  | 1:K:454:TYR:CE1  | 2.55                     | 0.41              |
| 1:K:437:ALA:O    | 1:K:440:ASN:N    | 2.54                     | 0.41              |
| 1:K:454:TYR:O    | 1:K:457:GLN:HB2  | 2.21                     | 0.41              |
| 1:K:481:GLY:HA2  | 1:K:533:LEU:HD21 | 2.03                     | 0.41              |
| 2:L:257:LEU:O    | 2:L:259:ALA:N    | 2.53                     | 0.41              |
| 2:L:341:ILE:N    | 2:L:341:ILE:HD12 | 2.35                     | 0.41              |
| 2:L:387:SER:O    | 2:L:390:ARG:HB2  | 2.19                     | 0.41              |
| 3:M:16:LEU:HD13  | 3:M:16:LEU:O     | 2.20                     | 0.41              |
| 3:M:32:HIS:O     | 3:M:33:PHE:C     | 2.57                     | 0.41              |
| 3:N:16:LEU:HD13  | 3:N:16:LEU:O     | 2.20                     | 0.41              |
| 3:N:112:GLU:OE1  | 3:N:135:ILE:HA   | 2.20                     | 0.41              |
| 3:O:214:LEU:HA   | 3:O:214:LEU:HD23 | 1.82                     | 0.41              |
| 3:O:341:ILE:HD11 | 3:O:356:MET:HE2  | 2.02                     | 0.41              |
| 3:P:16:LEU:HD13  | 3:P:16:LEU:O     | 2.20                     | 0.41              |
| 3:P:205:SER:O    | 3:P:399:GLU:OE1  | 2.38                     | 0.41              |
| 3:P:380:PHE:HB2  | 3:P:381:GLU:H    | 1.67                     | 0.41              |
| 3:R:43:GLU:C     | 3:R:45:MET:N     | 2.72                     | 0.41              |
| 3:R:210:LEU:HD22 | 3:R:210:LEU:HA   | 1.87                     | 0.41              |
| 3:R:328:THR:HB   | 3:R:329:VAL:HG23 | 2.01                     | 0.41              |
| 3:R:395:LEU:HA   | 3:R:395:LEU:HD12 | 1.70                     | 0.41              |
| 4:S:84:ILE:C     | 4:S:86:ARG:N     | 2.72                     | 0.41              |
| 4:T:134:ALA:O    | 4:T:135:ILE:C    | 2.59                     | 0.41              |
| 4:W:134:ALA:O    | 4:W:135:ILE:C    | 2.59                     | 0.41              |
| 4:X:59:TYR:N     | 4:X:59:TYR:HD2   | 2.19                     | 0.41              |
| 1:A:11:ILE:HG12  | 1:A:55:TYR:CD2   | 2.55                     | 0.41              |
| 1:A:251:ARG:HH22 | 4:S:75:ASP:HA    | 1.85                     | 0.41              |
| 1:A:306:ARG:O    | 1:A:309:ALA:HB3  | 2.20                     | 0.41              |
| 1:A:426:LEU:O    | 1:A:427:THR:C    | 2.58                     | 0.41              |
| 1:A:481:GLY:HA2  | 1:A:533:LEU:HD21 | 2.03                     | 0.41              |
| 2:B:130:LEU:O    | 2:B:132:ASP:N    | 2.54                     | 0.41              |
| 2:B:216:GLU:O    | 2:B:220:ILE:HD13 | 2.21                     | 0.41              |
| 2:B:341:ILE:N    | 2:B:341:ILE:HD12 | 2.35                     | 0.41              |
| 1:C:117:PHE:CD1  | 1:C:117:PHE:N    | 2.89                     | 0.41              |
| 1:C:270:ILE:HG23 | 1:C:271:LEU:CD2  | 2.44                     | 0.41              |
| 1:C:323:ASN:O    | 1:C:326:TYR:N    | 2.45                     | 0.41              |
| 1:C:415:LYS:O    | 1:C:416:ARG:C    | 2.58                     | 0.41              |
| 1:C:437:ALA:O    | 1:C:440:ASN:N    | 2.54                     | 0.41              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:566:TYR:O    | 1:C:569:LEU:HB2  | 2.20                     | 0.41              |
| 2:D:220:ILE:O    | 2:D:221:PHE:C    | 2.58                     | 0.41              |
| 2:D:461:ASN:HB3  | 2:D:465:LEU:CD1  | 2.49                     | 0.41              |
| 1:E:11:ILE:C     | 1:E:13:THR:N     | 2.72                     | 0.41              |
| 1:E:118:VAL:O    | 1:E:119:GLN:C    | 2.58                     | 0.41              |
| 1:E:132:SER:O    | 1:E:133:GLU:C    | 2.58                     | 0.41              |
| 1:E:209:LEU:HD22 | 1:E:213:ARG:NE   | 2.35                     | 0.41              |
| 1:E:219:LEU:HD13 | 1:E:253:LEU:CD2  | 2.50                     | 0.41              |
| 1:E:287:ALA:HA   | 4:U:78:LEU:HD13  | 2.02                     | 0.41              |
| 1:E:377:ASN:C    | 1:E:377:ASN:HD22 | 2.22                     | 0.41              |
| 1:E:413:PRO:HG2  | 1:E:414:SER:H    | 1.84                     | 0.41              |
| 1:E:437:ALA:O    | 1:E:440:ASN:N    | 2.53                     | 0.41              |
| 2:F:74:MET:O     | 2:F:77:ALA:N     | 2.39                     | 0.41              |
| 2:F:462:ALA:O    | 2:F:466:LEU:HD13 | 2.20                     | 0.41              |
| 1:G:344:GLN:NE2  | 1:G:374:ASN:ND2  | 2.66                     | 0.41              |
| 1:G:437:ALA:O    | 1:G:440:ASN:N    | 2.54                     | 0.41              |
| 1:G:460:TYR:CZ   | 1:G:464:LEU:HD21 | 2.55                     | 0.41              |
| 1:G:540:THR:O    | 1:G:540:THR:HG22 | 2.20                     | 0.41              |
| 2:H:96:GLU:O     | 2:H:97:ASP:C     | 2.58                     | 0.41              |
| 2:H:124:GLU:CB   | 2:H:125:PRO:HD3  | 2.42                     | 0.41              |
| 2:H:154:GLN:CB   | 2:H:158:ASP:OD2  | 2.53                     | 0.41              |
| 2:H:211:LEU:HD22 | 2:H:219:GLN:HA   | 2.02                     | 0.41              |
| 2:H:257:LEU:O    | 2:H:259:ALA:N    | 2.53                     | 0.41              |
| 2:H:405:TYR:CE1  | 2:H:406:VAL:HG23 | 2.55                     | 0.41              |
| 1:I:73:LEU:O     | 1:I:75:ALA:N     | 2.52                     | 0.41              |
| 1:I:100:HIS:O    | 1:I:103:MET:HB3  | 2.21                     | 0.41              |
| 1:I:453:ALA:C    | 1:I:455:THR:N    | 2.72                     | 0.41              |
| 1:I:478:TRP:HH2  | 1:I:532:LYS:NZ   | 2.12                     | 0.41              |
| 1:I:481:GLY:HA2  | 1:I:533:LEU:HD21 | 2.03                     | 0.41              |
| 1:K:14:ILE:HA    | 1:K:26:MET:HE2   | 2.01                     | 0.41              |
| 1:K:212:PHE:HZ   | 1:K:260:ASP:CB   | 2.33                     | 0.41              |
| 1:K:316:PHE:O    | 1:K:318:LEU:N    | 2.53                     | 0.41              |
| 1:K:460:TYR:CZ   | 1:K:464:LEU:HD21 | 2.55                     | 0.41              |
| 1:K:493:GLU:HG2  | 1:K:494:GLU:N    | 2.35                     | 0.41              |
| 1:K:540:THR:O    | 1:K:540:THR:HG22 | 2.20                     | 0.41              |
| 3:M:130:ILE:O    | 3:M:130:ILE:CG2  | 2.67                     | 0.41              |
| 3:M:242:VAL:HA   | 3:M:255:PHE:HB3  | 2.02                     | 0.41              |
| 3:O:26:ASP:O     | 3:O:28:SER:N     | 2.53                     | 0.41              |
| 3:P:86:LYS:O     | 3:P:87:VAL:C     | 2.57                     | 0.41              |
| 3:P:329:VAL:CG1  | 3:P:330:GLY:N    | 2.81                     | 0.41              |
| 3:P:342:VAL:O    | 3:P:342:VAL:HG12 | 2.20                     | 0.41              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:R:26:ASP:O     | 3:R:28:SER:N     | 2.54                     | 0.41              |
| 3:R:37:LEU:O     | 3:R:38:MET:C     | 2.59                     | 0.41              |
| 3:R:94:TYR:HD2   | 3:R:94:TYR:HA    | 1.69                     | 0.41              |
| 4:T:53:ARG:O     | 4:T:53:ARG:HG2   | 2.21                     | 0.41              |
| 4:U:59:TYR:N     | 4:U:59:TYR:HD2   | 2.19                     | 0.41              |
| 4:U:131:VAL:HG12 | 4:U:132:LEU:N    | 2.34                     | 0.41              |
| 3:V:269:LEU:N    | 3:V:269:LEU:CD2  | 2.70                     | 0.41              |
| 3:V:335:VAL:O    | 3:V:337:GLU:O    | 2.38                     | 0.41              |
| 4:W:59:TYR:N     | 4:W:59:TYR:HD2   | 2.19                     | 0.41              |
| 4:W:62:TYR:O     | 4:W:63:ALA:C     | 2.57                     | 0.41              |
| 1:A:476:ALA:C    | 1:A:478:TRP:N    | 2.72                     | 0.41              |
| 1:A:531:MET:O    | 1:A:534:SER:N    | 2.54                     | 0.41              |
| 2:B:33:ALA:O     | 2:B:34:VAL:C     | 2.56                     | 0.41              |
| 2:B:74:MET:O     | 2:B:75:ASN:C     | 2.59                     | 0.41              |
| 2:B:303:LEU:O    | 2:B:306:ILE:HB   | 2.20                     | 0.41              |
| 2:B:405:TYR:CE1  | 2:B:406:VAL:HG23 | 2.55                     | 0.41              |
| 2:B:426:GLU:C    | 2:B:428:VAL:N    | 2.74                     | 0.41              |
| 2:B:525:ILE:HG22 | 2:B:526:TYR:N    | 2.35                     | 0.41              |
| 2:B:527:TRP:HA   | 2:B:527:TRP:CE3  | 2.56                     | 0.41              |
| 1:C:416:ARG:HD3  | 1:C:454:TYR:CE1  | 2.55                     | 0.41              |
| 2:D:35:LYS:HE2   | 3:N:137:GLN:NE2  | 2.32                     | 0.41              |
| 2:D:132:ASP:HB3  | 2:D:133:GLU:H    | 1.63                     | 0.41              |
| 2:D:257:LEU:O    | 2:D:259:ALA:N    | 2.53                     | 0.41              |
| 2:D:462:ALA:O    | 2:D:466:LEU:HD13 | 2.20                     | 0.41              |
| 2:D:491:LEU:CD1  | 2:D:499:THR:HG22 | 2.49                     | 0.41              |
| 2:D:527:TRP:HA   | 2:D:527:TRP:CE3  | 2.56                     | 0.41              |
| 1:E:310:ILE:O    | 1:E:311:ASN:C    | 2.59                     | 0.41              |
| 1:E:496:GLU:HA   | 1:E:497:PRO:HD3  | 1.94                     | 0.41              |
| 1:E:566:TYR:O    | 1:E:569:LEU:HB2  | 2.20                     | 0.41              |
| 2:F:71:LEU:O     | 2:F:74:MET:CB    | 2.67                     | 0.41              |
| 2:F:169:ILE:O    | 2:F:170:SER:C    | 2.59                     | 0.41              |
| 2:F:303:LEU:HD23 | 2:F:303:LEU:HA   | 1.86                     | 0.41              |
| 2:F:303:LEU:O    | 2:F:306:ILE:HB   | 2.20                     | 0.41              |
| 2:F:430:ALA:C    | 2:F:432:LEU:N    | 2.73                     | 0.41              |
| 2:F:491:LEU:HD12 | 2:F:491:LEU:C    | 2.39                     | 0.41              |
| 2:F:495:LYS:O    | 2:F:496:PRO:O    | 2.38                     | 0.41              |
| 1:G:19:THR:HG21  | 3:P:142:LEU:HD21 | 2.01                     | 0.41              |
| 1:G:36:SER:CA    | 1:G:39:ARG:HG2   | 2.41                     | 0.41              |
| 1:G:117:PHE:CD1  | 1:G:117:PHE:N    | 2.88                     | 0.41              |
| 1:G:566:TYR:O    | 1:G:569:LEU:HB2  | 2.20                     | 0.41              |
| 2:H:100:PRO:HA   | 2:H:103:ARG:CG   | 2.46                     | 0.41              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:130:LEU:O    | 2:H:132:ASP:N    | 2.53                     | 0.41              |
| 2:H:151:ILE:C    | 2:H:153:ALA:H    | 2.23                     | 0.41              |
| 2:H:334:VAL:HG12 | 2:H:338:LYS:HE3  | 2.02                     | 0.41              |
| 2:H:341:ILE:N    | 2:H:341:ILE:HD12 | 2.35                     | 0.41              |
| 2:H:573:VAL:CG1  | 2:H:574:TYR:N    | 2.83                     | 0.41              |
| 1:I:10:LEU:O     | 1:I:13:THR:HB    | 2.21                     | 0.41              |
| 1:I:306:ARG:O    | 1:I:309:ALA:HB3  | 2.20                     | 0.41              |
| 1:I:316:PHE:O    | 1:I:318:LEU:N    | 2.53                     | 0.41              |
| 1:I:476:ALA:C    | 1:I:478:TRP:N    | 2.72                     | 0.41              |
| 2:J:257:LEU:O    | 2:J:259:ALA:N    | 2.53                     | 0.41              |
| 2:J:334:VAL:HG12 | 2:J:338:LYS:HE3  | 2.03                     | 0.41              |
| 2:J:399:ILE:C    | 2:J:401:THR:H    | 2.23                     | 0.41              |
| 2:J:433:CYS:O    | 2:J:435:ASN:N    | 2.53                     | 0.41              |
| 1:K:159:LEU:O    | 1:K:160:CYS:C    | 2.55                     | 0.41              |
| 1:K:196:VAL:O    | 1:K:197:LEU:C    | 2.58                     | 0.41              |
| 1:K:208:MET:C    | 1:K:212:PHE:HB2  | 2.39                     | 0.41              |
| 1:K:287:ALA:O    | 1:K:288:ILE:C    | 2.58                     | 0.41              |
| 1:K:299:ILE:HG22 | 1:K:300:LYS:N    | 2.34                     | 0.41              |
| 2:L:374:VAL:O    | 2:L:377:ILE:N    | 2.53                     | 0.41              |
| 2:L:405:TYR:CE1  | 2:L:406:VAL:HG23 | 2.55                     | 0.41              |
| 2:L:504:GLN:O    | 2:L:505:GLN:C    | 2.59                     | 0.41              |
| 2:L:570:LEU:CD1  | 3:V:74:ASN:HA    | 2.44                     | 0.41              |
| 3:M:25:VAL:O     | 3:M:27:MET:N     | 2.53                     | 0.41              |
| 3:M:83:PHE:O     | 3:M:87:VAL:HG23  | 2.21                     | 0.41              |
| 3:M:384:TYR:HD2  | 3:M:384:TYR:H    | 1.67                     | 0.41              |
| 3:N:50:LEU:HD11  | 3:N:59:TRP:NE1   | 2.35                     | 0.41              |
| 3:N:67:LEU:HD12  | 3:N:67:LEU:HA    | 1.74                     | 0.41              |
| 3:N:160:ARG:C    | 3:N:161:SER:O    | 2.59                     | 0.41              |
| 3:O:34:MET:O     | 3:O:37:LEU:HB3   | 2.21                     | 0.41              |
| 3:O:133:GLU:OE2  | 3:O:134:PHE:HE1  | 2.02                     | 0.41              |
| 3:O:160:ARG:C    | 3:O:161:SER:O    | 2.59                     | 0.41              |
| 3:P:83:PHE:O     | 3:P:87:VAL:HG23  | 2.21                     | 0.41              |
| 3:P:133:GLU:OE2  | 3:P:134:PHE:HE1  | 2.02                     | 0.41              |
| 4:Q:59:TYR:N     | 4:Q:59:TYR:HD2   | 2.18                     | 0.41              |
| 4:Q:135:ILE:HD12 | 4:Q:135:ILE:HA   | 1.90                     | 0.41              |
| 3:R:112:GLU:OE1  | 3:R:135:ILE:HA   | 2.20                     | 0.41              |
| 3:R:335:VAL:O    | 3:R:337:GLU:O    | 2.38                     | 0.41              |
| 4:U:88:VAL:O     | 4:U:89:GLU:C     | 2.59                     | 0.41              |
| 3:V:26:ASP:O     | 3:V:28:SER:N     | 2.53                     | 0.41              |
| 3:V:342:VAL:O    | 3:V:342:VAL:HG12 | 2.20                     | 0.41              |
| 1:A:56:MET:O     | 1:A:57:HIS:C     | 2.58                     | 0.41              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:100:HIS:O    | 1:A:103:MET:HB3  | 2.21                     | 0.41              |
| 1:A:154:ARG:HH21 | 1:A:182:LEU:HD23 | 1.86                     | 0.41              |
| 1:A:267:MET:O    | 1:A:271:LEU:HD23 | 2.21                     | 0.41              |
| 1:A:446:THR:OG1  | 1:A:586:VAL:HG13 | 2.20                     | 0.41              |
| 1:A:453:ALA:O    | 1:A:454:TYR:C    | 2.58                     | 0.41              |
| 1:A:460:TYR:CZ   | 1:A:464:LEU:HD21 | 2.55                     | 0.41              |
| 1:A:565:GLU:OE2  | 2:B:522:ARG:NH2  | 2.30                     | 0.41              |
| 2:B:74:MET:O     | 2:B:77:ALA:HB2   | 2.20                     | 0.41              |
| 2:B:257:LEU:O    | 2:B:259:ALA:N    | 2.53                     | 0.41              |
| 2:B:323:VAL:CG2  | 2:B:324:PHE:N    | 2.82                     | 0.41              |
| 2:B:339:LEU:C    | 2:B:341:ILE:N    | 2.74                     | 0.41              |
| 1:C:196:VAL:O    | 1:C:197:LEU:C    | 2.58                     | 0.41              |
| 1:C:305:LEU:O    | 1:C:306:ARG:C    | 2.59                     | 0.41              |
| 1:C:344:GLN:NE2  | 1:C:374:ASN:ND2  | 2.66                     | 0.41              |
| 1:C:443:GLN:O    | 1:C:446:THR:HG23 | 2.20                     | 0.41              |
| 1:C:460:TYR:O    | 1:C:461:LYS:C    | 2.59                     | 0.41              |
| 2:D:124:GLU:H    | 2:D:124:GLU:HG2  | 1.71                     | 0.41              |
| 2:D:200:LYS:HB2  | 2:D:203:SER:HG   | 1.80                     | 0.41              |
| 2:D:307:ASN:O    | 2:D:308:LEU:C    | 2.58                     | 0.41              |
| 2:D:411:ILE:HG13 | 2:D:432:LEU:HD11 | 2.02                     | 0.41              |
| 2:D:430:ALA:C    | 2:D:432:LEU:N    | 2.73                     | 0.41              |
| 2:D:523:GLY:O    | 2:D:524:TYR:C    | 2.59                     | 0.41              |
| 2:D:577:PRO:C    | 2:D:579:ASN:N    | 2.74                     | 0.41              |
| 1:E:13:THR:HG22  | 1:E:26:MET:HE3   | 2.00                     | 0.41              |
| 1:E:38:PHE:CD2   | 1:E:38:PHE:N     | 2.86                     | 0.41              |
| 1:E:453:ALA:C    | 1:E:455:THR:N    | 2.72                     | 0.41              |
| 1:E:529:ALA:O    | 1:E:532:LYS:HG3  | 2.21                     | 0.41              |
| 2:F:333:TYR:CE2  | 3:O:48:PRO:HG3   | 2.56                     | 0.41              |
| 2:F:359:LYS:O    | 2:F:360:GLU:C    | 2.57                     | 0.41              |
| 2:F:525:ILE:HG22 | 2:F:526:TYR:N    | 2.35                     | 0.41              |
| 2:F:577:PRO:C    | 2:F:579:ASN:N    | 2.74                     | 0.41              |
| 1:G:209:LEU:HD22 | 1:G:213:ARG:NE   | 2.35                     | 0.41              |
| 1:G:247:VAL:HG13 | 1:G:291:GLU:HG2  | 2.02                     | 0.41              |
| 1:G:287:ALA:HA   | 4:Q:78:LEU:HD13  | 2.02                     | 0.41              |
| 1:G:524:GLY:C    | 1:G:526:ALA:N    | 2.74                     | 0.41              |
| 2:H:136:TYR:CD1  | 3:P:134:PHE:HE2  | 2.33                     | 0.41              |
| 2:H:142:ALA:O    | 2:H:145:VAL:HG23 | 2.20                     | 0.41              |
| 2:H:378:GLY:O    | 2:H:380:CYS:N    | 2.54                     | 0.41              |
| 2:H:483:GLN:O    | 2:H:487:ALA:N    | 2.45                     | 0.41              |
| 2:H:527:TRP:HA   | 2:H:527:TRP:HE3  | 1.84                     | 0.41              |
| 1:I:73:LEU:C     | 1:I:75:ALA:N     | 2.71                     | 0.41              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:86:TYR:O     | 1:I:87:LEU:C     | 2.59                     | 0.41              |
| 1:I:251:ARG:HH22 | 4:X:75:ASP:HA    | 1.85                     | 0.41              |
| 1:I:453:ALA:O    | 1:I:454:TYR:C    | 2.58                     | 0.41              |
| 2:J:15:ILE:O     | 2:J:16:PHE:C     | 2.58                     | 0.41              |
| 2:J:35:LYS:HE2   | 3:R:137:GLN:NE2  | 2.32                     | 0.41              |
| 2:J:260:VAL:O    | 2:J:261:LYS:C    | 2.59                     | 0.41              |
| 2:J:347:SER:OG   | 2:J:348:GLN:N    | 2.52                     | 0.41              |
| 2:J:545:LYS:HA   | 2:J:546:PRO:HD3  | 1.44                     | 0.41              |
| 2:J:574:TYR:O    | 2:J:575:HIS:CB   | 2.68                     | 0.41              |
| 1:K:25:GLU:O     | 1:K:26:MET:C     | 2.59                     | 0.41              |
| 1:K:152:TYR:O    | 1:K:155:LYS:HE2  | 2.19                     | 0.41              |
| 1:K:400:CYS:O    | 1:K:403:GLY:N    | 2.54                     | 0.41              |
| 1:K:460:TYR:O    | 1:K:461:LYS:C    | 2.59                     | 0.41              |
| 1:K:504:GLU:O    | 1:K:505:VAL:C    | 2.58                     | 0.41              |
| 2:L:307:ASN:O    | 2:L:308:LEU:C    | 2.58                     | 0.41              |
| 2:L:399:ILE:C    | 2:L:401:THR:H    | 2.23                     | 0.41              |
| 2:L:453:GLY:O    | 2:L:454:GLU:C    | 2.57                     | 0.41              |
| 3:M:37:LEU:O     | 3:M:38:MET:C     | 2.59                     | 0.41              |
| 3:M:112:GLU:OE1  | 3:M:135:ILE:HA   | 2.20                     | 0.41              |
| 3:M:124:GLN:O    | 3:M:125:THR:O    | 2.39                     | 0.41              |
| 3:N:43:GLU:O     | 3:N:45:MET:N     | 2.51                     | 0.41              |
| 3:N:205:SER:O    | 3:N:399:GLU:OE1  | 2.38                     | 0.41              |
| 3:N:335:VAL:O    | 3:N:337:GLU:O    | 2.38                     | 0.41              |
| 3:P:34:MET:O     | 3:P:37:LEU:HB3   | 2.21                     | 0.41              |
| 3:P:50:LEU:CD1   | 3:P:59:TRP:HE1   | 2.33                     | 0.41              |
| 4:T:132:LEU:HA   | 4:T:135:ILE:HG22 | 2.03                     | 0.41              |
| 3:V:242:VAL:HA   | 3:V:255:PHE:HB3  | 2.02                     | 0.41              |
| 4:W:25:ASP:O     | 4:W:26:LYS:C     | 2.59                     | 0.41              |
| 4:X:7:LEU:HD23   | 4:X:7:LEU:HA     | 1.55                     | 0.41              |
| 4:X:84:ILE:C     | 4:X:86:ARG:N     | 2.72                     | 0.41              |
| 1:A:121:LEU:O    | 1:A:122:ALA:C    | 2.58                     | 0.41              |
| 1:A:164:VAL:O    | 1:A:165:ILE:C    | 2.58                     | 0.41              |
| 1:A:416:ARG:HD3  | 1:A:454:TYR:CE1  | 2.55                     | 0.41              |
| 1:A:493:GLU:HG2  | 1:A:494:GLU:N    | 2.35                     | 0.41              |
| 1:A:496:GLU:HA   | 1:A:497:PRO:HD3  | 1.94                     | 0.41              |
| 2:B:4:SER:O      | 2:B:5:LYS:HG3    | 2.21                     | 0.41              |
| 2:B:38:ILE:HD13  | 2:B:38:ILE:N     | 2.31                     | 0.41              |
| 2:B:334:VAL:HG12 | 2:B:338:LYS:HE3  | 2.02                     | 0.41              |
| 2:B:365:VAL:CG2  | 3:M:394:TYR:HA   | 2.51                     | 0.41              |
| 2:B:462:ALA:O    | 2:B:466:LEU:HD13 | 2.20                     | 0.41              |
| 2:B:560:LEU:O    | 2:B:564:ILE:HG13 | 2.21                     | 0.41              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:35:ARG:HB2   | 1:C:65:PHE:CE2   | 2.56                     | 0.41              |
| 1:C:118:VAL:O    | 1:C:119:GLN:C    | 2.58                     | 0.41              |
| 1:C:372:LEU:H    | 1:C:372:LEU:CD1  | 2.31                     | 0.41              |
| 1:C:446:THR:OG1  | 1:C:586:VAL:HG13 | 2.20                     | 0.41              |
| 2:D:12:LYS:CG    | 2:D:13:GLY:N     | 2.72                     | 0.41              |
| 2:D:51:PHE:HB3   | 2:D:52:PRO:CD    | 2.45                     | 0.41              |
| 2:D:74:MET:O     | 2:D:75:ASN:C     | 2.59                     | 0.41              |
| 2:D:92:VAL:O     | 2:D:95:CYS:N     | 2.53                     | 0.41              |
| 2:D:96:GLU:O     | 2:D:97:ASP:C     | 2.58                     | 0.41              |
| 2:D:130:LEU:O    | 2:D:132:ASP:N    | 2.54                     | 0.41              |
| 2:D:211:LEU:HD22 | 2:D:219:GLN:HA   | 2.02                     | 0.41              |
| 2:D:333:TYR:CE2  | 3:N:48:PRO:HG3   | 2.56                     | 0.41              |
| 2:D:365:VAL:CG2  | 3:N:394:TYR:HA   | 2.51                     | 0.41              |
| 2:D:433:CYS:O    | 2:D:435:ASN:N    | 2.53                     | 0.41              |
| 2:D:444:ALA:O    | 2:D:445:ARG:C    | 2.57                     | 0.41              |
| 2:D:485:LEU:C    | 2:D:485:LEU:CD2  | 2.87                     | 0.41              |
| 2:D:504:GLN:O    | 2:D:505:GLN:C    | 2.59                     | 0.41              |
| 1:E:28:GLN:O     | 1:E:32:ALA:HB2   | 2.20                     | 0.41              |
| 1:E:117:PHE:CD1  | 1:E:117:PHE:N    | 2.89                     | 0.41              |
| 1:E:159:LEU:HD23 | 1:E:159:LEU:HA   | 1.89                     | 0.41              |
| 1:E:267:MET:O    | 1:E:271:LEU:HD23 | 2.21                     | 0.41              |
| 1:E:400:CYS:O    | 1:E:403:GLY:N    | 2.54                     | 0.41              |
| 1:E:415:LYS:O    | 1:E:416:ARG:C    | 2.58                     | 0.41              |
| 1:E:449:VAL:O    | 1:E:452:HIS:CD2  | 2.74                     | 0.41              |
| 1:E:531:MET:O    | 1:E:534:SER:N    | 2.54                     | 0.41              |
| 2:F:4:SER:O      | 2:F:5:LYS:HG3    | 2.21                     | 0.41              |
| 2:F:142:ALA:O    | 2:F:145:VAL:HG23 | 2.20                     | 0.41              |
| 2:F:260:VAL:O    | 2:F:261:LYS:C    | 2.59                     | 0.41              |
| 2:F:426:GLU:C    | 2:F:428:VAL:N    | 2.74                     | 0.41              |
| 2:F:560:LEU:O    | 2:F:564:ILE:HG13 | 2.21                     | 0.41              |
| 1:G:28:GLN:O     | 1:G:32:ALA:HB2   | 2.20                     | 0.41              |
| 1:G:103:MET:HA   | 1:G:103:MET:HE3  | 2.01                     | 0.41              |
| 1:G:121:LEU:O    | 1:G:122:ALA:C    | 2.58                     | 0.41              |
| 1:G:173:GLU:C    | 1:G:175:PHE:H    | 2.24                     | 0.41              |
| 1:G:463:ILE:HG13 | 1:G:463:ILE:H    | 1.56                     | 0.41              |
| 2:H:260:VAL:O    | 2:H:261:LYS:C    | 2.59                     | 0.41              |
| 2:H:577:PRO:C    | 2:H:579:ASN:N    | 2.74                     | 0.41              |
| 1:I:14:ILE:HA    | 1:I:26:MET:HE2   | 2.03                     | 0.41              |
| 1:I:35:ARG:HB2   | 1:I:65:PHE:CE2   | 2.56                     | 0.41              |
| 1:I:209:LEU:HD22 | 1:I:213:ARG:NE   | 2.36                     | 0.41              |
| 1:I:374:ASN:HB3  | 1:I:375:GLY:H    | 1.60                     | 0.41              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:449:VAL:O    | 1:I:452:HIS:CD2  | 2.74                     | 0.41              |
| 1:I:454:TYR:O    | 1:I:457:GLN:HB2  | 2.21                     | 0.41              |
| 1:I:531:MET:O    | 1:I:534:SER:N    | 2.54                     | 0.41              |
| 2:J:130:LEU:O    | 2:J:132:ASP:N    | 2.53                     | 0.41              |
| 2:J:211:LEU:HD22 | 2:J:219:GLN:HA   | 2.02                     | 0.41              |
| 2:J:216:GLU:O    | 2:J:220:ILE:HD13 | 2.21                     | 0.41              |
| 2:J:303:LEU:HD23 | 2:J:303:LEU:HA   | 1.86                     | 0.41              |
| 2:J:303:LEU:O    | 2:J:306:ILE:HB   | 2.20                     | 0.41              |
| 2:J:341:ILE:N    | 2:J:341:ILE:HD12 | 2.35                     | 0.41              |
| 2:J:426:GLU:HB2  | 2:J:427:SER:H    | 1.69                     | 0.41              |
| 2:J:504:GLN:O    | 2:J:505:GLN:C    | 2.59                     | 0.41              |
| 1:K:48:ARG:O     | 1:K:49:ASN:C     | 2.58                     | 0.41              |
| 1:K:183:LEU:HD23 | 1:K:183:LEU:HA   | 1.63                     | 0.41              |
| 1:K:264:SER:OG   | 1:K:299:ILE:CG2  | 2.68                     | 0.41              |
| 2:L:15:ILE:O     | 2:L:16:PHE:C     | 2.59                     | 0.41              |
| 2:L:97:ASP:HA    | 2:L:98:PRO:HD3   | 1.51                     | 0.41              |
| 2:L:130:LEU:O    | 2:L:132:ASP:N    | 2.54                     | 0.41              |
| 2:L:347:SER:OG   | 2:L:348:GLN:N    | 2.52                     | 0.41              |
| 2:L:430:ALA:C    | 2:L:432:LEU:N    | 2.73                     | 0.41              |
| 3:M:277:ILE:HD12 | 3:M:380:PHE:HD2  | 1.86                     | 0.41              |
| 3:M:312:ILE:CA   | 3:M:378:VAL:HG12 | 2.34                     | 0.41              |
| 3:M:335:VAL:O    | 3:M:337:GLU:O    | 2.38                     | 0.41              |
| 3:N:37:LEU:O     | 3:N:38:MET:C     | 2.59                     | 0.41              |
| 3:N:104:ARG:O    | 3:N:107:PHE:HE1  | 2.04                     | 0.41              |
| 3:O:86:LYS:O     | 3:O:87:VAL:C     | 2.57                     | 0.41              |
| 3:P:26:ASP:O     | 3:P:28:SER:N     | 2.54                     | 0.41              |
| 3:P:65:LEU:HD11  | 3:P:99:GLU:H     | 1.85                     | 0.41              |
| 3:P:106:ASN:O    | 3:P:109:ILE:HG13 | 2.21                     | 0.41              |
| 3:P:213:GLY:HA3  | 3:P:394:TYR:CZ   | 2.55                     | 0.41              |
| 3:R:108:VAL:O    | 3:R:111:TYR:HB2  | 2.21                     | 0.41              |
| 4:S:117:PHE:O    | 4:S:117:PHE:HD1  | 2.04                     | 0.41              |
| 4:S:132:LEU:HA   | 4:S:135:ILE:HG22 | 2.03                     | 0.41              |
| 3:V:21:TYR:CE1   | 3:V:118:MET:HE3  | 2.56                     | 0.41              |
| 3:V:29:GLU:O     | 3:V:30:VAL:C     | 2.58                     | 0.41              |
| 3:V:205:SER:O    | 3:V:399:GLU:OE1  | 2.38                     | 0.41              |
| 4:X:88:VAL:O     | 4:X:89:GLU:C     | 2.59                     | 0.41              |
| 4:X:117:PHE:O    | 4:X:117:PHE:HD1  | 2.04                     | 0.41              |
| 1:A:284:VAL:O    | 1:A:285:GLY:C    | 2.59                     | 0.41              |
| 1:A:374:ASN:HB3  | 1:A:375:GLY:H    | 1.60                     | 0.41              |
| 1:A:454:TYR:O    | 1:A:457:GLN:HB2  | 2.21                     | 0.41              |
| 2:B:355:LEU:O    | 2:B:358:LEU:N    | 2.54                     | 0.41              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:378:GLY:O    | 2:B:380:CYS:N    | 2.54                     | 0.41              |
| 1:C:208:MET:O    | 1:C:212:PHE:CB   | 2.66                     | 0.41              |
| 1:C:267:MET:O    | 1:C:271:LEU:HD23 | 2.21                     | 0.41              |
| 1:C:306:ARG:HD3  | 1:C:339:ASP:OD1  | 2.20                     | 0.41              |
| 1:C:333:LEU:O    | 1:C:335:THR:N    | 2.54                     | 0.41              |
| 1:C:529:ALA:HA   | 1:C:532:LYS:CD   | 2.50                     | 0.41              |
| 1:E:173:GLU:C    | 1:E:175:PHE:H    | 2.24                     | 0.41              |
| 2:F:74:MET:O     | 2:F:77:ALA:HB2   | 2.20                     | 0.41              |
| 2:F:323:VAL:CG2  | 2:F:324:PHE:HD1  | 2.17                     | 0.41              |
| 2:F:347:SER:OG   | 2:F:348:GLN:N    | 2.52                     | 0.41              |
| 1:G:248:ARG:O    | 1:G:249:ILE:C    | 2.58                     | 0.41              |
| 1:G:490:GLY:O    | 1:G:492:CYS:N    | 2.53                     | 0.41              |
| 2:H:15:ILE:O     | 2:H:16:PHE:C     | 2.59                     | 0.41              |
| 2:H:74:MET:O     | 2:H:75:ASN:C     | 2.59                     | 0.41              |
| 2:H:169:ILE:O    | 2:H:170:SER:C    | 2.59                     | 0.41              |
| 2:H:181:VAL:O    | 2:H:182:ALA:C    | 2.59                     | 0.41              |
| 2:H:399:ILE:C    | 2:H:401:THR:H    | 2.23                     | 0.41              |
| 2:H:560:LEU:O    | 2:H:564:ILE:HG13 | 2.21                     | 0.41              |
| 1:I:187:ASN:HD21 | 1:I:189:GLY:H    | 1.69                     | 0.41              |
| 1:I:267:MET:O    | 1:I:271:LEU:HD23 | 2.21                     | 0.41              |
| 1:I:344:GLN:C    | 1:I:346:HIS:N    | 2.74                     | 0.41              |
| 1:I:508:ILE:O    | 1:I:512:VAL:HG23 | 2.21                     | 0.41              |
| 1:I:513:LEU:H    | 1:I:513:LEU:CD1  | 2.34                     | 0.41              |
| 1:I:529:ALA:HA   | 1:I:532:LYS:CD   | 2.50                     | 0.41              |
| 2:J:142:ALA:O    | 2:J:145:VAL:HG23 | 2.20                     | 0.41              |
| 2:J:230:MET:HE2  | 2:J:240:ILE:HD12 | 2.02                     | 0.41              |
| 1:K:209:LEU:HD22 | 1:K:213:ARG:NE   | 2.36                     | 0.41              |
| 2:L:124:GLU:H    | 2:L:124:GLU:HG2  | 1.71                     | 0.41              |
| 2:L:132:ASP:HB3  | 2:L:133:GLU:H    | 1.63                     | 0.41              |
| 2:L:323:VAL:CG2  | 2:L:324:PHE:N    | 2.82                     | 0.41              |
| 2:L:392:VAL:O    | 2:L:393:SER:C    | 2.59                     | 0.41              |
| 2:L:411:ILE:HD12 | 2:L:411:ILE:H    | 1.84                     | 0.41              |
| 2:L:433:CYS:O    | 2:L:435:ASN:N    | 2.53                     | 0.41              |
| 3:N:26:ASP:O     | 3:N:28:SER:N     | 2.54                     | 0.41              |
| 3:N:34:MET:O     | 3:N:37:LEU:HB3   | 2.21                     | 0.41              |
| 3:N:83:PHE:O     | 3:N:87:VAL:HG23  | 2.21                     | 0.41              |
| 3:O:322:SER:HA   | 3:O:323:PRO:HD3  | 1.78                     | 0.41              |
| 3:P:384:TYR:H    | 3:P:384:TYR:HD2  | 1.67                     | 0.41              |
| 3:R:34:MET:O     | 3:R:35:PRO:C     | 2.59                     | 0.41              |
| 3:R:83:PHE:O     | 3:R:87:VAL:HG23  | 2.21                     | 0.41              |
| 4:S:53:ARG:O     | 4:S:53:ARG:HG2   | 2.21                     | 0.41              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:T:59:TYR:N     | 4:T:59:TYR:HD2   | 2.19                     | 0.41              |
| 4:T:117:PHE:O    | 4:T:117:PHE:HD1  | 2.04                     | 0.41              |
| 3:V:124:GLN:O    | 3:V:125:THR:O    | 2.39                     | 0.41              |
| 1:A:196:VAL:O    | 1:A:197:LEU:C    | 2.58                     | 0.41              |
| 1:A:333:LEU:O    | 1:A:335:THR:N    | 2.54                     | 0.41              |
| 1:A:400:CYS:O    | 1:A:403:GLY:N    | 2.54                     | 0.41              |
| 1:A:406:LEU:HD23 | 1:A:406:LEU:HA   | 1.81                     | 0.41              |
| 1:A:430:GLY:O    | 1:A:431:SER:C    | 2.59                     | 0.41              |
| 1:A:437:ALA:O    | 1:A:440:ASN:N    | 2.53                     | 0.41              |
| 1:A:573:TYR:O    | 1:A:574:ASP:O    | 2.37                     | 0.41              |
| 2:B:211:LEU:HD22 | 2:B:219:GLN:HA   | 2.02                     | 0.41              |
| 2:B:359:LYS:O    | 2:B:360:GLU:C    | 2.57                     | 0.41              |
| 1:C:292:THR:O    | 1:C:296:ILE:HG13 | 2.20                     | 0.41              |
| 1:C:306:ARG:O    | 1:C:309:ALA:HB3  | 2.20                     | 0.41              |
| 2:D:216:GLU:O    | 2:D:220:ILE:HD13 | 2.21                     | 0.41              |
| 2:D:334:VAL:HG12 | 2:D:338:LYS:HE3  | 2.03                     | 0.41              |
| 2:D:452:VAL:HG11 | 2:D:466:LEU:HD11 | 2.01                     | 0.41              |
| 2:D:463:ASP:HB2  | 2:D:464:GLU:H    | 1.70                     | 0.41              |
| 2:D:560:LEU:O    | 2:D:564:ILE:HG13 | 2.21                     | 0.41              |
| 1:E:254:ARG:HB2  | 1:E:295:THR:CB   | 2.51                     | 0.41              |
| 1:E:453:ALA:O    | 1:E:454:TYR:C    | 2.58                     | 0.41              |
| 1:E:454:TYR:O    | 1:E:457:GLN:HB2  | 2.21                     | 0.41              |
| 1:E:490:GLY:O    | 1:E:492:CYS:N    | 2.53                     | 0.41              |
| 2:F:378:GLY:O    | 2:F:380:CYS:N    | 2.54                     | 0.41              |
| 1:G:35:ARG:HB2   | 1:G:65:PHE:CE2   | 2.56                     | 0.41              |
| 1:G:100:HIS:O    | 1:G:103:MET:HB3  | 2.20                     | 0.41              |
| 1:G:118:VAL:O    | 1:G:119:GLN:C    | 2.58                     | 0.41              |
| 1:G:249:ILE:HG22 | 1:G:250:LEU:N    | 2.36                     | 0.41              |
| 1:G:271:LEU:HD12 | 1:G:296:ILE:HG13 | 2.01                     | 0.41              |
| 1:G:310:ILE:O    | 1:G:311:ASN:C    | 2.59                     | 0.41              |
| 1:G:454:TYR:O    | 1:G:457:GLN:HB2  | 2.20                     | 0.41              |
| 1:G:508:ILE:O    | 1:G:512:VAL:HG23 | 2.21                     | 0.41              |
| 2:H:49:ALA:O     | 2:H:52:PRO:HD2   | 2.20                     | 0.41              |
| 2:H:355:LEU:O    | 2:H:358:LEU:N    | 2.54                     | 0.41              |
| 2:H:411:ILE:HG13 | 2:H:432:LEU:HD11 | 2.02                     | 0.41              |
| 2:H:476:GLU:O    | 2:H:477:SER:C    | 2.59                     | 0.41              |
| 1:I:25:GLU:O     | 1:I:26:MET:C     | 2.59                     | 0.41              |
| 1:I:416:ARG:HD3  | 1:I:454:TYR:CE1  | 2.55                     | 0.41              |
| 1:I:493:GLU:HG2  | 1:I:494:GLU:H    | 1.86                     | 0.41              |
| 1:I:504:GLU:O    | 1:I:505:VAL:C    | 2.58                     | 0.41              |
| 2:J:339:LEU:C    | 2:J:341:ILE:N    | 2.74                     | 0.41              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2          | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-----------------|--------------------------|-------------------|
| 2:J:527:TRP:HA   | 2:J:527:TRP:CE3 | 2.56                     | 0.41              |
| 1:K:249:ILE:HG22 | 1:K:250:LEU:N   | 2.36                     | 0.41              |
| 1:K:289:LEU:HD12 | 1:K:289:LEU:H   | 1.86                     | 0.41              |
| 1:K:310:ILE:O    | 1:K:311:ASN:C   | 2.59                     | 0.41              |
| 1:K:451:MET:HE2  | 1:K:451:MET:N   | 2.34                     | 0.41              |
| 1:K:470:GLN:CB   | 1:K:471:PRO:CD  | 2.97                     | 0.41              |
| 2:L:88:VAL:O     | 2:L:91:PHE:N    | 2.50                     | 0.41              |
| 2:L:122:LEU:O    | 2:L:123:CYS:C   | 2.59                     | 0.41              |
| 2:L:285:ALA:CB   | 2:L:286:PRO:CD  | 2.87                     | 0.41              |
| 2:L:303:LEU:O    | 2:L:306:ILE:HB  | 2.20                     | 0.41              |
| 2:L:365:VAL:CG2  | 3:V:394:TYR:HA  | 2.51                     | 0.41              |
| 3:M:103:ILE:O    | 3:M:105:ASP:N   | 2.53                     | 0.41              |
| 3:N:86:LYS:O     | 3:N:89:GLN:CB   | 2.64                     | 0.41              |
| 3:O:104:ARG:O    | 3:O:107:PHE:HE1 | 2.04                     | 0.41              |
| 3:P:34:MET:O     | 3:P:35:PRO:C    | 2.59                     | 0.41              |
| 3:P:112:GLU:OE1  | 3:P:135:ILE:HA  | 2.20                     | 0.41              |
| 3:P:264:LEU:O    | 3:P:265:MET:HB2 | 2.21                     | 0.41              |
| 4:Q:4:PHE:C      | 4:Q:4:PHE:HD1   | 2.24                     | 0.41              |
| 4:Q:53:ARG:O     | 4:Q:53:ARG:HG2  | 2.21                     | 0.41              |
| 3:R:325:PHE:HD1  | 3:R:332:VAL:HB  | 1.86                     | 0.41              |
| 4:S:25:ASP:O     | 4:S:26:LYS:C    | 2.59                     | 0.41              |
| 3:V:34:MET:O     | 3:V:37:LEU:HB3  | 2.21                     | 0.41              |
| 3:V:65:LEU:HD11  | 3:V:99:GLU:C    | 2.41                     | 0.41              |
| 4:W:32:VAL:O     | 4:W:33:ARG:C    | 2.59                     | 0.41              |
| 4:W:135:ILE:HD12 | 4:W:135:ILE:HA  | 1.90                     | 0.41              |
| 4:X:35:LEU:HD11  | 4:X:52:TRP:CE3  | 2.56                     | 0.41              |
| 1:A:35:ARG:HB2   | 1:A:65:PHE:CE2  | 2.56                     | 0.41              |
| 1:A:64:HIS:O     | 1:A:65:PHE:C    | 2.59                     | 0.41              |
| 1:A:89:ALA:O     | 1:A:91:LEU:N    | 2.54                     | 0.41              |
| 1:A:117:PHE:CD1  | 1:A:117:PHE:N   | 2.88                     | 0.41              |
| 1:A:132:SER:O    | 1:A:133:GLU:C   | 2.58                     | 0.41              |
| 1:A:172:MET:SD   | 1:A:172:MET:C   | 2.99                     | 0.41              |
| 1:A:209:LEU:HD22 | 1:A:213:ARG:NE  | 2.36                     | 0.41              |
| 1:A:310:ILE:O    | 1:A:311:ASN:C   | 2.59                     | 0.41              |
| 1:A:353:CYS:O    | 1:A:355:LYS:N   | 2.54                     | 0.41              |
| 1:A:396:PHE:N    | 1:A:396:PHE:HD1 | 2.17                     | 0.41              |
| 1:A:493:GLU:HG2  | 1:A:494:GLU:H   | 1.86                     | 0.41              |
| 1:A:566:TYR:O    | 1:A:569:LEU:HB2 | 2.20                     | 0.41              |
| 2:B:15:ILE:O     | 2:B:16:PHE:C    | 2.58                     | 0.41              |
| 2:B:95:CYS:O     | 2:B:103:ARG:CB  | 2.69                     | 0.41              |
| 2:B:169:ILE:O    | 2:B:170:SER:C   | 2.59                     | 0.41              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:292:LEU:O    | 2:B:294:ALA:N    | 2.54                     | 0.41              |
| 2:B:307:ASN:O    | 2:B:308:LEU:C    | 2.58                     | 0.41              |
| 2:B:333:TYR:CE2  | 3:M:48:PRO:HG3   | 2.56                     | 0.41              |
| 2:B:341:ILE:HG22 | 2:B:342:MET:N    | 2.36                     | 0.41              |
| 2:B:351:ILE:HD11 | 2:B:384:VAL:HG21 | 2.03                     | 0.41              |
| 2:B:392:VAL:O    | 2:B:393:SER:C    | 2.59                     | 0.41              |
| 2:B:470:LEU:O    | 2:B:473:PHE:N    | 2.54                     | 0.41              |
| 1:C:11:ILE:HG12  | 1:C:55:TYR:CD2   | 2.55                     | 0.41              |
| 1:C:11:ILE:C     | 1:C:13:THR:N     | 2.72                     | 0.41              |
| 1:C:38:PHE:N     | 1:C:38:PHE:CD2   | 2.86                     | 0.41              |
| 1:C:56:MET:O     | 1:C:57:HIS:C     | 2.58                     | 0.41              |
| 1:C:100:HIS:O    | 1:C:103:MET:HB3  | 2.21                     | 0.41              |
| 1:C:116:GLN:O    | 1:C:119:GLN:HB2  | 2.21                     | 0.41              |
| 1:C:132:SER:O    | 1:C:133:GLU:C    | 2.58                     | 0.41              |
| 1:C:172:MET:SD   | 1:C:172:MET:C    | 2.99                     | 0.41              |
| 1:C:247:VAL:HG13 | 1:C:291:GLU:HG2  | 2.02                     | 0.41              |
| 1:C:249:ILE:HG22 | 1:C:250:LEU:N    | 2.36                     | 0.41              |
| 1:C:254:ARG:HB2  | 1:C:295:THR:CB   | 2.51                     | 0.41              |
| 1:C:271:LEU:HD12 | 1:C:296:ILE:HG13 | 2.01                     | 0.41              |
| 1:C:377:ASN:C    | 1:C:377:ASN:HD22 | 2.22                     | 0.41              |
| 1:C:433:VAL:HG12 | 1:C:434:ARG:N    | 2.36                     | 0.41              |
| 1:C:441:LEU:C    | 1:C:441:LEU:CD2  | 2.88                     | 0.41              |
| 1:C:460:TYR:CZ   | 1:C:464:LEU:HD21 | 2.55                     | 0.41              |
| 1:C:481:GLY:HA2  | 1:C:533:LEU:HD21 | 2.03                     | 0.41              |
| 1:C:504:GLU:O    | 1:C:505:VAL:C    | 2.58                     | 0.41              |
| 2:D:85:ILE:H     | 2:D:85:ILE:HG13  | 1.66                     | 0.41              |
| 2:D:95:CYS:O     | 2:D:103:ARG:CB   | 2.69                     | 0.41              |
| 2:D:181:VAL:O    | 2:D:182:ALA:C    | 2.59                     | 0.41              |
| 2:D:355:LEU:O    | 2:D:358:LEU:N    | 2.54                     | 0.41              |
| 2:D:378:GLY:O    | 2:D:380:CYS:N    | 2.54                     | 0.41              |
| 2:D:387:SER:O    | 2:D:390:ARG:HB2  | 2.20                     | 0.41              |
| 2:D:392:VAL:O    | 2:D:393:SER:C    | 2.59                     | 0.41              |
| 2:D:540:VAL:HG12 | 2:D:541:VAL:N    | 2.36                     | 0.41              |
| 2:D:551:GLU:C    | 2:D:553:ASP:N    | 2.72                     | 0.41              |
| 1:E:25:GLU:O     | 1:E:26:MET:C     | 2.59                     | 0.41              |
| 1:E:35:ARG:HB2   | 1:E:65:PHE:CE2   | 2.56                     | 0.41              |
| 1:E:137:ASP:CB   | 1:E:138:LEU:HD22 | 2.49                     | 0.41              |
| 1:E:172:MET:SD   | 1:E:172:MET:C    | 2.99                     | 0.41              |
| 1:E:187:ASN:HD21 | 1:E:189:GLY:H    | 1.69                     | 0.41              |
| 1:E:395:GLU:CD   | 1:E:395:GLU:H    | 2.20                     | 0.41              |
| 1:E:433:VAL:HG12 | 1:E:434:ARG:N    | 2.36                     | 0.41              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:446:THR:OG1  | 1:E:586:VAL:HG13 | 2.20                     | 0.41              |
| 1:E:460:TYR:O    | 1:E:461:LYS:C    | 2.59                     | 0.41              |
| 1:E:460:TYR:CZ   | 1:E:464:LEU:HD21 | 2.55                     | 0.41              |
| 1:E:529:ALA:HA   | 1:E:532:LYS:CD   | 2.50                     | 0.41              |
| 2:F:130:LEU:O    | 2:F:132:ASP:N    | 2.53                     | 0.41              |
| 2:F:307:ASN:O    | 2:F:308:LEU:C    | 2.58                     | 0.41              |
| 2:F:355:LEU:O    | 2:F:358:LEU:N    | 2.54                     | 0.41              |
| 2:F:389:GLU:O    | 2:F:392:VAL:N    | 2.54                     | 0.41              |
| 2:F:548:ILE:HG22 | 2:F:549:SER:N    | 2.36                     | 0.41              |
| 1:G:10:LEU:O     | 1:G:13:THR:HB    | 2.21                     | 0.41              |
| 1:G:131:SER:O    | 1:G:132:SER:O    | 2.38                     | 0.41              |
| 1:G:333:LEU:O    | 1:G:335:THR:N    | 2.54                     | 0.41              |
| 1:G:400:CYS:O    | 1:G:403:GLY:N    | 2.54                     | 0.41              |
| 1:G:433:VAL:HG12 | 1:G:434:ARG:N    | 2.36                     | 0.41              |
| 1:G:449:VAL:O    | 1:G:452:HIS:CD2  | 2.74                     | 0.41              |
| 1:G:451:MET:HE2  | 1:G:451:MET:N    | 2.33                     | 0.41              |
| 1:G:453:ALA:O    | 1:G:454:TYR:C    | 2.58                     | 0.41              |
| 1:G:531:MET:O    | 1:G:534:SER:N    | 2.54                     | 0.41              |
| 2:H:124:GLU:H    | 2:H:124:GLU:HG2  | 1.71                     | 0.41              |
| 2:H:173:ASN:O    | 2:H:174:PRO:C    | 2.59                     | 0.41              |
| 2:H:175:MET:O    | 2:H:176:VAL:C    | 2.57                     | 0.41              |
| 2:H:304:ARG:NE   | 2:H:573:VAL:O    | 2.42                     | 0.41              |
| 2:H:333:TYR:CE2  | 3:P:48:PRO:HG3   | 2.56                     | 0.41              |
| 2:H:347:SER:OG   | 2:H:348:GLN:N    | 2.52                     | 0.41              |
| 2:H:351:ILE:HD11 | 2:H:384:VAL:HG21 | 2.03                     | 0.41              |
| 2:H:365:VAL:CG2  | 3:P:394:TYR:HA   | 2.51                     | 0.41              |
| 2:H:392:VAL:O    | 2:H:393:SER:C    | 2.59                     | 0.41              |
| 2:H:461:ASN:HB3  | 2:H:465:LEU:CD1  | 2.49                     | 0.41              |
| 2:H:462:ALA:O    | 2:H:466:LEU:HD13 | 2.20                     | 0.41              |
| 2:H:504:GLN:O    | 2:H:505:GLN:C    | 2.59                     | 0.41              |
| 1:I:67:GLN:O     | 1:I:70:CYS:CB    | 2.56                     | 0.41              |
| 1:I:284:VAL:O    | 1:I:285:GLY:C    | 2.59                     | 0.41              |
| 1:I:310:ILE:O    | 1:I:311:ASN:C    | 2.59                     | 0.41              |
| 1:I:333:LEU:O    | 1:I:335:THR:N    | 2.54                     | 0.41              |
| 1:I:415:LYS:O    | 1:I:416:ARG:C    | 2.58                     | 0.41              |
| 1:I:426:LEU:O    | 1:I:427:THR:C    | 2.58                     | 0.41              |
| 1:I:445:ILE:HG22 | 1:I:446:THR:N    | 2.36                     | 0.41              |
| 1:I:450:GLU:C    | 1:I:452:HIS:H    | 2.25                     | 0.41              |
| 1:I:524:GLY:C    | 1:I:526:ALA:N    | 2.74                     | 0.41              |
| 2:J:4:SER:O      | 2:J:5:LYS:HG3    | 2.21                     | 0.41              |
| 2:J:92:VAL:O     | 2:J:95:CYS:N     | 2.53                     | 0.41              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:J:96:GLU:O     | 2:J:97:ASP:C     | 2.58                     | 0.41              |
| 2:J:110:MET:HE3  | 2:J:122:LEU:HB2  | 2.02                     | 0.41              |
| 2:J:262:VAL:CG2  | 2:J:263:LEU:N    | 2.83                     | 0.41              |
| 2:J:378:GLY:O    | 2:J:380:CYS:N    | 2.54                     | 0.41              |
| 2:J:411:ILE:HG13 | 2:J:432:LEU:HD11 | 2.02                     | 0.41              |
| 2:J:495:LYS:O    | 2:J:496:PRO:O    | 2.38                     | 0.41              |
| 2:J:548:ILE:HG22 | 2:J:549:SER:N    | 2.36                     | 0.41              |
| 1:K:64:HIS:O     | 1:K:65:PHE:C     | 2.59                     | 0.41              |
| 1:K:111:LEU:HD23 | 1:K:111:LEU:HA   | 1.90                     | 0.41              |
| 1:K:121:LEU:O    | 1:K:122:ALA:C    | 2.58                     | 0.41              |
| 1:K:131:SER:O    | 1:K:132:SER:O    | 2.38                     | 0.41              |
| 1:K:173:GLU:C    | 1:K:175:PHE:H    | 2.24                     | 0.41              |
| 1:K:185:GLU:CG   | 1:K:186:LYS:N    | 2.83                     | 0.41              |
| 1:K:270:ILE:CG2  | 1:K:271:LEU:N    | 2.84                     | 0.41              |
| 1:K:271:LEU:HD12 | 1:K:296:ILE:HG13 | 2.01                     | 0.41              |
| 1:K:344:GLN:C    | 1:K:346:HIS:N    | 2.74                     | 0.41              |
| 1:K:353:CYS:O    | 1:K:355:LYS:N    | 2.54                     | 0.41              |
| 1:K:430:GLY:O    | 1:K:431:SER:C    | 2.59                     | 0.41              |
| 1:K:449:VAL:O    | 1:K:452:HIS:CD2  | 2.74                     | 0.41              |
| 2:L:4:SER:O      | 2:L:5:LYS:HG3    | 2.21                     | 0.41              |
| 2:L:142:ALA:O    | 2:L:145:VAL:HG23 | 2.20                     | 0.41              |
| 2:L:148:LEU:CA   | 2:L:151:ILE:HG13 | 2.49                     | 0.41              |
| 2:L:211:LEU:HD22 | 2:L:219:GLN:HA   | 2.02                     | 0.41              |
| 2:L:355:LEU:HD23 | 2:L:355:LEU:N    | 2.36                     | 0.41              |
| 2:L:510:ALA:HB1  | 2:L:519:LEU:CD1  | 2.41                     | 0.41              |
| 2:L:525:ILE:HG22 | 2:L:526:TYR:N    | 2.35                     | 0.41              |
| 2:L:574:TYR:O    | 2:L:575:HIS:CB   | 2.68                     | 0.41              |
| 3:M:103:ILE:C    | 3:M:105:ASP:N    | 2.74                     | 0.41              |
| 3:M:247:PHE:HB2  | 3:M:248:GLU:H    | 1.62                     | 0.41              |
| 3:N:29:GLU:O     | 3:N:30:VAL:C     | 2.58                     | 0.41              |
| 3:N:65:LEU:HD11  | 3:N:99:GLU:C     | 2.41                     | 0.41              |
| 3:N:65:LEU:HD11  | 3:N:99:GLU:H     | 1.85                     | 0.41              |
| 3:N:262:PHE:CD1  | 3:N:262:PHE:C    | 2.94                     | 0.41              |
| 3:N:325:PHE:HD1  | 3:N:332:VAL:HB   | 1.86                     | 0.41              |
| 3:O:29:GLU:O     | 3:O:30:VAL:C     | 2.58                     | 0.41              |
| 3:O:65:LEU:HD11  | 3:O:99:GLU:C     | 2.41                     | 0.41              |
| 3:O:83:PHE:O     | 3:O:87:VAL:HG23  | 2.21                     | 0.41              |
| 3:O:277:ILE:HD12 | 3:O:380:PHE:HD2  | 1.86                     | 0.41              |
| 3:P:160:ARG:C    | 3:P:161:SER:O    | 2.59                     | 0.41              |
| 3:P:269:LEU:N    | 3:P:269:LEU:CD2  | 2.70                     | 0.41              |
| 4:Q:62:TYR:O     | 4:Q:63:ALA:C     | 2.57                     | 0.41              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:Q:117:PHE:O    | 4:Q:117:PHE:HD1  | 2.04                     | 0.41              |
| 3:R:8:VAL:HG11   | 3:R:103:ILE:CD1  | 2.50                     | 0.41              |
| 3:R:16:LEU:HD13  | 3:R:16:LEU:O     | 2.20                     | 0.41              |
| 3:R:103:ILE:O    | 3:R:105:ASP:N    | 2.53                     | 0.41              |
| 3:R:133:GLU:OE2  | 3:R:134:PHE:HE1  | 2.02                     | 0.41              |
| 3:R:205:SER:O    | 3:R:399:GLU:OE1  | 2.38                     | 0.41              |
| 3:R:242:VAL:HA   | 3:R:255:PHE:HB3  | 2.02                     | 0.41              |
| 3:R:384:TYR:HD2  | 3:R:384:TYR:H    | 1.67                     | 0.41              |
| 4:S:59:TYR:N     | 4:S:59:TYR:HD2   | 2.19                     | 0.41              |
| 4:T:4:PHE:C      | 4:T:4:PHE:HD1    | 2.24                     | 0.41              |
| 4:T:31:MET:HE3   | 4:T:53:ARG:NH1   | 2.36                     | 0.41              |
| 4:T:62:TYR:O     | 4:T:63:ALA:C     | 2.57                     | 0.41              |
| 4:T:88:VAL:O     | 4:T:89:GLU:C     | 2.59                     | 0.41              |
| 4:U:53:ARG:O     | 4:U:53:ARG:HG2   | 2.21                     | 0.41              |
| 4:U:53:ARG:O     | 4:U:54:ASP:CB    | 2.63                     | 0.41              |
| 3:V:103:ILE:C    | 3:V:105:ASP:N    | 2.74                     | 0.41              |
| 3:V:106:ASN:O    | 3:V:109:ILE:HG13 | 2.21                     | 0.41              |
| 3:V:262:PHE:CD1  | 3:V:262:PHE:C    | 2.94                     | 0.41              |
| 3:V:312:ILE:CA   | 3:V:378:VAL:HG12 | 2.34                     | 0.41              |
| 3:V:384:TYR:N    | 3:V:384:TYR:HD2  | 2.15                     | 0.41              |
| 4:W:30:LYS:HB2   | 4:W:30:LYS:NZ    | 2.30                     | 0.41              |
| 4:W:76:ASN:O     | 4:W:76:ASN:ND2   | 2.54                     | 0.41              |
| 4:X:4:PHE:C      | 4:X:4:PHE:HD1    | 2.24                     | 0.41              |
| 4:X:32:VAL:O     | 4:X:33:ARG:C     | 2.59                     | 0.41              |
| 4:X:65:LEU:HD12  | 4:X:65:LEU:HA    | 1.75                     | 0.41              |
| 4:X:132:LEU:HA   | 4:X:135:ILE:HG22 | 2.03                     | 0.41              |
| 1:A:10:LEU:O     | 1:A:13:THR:HB    | 2.21                     | 0.41              |
| 1:A:254:ARG:HB2  | 1:A:295:THR:CB   | 2.51                     | 0.41              |
| 1:A:323:ASN:O    | 1:A:326:TYR:N    | 2.45                     | 0.41              |
| 1:A:415:LYS:O    | 1:A:416:ARG:C    | 2.58                     | 0.41              |
| 1:A:478:TRP:O    | 1:A:481:GLY:N    | 2.54                     | 0.41              |
| 1:A:508:ILE:O    | 1:A:512:VAL:HG23 | 2.21                     | 0.41              |
| 1:A:581:LEU:C    | 1:A:583:ARG:N    | 2.69                     | 0.41              |
| 2:B:148:LEU:N    | 2:B:148:LEU:CD1  | 2.80                     | 0.41              |
| 2:B:398:LEU:O    | 2:B:401:THR:OG1  | 2.30                     | 0.41              |
| 2:B:411:ILE:HG13 | 2:B:432:LEU:HD11 | 2.02                     | 0.41              |
| 2:B:532:THR:HG22 | 2:B:533:ASP:N    | 2.36                     | 0.41              |
| 1:C:209:LEU:HD22 | 1:C:213:ARG:NE   | 2.35                     | 0.41              |
| 1:C:212:PHE:HZ   | 1:C:260:ASP:CB   | 2.33                     | 0.41              |
| 1:C:449:VAL:O    | 1:C:452:HIS:CD2  | 2.74                     | 0.41              |
| 1:C:488:VAL:O    | 1:C:489:SER:C    | 2.60                     | 0.41              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:D:49:ALA:O     | 2:D:52:PRO:HD2   | 2.20                     | 0.41              |
| 2:D:71:LEU:O     | 2:D:74:MET:CB    | 2.67                     | 0.41              |
| 2:D:74:MET:O     | 2:D:77:ALA:HB2   | 2.20                     | 0.41              |
| 2:D:184:LEU:HA   | 2:D:184:LEU:HD12 | 1.88                     | 0.41              |
| 2:D:292:LEU:O    | 2:D:294:ALA:N    | 2.54                     | 0.41              |
| 2:D:309:ILE:C    | 2:D:311:GLN:N    | 2.75                     | 0.41              |
| 1:E:212:PHE:HZ   | 1:E:260:ASP:CB   | 2.33                     | 0.41              |
| 1:E:305:LEU:O    | 1:E:306:ARG:C    | 2.59                     | 0.41              |
| 1:E:306:ARG:O    | 1:E:309:ALA:HB3  | 2.20                     | 0.41              |
| 2:F:97:ASP:OD1   | 2:F:98:PRO:CD    | 2.69                     | 0.41              |
| 2:F:527:TRP:HA   | 2:F:527:TRP:CE3  | 2.56                     | 0.41              |
| 1:G:56:MET:O     | 1:G:57:HIS:C     | 2.58                     | 0.41              |
| 1:G:450:GLU:C    | 1:G:452:HIS:H    | 2.25                     | 0.41              |
| 2:H:4:SER:O      | 2:H:5:LYS:HG3    | 2.21                     | 0.41              |
| 2:H:142:ALA:O    | 2:H:145:VAL:HB   | 2.21                     | 0.41              |
| 2:H:216:GLU:O    | 2:H:220:ILE:HD13 | 2.21                     | 0.41              |
| 1:I:48:ARG:O     | 1:I:49:ASN:C     | 2.58                     | 0.41              |
| 1:I:172:MET:SD   | 1:I:172:MET:C    | 2.99                     | 0.41              |
| 1:I:247:VAL:HG13 | 1:I:291:GLU:HG2  | 2.02                     | 0.41              |
| 1:I:254:ARG:HB2  | 1:I:295:THR:CB   | 2.51                     | 0.41              |
| 1:I:400:CYS:O    | 1:I:403:GLY:N    | 2.54                     | 0.41              |
| 1:I:430:GLY:HA2  | 1:I:433:VAL:CG2  | 2.51                     | 0.41              |
| 2:J:41:MET:HE3   | 2:J:72:TYR:HE1   | 1.86                     | 0.41              |
| 2:J:255:VAL:CG2  | 2:J:256:VAL:N    | 2.75                     | 0.41              |
| 2:J:307:ASN:O    | 2:J:308:LEU:C    | 2.58                     | 0.41              |
| 2:J:351:ILE:HD11 | 2:J:384:VAL:HG21 | 2.03                     | 0.41              |
| 2:J:355:LEU:HD23 | 2:J:355:LEU:N    | 2.36                     | 0.41              |
| 2:J:532:THR:HG22 | 2:J:533:ASP:N    | 2.35                     | 0.41              |
| 1:K:100:HIS:O    | 1:K:103:MET:HB3  | 2.21                     | 0.41              |
| 1:K:172:MET:SD   | 1:K:172:MET:C    | 2.99                     | 0.41              |
| 1:K:247:VAL:HG13 | 1:K:291:GLU:HG2  | 2.02                     | 0.41              |
| 1:K:441:LEU:C    | 1:K:441:LEU:CD2  | 2.88                     | 0.41              |
| 1:K:524:GLY:C    | 1:K:526:ALA:N    | 2.73                     | 0.41              |
| 1:K:531:MET:O    | 1:K:534:SER:N    | 2.54                     | 0.41              |
| 1:K:566:TYR:O    | 1:K:569:LEU:HB2  | 2.21                     | 0.41              |
| 2:L:95:CYS:O     | 2:L:103:ARG:CB   | 2.69                     | 0.41              |
| 2:L:125:PRO:O    | 2:L:128:LYS:HB2  | 2.21                     | 0.41              |
| 2:L:181:VAL:O    | 2:L:182:ALA:C    | 2.59                     | 0.41              |
| 2:L:216:GLU:O    | 2:L:220:ILE:HD13 | 2.21                     | 0.41              |
| 2:L:313:ARG:HA   | 2:L:313:ARG:HD3  | 1.82                     | 0.41              |
| 2:L:374:VAL:C    | 2:L:376:ALA:N    | 2.71                     | 0.41              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:L:378:GLY:O    | 2:L:380:CYS:N    | 2.54                     | 0.41              |
| 2:L:470:LEU:O    | 2:L:473:PHE:N    | 2.54                     | 0.41              |
| 2:L:523:GLY:O    | 2:L:524:TYR:C    | 2.59                     | 0.41              |
| 2:L:540:VAL:HG12 | 2:L:541:VAL:N    | 2.36                     | 0.41              |
| 2:L:560:LEU:O    | 2:L:564:ILE:HG13 | 2.21                     | 0.41              |
| 2:L:573:VAL:CG1  | 2:L:574:TYR:N    | 2.83                     | 0.41              |
| 3:M:160:ARG:C    | 3:M:161:SER:O    | 2.59                     | 0.41              |
| 3:N:26:ASP:C     | 3:N:26:ASP:OD1   | 2.60                     | 0.41              |
| 3:O:314:ILE:HG12 | 3:O:376:ILE:CD1  | 2.50                     | 0.41              |
| 4:Q:35:LEU:HD11  | 4:Q:52:TRP:CE3   | 2.56                     | 0.41              |
| 4:Q:132:LEU:HA   | 4:Q:135:ILE:HG22 | 2.03                     | 0.41              |
| 3:R:26:ASP:C     | 3:R:26:ASP:OD1   | 2.60                     | 0.41              |
| 3:R:264:LEU:O    | 3:R:265:MET:HB2  | 2.21                     | 0.41              |
| 3:R:314:ILE:HG12 | 3:R:376:ILE:CD1  | 2.50                     | 0.41              |
| 4:T:89:GLU:HG2   | 4:T:128:LYS:HE2  | 2.03                     | 0.41              |
| 3:V:118:MET:HA   | 3:V:123:PRO:HA   | 2.01                     | 0.41              |
| 4:W:31:MET:CE    | 4:W:53:ARG:NH1   | 2.84                     | 0.41              |
| 4:X:53:ARG:O     | 4:X:53:ARG:HG2   | 2.21                     | 0.41              |
| 1:A:95:GLU:OE2   | 1:A:95:GLU:N     | 2.54                     | 0.40              |
| 1:A:463:ILE:CD1  | 1:A:476:ALA:CB   | 2.96                     | 0.40              |
| 2:B:51:PHE:HB3   | 2:B:52:PRO:CD    | 2.45                     | 0.40              |
| 2:B:88:VAL:O     | 2:B:91:PHE:N     | 2.50                     | 0.40              |
| 2:B:97:ASP:OD1   | 2:B:98:PRO:CD    | 2.69                     | 0.40              |
| 2:B:229:TYR:HB3  | 2:B:230:MET:H    | 1.21                     | 0.40              |
| 2:B:495:LYS:O    | 2:B:496:PRO:O    | 2.38                     | 0.40              |
| 2:B:509:LEU:C    | 2:B:511:THR:H    | 2.25                     | 0.40              |
| 1:C:111:LEU:HD23 | 1:C:111:LEU:HA   | 1.90                     | 0.40              |
| 1:C:240:ILE:HD12 | 1:C:284:VAL:CG1  | 2.52                     | 0.40              |
| 1:C:344:GLN:C    | 1:C:346:HIS:N    | 2.74                     | 0.40              |
| 1:C:478:TRP:O    | 1:C:481:GLY:N    | 2.54                     | 0.40              |
| 1:C:540:THR:O    | 1:C:540:THR:HG22 | 2.20                     | 0.40              |
| 2:D:169:ILE:O    | 2:D:170:SER:C    | 2.59                     | 0.40              |
| 2:D:188:ALA:CB   | 2:D:195:ASN:HB3  | 2.48                     | 0.40              |
| 2:D:341:ILE:HG22 | 2:D:342:MET:N    | 2.36                     | 0.40              |
| 1:E:332:LEU:HD12 | 1:E:332:LEU:HA   | 1.94                     | 0.40              |
| 1:E:416:ARG:HD3  | 1:E:454:TYR:CE1  | 2.55                     | 0.40              |
| 1:E:430:GLY:O    | 1:E:431:SER:C    | 2.59                     | 0.40              |
| 1:E:476:ALA:C    | 1:E:478:TRP:N    | 2.72                     | 0.40              |
| 1:E:508:ILE:O    | 1:E:512:VAL:HG23 | 2.21                     | 0.40              |
| 2:F:100:PRO:HA   | 2:F:103:ARG:CG   | 2.46                     | 0.40              |
| 2:F:211:LEU:HD22 | 2:F:219:GLN:HA   | 2.02                     | 0.40              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:297:GLU:H    | 2:F:297:GLU:HG3  | 1.66                     | 0.40              |
| 2:F:470:LEU:O    | 2:F:473:PHE:N    | 2.54                     | 0.40              |
| 2:F:523:GLY:O    | 2:F:524:TYR:C    | 2.59                     | 0.40              |
| 1:G:25:GLU:O     | 1:G:26:MET:C     | 2.59                     | 0.40              |
| 1:G:89:ALA:O     | 1:G:91:LEU:N     | 2.54                     | 0.40              |
| 1:G:132:SER:O    | 1:G:133:GLU:C    | 2.58                     | 0.40              |
| 1:G:254:ARG:HB2  | 1:G:295:THR:CB   | 2.51                     | 0.40              |
| 1:G:426:LEU:O    | 1:G:427:THR:C    | 2.58                     | 0.40              |
| 1:G:481:GLY:HA2  | 1:G:533:LEU:HD21 | 2.03                     | 0.40              |
| 1:G:513:LEU:H    | 1:G:513:LEU:CD1  | 2.34                     | 0.40              |
| 2:H:250:HIS:HB3  | 2:H:251:ALA:H    | 1.70                     | 0.40              |
| 2:H:509:LEU:C    | 2:H:511:THR:H    | 2.25                     | 0.40              |
| 1:I:89:ALA:O     | 1:I:91:LEU:N     | 2.54                     | 0.40              |
| 1:I:154:ARG:HH21 | 1:I:182:LEU:HD23 | 1.86                     | 0.40              |
| 1:I:287:ALA:HA   | 4:X:78:LEU:HD13  | 2.02                     | 0.40              |
| 1:I:403:GLY:O    | 1:I:404:ILE:C    | 2.59                     | 0.40              |
| 2:J:30:LYS:H     | 2:J:30:LYS:HG3   | 1.70                     | 0.40              |
| 2:J:341:ILE:HG22 | 2:J:342:MET:N    | 2.36                     | 0.40              |
| 2:J:415:LYS:O    | 2:J:416:ASP:C    | 2.60                     | 0.40              |
| 2:J:470:LEU:O    | 2:J:473:PHE:N    | 2.54                     | 0.40              |
| 2:J:476:GLU:O    | 2:J:477:SER:C    | 2.59                     | 0.40              |
| 2:J:509:LEU:C    | 2:J:511:THR:H    | 2.25                     | 0.40              |
| 2:J:523:GLY:O    | 2:J:524:TYR:C    | 2.59                     | 0.40              |
| 2:J:540:VAL:HG12 | 2:J:541:VAL:N    | 2.36                     | 0.40              |
| 2:J:569:THR:HG23 | 3:R:74:ASN:CG    | 2.35                     | 0.40              |
| 1:K:215:LEU:H    | 1:K:215:LEU:HG   | 1.53                     | 0.40              |
| 1:K:240:ILE:HD12 | 1:K:284:VAL:CG1  | 2.52                     | 0.40              |
| 1:K:287:ALA:HA   | 4:W:78:LEU:HD13  | 2.02                     | 0.40              |
| 1:K:389:LEU:HD13 | 1:K:400:CYS:HB3  | 2.02                     | 0.40              |
| 1:K:453:ALA:O    | 1:K:454:TYR:C    | 2.58                     | 0.40              |
| 1:K:457:GLN:O    | 1:K:460:TYR:N    | 2.55                     | 0.40              |
| 1:K:488:VAL:O    | 1:K:489:SER:C    | 2.60                     | 0.40              |
| 2:L:91:PHE:O     | 2:L:92:VAL:C     | 2.58                     | 0.40              |
| 2:L:229:TYR:HB3  | 2:L:230:MET:H    | 1.21                     | 0.40              |
| 2:L:260:VAL:O    | 2:L:261:LYS:C    | 2.59                     | 0.40              |
| 2:L:355:LEU:O    | 2:L:358:LEU:N    | 2.54                     | 0.40              |
| 3:M:26:ASP:O     | 3:M:28:SER:N     | 2.53                     | 0.40              |
| 3:M:79:LEU:HB2   | 3:M:80:VAL:H     | 1.51                     | 0.40              |
| 3:N:12:LYS:HE3   | 3:N:12:LYS:HB2   | 1.97                     | 0.40              |
| 3:N:213:GLY:HA3  | 3:N:394:TYR:CZ   | 2.55                     | 0.40              |
| 3:O:26:ASP:C     | 3:O:26:ASP:OD1   | 2.60                     | 0.40              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:O:395:LEU:HD12 | 3:O:395:LEU:HA   | 1.69                     | 0.40              |
| 3:P:37:LEU:O     | 3:P:38:MET:C     | 2.59                     | 0.40              |
| 3:P:262:PHE:CD1  | 3:P:262:PHE:C    | 2.94                     | 0.40              |
| 3:R:34:MET:O     | 3:R:37:LEU:HB3   | 2.21                     | 0.40              |
| 3:R:97:GLU:O     | 3:R:102:SER:OG   | 2.35                     | 0.40              |
| 3:R:106:ASN:O    | 3:R:109:ILE:HG13 | 2.21                     | 0.40              |
| 4:T:32:VAL:O     | 4:T:33:ARG:C     | 2.59                     | 0.40              |
| 4:U:4:PHE:C      | 4:U:4:PHE:HD1    | 2.24                     | 0.40              |
| 4:U:134:ALA:O    | 4:U:135:ILE:C    | 2.59                     | 0.40              |
| 3:V:264:LEU:O    | 3:V:265:MET:HB2  | 2.21                     | 0.40              |
| 4:W:4:PHE:C      | 4:W:4:PHE:HD1    | 2.24                     | 0.40              |
| 4:W:53:ARG:O     | 4:W:53:ARG:HG2   | 2.21                     | 0.40              |
| 1:A:48:ARG:O     | 1:A:49:ASN:C     | 2.58                     | 0.40              |
| 1:A:200:GLU:O    | 1:A:203:GLU:HG2  | 2.22                     | 0.40              |
| 1:A:240:ILE:HD12 | 1:A:284:VAL:CG1  | 2.52                     | 0.40              |
| 1:A:271:LEU:HD12 | 1:A:296:ILE:HG13 | 2.01                     | 0.40              |
| 1:A:306:ARG:HD3  | 1:A:339:ASP:OD1  | 2.20                     | 0.40              |
| 1:A:344:GLN:C    | 1:A:346:HIS:N    | 2.74                     | 0.40              |
| 1:A:460:TYR:CE2  | 1:A:464:LEU:HD21 | 2.56                     | 0.40              |
| 1:C:10:LEU:O     | 1:C:13:THR:HB    | 2.21                     | 0.40              |
| 1:C:25:GLU:O     | 1:C:26:MET:C     | 2.59                     | 0.40              |
| 1:C:135:CYS:O    | 1:C:136:ARG:C    | 2.60                     | 0.40              |
| 1:C:173:GLU:C    | 1:C:175:PHE:H    | 2.24                     | 0.40              |
| 1:C:353:CYS:O    | 1:C:355:LYS:N    | 2.54                     | 0.40              |
| 1:C:406:LEU:HD23 | 1:C:406:LEU:HA   | 1.81                     | 0.40              |
| 1:C:457:GLN:O    | 1:C:460:TYR:N    | 2.55                     | 0.40              |
| 1:C:493:GLU:HG2  | 1:C:494:GLU:H    | 1.86                     | 0.40              |
| 2:D:15:ILE:O     | 2:D:16:PHE:C     | 2.58                     | 0.40              |
| 2:D:125:PRO:O    | 2:D:128:LYS:HB2  | 2.21                     | 0.40              |
| 2:D:351:ILE:HD11 | 2:D:384:VAL:HG21 | 2.03                     | 0.40              |
| 2:D:395:LEU:HD23 | 2:D:395:LEU:HA   | 1.85                     | 0.40              |
| 2:D:476:GLU:O    | 2:D:477:SER:C    | 2.59                     | 0.40              |
| 2:D:509:LEU:C    | 2:D:511:THR:H    | 2.25                     | 0.40              |
| 2:D:532:THR:HG22 | 2:D:533:ASP:N    | 2.36                     | 0.40              |
| 1:E:89:ALA:O     | 1:E:91:LEU:N     | 2.54                     | 0.40              |
| 1:E:131:SER:O    | 1:E:132:SER:O    | 2.38                     | 0.40              |
| 1:E:155:LYS:O    | 1:E:156:LYS:C    | 2.60                     | 0.40              |
| 1:E:183:LEU:HD12 | 1:E:215:LEU:HB3  | 2.02                     | 0.40              |
| 1:E:358:ASP:HB3  | 1:E:361:ILE:CD1  | 2.38                     | 0.40              |
| 1:E:445:ILE:HG22 | 1:E:446:THR:N    | 2.36                     | 0.40              |
| 1:E:481:GLY:HA2  | 1:E:533:LEU:HD21 | 2.03                     | 0.40              |

*Continued on next page...*



*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:524:GLY:C    | 1:E:526:ALA:N    | 2.74                     | 0.40              |
| 2:F:72:TYR:CZ    | 2:F:76:TYR:HE2   | 2.40                     | 0.40              |
| 2:F:532:THR:HG22 | 2:F:533:ASP:N    | 2.36                     | 0.40              |
| 2:F:573:VAL:CG1  | 2:F:574:TYR:N    | 2.83                     | 0.40              |
| 1:G:105:ASN:HD22 | 1:G:105:ASN:HA   | 1.64                     | 0.40              |
| 1:G:253:LEU:H    | 1:G:253:LEU:HG   | 1.69                     | 0.40              |
| 1:G:353:CYS:O    | 1:G:355:LYS:N    | 2.54                     | 0.40              |
| 1:G:460:TYR:O    | 1:G:461:LYS:C    | 2.59                     | 0.40              |
| 1:G:504:GLU:O    | 1:G:505:VAL:C    | 2.58                     | 0.40              |
| 2:H:262:VAL:O    | 2:H:265:LYS:N    | 2.54                     | 0.40              |
| 2:H:389:GLU:O    | 2:H:392:VAL:N    | 2.54                     | 0.40              |
| 2:H:446:ALA:O    | 2:H:449:ILE:N    | 2.55                     | 0.40              |
| 1:I:155:LYS:O    | 1:I:156:LYS:C    | 2.60                     | 0.40              |
| 1:I:168:VAL:HG12 | 1:I:171:LEU:HG   | 2.03                     | 0.40              |
| 1:I:173:GLU:C    | 1:I:175:PHE:H    | 2.24                     | 0.40              |
| 1:I:317:LEU:HD23 | 1:I:328:ALA:HB1  | 2.02                     | 0.40              |
| 1:I:353:CYS:O    | 1:I:355:LYS:N    | 2.54                     | 0.40              |
| 1:I:433:VAL:HG12 | 1:I:434:ARG:N    | 2.36                     | 0.40              |
| 1:I:437:ALA:O    | 1:I:440:ASN:N    | 2.53                     | 0.40              |
| 2:J:142:ALA:O    | 2:J:145:VAL:HB   | 2.21                     | 0.40              |
| 2:J:184:LEU:HA   | 2:J:184:LEU:HD12 | 1.88                     | 0.40              |
| 1:K:95:GLU:N     | 1:K:95:GLU:OE2   | 2.55                     | 0.40              |
| 1:K:446:THR:OG1  | 1:K:586:VAL:HG13 | 2.20                     | 0.40              |
| 1:K:493:GLU:HG2  | 1:K:494:GLU:H    | 1.86                     | 0.40              |
| 1:K:529:ALA:HA   | 1:K:532:LYS:CD   | 2.50                     | 0.40              |
| 1:K:529:ALA:O    | 1:K:532:LYS:HG3  | 2.21                     | 0.40              |
| 2:L:74:MET:O     | 2:L:75:ASN:C     | 2.59                     | 0.40              |
| 2:L:309:ILE:C    | 2:L:311:GLN:N    | 2.75                     | 0.40              |
| 2:L:339:LEU:C    | 2:L:341:ILE:N    | 2.74                     | 0.40              |
| 2:L:462:ALA:O    | 2:L:466:LEU:HD13 | 2.20                     | 0.40              |
| 2:L:527:TRP:HA   | 2:L:527:TRP:CE3  | 2.56                     | 0.40              |
| 3:M:104:ARG:O    | 3:M:107:PHE:HE1  | 2.04                     | 0.40              |
| 3:M:108:VAL:O    | 3:M:111:TYR:HB2  | 2.21                     | 0.40              |
| 3:N:34:MET:O     | 3:N:35:PRO:C     | 2.59                     | 0.40              |
| 3:N:108:VAL:O    | 3:N:111:TYR:HB2  | 2.21                     | 0.40              |
| 3:O:205:SER:O    | 3:O:399:GLU:OE1  | 2.38                     | 0.40              |
| 3:P:8:VAL:C      | 3:P:9:LEU:HD23   | 2.42                     | 0.40              |
| 3:P:315:PRO:HG2  | 3:P:374:PRO:O    | 2.22                     | 0.40              |
| 3:P:322:SER:HA   | 3:P:323:PRO:HD3  | 1.79                     | 0.40              |
| 4:Q:25:ASP:O     | 4:Q:26:LYS:C     | 2.59                     | 0.40              |
| 4:Q:84:ILE:C     | 4:Q:86:ARG:N     | 2.72                     | 0.40              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2          | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-----------------|--------------------------|-------------------|
| 3:R:65:LEU:HD11  | 3:R:99:GLU:C    | 2.41                     | 0.40              |
| 3:R:84:LEU:O     | 3:R:85:TYR:C    | 2.56                     | 0.40              |
| 4:S:31:MET:HE3   | 4:S:53:ARG:NH1  | 2.36                     | 0.40              |
| 4:S:32:VAL:O     | 4:S:33:ARG:C    | 2.59                     | 0.40              |
| 4:T:25:ASP:O     | 4:T:26:LYS:C    | 2.59                     | 0.40              |
| 4:T:79:ILE:CG2   | 4:T:80:THR:H    | 2.32                     | 0.40              |
| 3:V:26:ASP:C     | 3:V:26:ASP:OD1  | 2.60                     | 0.40              |
| 3:V:108:VAL:O    | 3:V:111:TYR:HB2 | 2.21                     | 0.40              |
| 3:V:130:ILE:O    | 3:V:130:ILE:CG2 | 2.67                     | 0.40              |
| 4:W:30:LYS:HZ3   | 4:W:33:ARG:HH21 | 1.69                     | 0.40              |
| 1:A:159:LEU:O    | 1:A:162:VAL:CB  | 2.62                     | 0.40              |
| 1:A:187:ASN:HD21 | 1:A:189:GLY:H   | 1.69                     | 0.40              |
| 1:A:441:LEU:C    | 1:A:441:LEU:CD2 | 2.88                     | 0.40              |
| 1:A:457:GLN:O    | 1:A:460:TYR:N   | 2.55                     | 0.40              |
| 1:A:513:LEU:H    | 1:A:513:LEU:CD1 | 2.34                     | 0.40              |
| 2:B:124:GLU:H    | 2:B:124:GLU:HG2 | 1.71                     | 0.40              |
| 2:B:134:ASP:O    | 2:B:138:ARG:CG  | 2.64                     | 0.40              |
| 2:B:547:LEU:HD23 | 2:B:547:LEU:HA  | 1.93                     | 0.40              |
| 2:B:548:ILE:HG22 | 2:B:549:SER:N   | 2.36                     | 0.40              |
| 1:C:54:LEU:HD23  | 1:C:54:LEU:HA   | 1.88                     | 0.40              |
| 1:C:95:GLU:OE2   | 1:C:95:GLU:N    | 2.55                     | 0.40              |
| 1:C:164:VAL:O    | 1:C:165:ILE:C   | 2.58                     | 0.40              |
| 1:C:310:ILE:O    | 1:C:311:ASN:C   | 2.59                     | 0.40              |
| 1:C:370:PHE:HD2  | 1:C:370:PHE:HA  | 1.65                     | 0.40              |
| 1:C:400:CYS:O    | 1:C:403:GLY:N   | 2.54                     | 0.40              |
| 1:C:430:GLY:O    | 1:C:431:SER:C   | 2.59                     | 0.40              |
| 1:C:450:GLU:C    | 1:C:452:HIS:H   | 2.25                     | 0.40              |
| 1:C:454:TYR:O    | 1:C:457:GLN:HB2 | 2.21                     | 0.40              |
| 1:C:496:GLU:HA   | 1:C:497:PRO:HD3 | 1.94                     | 0.40              |
| 1:C:524:GLY:C    | 1:C:526:ALA:N   | 2.74                     | 0.40              |
| 1:C:531:MET:O    | 1:C:534:SER:N   | 2.54                     | 0.40              |
| 2:D:4:SER:O      | 2:D:5:LYS:HG3   | 2.21                     | 0.40              |
| 2:D:142:ALA:O    | 2:D:145:VAL:HB  | 2.21                     | 0.40              |
| 1:E:10:LEU:O     | 1:E:13:THR:HB   | 2.21                     | 0.40              |
| 1:E:86:TYR:O     | 1:E:87:LEU:C    | 2.59                     | 0.40              |
| 1:E:200:GLU:O    | 1:E:203:GLU:HG2 | 2.22                     | 0.40              |
| 1:E:333:LEU:O    | 1:E:335:THR:N   | 2.54                     | 0.40              |
| 1:E:353:CYS:O    | 1:E:355:LYS:N   | 2.54                     | 0.40              |
| 1:E:457:GLN:O    | 1:E:460:TYR:N   | 2.55                     | 0.40              |
| 2:F:92:VAL:O     | 2:F:95:CYS:N    | 2.53                     | 0.40              |
| 2:F:142:ALA:O    | 2:F:145:VAL:HB  | 2.21                     | 0.40              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:F:292:LEU:O    | 2:F:294:ALA:N    | 2.54                     | 0.40              |
| 2:F:371:ARG:O    | 2:F:372:LYS:C    | 2.60                     | 0.40              |
| 2:F:392:VAL:O    | 2:F:393:SER:C    | 2.59                     | 0.40              |
| 2:F:491:LEU:CD1  | 2:F:499:THR:HG22 | 2.49                     | 0.40              |
| 2:F:504:GLN:O    | 2:F:505:GLN:C    | 2.59                     | 0.40              |
| 1:G:116:GLN:O    | 1:G:119:GLN:HB2  | 2.21                     | 0.40              |
| 1:G:267:MET:O    | 1:G:271:LEU:HD23 | 2.21                     | 0.40              |
| 1:G:287:ALA:O    | 1:G:288:ILE:C    | 2.58                     | 0.40              |
| 1:G:344:GLN:C    | 1:G:346:HIS:N    | 2.74                     | 0.40              |
| 2:H:51:PHE:HB3   | 2:H:52:PRO:CD    | 2.46                     | 0.40              |
| 2:H:289:VAL:C    | 2:H:291:LEU:N    | 2.75                     | 0.40              |
| 2:H:358:LEU:HD12 | 2:H:377:ILE:HG12 | 2.03                     | 0.40              |
| 2:H:525:ILE:HG22 | 2:H:526:TYR:N    | 2.35                     | 0.40              |
| 2:H:532:THR:HG22 | 2:H:533:ASP:N    | 2.36                     | 0.40              |
| 1:I:59:LEU:HD12  | 1:I:59:LEU:HA    | 1.86                     | 0.40              |
| 1:I:121:LEU:O    | 1:I:122:ALA:C    | 2.58                     | 0.40              |
| 1:I:478:TRP:O    | 1:I:481:GLY:N    | 2.54                     | 0.40              |
| 2:J:169:ILE:O    | 2:J:170:SER:C    | 2.59                     | 0.40              |
| 2:J:190:SER:C    | 2:J:192:PRO:HD2  | 2.34                     | 0.40              |
| 2:J:262:VAL:O    | 2:J:265:LYS:N    | 2.54                     | 0.40              |
| 2:J:333:TYR:CE2  | 3:R:48:PRO:HG3   | 2.56                     | 0.40              |
| 2:J:365:VAL:CG2  | 3:R:394:TYR:HA   | 2.51                     | 0.40              |
| 2:J:462:ALA:O    | 2:J:466:LEU:HD13 | 2.20                     | 0.40              |
| 2:J:577:PRO:C    | 2:J:579:ASN:N    | 2.74                     | 0.40              |
| 1:K:35:ARG:HB2   | 1:K:65:PHE:CE2   | 2.56                     | 0.40              |
| 1:K:89:ALA:O     | 1:K:91:LEU:N     | 2.54                     | 0.40              |
| 1:K:183:LEU:HD12 | 1:K:215:LEU:HB3  | 2.02                     | 0.40              |
| 1:K:200:GLU:O    | 1:K:203:GLU:HG2  | 2.22                     | 0.40              |
| 1:K:286:ASN:O    | 1:K:287:ALA:C    | 2.59                     | 0.40              |
| 1:K:377:ASN:C    | 1:K:377:ASN:HD22 | 2.22                     | 0.40              |
| 1:K:416:ARG:CD   | 1:K:454:TYR:CE1  | 2.96                     | 0.40              |
| 2:L:106:ALA:O    | 2:L:110:MET:CG   | 2.67                     | 0.40              |
| 2:L:289:VAL:C    | 2:L:291:LEU:N    | 2.75                     | 0.40              |
| 2:L:333:TYR:CE2  | 3:V:48:PRO:HG3   | 2.56                     | 0.40              |
| 2:L:358:LEU:HD12 | 2:L:377:ILE:HG12 | 2.03                     | 0.40              |
| 2:L:495:LYS:O    | 2:L:496:PRO:O    | 2.38                     | 0.40              |
| 2:L:509:LEU:C    | 2:L:511:THR:H    | 2.25                     | 0.40              |
| 3:M:8:VAL:C      | 3:M:9:LEU:HD23   | 2.42                     | 0.40              |
| 3:M:113:LEU:O    | 3:M:114:LEU:C    | 2.60                     | 0.40              |
| 3:N:132:GLN:HA   | 3:N:135:ILE:CG1  | 2.52                     | 0.40              |
| 3:N:342:VAL:O    | 3:N:342:VAL:HG12 | 2.20                     | 0.40              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:O:28:SER:O     | 3:O:29:GLU:C     | 2.60                     | 0.40              |
| 3:P:65:LEU:HD11  | 3:P:99:GLU:C     | 2.41                     | 0.40              |
| 3:P:104:ARG:O    | 3:P:107:PHE:HE1  | 2.04                     | 0.40              |
| 3:P:108:VAL:O    | 3:P:111:TYR:HB2  | 2.21                     | 0.40              |
| 4:Q:89:GLU:HG2   | 4:Q:128:LYS:HE2  | 2.03                     | 0.40              |
| 4:Q:134:ALA:O    | 4:Q:135:ILE:C    | 2.59                     | 0.40              |
| 3:R:103:ILE:C    | 3:R:105:ASP:N    | 2.74                     | 0.40              |
| 3:R:160:ARG:C    | 3:R:161:SER:O    | 2.59                     | 0.40              |
| 3:R:277:ILE:HD12 | 3:R:380:PHE:HD2  | 1.86                     | 0.40              |
| 3:R:307:ALA:CB   | 3:R:382:ILE:HG12 | 2.52                     | 0.40              |
| 4:S:4:PHE:C      | 4:S:4:PHE:HD1    | 2.24                     | 0.40              |
| 4:S:134:ALA:O    | 4:S:135:ILE:C    | 2.59                     | 0.40              |
| 3:V:8:VAL:C      | 3:V:9:LEU:HD23   | 2.42                     | 0.40              |
| 3:V:25:VAL:O     | 3:V:27:MET:N     | 2.53                     | 0.40              |
| 3:V:37:LEU:O     | 3:V:38:MET:C     | 2.59                     | 0.40              |
| 1:A:86:TYR:O     | 1:A:87:LEU:C     | 2.59                     | 0.40              |
| 1:A:116:GLN:O    | 1:A:119:GLN:HB2  | 2.21                     | 0.40              |
| 1:A:168:VAL:HG12 | 1:A:171:LEU:HG   | 2.03                     | 0.40              |
| 1:A:232:SER:HA   | 1:A:233:PRO:HD3  | 1.71                     | 0.40              |
| 1:A:249:ILE:HG22 | 1:A:250:LEU:N    | 2.36                     | 0.40              |
| 1:A:292:THR:O    | 1:A:296:ILE:HG13 | 2.20                     | 0.40              |
| 1:A:529:ALA:O    | 1:A:532:LYS:HG3  | 2.21                     | 0.40              |
| 2:B:48:SER:OG    | 2:B:49:ALA:N     | 2.55                     | 0.40              |
| 2:B:142:ALA:O    | 2:B:145:VAL:HB   | 2.21                     | 0.40              |
| 2:B:415:LYS:O    | 2:B:416:ASP:C    | 2.60                     | 0.40              |
| 2:B:446:ALA:O    | 2:B:449:ILE:N    | 2.55                     | 0.40              |
| 2:B:564:ILE:HG13 | 2:B:564:ILE:H    | 1.69                     | 0.40              |
| 2:B:577:PRO:C    | 2:B:579:ASN:N    | 2.74                     | 0.40              |
| 1:C:197:LEU:CD1  | 1:C:201:MET:HG3  | 2.52                     | 0.40              |
| 1:C:200:GLU:O    | 1:C:203:GLU:HG2  | 2.22                     | 0.40              |
| 1:C:215:LEU:H    | 1:C:215:LEU:HG   | 1.53                     | 0.40              |
| 1:C:286:ASN:O    | 1:C:287:ALA:C    | 2.59                     | 0.40              |
| 1:C:508:ILE:O    | 1:C:512:VAL:HG23 | 2.21                     | 0.40              |
| 1:C:529:ALA:O    | 1:C:532:LYS:HG3  | 2.21                     | 0.40              |
| 2:D:72:TYR:CZ    | 2:D:76:TYR:HE2   | 2.40                     | 0.40              |
| 2:D:230:MET:HE2  | 2:D:240:ILE:HD12 | 2.03                     | 0.40              |
| 2:D:446:ALA:O    | 2:D:449:ILE:N    | 2.55                     | 0.40              |
| 1:E:56:MET:O     | 1:E:57:HIS:C     | 2.58                     | 0.40              |
| 1:E:289:LEU:HD12 | 1:E:289:LEU:H    | 1.86                     | 0.40              |
| 1:E:344:GLN:C    | 1:E:346:HIS:N    | 2.74                     | 0.40              |
| 1:E:366:MET:O    | 1:E:369:SER:OG   | 2.24                     | 0.40              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:540:THR:O    | 1:E:540:THR:HG22 | 2.20                     | 0.40              |
| 2:F:33:ALA:O     | 2:F:34:VAL:C     | 2.56                     | 0.40              |
| 2:F:35:LYS:CE    | 3:O:137:GLN:HE21 | 2.31                     | 0.40              |
| 2:F:124:GLU:H    | 2:F:124:GLU:HG2  | 1.71                     | 0.40              |
| 2:F:351:ILE:HD11 | 2:F:384:VAL:HG21 | 2.03                     | 0.40              |
| 2:F:415:LYS:O    | 2:F:416:ASP:C    | 2.60                     | 0.40              |
| 2:F:478:THR:CA   | 2:F:481:GLN:HE21 | 2.18                     | 0.40              |
| 1:G:38:PHE:N     | 1:G:38:PHE:CD2   | 2.86                     | 0.40              |
| 1:G:83:ARG:NE    | 4:Q:112:PHE:CE2  | 2.90                     | 0.40              |
| 1:G:154:ARG:HH21 | 1:G:182:LEU:HD23 | 1.86                     | 0.40              |
| 1:G:197:LEU:CD1  | 1:G:201:MET:HG3  | 2.52                     | 0.40              |
| 1:G:415:LYS:O    | 1:G:416:ARG:C    | 2.58                     | 0.40              |
| 1:G:529:ALA:O    | 1:G:532:LYS:HG3  | 2.21                     | 0.40              |
| 2:H:72:TYR:CZ    | 2:H:76:TYR:HE2   | 2.40                     | 0.40              |
| 2:H:527:TRP:HA   | 2:H:527:TRP:CE3  | 2.56                     | 0.40              |
| 1:I:529:ALA:O    | 1:I:532:LYS:HG3  | 2.21                     | 0.40              |
| 2:J:125:PRO:O    | 2:J:128:LYS:HB2  | 2.21                     | 0.40              |
| 2:J:158:ASP:C    | 2:J:160:GLY:H    | 2.25                     | 0.40              |
| 2:J:253:SER:O    | 2:J:255:VAL:N    | 2.55                     | 0.40              |
| 2:J:560:LEU:O    | 2:J:564:ILE:HG13 | 2.21                     | 0.40              |
| 1:K:5:ILE:H      | 1:K:5:ILE:HG13   | 1.77                     | 0.40              |
| 1:K:10:LEU:O     | 1:K:13:THR:HB    | 2.21                     | 0.40              |
| 1:K:117:PHE:CD1  | 1:K:117:PHE:N    | 2.88                     | 0.40              |
| 2:L:351:ILE:HD11 | 2:L:384:VAL:HG21 | 2.03                     | 0.40              |
| 2:L:389:GLU:O    | 2:L:392:VAL:N    | 2.54                     | 0.40              |
| 2:L:446:ALA:O    | 2:L:449:ILE:N    | 2.55                     | 0.40              |
| 3:M:106:ASN:O    | 3:M:109:ILE:HG13 | 2.21                     | 0.40              |
| 3:M:256:ILE:HA   | 3:M:257:PRO:HD3  | 1.62                     | 0.40              |
| 3:M:264:LEU:O    | 3:M:265:MET:HB2  | 2.21                     | 0.40              |
| 3:M:307:ALA:CB   | 3:M:382:ILE:HG12 | 2.51                     | 0.40              |
| 3:N:106:ASN:O    | 3:N:109:ILE:HG13 | 2.21                     | 0.40              |
| 3:N:124:GLN:O    | 3:N:125:THR:O    | 2.39                     | 0.40              |
| 3:O:34:MET:O     | 3:O:35:PRO:C     | 2.59                     | 0.40              |
| 3:O:113:LEU:O    | 3:O:114:LEU:C    | 2.60                     | 0.40              |
| 3:O:177:GLU:CD   | 3:O:388:SER:HB3  | 2.42                     | 0.40              |
| 3:O:315:PRO:HG2  | 3:O:374:PRO:O    | 2.22                     | 0.40              |
| 3:P:16:LEU:HD13  | 3:P:16:LEU:C     | 2.42                     | 0.40              |
| 3:P:103:ILE:C    | 3:P:105:ASP:N    | 2.74                     | 0.40              |
| 3:P:132:GLN:HA   | 3:P:135:ILE:CG1  | 2.52                     | 0.40              |
| 4:Q:123:VAL:HG12 | 4:Q:125:ASP:O    | 2.22                     | 0.40              |
| 3:R:342:VAL:O    | 3:R:342:VAL:HG12 | 2.20                     | 0.40              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:T:31:MET:CE    | 4:T:53:ARG:NH1   | 2.84                     | 0.40              |
| 4:W:35:LEU:HD11  | 4:W:52:TRP:CE3   | 2.56                     | 0.40              |
| 4:W:88:VAL:O     | 4:W:89:GLU:C     | 2.59                     | 0.40              |
| 4:X:60:LYS:HB3   | 4:X:62:TYR:HE1   | 1.87                     | 0.40              |
| 4:X:107:PHE:O    | 4:X:110:ALA:N    | 2.55                     | 0.40              |
| 1:A:197:LEU:CD1  | 1:A:201:MET:HG3  | 2.52                     | 0.40              |
| 1:A:328:ALA:O    | 1:A:332:LEU:HB2  | 2.22                     | 0.40              |
| 1:A:359:VAL:O    | 1:A:360:SER:C    | 2.60                     | 0.40              |
| 1:A:449:VAL:O    | 1:A:452:HIS:CD2  | 2.74                     | 0.40              |
| 1:A:470:GLN:CB   | 1:A:471:PRO:CD   | 2.97                     | 0.40              |
| 2:B:355:LEU:N    | 2:B:355:LEU:HD23 | 2.36                     | 0.40              |
| 2:B:389:GLU:O    | 2:B:392:VAL:N    | 2.54                     | 0.40              |
| 2:B:476:GLU:O    | 2:B:477:SER:C    | 2.59                     | 0.40              |
| 1:C:79:PHE:HB3   | 4:T:145:ASP:OD2  | 2.21                     | 0.40              |
| 1:C:116:GLN:CG   | 1:C:117:PHE:N    | 2.85                     | 0.40              |
| 1:C:154:ARG:O    | 1:C:155:LYS:C    | 2.57                     | 0.40              |
| 1:C:513:LEU:H    | 1:C:513:LEU:CD1  | 2.34                     | 0.40              |
| 2:D:260:VAL:O    | 2:D:261:LYS:C    | 2.59                     | 0.40              |
| 2:D:303:LEU:O    | 2:D:306:ILE:HB   | 2.20                     | 0.40              |
| 2:D:304:ARG:NE   | 2:D:573:VAL:O    | 2.42                     | 0.40              |
| 2:D:347:SER:OG   | 2:D:348:GLN:N    | 2.52                     | 0.40              |
| 2:D:436:LEU:C    | 2:D:436:LEU:CD1  | 2.83                     | 0.40              |
| 2:D:474:HIS:O    | 2:D:474:HIS:ND1  | 2.55                     | 0.40              |
| 2:D:573:VAL:CG1  | 2:D:574:TYR:N    | 2.83                     | 0.40              |
| 1:E:116:GLN:CG   | 1:E:117:PHE:N    | 2.85                     | 0.40              |
| 1:E:430:GLY:HA2  | 1:E:433:VAL:CG2  | 2.51                     | 0.40              |
| 1:E:478:TRP:O    | 1:E:481:GLY:N    | 2.54                     | 0.40              |
| 1:E:493:GLU:HG2  | 1:E:494:GLU:H    | 1.86                     | 0.40              |
| 1:E:513:LEU:H    | 1:E:513:LEU:CD1  | 2.34                     | 0.40              |
| 2:F:74:MET:O     | 2:F:75:ASN:C     | 2.59                     | 0.40              |
| 2:F:125:PRO:O    | 2:F:128:LYS:HB2  | 2.22                     | 0.40              |
| 2:F:216:GLU:O    | 2:F:220:ILE:HD13 | 2.21                     | 0.40              |
| 2:F:309:ILE:C    | 2:F:311:GLN:N    | 2.75                     | 0.40              |
| 2:F:358:LEU:HD12 | 2:F:377:ILE:HG12 | 2.03                     | 0.40              |
| 2:F:365:VAL:CG2  | 3:O:394:TYR:HA   | 2.51                     | 0.40              |
| 2:F:399:ILE:H    | 2:F:399:ILE:HG13 | 1.67                     | 0.40              |
| 2:F:474:HIS:ND1  | 2:F:474:HIS:O    | 2.55                     | 0.40              |
| 2:F:509:LEU:C    | 2:F:511:THR:H    | 2.25                     | 0.40              |
| 1:G:79:PHE:HB3   | 4:Q:145:ASP:OD2  | 2.21                     | 0.40              |
| 1:G:168:VAL:HG12 | 1:G:171:LEU:HG   | 2.03                     | 0.40              |
| 1:G:187:ASN:HD21 | 1:G:189:GLY:H    | 1.69                     | 0.40              |

*Continued on next page...*

*Continued from previous page...*

| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:460:TYR:CE2  | 1:G:464:LEU:HD21 | 2.56                     | 0.40              |
| 2:H:58:MET:O     | 2:H:60:THR:N     | 2.42                     | 0.40              |
| 2:H:92:VAL:HG22  | 2:H:110:MET:HE2  | 2.03                     | 0.40              |
| 2:H:97:ASP:OD1   | 2:H:98:PRO:CD    | 2.69                     | 0.40              |
| 2:H:125:PRO:O    | 2:H:128:LYS:HB2  | 2.21                     | 0.40              |
| 2:H:161:PHE:N    | 2:H:161:PHE:HD1  | 2.20                     | 0.40              |
| 2:H:384:VAL:O    | 2:H:387:SER:OG   | 2.27                     | 0.40              |
| 2:H:420:LYS:O    | 2:H:422:PRO:HD3  | 2.22                     | 0.40              |
| 2:H:430:ALA:C    | 2:H:432:LEU:N    | 2.73                     | 0.40              |
| 1:I:116:GLN:CG   | 1:I:117:PHE:N    | 2.85                     | 0.40              |
| 1:I:215:LEU:H    | 1:I:215:LEU:HG   | 1.53                     | 0.40              |
| 1:I:248:ARG:O    | 1:I:249:ILE:C    | 2.58                     | 0.40              |
| 1:I:270:ILE:CG2  | 1:I:271:LEU:N    | 2.84                     | 0.40              |
| 1:I:328:ALA:O    | 1:I:332:LEU:HB2  | 2.22                     | 0.40              |
| 1:I:566:TYR:O    | 1:I:569:LEU:HB2  | 2.21                     | 0.40              |
| 2:J:292:LEU:O    | 2:J:294:ALA:N    | 2.54                     | 0.40              |
| 2:J:355:LEU:O    | 2:J:358:LEU:N    | 2.54                     | 0.40              |
| 2:J:360:GLU:O    | 2:J:361:TYR:C    | 2.60                     | 0.40              |
| 2:J:426:GLU:C    | 2:J:428:VAL:N    | 2.74                     | 0.40              |
| 2:J:496:PRO:O    | 2:J:499:THR:OG1  | 2.40                     | 0.40              |
| 1:K:227:ILE:HG22 | 1:K:228:MET:N    | 2.37                     | 0.40              |
| 1:K:239:GLY:C    | 1:K:240:ILE:HG13 | 2.32                     | 0.40              |
| 2:L:161:PHE:N    | 2:L:161:PHE:HD1  | 2.20                     | 0.40              |
| 2:L:262:VAL:CG2  | 2:L:263:LEU:N    | 2.83                     | 0.40              |
| 2:L:289:VAL:C    | 2:L:291:LEU:H    | 2.25                     | 0.40              |
| 2:L:334:VAL:HG12 | 2:L:338:LYS:HE3  | 2.03                     | 0.40              |
| 3:M:132:GLN:HA   | 3:M:135:ILE:CG1  | 2.52                     | 0.40              |
| 3:N:43:GLU:C     | 3:N:45:MET:N     | 2.72                     | 0.40              |
| 3:N:106:ASN:O    | 3:N:109:ILE:HG12 | 2.22                     | 0.40              |
| 3:N:312:ILE:CA   | 3:N:378:VAL:HG12 | 2.34                     | 0.40              |
| 3:O:16:LEU:HD13  | 3:O:16:LEU:C     | 2.42                     | 0.40              |
| 3:O:67:LEU:HD12  | 3:O:67:LEU:HA    | 1.73                     | 0.40              |
| 3:O:106:ASN:O    | 3:O:109:ILE:HG13 | 2.21                     | 0.40              |
| 3:O:310:VAL:CG2  | 3:O:311:GLU:N    | 2.85                     | 0.40              |
| 3:P:28:SER:O     | 3:P:29:GLU:C     | 2.60                     | 0.40              |
| 3:P:50:LEU:HD11  | 3:P:59:TRP:NE1   | 2.35                     | 0.40              |
| 3:P:106:ASN:O    | 3:P:109:ILE:HG12 | 2.22                     | 0.40              |
| 4:Q:10:ARG:HD2   | 4:Q:10:ARG:HA    | 1.94                     | 0.40              |
| 3:R:8:VAL:C      | 3:R:9:LEU:HD23   | 2.42                     | 0.40              |
| 3:R:16:LEU:HD13  | 3:R:16:LEU:C     | 2.42                     | 0.40              |
| 3:R:24:ASP:C     | 3:R:26:ASP:N     | 2.71                     | 0.40              |

*Continued on next page...*

Continued from previous page...

| Atom-1           | Atom-2          | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-----------------|--------------------------|-------------------|
| 3:R:28:SER:O     | 3:R:29:GLU:C    | 2.60                     | 0.40              |
| 3:R:262:PHE:CD1  | 3:R:262:PHE:C   | 2.94                     | 0.40              |
| 4:U:25:ASP:O     | 4:U:26:LYS:C    | 2.59                     | 0.40              |
| 4:U:89:GLU:HG2   | 4:U:128:LYS:HE2 | 2.03                     | 0.40              |
| 3:V:327:THR:HG22 | 3:V:328:THR:N   | 2.37                     | 0.40              |

All (22) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

| Atom-1          | Atom-2                 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------------|--------------------------|-------------------|
| 1:E:265:GLU:OE2 | 1:K:221:ARG:NH1[1_545] | 1.07                     | 1.13              |
| 1:E:265:GLU:OE1 | 1:K:221:ARG:CZ[1_545]  | 1.30                     | 0.90              |
| 1:E:265:GLU:CD  | 1:K:221:ARG:NH2[1_545] | 1.42                     | 0.78              |
| 1:E:265:GLU:OE1 | 1:K:221:ARG:NH2[1_545] | 1.44                     | 0.76              |
| 1:I:345:ARG:NE  | 2:L:457:GLU:OE2[5_445] | 1.44                     | 0.76              |
| 1:E:265:GLU:CD  | 1:K:221:ARG:CZ[1_545]  | 1.49                     | 0.71              |
| 1:E:265:GLU:OE1 | 1:K:221:ARG:NE[1_545]  | 1.53                     | 0.67              |
| 1:E:265:GLU:OE2 | 1:K:221:ARG:CZ[1_545]  | 1.54                     | 0.66              |
| 1:C:345:ARG:NE  | 2:F:457:GLU:OE2[4_565] | 1.62                     | 0.58              |
| 1:C:493:GLU:OE2 | 1:E:542:ASN:OD1[4_565] | 1.68                     | 0.52              |
| 1:C:493:GLU:OE2 | 1:E:542:ASN:CG[4_565]  | 1.89                     | 0.31              |
| 1:E:265:GLU:OE2 | 1:K:221:ARG:NH2[1_545] | 1.94                     | 0.26              |
| 1:C:493:GLU:OE2 | 1:E:542:ASN:CB[4_565]  | 1.97                     | 0.23              |
| 1:I:345:ARG:CD  | 2:L:457:GLU:OE2[5_445] | 1.98                     | 0.22              |
| 1:E:265:GLU:CD  | 1:K:221:ARG:NH1[1_545] | 1.99                     | 0.21              |
| 1:C:345:ARG:CD  | 2:F:457:GLU:OE2[4_565] | 2.04                     | 0.16              |
| 1:I:493:GLU:OE2 | 1:K:542:ASN:OD1[5_445] | 2.04                     | 0.16              |
| 1:I:345:ARG:NH2 | 2:L:458:ARG:CA[5_445]  | 2.06                     | 0.14              |
| 1:I:493:GLU:OE2 | 1:K:542:ASN:CB[5_445]  | 2.07                     | 0.13              |
| 1:I:375:GLY:O   | 2:L:544:GLU:OE2[5_445] | 2.13                     | 0.07              |
| 1:C:375:GLY:O   | 2:F:544:GLU:OE2[4_565] | 2.15                     | 0.05              |
| 1:I:493:GLU:OE2 | 1:K:542:ASN:CG[5_445]  | 2.17                     | 0.03              |

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.



The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

| Mol | Chain | Analysed          | Favoured   | Allowed    | Outliers   | Percentiles |   |
|-----|-------|-------------------|------------|------------|------------|-------------|---|
| 1   | A     | 588/618 (95%)     | 254 (43%)  | 210 (36%)  | 124 (21%)  | 0           | 1 |
| 1   | C     | 588/618 (95%)     | 254 (43%)  | 210 (36%)  | 124 (21%)  | 0           | 1 |
| 1   | E     | 588/618 (95%)     | 253 (43%)  | 211 (36%)  | 124 (21%)  | 0           | 1 |
| 1   | G     | 588/618 (95%)     | 255 (43%)  | 209 (36%)  | 124 (21%)  | 0           | 1 |
| 1   | I     | 588/618 (95%)     | 255 (43%)  | 209 (36%)  | 124 (21%)  | 0           | 1 |
| 1   | K     | 588/618 (95%)     | 255 (43%)  | 209 (36%)  | 124 (21%)  | 0           | 1 |
| 2   | B     | 572/584 (98%)     | 239 (42%)  | 192 (34%)  | 141 (25%)  | 0           | 1 |
| 2   | D     | 572/584 (98%)     | 239 (42%)  | 191 (33%)  | 142 (25%)  | 0           | 1 |
| 2   | F     | 572/584 (98%)     | 240 (42%)  | 190 (33%)  | 142 (25%)  | 0           | 1 |
| 2   | H     | 572/584 (98%)     | 238 (42%)  | 193 (34%)  | 141 (25%)  | 0           | 1 |
| 2   | J     | 572/584 (98%)     | 239 (42%)  | 191 (33%)  | 142 (25%)  | 0           | 1 |
| 2   | L     | 572/584 (98%)     | 239 (42%)  | 192 (34%)  | 141 (25%)  | 0           | 1 |
| 3   | M     | 380/423 (90%)     | 257 (68%)  | 76 (20%)   | 47 (12%)   | 0           | 5 |
| 3   | N     | 380/423 (90%)     | 257 (68%)  | 76 (20%)   | 47 (12%)   | 0           | 5 |
| 3   | O     | 380/423 (90%)     | 257 (68%)  | 76 (20%)   | 47 (12%)   | 0           | 5 |
| 3   | P     | 380/423 (90%)     | 257 (68%)  | 76 (20%)   | 47 (12%)   | 0           | 5 |
| 3   | R     | 380/423 (90%)     | 257 (68%)  | 76 (20%)   | 47 (12%)   | 0           | 5 |
| 3   | V     | 380/423 (90%)     | 257 (68%)  | 76 (20%)   | 47 (12%)   | 0           | 5 |
| 4   | Q     | 147/158 (93%)     | 81 (55%)   | 47 (32%)   | 19 (13%)   | 0           | 4 |
| 4   | S     | 147/158 (93%)     | 81 (55%)   | 47 (32%)   | 19 (13%)   | 0           | 4 |
| 4   | T     | 147/158 (93%)     | 81 (55%)   | 47 (32%)   | 19 (13%)   | 0           | 4 |
| 4   | U     | 147/158 (93%)     | 81 (55%)   | 47 (32%)   | 19 (13%)   | 0           | 4 |
| 4   | W     | 147/158 (93%)     | 81 (55%)   | 47 (32%)   | 19 (13%)   | 0           | 4 |
| 4   | X     | 147/158 (93%)     | 81 (55%)   | 47 (32%)   | 19 (13%)   | 0           | 4 |
| All | All   | 10122/10698 (95%) | 4988 (49%) | 3145 (31%) | 1989 (20%) | 0           | 2 |

All (1989) Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | A     | 7   | LEU  |
| 1   | A     | 58  | MET  |
| 1   | A     | 76  | SER  |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | A            | 132        | SER         |
| 1          | A            | 162        | VAL         |
| 1          | A            | 179        | THR         |
| 1          | A            | 182        | LEU         |
| 1          | A            | 214        | LYS         |
| 1          | A            | 258        | ARG         |
| 1          | A            | 281        | SER         |
| 1          | A            | 283        | ASN         |
| 1          | A            | 284        | VAL         |
| 1          | A            | 322        | LYS         |
| 1          | A            | 324        | ILE         |
| 1          | A            | 345        | ARG         |
| 1          | A            | 378        | ILE         |
| 1          | A            | 430        | GLY         |
| 1          | A            | 454        | TYR         |
| 1          | A            | 457        | GLN         |
| 1          | A            | 469        | GLN         |
| 1          | A            | 489        | SER         |
| 1          | A            | 574        | ASP         |
| 1          | A            | 575        | HIS         |
| 1          | A            | 582        | GLU         |
| 2          | B            | 14         | GLU         |
| 2          | B            | 15         | ILE         |
| 2          | B            | 24         | SER         |
| 2          | B            | 31         | LYS         |
| 2          | B            | 49         | ALA         |
| 2          | B            | 50         | LEU         |
| 2          | B            | 56         | ASN         |
| 2          | B            | 64         | GLU         |
| 2          | B            | 77         | ALA         |
| 2          | B            | 86         | MET         |
| 2          | B            | 88         | VAL         |
| 2          | B            | 102        | ILE         |
| 2          | B            | 132        | ASP         |
| 2          | B            | 145        | VAL         |
| 2          | B            | 169        | ILE         |
| 2          | B            | 171        | ASP         |
| 2          | B            | 174        | PRO         |
| 2          | B            | 175        | MET         |
| 2          | B            | 181        | VAL         |
| 2          | B            | 189        | GLU         |
| 2          | B            | 191        | HIS         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | B            | 230        | MET         |
| 2          | B            | 250        | HIS         |
| 2          | B            | 253        | SER         |
| 2          | B            | 296        | PRO         |
| 2          | B            | 299        | GLN         |
| 2          | B            | 300        | TYR         |
| 2          | B            | 364        | GLU         |
| 2          | B            | 367        | VAL         |
| 2          | B            | 404        | ASN         |
| 2          | B            | 407        | VAL         |
| 2          | B            | 427        | SER         |
| 2          | B            | 434        | GLU         |
| 2          | B            | 438        | SER         |
| 2          | B            | 442        | PRO         |
| 2          | B            | 446        | ALA         |
| 2          | B            | 462        | ALA         |
| 2          | B            | 463        | ASP         |
| 2          | B            | 495        | LYS         |
| 2          | B            | 500        | GLN         |
| 2          | B            | 506        | VAL         |
| 2          | B            | 546        | PRO         |
| 2          | B            | 554        | LEU         |
| 2          | B            | 555        | ILE         |
| 2          | B            | 582        | VAL         |
| 2          | B            | 583        | GLU         |
| 1          | C            | 7          | LEU         |
| 1          | C            | 58         | MET         |
| 1          | C            | 76         | SER         |
| 1          | C            | 132        | SER         |
| 1          | C            | 162        | VAL         |
| 1          | C            | 179        | THR         |
| 1          | C            | 182        | LEU         |
| 1          | C            | 214        | LYS         |
| 1          | C            | 258        | ARG         |
| 1          | C            | 281        | SER         |
| 1          | C            | 283        | ASN         |
| 1          | C            | 284        | VAL         |
| 1          | C            | 322        | LYS         |
| 1          | C            | 324        | ILE         |
| 1          | C            | 345        | ARG         |
| 1          | C            | 378        | ILE         |
| 1          | C            | 430        | GLY         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | C            | 454        | TYR         |
| 1          | C            | 457        | GLN         |
| 1          | C            | 469        | GLN         |
| 1          | C            | 489        | SER         |
| 1          | C            | 574        | ASP         |
| 1          | C            | 575        | HIS         |
| 1          | C            | 582        | GLU         |
| 2          | D            | 14         | GLU         |
| 2          | D            | 15         | ILE         |
| 2          | D            | 24         | SER         |
| 2          | D            | 31         | LYS         |
| 2          | D            | 49         | ALA         |
| 2          | D            | 50         | LEU         |
| 2          | D            | 56         | ASN         |
| 2          | D            | 64         | GLU         |
| 2          | D            | 77         | ALA         |
| 2          | D            | 86         | MET         |
| 2          | D            | 88         | VAL         |
| 2          | D            | 102        | ILE         |
| 2          | D            | 132        | ASP         |
| 2          | D            | 145        | VAL         |
| 2          | D            | 169        | ILE         |
| 2          | D            | 171        | ASP         |
| 2          | D            | 174        | PRO         |
| 2          | D            | 175        | MET         |
| 2          | D            | 181        | VAL         |
| 2          | D            | 189        | GLU         |
| 2          | D            | 191        | HIS         |
| 2          | D            | 230        | MET         |
| 2          | D            | 250        | HIS         |
| 2          | D            | 253        | SER         |
| 2          | D            | 296        | PRO         |
| 2          | D            | 299        | GLN         |
| 2          | D            | 300        | TYR         |
| 2          | D            | 364        | GLU         |
| 2          | D            | 367        | VAL         |
| 2          | D            | 404        | ASN         |
| 2          | D            | 407        | VAL         |
| 2          | D            | 427        | SER         |
| 2          | D            | 434        | GLU         |
| 2          | D            | 438        | SER         |
| 2          | D            | 442        | PRO         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | D            | 446        | ALA         |
| 2          | D            | 462        | ALA         |
| 2          | D            | 463        | ASP         |
| 2          | D            | 495        | LYS         |
| 2          | D            | 500        | GLN         |
| 2          | D            | 506        | VAL         |
| 2          | D            | 546        | PRO         |
| 2          | D            | 554        | LEU         |
| 2          | D            | 555        | ILE         |
| 2          | D            | 582        | VAL         |
| 2          | D            | 583        | GLU         |
| 1          | E            | 7          | LEU         |
| 1          | E            | 58         | MET         |
| 1          | E            | 76         | SER         |
| 1          | E            | 132        | SER         |
| 1          | E            | 162        | VAL         |
| 1          | E            | 179        | THR         |
| 1          | E            | 182        | LEU         |
| 1          | E            | 214        | LYS         |
| 1          | E            | 258        | ARG         |
| 1          | E            | 281        | SER         |
| 1          | E            | 283        | ASN         |
| 1          | E            | 284        | VAL         |
| 1          | E            | 322        | LYS         |
| 1          | E            | 324        | ILE         |
| 1          | E            | 345        | ARG         |
| 1          | E            | 378        | ILE         |
| 1          | E            | 430        | GLY         |
| 1          | E            | 454        | TYR         |
| 1          | E            | 457        | GLN         |
| 1          | E            | 469        | GLN         |
| 1          | E            | 489        | SER         |
| 1          | E            | 574        | ASP         |
| 1          | E            | 575        | HIS         |
| 1          | E            | 582        | GLU         |
| 2          | F            | 14         | GLU         |
| 2          | F            | 15         | ILE         |
| 2          | F            | 24         | SER         |
| 2          | F            | 31         | LYS         |
| 2          | F            | 49         | ALA         |
| 2          | F            | 50         | LEU         |
| 2          | F            | 56         | ASN         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | F            | 64         | GLU         |
| 2          | F            | 77         | ALA         |
| 2          | F            | 86         | MET         |
| 2          | F            | 88         | VAL         |
| 2          | F            | 102        | ILE         |
| 2          | F            | 132        | ASP         |
| 2          | F            | 145        | VAL         |
| 2          | F            | 169        | ILE         |
| 2          | F            | 171        | ASP         |
| 2          | F            | 174        | PRO         |
| 2          | F            | 175        | MET         |
| 2          | F            | 181        | VAL         |
| 2          | F            | 189        | GLU         |
| 2          | F            | 191        | HIS         |
| 2          | F            | 230        | MET         |
| 2          | F            | 250        | HIS         |
| 2          | F            | 253        | SER         |
| 2          | F            | 296        | PRO         |
| 2          | F            | 299        | GLN         |
| 2          | F            | 300        | TYR         |
| 2          | F            | 364        | GLU         |
| 2          | F            | 367        | VAL         |
| 2          | F            | 404        | ASN         |
| 2          | F            | 407        | VAL         |
| 2          | F            | 427        | SER         |
| 2          | F            | 434        | GLU         |
| 2          | F            | 438        | SER         |
| 2          | F            | 442        | PRO         |
| 2          | F            | 446        | ALA         |
| 2          | F            | 462        | ALA         |
| 2          | F            | 463        | ASP         |
| 2          | F            | 495        | LYS         |
| 2          | F            | 500        | GLN         |
| 2          | F            | 506        | VAL         |
| 2          | F            | 546        | PRO         |
| 2          | F            | 554        | LEU         |
| 2          | F            | 555        | ILE         |
| 2          | F            | 582        | VAL         |
| 2          | F            | 583        | GLU         |
| 1          | G            | 7          | LEU         |
| 1          | G            | 58         | MET         |
| 1          | G            | 76         | SER         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | G            | 132        | SER         |
| 1          | G            | 162        | VAL         |
| 1          | G            | 179        | THR         |
| 1          | G            | 182        | LEU         |
| 1          | G            | 214        | LYS         |
| 1          | G            | 258        | ARG         |
| 1          | G            | 281        | SER         |
| 1          | G            | 283        | ASN         |
| 1          | G            | 284        | VAL         |
| 1          | G            | 322        | LYS         |
| 1          | G            | 324        | ILE         |
| 1          | G            | 345        | ARG         |
| 1          | G            | 378        | ILE         |
| 1          | G            | 430        | GLY         |
| 1          | G            | 454        | TYR         |
| 1          | G            | 457        | GLN         |
| 1          | G            | 469        | GLN         |
| 1          | G            | 489        | SER         |
| 1          | G            | 574        | ASP         |
| 1          | G            | 575        | HIS         |
| 1          | G            | 582        | GLU         |
| 2          | H            | 14         | GLU         |
| 2          | H            | 15         | ILE         |
| 2          | H            | 24         | SER         |
| 2          | H            | 31         | LYS         |
| 2          | H            | 49         | ALA         |
| 2          | H            | 50         | LEU         |
| 2          | H            | 56         | ASN         |
| 2          | H            | 64         | GLU         |
| 2          | H            | 77         | ALA         |
| 2          | H            | 86         | MET         |
| 2          | H            | 88         | VAL         |
| 2          | H            | 102        | ILE         |
| 2          | H            | 132        | ASP         |
| 2          | H            | 145        | VAL         |
| 2          | H            | 169        | ILE         |
| 2          | H            | 171        | ASP         |
| 2          | H            | 174        | PRO         |
| 2          | H            | 175        | MET         |
| 2          | H            | 181        | VAL         |
| 2          | H            | 189        | GLU         |
| 2          | H            | 191        | HIS         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | H            | 230        | MET         |
| 2          | H            | 250        | HIS         |
| 2          | H            | 253        | SER         |
| 2          | H            | 296        | PRO         |
| 2          | H            | 299        | GLN         |
| 2          | H            | 300        | TYR         |
| 2          | H            | 364        | GLU         |
| 2          | H            | 367        | VAL         |
| 2          | H            | 404        | ASN         |
| 2          | H            | 407        | VAL         |
| 2          | H            | 427        | SER         |
| 2          | H            | 434        | GLU         |
| 2          | H            | 438        | SER         |
| 2          | H            | 442        | PRO         |
| 2          | H            | 446        | ALA         |
| 2          | H            | 462        | ALA         |
| 2          | H            | 463        | ASP         |
| 2          | H            | 495        | LYS         |
| 2          | H            | 500        | GLN         |
| 2          | H            | 506        | VAL         |
| 2          | H            | 546        | PRO         |
| 2          | H            | 554        | LEU         |
| 2          | H            | 555        | ILE         |
| 2          | H            | 582        | VAL         |
| 2          | H            | 583        | GLU         |
| 1          | I            | 7          | LEU         |
| 1          | I            | 58         | MET         |
| 1          | I            | 76         | SER         |
| 1          | I            | 132        | SER         |
| 1          | I            | 162        | VAL         |
| 1          | I            | 179        | THR         |
| 1          | I            | 182        | LEU         |
| 1          | I            | 214        | LYS         |
| 1          | I            | 258        | ARG         |
| 1          | I            | 281        | SER         |
| 1          | I            | 283        | ASN         |
| 1          | I            | 284        | VAL         |
| 1          | I            | 322        | LYS         |
| 1          | I            | 324        | ILE         |
| 1          | I            | 345        | ARG         |
| 1          | I            | 378        | ILE         |
| 1          | I            | 430        | GLY         |

*Continued on next page...*



*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | I            | 454        | TYR         |
| 1          | I            | 457        | GLN         |
| 1          | I            | 469        | GLN         |
| 1          | I            | 489        | SER         |
| 1          | I            | 574        | ASP         |
| 1          | I            | 575        | HIS         |
| 1          | I            | 582        | GLU         |
| 2          | J            | 14         | GLU         |
| 2          | J            | 15         | ILE         |
| 2          | J            | 24         | SER         |
| 2          | J            | 31         | LYS         |
| 2          | J            | 49         | ALA         |
| 2          | J            | 50         | LEU         |
| 2          | J            | 56         | ASN         |
| 2          | J            | 64         | GLU         |
| 2          | J            | 77         | ALA         |
| 2          | J            | 86         | MET         |
| 2          | J            | 88         | VAL         |
| 2          | J            | 102        | ILE         |
| 2          | J            | 132        | ASP         |
| 2          | J            | 145        | VAL         |
| 2          | J            | 169        | ILE         |
| 2          | J            | 171        | ASP         |
| 2          | J            | 174        | PRO         |
| 2          | J            | 175        | MET         |
| 2          | J            | 181        | VAL         |
| 2          | J            | 189        | GLU         |
| 2          | J            | 191        | HIS         |
| 2          | J            | 230        | MET         |
| 2          | J            | 250        | HIS         |
| 2          | J            | 253        | SER         |
| 2          | J            | 296        | PRO         |
| 2          | J            | 299        | GLN         |
| 2          | J            | 300        | TYR         |
| 2          | J            | 364        | GLU         |
| 2          | J            | 367        | VAL         |
| 2          | J            | 404        | ASN         |
| 2          | J            | 407        | VAL         |
| 2          | J            | 427        | SER         |
| 2          | J            | 434        | GLU         |
| 2          | J            | 438        | SER         |
| 2          | J            | 442        | PRO         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | J            | 446        | ALA         |
| 2          | J            | 462        | ALA         |
| 2          | J            | 463        | ASP         |
| 2          | J            | 495        | LYS         |
| 2          | J            | 500        | GLN         |
| 2          | J            | 506        | VAL         |
| 2          | J            | 546        | PRO         |
| 2          | J            | 554        | LEU         |
| 2          | J            | 555        | ILE         |
| 2          | J            | 582        | VAL         |
| 2          | J            | 583        | GLU         |
| 1          | K            | 7          | LEU         |
| 1          | K            | 58         | MET         |
| 1          | K            | 76         | SER         |
| 1          | K            | 132        | SER         |
| 1          | K            | 162        | VAL         |
| 1          | K            | 179        | THR         |
| 1          | K            | 182        | LEU         |
| 1          | K            | 214        | LYS         |
| 1          | K            | 258        | ARG         |
| 1          | K            | 281        | SER         |
| 1          | K            | 283        | ASN         |
| 1          | K            | 284        | VAL         |
| 1          | K            | 322        | LYS         |
| 1          | K            | 324        | ILE         |
| 1          | K            | 345        | ARG         |
| 1          | K            | 378        | ILE         |
| 1          | K            | 430        | GLY         |
| 1          | K            | 454        | TYR         |
| 1          | K            | 457        | GLN         |
| 1          | K            | 469        | GLN         |
| 1          | K            | 489        | SER         |
| 1          | K            | 574        | ASP         |
| 1          | K            | 575        | HIS         |
| 1          | K            | 582        | GLU         |
| 2          | L            | 14         | GLU         |
| 2          | L            | 15         | ILE         |
| 2          | L            | 24         | SER         |
| 2          | L            | 31         | LYS         |
| 2          | L            | 49         | ALA         |
| 2          | L            | 50         | LEU         |
| 2          | L            | 56         | ASN         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | L            | 64         | GLU         |
| 2          | L            | 77         | ALA         |
| 2          | L            | 86         | MET         |
| 2          | L            | 88         | VAL         |
| 2          | L            | 102        | ILE         |
| 2          | L            | 132        | ASP         |
| 2          | L            | 145        | VAL         |
| 2          | L            | 169        | ILE         |
| 2          | L            | 171        | ASP         |
| 2          | L            | 174        | PRO         |
| 2          | L            | 175        | MET         |
| 2          | L            | 181        | VAL         |
| 2          | L            | 189        | GLU         |
| 2          | L            | 191        | HIS         |
| 2          | L            | 230        | MET         |
| 2          | L            | 250        | HIS         |
| 2          | L            | 253        | SER         |
| 2          | L            | 296        | PRO         |
| 2          | L            | 299        | GLN         |
| 2          | L            | 300        | TYR         |
| 2          | L            | 364        | GLU         |
| 2          | L            | 367        | VAL         |
| 2          | L            | 404        | ASN         |
| 2          | L            | 407        | VAL         |
| 2          | L            | 427        | SER         |
| 2          | L            | 434        | GLU         |
| 2          | L            | 438        | SER         |
| 2          | L            | 442        | PRO         |
| 2          | L            | 446        | ALA         |
| 2          | L            | 462        | ALA         |
| 2          | L            | 463        | ASP         |
| 2          | L            | 495        | LYS         |
| 2          | L            | 500        | GLN         |
| 2          | L            | 506        | VAL         |
| 2          | L            | 546        | PRO         |
| 2          | L            | 554        | LEU         |
| 2          | L            | 555        | ILE         |
| 2          | L            | 582        | VAL         |
| 2          | L            | 583        | GLU         |
| 3          | M            | 11         | LEU         |
| 3          | M            | 25         | VAL         |
| 3          | M            | 26         | ASP         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 3          | M            | 29         | GLU         |
| 3          | M            | 33         | PHE         |
| 3          | M            | 77         | VAL         |
| 3          | M            | 79         | LEU         |
| 3          | M            | 108        | VAL         |
| 3          | M            | 125        | THR         |
| 3          | M            | 132        | GLN         |
| 3          | M            | 167        | ARG         |
| 3          | M            | 186        | ASN         |
| 3          | M            | 217        | LYS         |
| 3          | M            | 241        | CYS         |
| 3          | M            | 249        | ASN         |
| 3          | M            | 286        | HIS         |
| 3          | M            | 289        | SER         |
| 3          | M            | 415        | ASN         |
| 3          | N            | 11         | LEU         |
| 3          | N            | 25         | VAL         |
| 3          | N            | 26         | ASP         |
| 3          | N            | 29         | GLU         |
| 3          | N            | 33         | PHE         |
| 3          | N            | 77         | VAL         |
| 3          | N            | 79         | LEU         |
| 3          | N            | 108        | VAL         |
| 3          | N            | 125        | THR         |
| 3          | N            | 132        | GLN         |
| 3          | N            | 167        | ARG         |
| 3          | N            | 186        | ASN         |
| 3          | N            | 217        | LYS         |
| 3          | N            | 241        | CYS         |
| 3          | N            | 249        | ASN         |
| 3          | N            | 286        | HIS         |
| 3          | N            | 289        | SER         |
| 3          | N            | 415        | ASN         |
| 3          | O            | 11         | LEU         |
| 3          | O            | 25         | VAL         |
| 3          | O            | 26         | ASP         |
| 3          | O            | 29         | GLU         |
| 3          | O            | 33         | PHE         |
| 3          | O            | 77         | VAL         |
| 3          | O            | 79         | LEU         |
| 3          | O            | 108        | VAL         |
| 3          | O            | 125        | THR         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 3          | O            | 132        | GLN         |
| 3          | O            | 167        | ARG         |
| 3          | O            | 186        | ASN         |
| 3          | O            | 217        | LYS         |
| 3          | O            | 241        | CYS         |
| 3          | O            | 249        | ASN         |
| 3          | O            | 286        | HIS         |
| 3          | O            | 289        | SER         |
| 3          | O            | 415        | ASN         |
| 3          | P            | 11         | LEU         |
| 3          | P            | 25         | VAL         |
| 3          | P            | 26         | ASP         |
| 3          | P            | 29         | GLU         |
| 3          | P            | 33         | PHE         |
| 3          | P            | 77         | VAL         |
| 3          | P            | 79         | LEU         |
| 3          | P            | 108        | VAL         |
| 3          | P            | 125        | THR         |
| 3          | P            | 132        | GLN         |
| 3          | P            | 167        | ARG         |
| 3          | P            | 186        | ASN         |
| 3          | P            | 217        | LYS         |
| 3          | P            | 241        | CYS         |
| 3          | P            | 249        | ASN         |
| 3          | P            | 286        | HIS         |
| 3          | P            | 289        | SER         |
| 3          | P            | 415        | ASN         |
| 4          | Q            | 32         | VAL         |
| 4          | Q            | 41         | ALA         |
| 4          | Q            | 46         | MET         |
| 3          | R            | 11         | LEU         |
| 3          | R            | 25         | VAL         |
| 3          | R            | 26         | ASP         |
| 3          | R            | 29         | GLU         |
| 3          | R            | 33         | PHE         |
| 3          | R            | 77         | VAL         |
| 3          | R            | 79         | LEU         |
| 3          | R            | 108        | VAL         |
| 3          | R            | 125        | THR         |
| 3          | R            | 132        | GLN         |
| 3          | R            | 167        | ARG         |
| 3          | R            | 186        | ASN         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 3          | R            | 217        | LYS         |
| 3          | R            | 241        | CYS         |
| 3          | R            | 249        | ASN         |
| 3          | R            | 286        | HIS         |
| 3          | R            | 289        | SER         |
| 3          | R            | 415        | ASN         |
| 4          | S            | 32         | VAL         |
| 4          | S            | 41         | ALA         |
| 4          | S            | 46         | MET         |
| 4          | T            | 32         | VAL         |
| 4          | T            | 41         | ALA         |
| 4          | T            | 46         | MET         |
| 4          | U            | 32         | VAL         |
| 4          | U            | 41         | ALA         |
| 4          | U            | 46         | MET         |
| 3          | V            | 11         | LEU         |
| 3          | V            | 25         | VAL         |
| 3          | V            | 26         | ASP         |
| 3          | V            | 29         | GLU         |
| 3          | V            | 33         | PHE         |
| 3          | V            | 77         | VAL         |
| 3          | V            | 79         | LEU         |
| 3          | V            | 108        | VAL         |
| 3          | V            | 125        | THR         |
| 3          | V            | 132        | GLN         |
| 3          | V            | 167        | ARG         |
| 3          | V            | 186        | ASN         |
| 3          | V            | 217        | LYS         |
| 3          | V            | 241        | CYS         |
| 3          | V            | 249        | ASN         |
| 3          | V            | 286        | HIS         |
| 3          | V            | 289        | SER         |
| 3          | V            | 415        | ASN         |
| 4          | W            | 32         | VAL         |
| 4          | W            | 41         | ALA         |
| 4          | W            | 46         | MET         |
| 4          | X            | 32         | VAL         |
| 4          | X            | 41         | ALA         |
| 4          | X            | 46         | MET         |
| 1          | A            | 25         | GLU         |
| 1          | A            | 65         | PHE         |
| 1          | A            | 68         | LEU         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | A            | 85         | GLY         |
| 1          | A            | 122        | ALA         |
| 1          | A            | 130        | GLY         |
| 1          | A            | 151        | SER         |
| 1          | A            | 174        | MET         |
| 1          | A            | 189        | GLY         |
| 1          | A            | 202        | CYS         |
| 1          | A            | 212        | PHE         |
| 1          | A            | 215        | LEU         |
| 1          | A            | 226        | LEU         |
| 1          | A            | 227        | ILE         |
| 1          | A            | 230        | GLY         |
| 1          | A            | 247        | VAL         |
| 1          | A            | 268        | ASN         |
| 1          | A            | 323        | ASN         |
| 1          | A            | 326        | TYR         |
| 1          | A            | 330        | THR         |
| 1          | A            | 362        | LYS         |
| 1          | A            | 363        | ARG         |
| 1          | A            | 368        | LEU         |
| 1          | A            | 392        | CYS         |
| 1          | A            | 413        | PRO         |
| 1          | A            | 431        | SER         |
| 1          | A            | 434        | ARG         |
| 1          | A            | 440        | ASN         |
| 1          | A            | 470        | GLN         |
| 1          | A            | 478        | TRP         |
| 1          | A            | 525        | TYR         |
| 1          | A            | 526        | ALA         |
| 1          | A            | 541        | VAL         |
| 1          | A            | 556        | ASP         |
| 2          | B            | 21         | GLU         |
| 2          | B            | 37         | VAL         |
| 2          | B            | 40         | SER         |
| 2          | B            | 128        | LYS         |
| 2          | B            | 129        | CYS         |
| 2          | B            | 152        | ASN         |
| 2          | B            | 165        | LEU         |
| 2          | B            | 188        | ALA         |
| 2          | B            | 194        | SER         |
| 2          | B            | 220        | ILE         |
| 2          | B            | 251        | ALA         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | B            | 255        | VAL         |
| 2          | B            | 257        | LEU         |
| 2          | B            | 318        | LYS         |
| 2          | B            | 340        | ASP         |
| 2          | B            | 344        | ARG         |
| 2          | B            | 351        | ILE         |
| 2          | B            | 371        | ARG         |
| 2          | B            | 386        | GLN         |
| 2          | B            | 388        | ALA         |
| 2          | B            | 392        | VAL         |
| 2          | B            | 412        | VAL         |
| 2          | B            | 461        | ASN         |
| 2          | B            | 470        | LEU         |
| 2          | B            | 471        | ASP         |
| 2          | B            | 474        | HIS         |
| 2          | B            | 482        | LEU         |
| 2          | B            | 502        | LEU         |
| 2          | B            | 517        | PRO         |
| 2          | B            | 540        | VAL         |
| 2          | B            | 557        | PRO         |
| 2          | B            | 564        | ILE         |
| 1          | C            | 25         | GLU         |
| 1          | C            | 65         | PHE         |
| 1          | C            | 68         | LEU         |
| 1          | C            | 85         | GLY         |
| 1          | C            | 122        | ALA         |
| 1          | C            | 130        | GLY         |
| 1          | C            | 151        | SER         |
| 1          | C            | 174        | MET         |
| 1          | C            | 189        | GLY         |
| 1          | C            | 202        | CYS         |
| 1          | C            | 212        | PHE         |
| 1          | C            | 215        | LEU         |
| 1          | C            | 226        | LEU         |
| 1          | C            | 227        | ILE         |
| 1          | C            | 230        | GLY         |
| 1          | C            | 247        | VAL         |
| 1          | C            | 268        | ASN         |
| 1          | C            | 323        | ASN         |
| 1          | C            | 326        | TYR         |
| 1          | C            | 330        | THR         |
| 1          | C            | 362        | LYS         |

*Continued on next page...*



*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | C            | 363        | ARG         |
| 1          | C            | 368        | LEU         |
| 1          | C            | 392        | CYS         |
| 1          | C            | 413        | PRO         |
| 1          | C            | 431        | SER         |
| 1          | C            | 434        | ARG         |
| 1          | C            | 440        | ASN         |
| 1          | C            | 470        | GLN         |
| 1          | C            | 478        | TRP         |
| 1          | C            | 525        | TYR         |
| 1          | C            | 526        | ALA         |
| 1          | C            | 541        | VAL         |
| 1          | C            | 556        | ASP         |
| 2          | D            | 21         | GLU         |
| 2          | D            | 37         | VAL         |
| 2          | D            | 40         | SER         |
| 2          | D            | 128        | LYS         |
| 2          | D            | 129        | CYS         |
| 2          | D            | 152        | ASN         |
| 2          | D            | 165        | LEU         |
| 2          | D            | 188        | ALA         |
| 2          | D            | 194        | SER         |
| 2          | D            | 220        | ILE         |
| 2          | D            | 251        | ALA         |
| 2          | D            | 255        | VAL         |
| 2          | D            | 257        | LEU         |
| 2          | D            | 318        | LYS         |
| 2          | D            | 340        | ASP         |
| 2          | D            | 344        | ARG         |
| 2          | D            | 351        | ILE         |
| 2          | D            | 371        | ARG         |
| 2          | D            | 386        | GLN         |
| 2          | D            | 388        | ALA         |
| 2          | D            | 392        | VAL         |
| 2          | D            | 412        | VAL         |
| 2          | D            | 461        | ASN         |
| 2          | D            | 470        | LEU         |
| 2          | D            | 471        | ASP         |
| 2          | D            | 474        | HIS         |
| 2          | D            | 482        | LEU         |
| 2          | D            | 502        | LEU         |
| 2          | D            | 517        | PRO         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | D            | 540        | VAL         |
| 2          | D            | 557        | PRO         |
| 2          | D            | 564        | ILE         |
| 1          | E            | 25         | GLU         |
| 1          | E            | 65         | PHE         |
| 1          | E            | 68         | LEU         |
| 1          | E            | 85         | GLY         |
| 1          | E            | 122        | ALA         |
| 1          | E            | 130        | GLY         |
| 1          | E            | 151        | SER         |
| 1          | E            | 174        | MET         |
| 1          | E            | 189        | GLY         |
| 1          | E            | 202        | CYS         |
| 1          | E            | 212        | PHE         |
| 1          | E            | 215        | LEU         |
| 1          | E            | 226        | LEU         |
| 1          | E            | 227        | ILE         |
| 1          | E            | 230        | GLY         |
| 1          | E            | 247        | VAL         |
| 1          | E            | 268        | ASN         |
| 1          | E            | 323        | ASN         |
| 1          | E            | 326        | TYR         |
| 1          | E            | 330        | THR         |
| 1          | E            | 362        | LYS         |
| 1          | E            | 363        | ARG         |
| 1          | E            | 368        | LEU         |
| 1          | E            | 392        | CYS         |
| 1          | E            | 413        | PRO         |
| 1          | E            | 431        | SER         |
| 1          | E            | 434        | ARG         |
| 1          | E            | 440        | ASN         |
| 1          | E            | 470        | GLN         |
| 1          | E            | 478        | TRP         |
| 1          | E            | 525        | TYR         |
| 1          | E            | 526        | ALA         |
| 1          | E            | 541        | VAL         |
| 1          | E            | 556        | ASP         |
| 2          | F            | 21         | GLU         |
| 2          | F            | 37         | VAL         |
| 2          | F            | 40         | SER         |
| 2          | F            | 128        | LYS         |
| 2          | F            | 129        | CYS         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | F            | 152        | ASN         |
| 2          | F            | 165        | LEU         |
| 2          | F            | 188        | ALA         |
| 2          | F            | 194        | SER         |
| 2          | F            | 220        | ILE         |
| 2          | F            | 251        | ALA         |
| 2          | F            | 255        | VAL         |
| 2          | F            | 257        | LEU         |
| 2          | F            | 318        | LYS         |
| 2          | F            | 340        | ASP         |
| 2          | F            | 344        | ARG         |
| 2          | F            | 351        | ILE         |
| 2          | F            | 371        | ARG         |
| 2          | F            | 386        | GLN         |
| 2          | F            | 388        | ALA         |
| 2          | F            | 392        | VAL         |
| 2          | F            | 412        | VAL         |
| 2          | F            | 461        | ASN         |
| 2          | F            | 470        | LEU         |
| 2          | F            | 471        | ASP         |
| 2          | F            | 474        | HIS         |
| 2          | F            | 482        | LEU         |
| 2          | F            | 502        | LEU         |
| 2          | F            | 517        | PRO         |
| 2          | F            | 540        | VAL         |
| 2          | F            | 557        | PRO         |
| 2          | F            | 564        | ILE         |
| 1          | G            | 25         | GLU         |
| 1          | G            | 65         | PHE         |
| 1          | G            | 68         | LEU         |
| 1          | G            | 122        | ALA         |
| 1          | G            | 130        | GLY         |
| 1          | G            | 151        | SER         |
| 1          | G            | 174        | MET         |
| 1          | G            | 189        | GLY         |
| 1          | G            | 202        | CYS         |
| 1          | G            | 212        | PHE         |
| 1          | G            | 215        | LEU         |
| 1          | G            | 226        | LEU         |
| 1          | G            | 227        | ILE         |
| 1          | G            | 230        | GLY         |
| 1          | G            | 247        | VAL         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | G            | 268        | ASN         |
| 1          | G            | 323        | ASN         |
| 1          | G            | 326        | TYR         |
| 1          | G            | 330        | THR         |
| 1          | G            | 362        | LYS         |
| 1          | G            | 363        | ARG         |
| 1          | G            | 368        | LEU         |
| 1          | G            | 392        | CYS         |
| 1          | G            | 413        | PRO         |
| 1          | G            | 431        | SER         |
| 1          | G            | 434        | ARG         |
| 1          | G            | 440        | ASN         |
| 1          | G            | 470        | GLN         |
| 1          | G            | 478        | TRP         |
| 1          | G            | 525        | TYR         |
| 1          | G            | 526        | ALA         |
| 1          | G            | 541        | VAL         |
| 1          | G            | 556        | ASP         |
| 2          | H            | 21         | GLU         |
| 2          | H            | 37         | VAL         |
| 2          | H            | 40         | SER         |
| 2          | H            | 128        | LYS         |
| 2          | H            | 129        | CYS         |
| 2          | H            | 152        | ASN         |
| 2          | H            | 165        | LEU         |
| 2          | H            | 188        | ALA         |
| 2          | H            | 194        | SER         |
| 2          | H            | 220        | ILE         |
| 2          | H            | 251        | ALA         |
| 2          | H            | 255        | VAL         |
| 2          | H            | 257        | LEU         |
| 2          | H            | 318        | LYS         |
| 2          | H            | 340        | ASP         |
| 2          | H            | 344        | ARG         |
| 2          | H            | 351        | ILE         |
| 2          | H            | 371        | ARG         |
| 2          | H            | 386        | GLN         |
| 2          | H            | 388        | ALA         |
| 2          | H            | 392        | VAL         |
| 2          | H            | 412        | VAL         |
| 2          | H            | 461        | ASN         |
| 2          | H            | 470        | LEU         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | H            | 471        | ASP         |
| 2          | H            | 474        | HIS         |
| 2          | H            | 482        | LEU         |
| 2          | H            | 502        | LEU         |
| 2          | H            | 517        | PRO         |
| 2          | H            | 540        | VAL         |
| 2          | H            | 557        | PRO         |
| 2          | H            | 564        | ILE         |
| 1          | I            | 25         | GLU         |
| 1          | I            | 65         | PHE         |
| 1          | I            | 68         | LEU         |
| 1          | I            | 85         | GLY         |
| 1          | I            | 122        | ALA         |
| 1          | I            | 130        | GLY         |
| 1          | I            | 151        | SER         |
| 1          | I            | 174        | MET         |
| 1          | I            | 189        | GLY         |
| 1          | I            | 202        | CYS         |
| 1          | I            | 212        | PHE         |
| 1          | I            | 215        | LEU         |
| 1          | I            | 226        | LEU         |
| 1          | I            | 227        | ILE         |
| 1          | I            | 230        | GLY         |
| 1          | I            | 247        | VAL         |
| 1          | I            | 268        | ASN         |
| 1          | I            | 326        | TYR         |
| 1          | I            | 330        | THR         |
| 1          | I            | 362        | LYS         |
| 1          | I            | 363        | ARG         |
| 1          | I            | 368        | LEU         |
| 1          | I            | 392        | CYS         |
| 1          | I            | 413        | PRO         |
| 1          | I            | 431        | SER         |
| 1          | I            | 434        | ARG         |
| 1          | I            | 440        | ASN         |
| 1          | I            | 470        | GLN         |
| 1          | I            | 478        | TRP         |
| 1          | I            | 525        | TYR         |
| 1          | I            | 526        | ALA         |
| 1          | I            | 541        | VAL         |
| 1          | I            | 556        | ASP         |
| 2          | J            | 21         | GLU         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | J            | 37         | VAL         |
| 2          | J            | 40         | SER         |
| 2          | J            | 128        | LYS         |
| 2          | J            | 129        | CYS         |
| 2          | J            | 152        | ASN         |
| 2          | J            | 165        | LEU         |
| 2          | J            | 188        | ALA         |
| 2          | J            | 194        | SER         |
| 2          | J            | 220        | ILE         |
| 2          | J            | 251        | ALA         |
| 2          | J            | 255        | VAL         |
| 2          | J            | 257        | LEU         |
| 2          | J            | 318        | LYS         |
| 2          | J            | 340        | ASP         |
| 2          | J            | 344        | ARG         |
| 2          | J            | 351        | ILE         |
| 2          | J            | 371        | ARG         |
| 2          | J            | 386        | GLN         |
| 2          | J            | 388        | ALA         |
| 2          | J            | 392        | VAL         |
| 2          | J            | 412        | VAL         |
| 2          | J            | 461        | ASN         |
| 2          | J            | 470        | LEU         |
| 2          | J            | 471        | ASP         |
| 2          | J            | 474        | HIS         |
| 2          | J            | 482        | LEU         |
| 2          | J            | 502        | LEU         |
| 2          | J            | 517        | PRO         |
| 2          | J            | 540        | VAL         |
| 2          | J            | 557        | PRO         |
| 2          | J            | 564        | ILE         |
| 1          | K            | 25         | GLU         |
| 1          | K            | 65         | PHE         |
| 1          | K            | 68         | LEU         |
| 1          | K            | 85         | GLY         |
| 1          | K            | 122        | ALA         |
| 1          | K            | 130        | GLY         |
| 1          | K            | 151        | SER         |
| 1          | K            | 174        | MET         |
| 1          | K            | 189        | GLY         |
| 1          | K            | 202        | CYS         |
| 1          | K            | 212        | PHE         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | K            | 215        | LEU         |
| 1          | K            | 226        | LEU         |
| 1          | K            | 227        | ILE         |
| 1          | K            | 230        | GLY         |
| 1          | K            | 247        | VAL         |
| 1          | K            | 268        | ASN         |
| 1          | K            | 323        | ASN         |
| 1          | K            | 326        | TYR         |
| 1          | K            | 330        | THR         |
| 1          | K            | 362        | LYS         |
| 1          | K            | 363        | ARG         |
| 1          | K            | 368        | LEU         |
| 1          | K            | 392        | CYS         |
| 1          | K            | 413        | PRO         |
| 1          | K            | 431        | SER         |
| 1          | K            | 434        | ARG         |
| 1          | K            | 440        | ASN         |
| 1          | K            | 470        | GLN         |
| 1          | K            | 478        | TRP         |
| 1          | K            | 525        | TYR         |
| 1          | K            | 526        | ALA         |
| 1          | K            | 541        | VAL         |
| 1          | K            | 556        | ASP         |
| 2          | L            | 21         | GLU         |
| 2          | L            | 37         | VAL         |
| 2          | L            | 40         | SER         |
| 2          | L            | 128        | LYS         |
| 2          | L            | 129        | CYS         |
| 2          | L            | 152        | ASN         |
| 2          | L            | 165        | LEU         |
| 2          | L            | 188        | ALA         |
| 2          | L            | 194        | SER         |
| 2          | L            | 220        | ILE         |
| 2          | L            | 251        | ALA         |
| 2          | L            | 255        | VAL         |
| 2          | L            | 257        | LEU         |
| 2          | L            | 318        | LYS         |
| 2          | L            | 340        | ASP         |
| 2          | L            | 344        | ARG         |
| 2          | L            | 351        | ILE         |
| 2          | L            | 371        | ARG         |
| 2          | L            | 386        | GLN         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | L            | 388        | ALA         |
| 2          | L            | 392        | VAL         |
| 2          | L            | 412        | VAL         |
| 2          | L            | 461        | ASN         |
| 2          | L            | 470        | LEU         |
| 2          | L            | 471        | ASP         |
| 2          | L            | 474        | HIS         |
| 2          | L            | 482        | LEU         |
| 2          | L            | 502        | LEU         |
| 2          | L            | 517        | PRO         |
| 2          | L            | 540        | VAL         |
| 2          | L            | 557        | PRO         |
| 2          | L            | 564        | ILE         |
| 3          | M            | 27         | MET         |
| 3          | M            | 80         | VAL         |
| 3          | M            | 128        | SER         |
| 3          | M            | 136        | THR         |
| 3          | M            | 240        | GLN         |
| 3          | M            | 246        | ARG         |
| 3          | M            | 272        | HIS         |
| 3          | M            | 330        | GLY         |
| 3          | M            | 402        | GLY         |
| 3          | M            | 417        | ASP         |
| 3          | N            | 27         | MET         |
| 3          | N            | 80         | VAL         |
| 3          | N            | 128        | SER         |
| 3          | N            | 136        | THR         |
| 3          | N            | 240        | GLN         |
| 3          | N            | 246        | ARG         |
| 3          | N            | 272        | HIS         |
| 3          | N            | 330        | GLY         |
| 3          | N            | 402        | GLY         |
| 3          | N            | 417        | ASP         |
| 3          | O            | 27         | MET         |
| 3          | O            | 80         | VAL         |
| 3          | O            | 128        | SER         |
| 3          | O            | 136        | THR         |
| 3          | O            | 240        | GLN         |
| 3          | O            | 246        | ARG         |
| 3          | O            | 272        | HIS         |
| 3          | O            | 330        | GLY         |
| 3          | O            | 402        | GLY         |

*Continued on next page...*



*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 3          | O            | 417        | ASP         |
| 3          | P            | 27         | MET         |
| 3          | P            | 80         | VAL         |
| 3          | P            | 128        | SER         |
| 3          | P            | 136        | THR         |
| 3          | P            | 240        | GLN         |
| 3          | P            | 246        | ARG         |
| 3          | P            | 272        | HIS         |
| 3          | P            | 330        | GLY         |
| 3          | P            | 402        | GLY         |
| 3          | P            | 417        | ASP         |
| 4          | Q            | 12         | GLY         |
| 4          | Q            | 22         | ALA         |
| 4          | Q            | 30         | LYS         |
| 4          | Q            | 39         | VAL         |
| 4          | Q            | 100        | GLU         |
| 4          | Q            | 113        | ILE         |
| 3          | R            | 27         | MET         |
| 3          | R            | 80         | VAL         |
| 3          | R            | 128        | SER         |
| 3          | R            | 136        | THR         |
| 3          | R            | 240        | GLN         |
| 3          | R            | 246        | ARG         |
| 3          | R            | 272        | HIS         |
| 3          | R            | 330        | GLY         |
| 3          | R            | 402        | GLY         |
| 3          | R            | 417        | ASP         |
| 4          | S            | 12         | GLY         |
| 4          | S            | 22         | ALA         |
| 4          | S            | 30         | LYS         |
| 4          | S            | 39         | VAL         |
| 4          | S            | 100        | GLU         |
| 4          | S            | 113        | ILE         |
| 4          | T            | 12         | GLY         |
| 4          | T            | 22         | ALA         |
| 4          | T            | 30         | LYS         |
| 4          | T            | 39         | VAL         |
| 4          | T            | 100        | GLU         |
| 4          | T            | 113        | ILE         |
| 4          | U            | 12         | GLY         |
| 4          | U            | 22         | ALA         |
| 4          | U            | 30         | LYS         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 4          | U            | 39         | VAL         |
| 4          | U            | 100        | GLU         |
| 4          | U            | 113        | ILE         |
| 3          | V            | 27         | MET         |
| 3          | V            | 80         | VAL         |
| 3          | V            | 128        | SER         |
| 3          | V            | 136        | THR         |
| 3          | V            | 240        | GLN         |
| 3          | V            | 246        | ARG         |
| 3          | V            | 272        | HIS         |
| 3          | V            | 330        | GLY         |
| 3          | V            | 402        | GLY         |
| 3          | V            | 417        | ASP         |
| 4          | W            | 12         | GLY         |
| 4          | W            | 22         | ALA         |
| 4          | W            | 30         | LYS         |
| 4          | W            | 39         | VAL         |
| 4          | W            | 100        | GLU         |
| 4          | W            | 113        | ILE         |
| 4          | X            | 12         | GLY         |
| 4          | X            | 22         | ALA         |
| 4          | X            | 30         | LYS         |
| 4          | X            | 39         | VAL         |
| 4          | X            | 100        | GLU         |
| 4          | X            | 113        | ILE         |
| 1          | A            | 4          | PRO         |
| 1          | A            | 48         | ARG         |
| 1          | A            | 57         | HIS         |
| 1          | A            | 69         | GLU         |
| 1          | A            | 80         | THR         |
| 1          | A            | 105        | ASN         |
| 1          | A            | 123        | LEU         |
| 1          | A            | 158        | ALA         |
| 1          | A            | 180        | LYS         |
| 1          | A            | 190        | VAL         |
| 1          | A            | 265        | GLU         |
| 1          | A            | 317        | LEU         |
| 1          | A            | 334        | LYS         |
| 1          | A            | 340        | HIS         |
| 1          | A            | 371        | ALA         |
| 1          | A            | 427        | THR         |
| 1          | A            | 453        | ALA         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | A            | 474        | GLN         |
| 1          | A            | 481        | GLY         |
| 1          | A            | 517        | MET         |
| 1          | A            | 571        | LYS         |
| 2          | B            | 17         | GLU         |
| 2          | B            | 26         | LYS         |
| 2          | B            | 39         | ALA         |
| 2          | B            | 52         | PRO         |
| 2          | B            | 59         | GLN         |
| 2          | B            | 79         | SER         |
| 2          | B            | 103        | ARG         |
| 2          | B            | 130        | LEU         |
| 2          | B            | 131        | LYS         |
| 2          | B            | 135        | PRO         |
| 2          | B            | 139        | LYS         |
| 2          | B            | 176        | VAL         |
| 2          | B            | 192        | PRO         |
| 2          | B            | 216        | GLU         |
| 2          | B            | 221        | PHE         |
| 2          | B            | 307        | ASN         |
| 2          | B            | 324        | PHE         |
| 2          | B            | 334        | VAL         |
| 2          | B            | 336        | LEU         |
| 2          | B            | 368        | ASP         |
| 2          | B            | 390        | ARG         |
| 2          | B            | 411        | ILE         |
| 2          | B            | 423        | ASN         |
| 2          | B            | 454        | GLU         |
| 2          | B            | 488        | ILE         |
| 2          | B            | 504        | GLN         |
| 2          | B            | 521        | ASP         |
| 1          | C            | 4          | PRO         |
| 1          | C            | 48         | ARG         |
| 1          | C            | 57         | HIS         |
| 1          | C            | 69         | GLU         |
| 1          | C            | 80         | THR         |
| 1          | C            | 105        | ASN         |
| 1          | C            | 123        | LEU         |
| 1          | C            | 158        | ALA         |
| 1          | C            | 180        | LYS         |
| 1          | C            | 190        | VAL         |
| 1          | C            | 265        | GLU         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | C            | 317        | LEU         |
| 1          | C            | 334        | LYS         |
| 1          | C            | 340        | HIS         |
| 1          | C            | 371        | ALA         |
| 1          | C            | 427        | THR         |
| 1          | C            | 453        | ALA         |
| 1          | C            | 474        | GLN         |
| 1          | C            | 481        | GLY         |
| 1          | C            | 517        | MET         |
| 1          | C            | 571        | LYS         |
| 2          | D            | 17         | GLU         |
| 2          | D            | 26         | LYS         |
| 2          | D            | 39         | ALA         |
| 2          | D            | 52         | PRO         |
| 2          | D            | 59         | GLN         |
| 2          | D            | 79         | SER         |
| 2          | D            | 103        | ARG         |
| 2          | D            | 130        | LEU         |
| 2          | D            | 131        | LYS         |
| 2          | D            | 135        | PRO         |
| 2          | D            | 139        | LYS         |
| 2          | D            | 176        | VAL         |
| 2          | D            | 192        | PRO         |
| 2          | D            | 216        | GLU         |
| 2          | D            | 221        | PHE         |
| 2          | D            | 307        | ASN         |
| 2          | D            | 324        | PHE         |
| 2          | D            | 334        | VAL         |
| 2          | D            | 336        | LEU         |
| 2          | D            | 368        | ASP         |
| 2          | D            | 390        | ARG         |
| 2          | D            | 411        | ILE         |
| 2          | D            | 423        | ASN         |
| 2          | D            | 454        | GLU         |
| 2          | D            | 488        | ILE         |
| 2          | D            | 504        | GLN         |
| 2          | D            | 521        | ASP         |
| 1          | E            | 4          | PRO         |
| 1          | E            | 48         | ARG         |
| 1          | E            | 57         | HIS         |
| 1          | E            | 69         | GLU         |
| 1          | E            | 80         | THR         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | E            | 105        | ASN         |
| 1          | E            | 123        | LEU         |
| 1          | E            | 158        | ALA         |
| 1          | E            | 180        | LYS         |
| 1          | E            | 190        | VAL         |
| 1          | E            | 265        | GLU         |
| 1          | E            | 317        | LEU         |
| 1          | E            | 334        | LYS         |
| 1          | E            | 340        | HIS         |
| 1          | E            | 371        | ALA         |
| 1          | E            | 427        | THR         |
| 1          | E            | 453        | ALA         |
| 1          | E            | 474        | GLN         |
| 1          | E            | 481        | GLY         |
| 1          | E            | 517        | MET         |
| 1          | E            | 571        | LYS         |
| 2          | F            | 17         | GLU         |
| 2          | F            | 26         | LYS         |
| 2          | F            | 39         | ALA         |
| 2          | F            | 52         | PRO         |
| 2          | F            | 59         | GLN         |
| 2          | F            | 79         | SER         |
| 2          | F            | 103        | ARG         |
| 2          | F            | 130        | LEU         |
| 2          | F            | 131        | LYS         |
| 2          | F            | 135        | PRO         |
| 2          | F            | 139        | LYS         |
| 2          | F            | 176        | VAL         |
| 2          | F            | 192        | PRO         |
| 2          | F            | 216        | GLU         |
| 2          | F            | 221        | PHE         |
| 2          | F            | 307        | ASN         |
| 2          | F            | 324        | PHE         |
| 2          | F            | 336        | LEU         |
| 2          | F            | 368        | ASP         |
| 2          | F            | 390        | ARG         |
| 2          | F            | 411        | ILE         |
| 2          | F            | 423        | ASN         |
| 2          | F            | 454        | GLU         |
| 2          | F            | 488        | ILE         |
| 2          | F            | 504        | GLN         |
| 2          | F            | 521        | ASP         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | G            | 4          | PRO         |
| 1          | G            | 48         | ARG         |
| 1          | G            | 57         | HIS         |
| 1          | G            | 69         | GLU         |
| 1          | G            | 80         | THR         |
| 1          | G            | 85         | GLY         |
| 1          | G            | 105        | ASN         |
| 1          | G            | 123        | LEU         |
| 1          | G            | 158        | ALA         |
| 1          | G            | 180        | LYS         |
| 1          | G            | 190        | VAL         |
| 1          | G            | 265        | GLU         |
| 1          | G            | 317        | LEU         |
| 1          | G            | 334        | LYS         |
| 1          | G            | 340        | HIS         |
| 1          | G            | 371        | ALA         |
| 1          | G            | 427        | THR         |
| 1          | G            | 453        | ALA         |
| 1          | G            | 474        | GLN         |
| 1          | G            | 481        | GLY         |
| 1          | G            | 517        | MET         |
| 1          | G            | 571        | LYS         |
| 2          | H            | 17         | GLU         |
| 2          | H            | 26         | LYS         |
| 2          | H            | 39         | ALA         |
| 2          | H            | 52         | PRO         |
| 2          | H            | 59         | GLN         |
| 2          | H            | 79         | SER         |
| 2          | H            | 103        | ARG         |
| 2          | H            | 130        | LEU         |
| 2          | H            | 131        | LYS         |
| 2          | H            | 135        | PRO         |
| 2          | H            | 139        | LYS         |
| 2          | H            | 176        | VAL         |
| 2          | H            | 192        | PRO         |
| 2          | H            | 216        | GLU         |
| 2          | H            | 221        | PHE         |
| 2          | H            | 307        | ASN         |
| 2          | H            | 324        | PHE         |
| 2          | H            | 334        | VAL         |
| 2          | H            | 336        | LEU         |
| 2          | H            | 368        | ASP         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | H            | 390        | ARG         |
| 2          | H            | 411        | ILE         |
| 2          | H            | 423        | ASN         |
| 2          | H            | 454        | GLU         |
| 2          | H            | 488        | ILE         |
| 2          | H            | 504        | GLN         |
| 2          | H            | 521        | ASP         |
| 1          | I            | 4          | PRO         |
| 1          | I            | 48         | ARG         |
| 1          | I            | 57         | HIS         |
| 1          | I            | 69         | GLU         |
| 1          | I            | 80         | THR         |
| 1          | I            | 105        | ASN         |
| 1          | I            | 123        | LEU         |
| 1          | I            | 158        | ALA         |
| 1          | I            | 180        | LYS         |
| 1          | I            | 190        | VAL         |
| 1          | I            | 265        | GLU         |
| 1          | I            | 317        | LEU         |
| 1          | I            | 323        | ASN         |
| 1          | I            | 334        | LYS         |
| 1          | I            | 340        | HIS         |
| 1          | I            | 371        | ALA         |
| 1          | I            | 427        | THR         |
| 1          | I            | 453        | ALA         |
| 1          | I            | 474        | GLN         |
| 1          | I            | 481        | GLY         |
| 1          | I            | 517        | MET         |
| 1          | I            | 571        | LYS         |
| 2          | J            | 17         | GLU         |
| 2          | J            | 26         | LYS         |
| 2          | J            | 39         | ALA         |
| 2          | J            | 52         | PRO         |
| 2          | J            | 59         | GLN         |
| 2          | J            | 79         | SER         |
| 2          | J            | 103        | ARG         |
| 2          | J            | 130        | LEU         |
| 2          | J            | 131        | LYS         |
| 2          | J            | 135        | PRO         |
| 2          | J            | 139        | LYS         |
| 2          | J            | 176        | VAL         |
| 2          | J            | 192        | PRO         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | J            | 216        | GLU         |
| 2          | J            | 221        | PHE         |
| 2          | J            | 307        | ASN         |
| 2          | J            | 324        | PHE         |
| 2          | J            | 336        | LEU         |
| 2          | J            | 368        | ASP         |
| 2          | J            | 390        | ARG         |
| 2          | J            | 411        | ILE         |
| 2          | J            | 423        | ASN         |
| 2          | J            | 454        | GLU         |
| 2          | J            | 488        | ILE         |
| 2          | J            | 504        | GLN         |
| 2          | J            | 521        | ASP         |
| 1          | K            | 4          | PRO         |
| 1          | K            | 48         | ARG         |
| 1          | K            | 57         | HIS         |
| 1          | K            | 69         | GLU         |
| 1          | K            | 80         | THR         |
| 1          | K            | 105        | ASN         |
| 1          | K            | 123        | LEU         |
| 1          | K            | 158        | ALA         |
| 1          | K            | 180        | LYS         |
| 1          | K            | 190        | VAL         |
| 1          | K            | 265        | GLU         |
| 1          | K            | 317        | LEU         |
| 1          | K            | 334        | LYS         |
| 1          | K            | 340        | HIS         |
| 1          | K            | 371        | ALA         |
| 1          | K            | 427        | THR         |
| 1          | K            | 453        | ALA         |
| 1          | K            | 474        | GLN         |
| 1          | K            | 481        | GLY         |
| 1          | K            | 517        | MET         |
| 1          | K            | 571        | LYS         |
| 2          | L            | 17         | GLU         |
| 2          | L            | 26         | LYS         |
| 2          | L            | 39         | ALA         |
| 2          | L            | 52         | PRO         |
| 2          | L            | 59         | GLN         |
| 2          | L            | 79         | SER         |
| 2          | L            | 103        | ARG         |
| 2          | L            | 130        | LEU         |

*Continued on next page...*



*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | L            | 131        | LYS         |
| 2          | L            | 135        | PRO         |
| 2          | L            | 139        | LYS         |
| 2          | L            | 176        | VAL         |
| 2          | L            | 192        | PRO         |
| 2          | L            | 216        | GLU         |
| 2          | L            | 221        | PHE         |
| 2          | L            | 307        | ASN         |
| 2          | L            | 324        | PHE         |
| 2          | L            | 336        | LEU         |
| 2          | L            | 368        | ASP         |
| 2          | L            | 390        | ARG         |
| 2          | L            | 411        | ILE         |
| 2          | L            | 423        | ASN         |
| 2          | L            | 454        | GLU         |
| 2          | L            | 488        | ILE         |
| 2          | L            | 504        | GLN         |
| 2          | L            | 521        | ASP         |
| 3          | M            | 63         | ASN         |
| 3          | M            | 78         | SER         |
| 3          | M            | 107        | PHE         |
| 3          | M            | 120        | PHE         |
| 3          | M            | 161        | SER         |
| 3          | M            | 166        | TYR         |
| 3          | M            | 187        | GLY         |
| 3          | M            | 304        | ARG         |
| 3          | N            | 63         | ASN         |
| 3          | N            | 78         | SER         |
| 3          | N            | 107        | PHE         |
| 3          | N            | 120        | PHE         |
| 3          | N            | 161        | SER         |
| 3          | N            | 166        | TYR         |
| 3          | N            | 187        | GLY         |
| 3          | N            | 304        | ARG         |
| 3          | O            | 63         | ASN         |
| 3          | O            | 78         | SER         |
| 3          | O            | 107        | PHE         |
| 3          | O            | 120        | PHE         |
| 3          | O            | 161        | SER         |
| 3          | O            | 166        | TYR         |
| 3          | O            | 187        | GLY         |
| 3          | O            | 304        | ARG         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 3          | P            | 63         | ASN         |
| 3          | P            | 78         | SER         |
| 3          | P            | 107        | PHE         |
| 3          | P            | 120        | PHE         |
| 3          | P            | 161        | SER         |
| 3          | P            | 166        | TYR         |
| 3          | P            | 187        | GLY         |
| 3          | P            | 304        | ARG         |
| 4          | Q            | 73         | GLY         |
| 4          | Q            | 148        | PRO         |
| 3          | R            | 63         | ASN         |
| 3          | R            | 78         | SER         |
| 3          | R            | 107        | PHE         |
| 3          | R            | 120        | PHE         |
| 3          | R            | 161        | SER         |
| 3          | R            | 166        | TYR         |
| 3          | R            | 187        | GLY         |
| 3          | R            | 304        | ARG         |
| 4          | S            | 73         | GLY         |
| 4          | S            | 148        | PRO         |
| 4          | T            | 73         | GLY         |
| 4          | T            | 148        | PRO         |
| 4          | U            | 73         | GLY         |
| 4          | U            | 148        | PRO         |
| 3          | V            | 63         | ASN         |
| 3          | V            | 78         | SER         |
| 3          | V            | 107        | PHE         |
| 3          | V            | 120        | PHE         |
| 3          | V            | 161        | SER         |
| 3          | V            | 166        | TYR         |
| 3          | V            | 187        | GLY         |
| 3          | V            | 304        | ARG         |
| 4          | W            | 73         | GLY         |
| 4          | W            | 148        | PRO         |
| 4          | X            | 73         | GLY         |
| 4          | X            | 148        | PRO         |
| 1          | A            | 2          | PRO         |
| 1          | A            | 12         | ARG         |
| 1          | A            | 90         | MET         |
| 1          | A            | 124        | CYS         |
| 1          | A            | 134        | MET         |
| 1          | A            | 139        | ALA         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | A            | 185        | GLU         |
| 1          | A            | 195        | VAL         |
| 1          | A            | 236        | ASP         |
| 1          | A            | 254        | ARG         |
| 1          | A            | 311        | ASN         |
| 1          | A            | 369        | SER         |
| 1          | A            | 376        | ASN         |
| 1          | A            | 395        | GLU         |
| 1          | A            | 451        | MET         |
| 1          | A            | 476        | ALA         |
| 1          | A            | 477        | ALA         |
| 1          | A            | 485        | ASP         |
| 1          | A            | 507        | ASP         |
| 2          | B            | 16         | PHE         |
| 2          | B            | 51         | PHE         |
| 2          | B            | 178        | ALA         |
| 2          | B            | 315        | GLU         |
| 2          | B            | 339        | LEU         |
| 2          | B            | 369        | PHE         |
| 2          | B            | 410        | ALA         |
| 2          | B            | 415        | LYS         |
| 2          | B            | 449        | ILE         |
| 2          | B            | 525        | ILE         |
| 2          | B            | 538        | LYS         |
| 1          | C            | 2          | PRO         |
| 1          | C            | 12         | ARG         |
| 1          | C            | 90         | MET         |
| 1          | C            | 124        | CYS         |
| 1          | C            | 134        | MET         |
| 1          | C            | 139        | ALA         |
| 1          | C            | 185        | GLU         |
| 1          | C            | 195        | VAL         |
| 1          | C            | 220        | VAL         |
| 1          | C            | 236        | ASP         |
| 1          | C            | 254        | ARG         |
| 1          | C            | 311        | ASN         |
| 1          | C            | 369        | SER         |
| 1          | C            | 376        | ASN         |
| 1          | C            | 395        | GLU         |
| 1          | C            | 451        | MET         |
| 1          | C            | 476        | ALA         |
| 1          | C            | 477        | ALA         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | C            | 485        | ASP         |
| 1          | C            | 507        | ASP         |
| 2          | D            | 16         | PHE         |
| 2          | D            | 51         | PHE         |
| 2          | D            | 178        | ALA         |
| 2          | D            | 315        | GLU         |
| 2          | D            | 339        | LEU         |
| 2          | D            | 369        | PHE         |
| 2          | D            | 410        | ALA         |
| 2          | D            | 415        | LYS         |
| 2          | D            | 449        | ILE         |
| 2          | D            | 525        | ILE         |
| 2          | D            | 538        | LYS         |
| 1          | E            | 2          | PRO         |
| 1          | E            | 12         | ARG         |
| 1          | E            | 90         | MET         |
| 1          | E            | 124        | CYS         |
| 1          | E            | 134        | MET         |
| 1          | E            | 139        | ALA         |
| 1          | E            | 185        | GLU         |
| 1          | E            | 195        | VAL         |
| 1          | E            | 236        | ASP         |
| 1          | E            | 254        | ARG         |
| 1          | E            | 311        | ASN         |
| 1          | E            | 369        | SER         |
| 1          | E            | 376        | ASN         |
| 1          | E            | 395        | GLU         |
| 1          | E            | 476        | ALA         |
| 1          | E            | 477        | ALA         |
| 1          | E            | 485        | ASP         |
| 1          | E            | 507        | ASP         |
| 1          | E            | 557        | VAL         |
| 2          | F            | 16         | PHE         |
| 2          | F            | 51         | PHE         |
| 2          | F            | 178        | ALA         |
| 2          | F            | 315        | GLU         |
| 2          | F            | 334        | VAL         |
| 2          | F            | 339        | LEU         |
| 2          | F            | 369        | PHE         |
| 2          | F            | 410        | ALA         |
| 2          | F            | 415        | LYS         |
| 2          | F            | 449        | ILE         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | F            | 525        | ILE         |
| 2          | F            | 538        | LYS         |
| 1          | G            | 2          | PRO         |
| 1          | G            | 12         | ARG         |
| 1          | G            | 90         | MET         |
| 1          | G            | 124        | CYS         |
| 1          | G            | 134        | MET         |
| 1          | G            | 139        | ALA         |
| 1          | G            | 185        | GLU         |
| 1          | G            | 195        | VAL         |
| 1          | G            | 236        | ASP         |
| 1          | G            | 254        | ARG         |
| 1          | G            | 311        | ASN         |
| 1          | G            | 369        | SER         |
| 1          | G            | 376        | ASN         |
| 1          | G            | 395        | GLU         |
| 1          | G            | 451        | MET         |
| 1          | G            | 476        | ALA         |
| 1          | G            | 477        | ALA         |
| 1          | G            | 485        | ASP         |
| 1          | G            | 507        | ASP         |
| 2          | H            | 16         | PHE         |
| 2          | H            | 51         | PHE         |
| 2          | H            | 172        | SER         |
| 2          | H            | 178        | ALA         |
| 2          | H            | 315        | GLU         |
| 2          | H            | 339        | LEU         |
| 2          | H            | 369        | PHE         |
| 2          | H            | 410        | ALA         |
| 2          | H            | 415        | LYS         |
| 2          | H            | 449        | ILE         |
| 2          | H            | 525        | ILE         |
| 2          | H            | 538        | LYS         |
| 1          | I            | 2          | PRO         |
| 1          | I            | 12         | ARG         |
| 1          | I            | 90         | MET         |
| 1          | I            | 124        | CYS         |
| 1          | I            | 134        | MET         |
| 1          | I            | 139        | ALA         |
| 1          | I            | 185        | GLU         |
| 1          | I            | 195        | VAL         |
| 1          | I            | 236        | ASP         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | I            | 254        | ARG         |
| 1          | I            | 311        | ASN         |
| 1          | I            | 369        | SER         |
| 1          | I            | 376        | ASN         |
| 1          | I            | 395        | GLU         |
| 1          | I            | 451        | MET         |
| 1          | I            | 476        | ALA         |
| 1          | I            | 477        | ALA         |
| 1          | I            | 485        | ASP         |
| 1          | I            | 507        | ASP         |
| 1          | I            | 557        | VAL         |
| 2          | J            | 16         | PHE         |
| 2          | J            | 51         | PHE         |
| 2          | J            | 178        | ALA         |
| 2          | J            | 315        | GLU         |
| 2          | J            | 334        | VAL         |
| 2          | J            | 339        | LEU         |
| 2          | J            | 369        | PHE         |
| 2          | J            | 410        | ALA         |
| 2          | J            | 415        | LYS         |
| 2          | J            | 449        | ILE         |
| 2          | J            | 525        | ILE         |
| 2          | J            | 538        | LYS         |
| 1          | K            | 2          | PRO         |
| 1          | K            | 12         | ARG         |
| 1          | K            | 90         | MET         |
| 1          | K            | 124        | CYS         |
| 1          | K            | 134        | MET         |
| 1          | K            | 139        | ALA         |
| 1          | K            | 185        | GLU         |
| 1          | K            | 195        | VAL         |
| 1          | K            | 220        | VAL         |
| 1          | K            | 236        | ASP         |
| 1          | K            | 254        | ARG         |
| 1          | K            | 311        | ASN         |
| 1          | K            | 369        | SER         |
| 1          | K            | 376        | ASN         |
| 1          | K            | 395        | GLU         |
| 1          | K            | 451        | MET         |
| 1          | K            | 476        | ALA         |
| 1          | K            | 477        | ALA         |
| 1          | K            | 485        | ASP         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | K            | 507        | ASP         |
| 2          | L            | 16         | PHE         |
| 2          | L            | 51         | PHE         |
| 2          | L            | 178        | ALA         |
| 2          | L            | 315        | GLU         |
| 2          | L            | 334        | VAL         |
| 2          | L            | 339        | LEU         |
| 2          | L            | 369        | PHE         |
| 2          | L            | 410        | ALA         |
| 2          | L            | 415        | LYS         |
| 2          | L            | 449        | ILE         |
| 2          | L            | 525        | ILE         |
| 2          | L            | 538        | LYS         |
| 3          | M            | 12         | LYS         |
| 3          | M            | 37         | LEU         |
| 3          | M            | 89         | GLN         |
| 3          | M            | 106        | ASN         |
| 3          | M            | 130        | ILE         |
| 3          | M            | 234        | GLU         |
| 3          | M            | 247        | PHE         |
| 3          | N            | 12         | LYS         |
| 3          | N            | 37         | LEU         |
| 3          | N            | 89         | GLN         |
| 3          | N            | 106        | ASN         |
| 3          | N            | 130        | ILE         |
| 3          | N            | 234        | GLU         |
| 3          | N            | 247        | PHE         |
| 3          | O            | 12         | LYS         |
| 3          | O            | 37         | LEU         |
| 3          | O            | 89         | GLN         |
| 3          | O            | 106        | ASN         |
| 3          | O            | 130        | ILE         |
| 3          | O            | 234        | GLU         |
| 3          | O            | 247        | PHE         |
| 3          | P            | 12         | LYS         |
| 3          | P            | 37         | LEU         |
| 3          | P            | 89         | GLN         |
| 3          | P            | 106        | ASN         |
| 3          | P            | 130        | ILE         |
| 3          | P            | 234        | GLU         |
| 3          | P            | 247        | PHE         |
| 4          | Q            | 90         | LEU         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 4          | Q            | 96         | GLY         |
| 4          | Q            | 111        | TYR         |
| 4          | Q            | 132        | LEU         |
| 3          | R            | 12         | LYS         |
| 3          | R            | 37         | LEU         |
| 3          | R            | 89         | GLN         |
| 3          | R            | 106        | ASN         |
| 3          | R            | 130        | ILE         |
| 3          | R            | 234        | GLU         |
| 3          | R            | 247        | PHE         |
| 4          | S            | 90         | LEU         |
| 4          | S            | 96         | GLY         |
| 4          | S            | 111        | TYR         |
| 4          | S            | 132        | LEU         |
| 4          | T            | 90         | LEU         |
| 4          | T            | 96         | GLY         |
| 4          | T            | 132        | LEU         |
| 4          | U            | 90         | LEU         |
| 4          | U            | 96         | GLY         |
| 4          | U            | 132        | LEU         |
| 3          | V            | 12         | LYS         |
| 3          | V            | 37         | LEU         |
| 3          | V            | 89         | GLN         |
| 3          | V            | 106        | ASN         |
| 3          | V            | 130        | ILE         |
| 3          | V            | 234        | GLU         |
| 3          | V            | 247        | PHE         |
| 4          | W            | 90         | LEU         |
| 4          | W            | 96         | GLY         |
| 4          | W            | 132        | LEU         |
| 4          | X            | 90         | LEU         |
| 4          | X            | 96         | GLY         |
| 4          | X            | 132        | LEU         |
| 1          | A            | 10         | LEU         |
| 1          | A            | 64         | HIS         |
| 1          | A            | 133        | GLU         |
| 1          | A            | 220        | VAL         |
| 1          | A            | 263        | SER         |
| 1          | A            | 350        | ILE         |
| 1          | A            | 359        | VAL         |
| 1          | A            | 366        | MET         |
| 1          | A            | 367        | GLU         |

*Continued on next page...*



*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | A            | 370        | PHE         |
| 1          | A            | 388        | PHE         |
| 1          | A            | 394        | PRO         |
| 1          | A            | 397        | LYS         |
| 1          | A            | 524        | GLY         |
| 1          | A            | 557        | VAL         |
| 1          | A            | 565        | GLU         |
| 2          | B            | 53         | ASP         |
| 2          | B            | 123        | CYS         |
| 2          | B            | 172        | SER         |
| 2          | B            | 226        | LEU         |
| 2          | B            | 254        | ALA         |
| 2          | B            | 293        | SER         |
| 2          | B            | 378        | GLY         |
| 2          | B            | 476        | GLU         |
| 2          | B            | 477        | SER         |
| 2          | B            | 489        | VAL         |
| 1          | C            | 10         | LEU         |
| 1          | C            | 11         | ILE         |
| 1          | C            | 64         | HIS         |
| 1          | C            | 133        | GLU         |
| 1          | C            | 263        | SER         |
| 1          | C            | 350        | ILE         |
| 1          | C            | 359        | VAL         |
| 1          | C            | 366        | MET         |
| 1          | C            | 367        | GLU         |
| 1          | C            | 370        | PHE         |
| 1          | C            | 388        | PHE         |
| 1          | C            | 394        | PRO         |
| 1          | C            | 397        | LYS         |
| 1          | C            | 524        | GLY         |
| 1          | C            | 557        | VAL         |
| 1          | C            | 565        | GLU         |
| 2          | D            | 53         | ASP         |
| 2          | D            | 123        | CYS         |
| 2          | D            | 172        | SER         |
| 2          | D            | 226        | LEU         |
| 2          | D            | 254        | ALA         |
| 2          | D            | 293        | SER         |
| 2          | D            | 378        | GLY         |
| 2          | D            | 476        | GLU         |
| 2          | D            | 477        | SER         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | D            | 489        | VAL         |
| 1          | E            | 10         | LEU         |
| 1          | E            | 64         | HIS         |
| 1          | E            | 133        | GLU         |
| 1          | E            | 220        | VAL         |
| 1          | E            | 263        | SER         |
| 1          | E            | 350        | ILE         |
| 1          | E            | 359        | VAL         |
| 1          | E            | 366        | MET         |
| 1          | E            | 367        | GLU         |
| 1          | E            | 370        | PHE         |
| 1          | E            | 388        | PHE         |
| 1          | E            | 394        | PRO         |
| 1          | E            | 397        | LYS         |
| 1          | E            | 451        | MET         |
| 1          | E            | 524        | GLY         |
| 1          | E            | 565        | GLU         |
| 2          | F            | 53         | ASP         |
| 2          | F            | 123        | CYS         |
| 2          | F            | 172        | SER         |
| 2          | F            | 226        | LEU         |
| 2          | F            | 254        | ALA         |
| 2          | F            | 293        | SER         |
| 2          | F            | 378        | GLY         |
| 2          | F            | 476        | GLU         |
| 2          | F            | 477        | SER         |
| 2          | F            | 489        | VAL         |
| 1          | G            | 10         | LEU         |
| 1          | G            | 11         | ILE         |
| 1          | G            | 64         | HIS         |
| 1          | G            | 133        | GLU         |
| 1          | G            | 220        | VAL         |
| 1          | G            | 263        | SER         |
| 1          | G            | 350        | ILE         |
| 1          | G            | 359        | VAL         |
| 1          | G            | 366        | MET         |
| 1          | G            | 367        | GLU         |
| 1          | G            | 370        | PHE         |
| 1          | G            | 388        | PHE         |
| 1          | G            | 394        | PRO         |
| 1          | G            | 397        | LYS         |
| 1          | G            | 524        | GLY         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | G            | 557        | VAL         |
| 1          | G            | 565        | GLU         |
| 2          | H            | 53         | ASP         |
| 2          | H            | 123        | CYS         |
| 2          | H            | 226        | LEU         |
| 2          | H            | 254        | ALA         |
| 2          | H            | 293        | SER         |
| 2          | H            | 378        | GLY         |
| 2          | H            | 476        | GLU         |
| 2          | H            | 477        | SER         |
| 2          | H            | 489        | VAL         |
| 1          | I            | 10         | LEU         |
| 1          | I            | 11         | ILE         |
| 1          | I            | 64         | HIS         |
| 1          | I            | 133        | GLU         |
| 1          | I            | 220        | VAL         |
| 1          | I            | 263        | SER         |
| 1          | I            | 350        | ILE         |
| 1          | I            | 359        | VAL         |
| 1          | I            | 366        | MET         |
| 1          | I            | 367        | GLU         |
| 1          | I            | 370        | PHE         |
| 1          | I            | 388        | PHE         |
| 1          | I            | 394        | PRO         |
| 1          | I            | 397        | LYS         |
| 1          | I            | 524        | GLY         |
| 1          | I            | 565        | GLU         |
| 2          | J            | 53         | ASP         |
| 2          | J            | 123        | CYS         |
| 2          | J            | 172        | SER         |
| 2          | J            | 226        | LEU         |
| 2          | J            | 254        | ALA         |
| 2          | J            | 293        | SER         |
| 2          | J            | 378        | GLY         |
| 2          | J            | 458        | ARG         |
| 2          | J            | 476        | GLU         |
| 2          | J            | 477        | SER         |
| 2          | J            | 489        | VAL         |
| 1          | K            | 10         | LEU         |
| 1          | K            | 11         | ILE         |
| 1          | K            | 64         | HIS         |
| 1          | K            | 133        | GLU         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | K            | 263        | SER         |
| 1          | K            | 350        | ILE         |
| 1          | K            | 359        | VAL         |
| 1          | K            | 366        | MET         |
| 1          | K            | 367        | GLU         |
| 1          | K            | 370        | PHE         |
| 1          | K            | 388        | PHE         |
| 1          | K            | 394        | PRO         |
| 1          | K            | 397        | LYS         |
| 1          | K            | 524        | GLY         |
| 1          | K            | 557        | VAL         |
| 1          | K            | 565        | GLU         |
| 2          | L            | 53         | ASP         |
| 2          | L            | 123        | CYS         |
| 2          | L            | 172        | SER         |
| 2          | L            | 226        | LEU         |
| 2          | L            | 254        | ALA         |
| 2          | L            | 293        | SER         |
| 2          | L            | 378        | GLY         |
| 2          | L            | 476        | GLU         |
| 2          | L            | 477        | SER         |
| 2          | L            | 489        | VAL         |
| 3          | M            | 275        | PRO         |
| 3          | N            | 275        | PRO         |
| 3          | O            | 275        | PRO         |
| 3          | P            | 275        | PRO         |
| 4          | Q            | 4          | PHE         |
| 4          | Q            | 31         | MET         |
| 4          | Q            | 84         | ILE         |
| 4          | Q            | 85         | HIS         |
| 3          | R            | 275        | PRO         |
| 4          | S            | 4          | PHE         |
| 4          | S            | 31         | MET         |
| 4          | S            | 84         | ILE         |
| 4          | S            | 85         | HIS         |
| 4          | T            | 4          | PHE         |
| 4          | T            | 31         | MET         |
| 4          | T            | 84         | ILE         |
| 4          | T            | 85         | HIS         |
| 4          | T            | 111        | TYR         |
| 4          | U            | 4          | PHE         |
| 4          | U            | 31         | MET         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 4          | U            | 84         | ILE         |
| 4          | U            | 85         | HIS         |
| 4          | U            | 111        | TYR         |
| 3          | V            | 275        | PRO         |
| 4          | W            | 4          | PHE         |
| 4          | W            | 31         | MET         |
| 4          | W            | 84         | ILE         |
| 4          | W            | 85         | HIS         |
| 4          | W            | 111        | TYR         |
| 4          | X            | 4          | PHE         |
| 4          | X            | 31         | MET         |
| 4          | X            | 84         | ILE         |
| 4          | X            | 85         | HIS         |
| 4          | X            | 111        | TYR         |
| 1          | A            | 11         | ILE         |
| 1          | A            | 233        | PRO         |
| 1          | A            | 244        | PHE         |
| 1          | A            | 249        | ILE         |
| 1          | A            | 380        | GLY         |
| 1          | A            | 437        | ALA         |
| 2          | B            | 143        | VAL         |
| 2          | B            | 287        | PRO         |
| 2          | B            | 301        | VAL         |
| 2          | B            | 322        | LYS         |
| 2          | B            | 335        | LYS         |
| 2          | B            | 458        | ARG         |
| 1          | C            | 233        | PRO         |
| 1          | C            | 244        | PHE         |
| 1          | C            | 249        | ILE         |
| 1          | C            | 380        | GLY         |
| 1          | C            | 437        | ALA         |
| 2          | D            | 143        | VAL         |
| 2          | D            | 219        | GLN         |
| 2          | D            | 287        | PRO         |
| 2          | D            | 301        | VAL         |
| 2          | D            | 322        | LYS         |
| 2          | D            | 335        | LYS         |
| 2          | D            | 458        | ARG         |
| 1          | E            | 11         | ILE         |
| 1          | E            | 233        | PRO         |
| 1          | E            | 244        | PHE         |
| 1          | E            | 249        | ILE         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | E            | 380        | GLY         |
| 1          | E            | 437        | ALA         |
| 2          | F            | 143        | VAL         |
| 2          | F            | 219        | GLN         |
| 2          | F            | 287        | PRO         |
| 2          | F            | 301        | VAL         |
| 2          | F            | 322        | LYS         |
| 2          | F            | 335        | LYS         |
| 2          | F            | 458        | ARG         |
| 1          | G            | 233        | PRO         |
| 1          | G            | 244        | PHE         |
| 1          | G            | 249        | ILE         |
| 1          | G            | 380        | GLY         |
| 1          | G            | 437        | ALA         |
| 2          | H            | 143        | VAL         |
| 2          | H            | 287        | PRO         |
| 2          | H            | 301        | VAL         |
| 2          | H            | 322        | LYS         |
| 2          | H            | 335        | LYS         |
| 2          | H            | 458        | ARG         |
| 1          | I            | 233        | PRO         |
| 1          | I            | 244        | PHE         |
| 1          | I            | 249        | ILE         |
| 1          | I            | 380        | GLY         |
| 1          | I            | 437        | ALA         |
| 2          | J            | 143        | VAL         |
| 2          | J            | 219        | GLN         |
| 2          | J            | 287        | PRO         |
| 2          | J            | 301        | VAL         |
| 2          | J            | 322        | LYS         |
| 2          | J            | 335        | LYS         |
| 1          | K            | 233        | PRO         |
| 1          | K            | 244        | PHE         |
| 1          | K            | 249        | ILE         |
| 1          | K            | 380        | GLY         |
| 1          | K            | 437        | ALA         |
| 2          | L            | 143        | VAL         |
| 2          | L            | 287        | PRO         |
| 2          | L            | 301        | VAL         |
| 2          | L            | 322        | LYS         |
| 2          | L            | 335        | LYS         |
| 2          | L            | 458        | ARG         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 3          | M            | 99         | GLU         |
| 3          | N            | 99         | GLU         |
| 3          | O            | 99         | GLU         |
| 3          | P            | 99         | GLU         |
| 3          | R            | 99         | GLU         |
| 3          | V            | 99         | GLU         |
| 2          | B            | 256        | VAL         |
| 2          | B            | 453        | GLY         |
| 2          | D            | 256        | VAL         |
| 2          | D            | 453        | GLY         |
| 2          | F            | 256        | VAL         |
| 2          | F            | 453        | GLY         |
| 2          | H            | 256        | VAL         |
| 2          | H            | 453        | GLY         |
| 2          | J            | 256        | VAL         |
| 2          | J            | 453        | GLY         |
| 2          | L            | 256        | VAL         |
| 2          | L            | 453        | GLY         |
| 1          | A            | 419        | ILE         |
| 2          | B            | 496        | PRO         |
| 1          | C            | 419        | ILE         |
| 2          | D            | 496        | PRO         |
| 1          | E            | 419        | ILE         |
| 1          | E            | 475        | VAL         |
| 2          | F            | 496        | PRO         |
| 1          | G            | 419        | ILE         |
| 2          | H            | 496        | PRO         |
| 1          | I            | 419        | ILE         |
| 2          | J            | 496        | PRO         |
| 1          | K            | 419        | ILE         |
| 2          | L            | 496        | PRO         |
| 1          | A            | 237        | VAL         |
| 1          | A            | 475        | VAL         |
| 2          | B            | 107        | VAL         |
| 2          | B            | 137        | VAL         |
| 2          | B            | 343        | ILE         |
| 2          | B            | 354        | VAL         |
| 1          | C            | 237        | VAL         |
| 1          | C            | 475        | VAL         |
| 2          | D            | 107        | VAL         |
| 2          | D            | 137        | VAL         |
| 2          | D            | 343        | ILE         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | D            | 354        | VAL         |
| 1          | E            | 237        | VAL         |
| 2          | F            | 107        | VAL         |
| 2          | F            | 137        | VAL         |
| 2          | F            | 343        | ILE         |
| 2          | F            | 354        | VAL         |
| 1          | G            | 237        | VAL         |
| 1          | G            | 475        | VAL         |
| 2          | H            | 107        | VAL         |
| 2          | H            | 137        | VAL         |
| 2          | H            | 343        | ILE         |
| 2          | H            | 354        | VAL         |
| 1          | I            | 237        | VAL         |
| 1          | I            | 475        | VAL         |
| 2          | J            | 107        | VAL         |
| 2          | J            | 137        | VAL         |
| 2          | J            | 302        | PRO         |
| 2          | J            | 343        | ILE         |
| 2          | J            | 354        | VAL         |
| 1          | K            | 237        | VAL         |
| 1          | K            | 475        | VAL         |
| 2          | L            | 107        | VAL         |
| 2          | L            | 137        | VAL         |
| 2          | L            | 302        | PRO         |
| 2          | L            | 343        | ILE         |
| 2          | L            | 354        | VAL         |
| 3          | P            | 407        | PRO         |
| 1          | A            | 169        | PRO         |
| 2          | B            | 302        | PRO         |
| 2          | B            | 429        | ILE         |
| 1          | C            | 169        | PRO         |
| 2          | D            | 302        | PRO         |
| 2          | D            | 429        | ILE         |
| 1          | E            | 169        | PRO         |
| 2          | F            | 302        | PRO         |
| 2          | F            | 429        | ILE         |
| 1          | G            | 169        | PRO         |
| 2          | H            | 302        | PRO         |
| 2          | H            | 429        | ILE         |
| 1          | I            | 169        | PRO         |
| 2          | J            | 429        | ILE         |
| 1          | K            | 169        | PRO         |

*Continued on next page...*



*Continued from previous page...*

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 2   | L     | 429 | ILE  |
| 3   | M     | 258 | PRO  |
| 3   | M     | 407 | PRO  |
| 3   | N     | 258 | PRO  |
| 3   | N     | 407 | PRO  |
| 3   | O     | 258 | PRO  |
| 3   | O     | 407 | PRO  |
| 3   | P     | 258 | PRO  |
| 3   | R     | 258 | PRO  |
| 3   | R     | 407 | PRO  |
| 3   | V     | 258 | PRO  |
| 3   | V     | 407 | PRO  |

### 5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

| Mol | Chain | Analysed      | Rotameric | Outliers | Percentiles |
|-----|-------|---------------|-----------|----------|-------------|
| 1   | A     | 523/546 (96%) | 478 (91%) | 45 (9%)  | 10 37       |
| 1   | C     | 523/546 (96%) | 478 (91%) | 45 (9%)  | 10 37       |
| 1   | E     | 523/546 (96%) | 479 (92%) | 44 (8%)  | 11 37       |
| 1   | G     | 523/546 (96%) | 478 (91%) | 45 (9%)  | 10 37       |
| 1   | I     | 523/546 (96%) | 479 (92%) | 44 (8%)  | 11 37       |
| 1   | K     | 523/546 (96%) | 478 (91%) | 45 (9%)  | 10 37       |
| 2   | B     | 515/523 (98%) | 475 (92%) | 40 (8%)  | 12 39       |
| 2   | D     | 515/523 (98%) | 475 (92%) | 40 (8%)  | 12 39       |
| 2   | F     | 515/523 (98%) | 475 (92%) | 40 (8%)  | 12 39       |
| 2   | H     | 515/523 (98%) | 475 (92%) | 40 (8%)  | 12 39       |
| 2   | J     | 515/523 (98%) | 475 (92%) | 40 (8%)  | 12 39       |
| 2   | L     | 515/523 (98%) | 475 (92%) | 40 (8%)  | 12 39       |
| 3   | M     | 355/383 (93%) | 322 (91%) | 33 (9%)  | 9 32        |
| 3   | N     | 355/383 (93%) | 322 (91%) | 33 (9%)  | 9 32        |

*Continued on next page...*

*Continued from previous page...*

| Mol | Chain | Analysed        | Rotameric  | Outliers | Percentiles |    |
|-----|-------|-----------------|------------|----------|-------------|----|
| 3   | O     | 355/383 (93%)   | 322 (91%)  | 33 (9%)  | 9           | 32 |
| 3   | P     | 355/383 (93%)   | 322 (91%)  | 33 (9%)  | 9           | 32 |
| 3   | R     | 355/383 (93%)   | 322 (91%)  | 33 (9%)  | 9           | 32 |
| 3   | V     | 355/383 (93%)   | 322 (91%)  | 33 (9%)  | 9           | 32 |
| 4   | Q     | 136/144 (94%)   | 118 (87%)  | 18 (13%) | 4           | 21 |
| 4   | S     | 136/144 (94%)   | 118 (87%)  | 18 (13%) | 4           | 21 |
| 4   | T     | 136/144 (94%)   | 118 (87%)  | 18 (13%) | 4           | 21 |
| 4   | U     | 136/144 (94%)   | 118 (87%)  | 18 (13%) | 4           | 21 |
| 4   | W     | 136/144 (94%)   | 118 (87%)  | 18 (13%) | 4           | 21 |
| 4   | X     | 136/144 (94%)   | 118 (87%)  | 18 (13%) | 4           | 21 |
| All | All   | 9174/9576 (96%) | 8360 (91%) | 814 (9%) | 9           | 34 |

All (814) residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | A     | 7   | LEU  |
| 1   | A     | 15  | ARG  |
| 1   | A     | 36  | SER  |
| 1   | A     | 42  | ASP  |
| 1   | A     | 47  | CYS  |
| 1   | A     | 65  | PHE  |
| 1   | A     | 77  | GLN  |
| 1   | A     | 98  | ASP  |
| 1   | A     | 103 | MET  |
| 1   | A     | 105 | ASN  |
| 1   | A     | 135 | CYS  |
| 1   | A     | 150 | ASN  |
| 1   | A     | 172 | MET  |
| 1   | A     | 187 | ASN  |
| 1   | A     | 201 | MET  |
| 1   | A     | 212 | PHE  |
| 1   | A     | 240 | ILE  |
| 1   | A     | 241 | SER  |
| 1   | A     | 242 | ASP  |
| 1   | A     | 261 | ASP  |
| 1   | A     | 283 | ASN  |
| 1   | A     | 313 | LEU  |
| 1   | A     | 327 | VAL  |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | A            | 364        | ARG         |
| 1          | A            | 369        | SER         |
| 1          | A            | 370        | PHE         |
| 1          | A            | 377        | ASN         |
| 1          | A            | 395        | GLU         |
| 1          | A            | 411        | TYR         |
| 1          | A            | 415        | LYS         |
| 1          | A            | 420        | ASP         |
| 1          | A            | 434        | ARG         |
| 1          | A            | 435        | ASP         |
| 1          | A            | 451        | MET         |
| 1          | A            | 454        | TYR         |
| 1          | A            | 456        | VAL         |
| 1          | A            | 491        | GLN         |
| 1          | A            | 494        | GLU         |
| 1          | A            | 496        | GLU         |
| 1          | A            | 518        | SER         |
| 1          | A            | 531        | MET         |
| 1          | A            | 534        | SER         |
| 1          | A            | 567        | ASN         |
| 1          | A            | 577        | ARG         |
| 1          | A            | 584        | MET         |
| 2          | B            | 8          | THR         |
| 2          | B            | 38         | ILE         |
| 2          | B            | 59         | GLN         |
| 2          | B            | 62         | ASN         |
| 2          | B            | 94         | ASP         |
| 2          | B            | 99         | ASN         |
| 2          | B            | 122        | LEU         |
| 2          | B            | 123        | CYS         |
| 2          | B            | 138        | ARG         |
| 2          | B            | 164        | THR         |
| 2          | B            | 175        | MET         |
| 2          | B            | 179        | ASN         |
| 2          | B            | 189        | GLU         |
| 2          | B            | 230        | MET         |
| 2          | B            | 233        | ASP         |
| 2          | B            | 257        | LEU         |
| 2          | B            | 277        | TYR         |
| 2          | B            | 280        | LEU         |
| 2          | B            | 287        | PRO         |
| 2          | B            | 290        | THR         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | B            | 317        | LEU         |
| 2          | B            | 333        | TYR         |
| 2          | B            | 345        | LEU         |
| 2          | B            | 355        | LEU         |
| 2          | B            | 390        | ARG         |
| 2          | B            | 421        | TYR         |
| 2          | B            | 432        | LEU         |
| 2          | B            | 433        | CYS         |
| 2          | B            | 438        | SER         |
| 2          | B            | 439        | ASP         |
| 2          | B            | 442        | PRO         |
| 2          | B            | 448        | MET         |
| 2          | B            | 458        | ARG         |
| 2          | B            | 463        | ASP         |
| 2          | B            | 486        | THR         |
| 2          | B            | 491        | LEU         |
| 2          | B            | 498        | GLU         |
| 2          | B            | 527        | TRP         |
| 2          | B            | 566        | TYR         |
| 2          | B            | 578        | PRO         |
| 1          | C            | 7          | LEU         |
| 1          | C            | 15         | ARG         |
| 1          | C            | 36         | SER         |
| 1          | C            | 42         | ASP         |
| 1          | C            | 47         | CYS         |
| 1          | C            | 65         | PHE         |
| 1          | C            | 77         | GLN         |
| 1          | C            | 98         | ASP         |
| 1          | C            | 103        | MET         |
| 1          | C            | 105        | ASN         |
| 1          | C            | 135        | CYS         |
| 1          | C            | 150        | ASN         |
| 1          | C            | 172        | MET         |
| 1          | C            | 187        | ASN         |
| 1          | C            | 201        | MET         |
| 1          | C            | 212        | PHE         |
| 1          | C            | 240        | ILE         |
| 1          | C            | 241        | SER         |
| 1          | C            | 242        | ASP         |
| 1          | C            | 261        | ASP         |
| 1          | C            | 283        | ASN         |
| 1          | C            | 313        | LEU         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | C            | 327        | VAL         |
| 1          | C            | 364        | ARG         |
| 1          | C            | 369        | SER         |
| 1          | C            | 370        | PHE         |
| 1          | C            | 377        | ASN         |
| 1          | C            | 395        | GLU         |
| 1          | C            | 411        | TYR         |
| 1          | C            | 415        | LYS         |
| 1          | C            | 420        | ASP         |
| 1          | C            | 434        | ARG         |
| 1          | C            | 435        | ASP         |
| 1          | C            | 451        | MET         |
| 1          | C            | 454        | TYR         |
| 1          | C            | 456        | VAL         |
| 1          | C            | 491        | GLN         |
| 1          | C            | 494        | GLU         |
| 1          | C            | 496        | GLU         |
| 1          | C            | 518        | SER         |
| 1          | C            | 531        | MET         |
| 1          | C            | 534        | SER         |
| 1          | C            | 567        | ASN         |
| 1          | C            | 577        | ARG         |
| 1          | C            | 584        | MET         |
| 2          | D            | 8          | THR         |
| 2          | D            | 38         | ILE         |
| 2          | D            | 59         | GLN         |
| 2          | D            | 62         | ASN         |
| 2          | D            | 94         | ASP         |
| 2          | D            | 99         | ASN         |
| 2          | D            | 122        | LEU         |
| 2          | D            | 123        | CYS         |
| 2          | D            | 138        | ARG         |
| 2          | D            | 164        | THR         |
| 2          | D            | 175        | MET         |
| 2          | D            | 179        | ASN         |
| 2          | D            | 189        | GLU         |
| 2          | D            | 230        | MET         |
| 2          | D            | 233        | ASP         |
| 2          | D            | 257        | LEU         |
| 2          | D            | 277        | TYR         |
| 2          | D            | 280        | LEU         |
| 2          | D            | 287        | PRO         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | D            | 290        | THR         |
| 2          | D            | 317        | LEU         |
| 2          | D            | 333        | TYR         |
| 2          | D            | 345        | LEU         |
| 2          | D            | 355        | LEU         |
| 2          | D            | 390        | ARG         |
| 2          | D            | 421        | TYR         |
| 2          | D            | 432        | LEU         |
| 2          | D            | 433        | CYS         |
| 2          | D            | 438        | SER         |
| 2          | D            | 439        | ASP         |
| 2          | D            | 442        | PRO         |
| 2          | D            | 448        | MET         |
| 2          | D            | 458        | ARG         |
| 2          | D            | 463        | ASP         |
| 2          | D            | 486        | THR         |
| 2          | D            | 491        | LEU         |
| 2          | D            | 498        | GLU         |
| 2          | D            | 527        | TRP         |
| 2          | D            | 566        | TYR         |
| 2          | D            | 578        | PRO         |
| 1          | E            | 7          | LEU         |
| 1          | E            | 15         | ARG         |
| 1          | E            | 36         | SER         |
| 1          | E            | 42         | ASP         |
| 1          | E            | 47         | CYS         |
| 1          | E            | 65         | PHE         |
| 1          | E            | 77         | GLN         |
| 1          | E            | 98         | ASP         |
| 1          | E            | 103        | MET         |
| 1          | E            | 105        | ASN         |
| 1          | E            | 135        | CYS         |
| 1          | E            | 150        | ASN         |
| 1          | E            | 172        | MET         |
| 1          | E            | 187        | ASN         |
| 1          | E            | 201        | MET         |
| 1          | E            | 212        | PHE         |
| 1          | E            | 240        | ILE         |
| 1          | E            | 241        | SER         |
| 1          | E            | 242        | ASP         |
| 1          | E            | 283        | ASN         |
| 1          | E            | 313        | LEU         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | E            | 327        | VAL         |
| 1          | E            | 364        | ARG         |
| 1          | E            | 369        | SER         |
| 1          | E            | 370        | PHE         |
| 1          | E            | 377        | ASN         |
| 1          | E            | 395        | GLU         |
| 1          | E            | 411        | TYR         |
| 1          | E            | 415        | LYS         |
| 1          | E            | 420        | ASP         |
| 1          | E            | 434        | ARG         |
| 1          | E            | 435        | ASP         |
| 1          | E            | 451        | MET         |
| 1          | E            | 454        | TYR         |
| 1          | E            | 456        | VAL         |
| 1          | E            | 491        | GLN         |
| 1          | E            | 494        | GLU         |
| 1          | E            | 496        | GLU         |
| 1          | E            | 518        | SER         |
| 1          | E            | 531        | MET         |
| 1          | E            | 534        | SER         |
| 1          | E            | 567        | ASN         |
| 1          | E            | 577        | ARG         |
| 1          | E            | 584        | MET         |
| 2          | F            | 8          | THR         |
| 2          | F            | 38         | ILE         |
| 2          | F            | 59         | GLN         |
| 2          | F            | 62         | ASN         |
| 2          | F            | 94         | ASP         |
| 2          | F            | 99         | ASN         |
| 2          | F            | 122        | LEU         |
| 2          | F            | 123        | CYS         |
| 2          | F            | 138        | ARG         |
| 2          | F            | 164        | THR         |
| 2          | F            | 175        | MET         |
| 2          | F            | 179        | ASN         |
| 2          | F            | 189        | GLU         |
| 2          | F            | 230        | MET         |
| 2          | F            | 233        | ASP         |
| 2          | F            | 257        | LEU         |
| 2          | F            | 277        | TYR         |
| 2          | F            | 280        | LEU         |
| 2          | F            | 287        | PRO         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | F            | 290        | THR         |
| 2          | F            | 317        | LEU         |
| 2          | F            | 333        | TYR         |
| 2          | F            | 345        | LEU         |
| 2          | F            | 355        | LEU         |
| 2          | F            | 390        | ARG         |
| 2          | F            | 421        | TYR         |
| 2          | F            | 432        | LEU         |
| 2          | F            | 433        | CYS         |
| 2          | F            | 438        | SER         |
| 2          | F            | 439        | ASP         |
| 2          | F            | 442        | PRO         |
| 2          | F            | 448        | MET         |
| 2          | F            | 458        | ARG         |
| 2          | F            | 463        | ASP         |
| 2          | F            | 486        | THR         |
| 2          | F            | 491        | LEU         |
| 2          | F            | 498        | GLU         |
| 2          | F            | 527        | TRP         |
| 2          | F            | 566        | TYR         |
| 2          | F            | 578        | PRO         |
| 1          | G            | 7          | LEU         |
| 1          | G            | 15         | ARG         |
| 1          | G            | 36         | SER         |
| 1          | G            | 42         | ASP         |
| 1          | G            | 47         | CYS         |
| 1          | G            | 65         | PHE         |
| 1          | G            | 77         | GLN         |
| 1          | G            | 98         | ASP         |
| 1          | G            | 103        | MET         |
| 1          | G            | 105        | ASN         |
| 1          | G            | 135        | CYS         |
| 1          | G            | 150        | ASN         |
| 1          | G            | 172        | MET         |
| 1          | G            | 187        | ASN         |
| 1          | G            | 201        | MET         |
| 1          | G            | 212        | PHE         |
| 1          | G            | 240        | ILE         |
| 1          | G            | 241        | SER         |
| 1          | G            | 242        | ASP         |
| 1          | G            | 261        | ASP         |
| 1          | G            | 283        | ASN         |

*Continued on next page...*



*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | G            | 313        | LEU         |
| 1          | G            | 327        | VAL         |
| 1          | G            | 364        | ARG         |
| 1          | G            | 369        | SER         |
| 1          | G            | 370        | PHE         |
| 1          | G            | 377        | ASN         |
| 1          | G            | 395        | GLU         |
| 1          | G            | 411        | TYR         |
| 1          | G            | 415        | LYS         |
| 1          | G            | 420        | ASP         |
| 1          | G            | 434        | ARG         |
| 1          | G            | 435        | ASP         |
| 1          | G            | 451        | MET         |
| 1          | G            | 454        | TYR         |
| 1          | G            | 456        | VAL         |
| 1          | G            | 491        | GLN         |
| 1          | G            | 494        | GLU         |
| 1          | G            | 496        | GLU         |
| 1          | G            | 518        | SER         |
| 1          | G            | 531        | MET         |
| 1          | G            | 534        | SER         |
| 1          | G            | 567        | ASN         |
| 1          | G            | 577        | ARG         |
| 1          | G            | 584        | MET         |
| 2          | H            | 8          | THR         |
| 2          | H            | 38         | ILE         |
| 2          | H            | 59         | GLN         |
| 2          | H            | 62         | ASN         |
| 2          | H            | 94         | ASP         |
| 2          | H            | 99         | ASN         |
| 2          | H            | 122        | LEU         |
| 2          | H            | 123        | CYS         |
| 2          | H            | 138        | ARG         |
| 2          | H            | 164        | THR         |
| 2          | H            | 175        | MET         |
| 2          | H            | 179        | ASN         |
| 2          | H            | 189        | GLU         |
| 2          | H            | 230        | MET         |
| 2          | H            | 233        | ASP         |
| 2          | H            | 257        | LEU         |
| 2          | H            | 277        | TYR         |
| 2          | H            | 280        | LEU         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | H            | 287        | PRO         |
| 2          | H            | 290        | THR         |
| 2          | H            | 317        | LEU         |
| 2          | H            | 333        | TYR         |
| 2          | H            | 345        | LEU         |
| 2          | H            | 355        | LEU         |
| 2          | H            | 390        | ARG         |
| 2          | H            | 421        | TYR         |
| 2          | H            | 432        | LEU         |
| 2          | H            | 433        | CYS         |
| 2          | H            | 438        | SER         |
| 2          | H            | 439        | ASP         |
| 2          | H            | 442        | PRO         |
| 2          | H            | 448        | MET         |
| 2          | H            | 458        | ARG         |
| 2          | H            | 463        | ASP         |
| 2          | H            | 486        | THR         |
| 2          | H            | 491        | LEU         |
| 2          | H            | 498        | GLU         |
| 2          | H            | 527        | TRP         |
| 2          | H            | 566        | TYR         |
| 2          | H            | 578        | PRO         |
| 1          | I            | 7          | LEU         |
| 1          | I            | 15         | ARG         |
| 1          | I            | 36         | SER         |
| 1          | I            | 42         | ASP         |
| 1          | I            | 47         | CYS         |
| 1          | I            | 65         | PHE         |
| 1          | I            | 77         | GLN         |
| 1          | I            | 98         | ASP         |
| 1          | I            | 103        | MET         |
| 1          | I            | 105        | ASN         |
| 1          | I            | 135        | CYS         |
| 1          | I            | 150        | ASN         |
| 1          | I            | 172        | MET         |
| 1          | I            | 187        | ASN         |
| 1          | I            | 201        | MET         |
| 1          | I            | 212        | PHE         |
| 1          | I            | 240        | ILE         |
| 1          | I            | 241        | SER         |
| 1          | I            | 242        | ASP         |
| 1          | I            | 283        | ASN         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | I            | 313        | LEU         |
| 1          | I            | 327        | VAL         |
| 1          | I            | 364        | ARG         |
| 1          | I            | 369        | SER         |
| 1          | I            | 370        | PHE         |
| 1          | I            | 377        | ASN         |
| 1          | I            | 395        | GLU         |
| 1          | I            | 411        | TYR         |
| 1          | I            | 415        | LYS         |
| 1          | I            | 420        | ASP         |
| 1          | I            | 434        | ARG         |
| 1          | I            | 435        | ASP         |
| 1          | I            | 451        | MET         |
| 1          | I            | 454        | TYR         |
| 1          | I            | 456        | VAL         |
| 1          | I            | 491        | GLN         |
| 1          | I            | 494        | GLU         |
| 1          | I            | 496        | GLU         |
| 1          | I            | 518        | SER         |
| 1          | I            | 531        | MET         |
| 1          | I            | 534        | SER         |
| 1          | I            | 567        | ASN         |
| 1          | I            | 577        | ARG         |
| 1          | I            | 584        | MET         |
| 2          | J            | 8          | THR         |
| 2          | J            | 38         | ILE         |
| 2          | J            | 59         | GLN         |
| 2          | J            | 62         | ASN         |
| 2          | J            | 94         | ASP         |
| 2          | J            | 99         | ASN         |
| 2          | J            | 122        | LEU         |
| 2          | J            | 123        | CYS         |
| 2          | J            | 138        | ARG         |
| 2          | J            | 164        | THR         |
| 2          | J            | 175        | MET         |
| 2          | J            | 179        | ASN         |
| 2          | J            | 189        | GLU         |
| 2          | J            | 230        | MET         |
| 2          | J            | 233        | ASP         |
| 2          | J            | 257        | LEU         |
| 2          | J            | 277        | TYR         |
| 2          | J            | 280        | LEU         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | J            | 287        | PRO         |
| 2          | J            | 290        | THR         |
| 2          | J            | 317        | LEU         |
| 2          | J            | 333        | TYR         |
| 2          | J            | 345        | LEU         |
| 2          | J            | 355        | LEU         |
| 2          | J            | 390        | ARG         |
| 2          | J            | 421        | TYR         |
| 2          | J            | 432        | LEU         |
| 2          | J            | 433        | CYS         |
| 2          | J            | 438        | SER         |
| 2          | J            | 439        | ASP         |
| 2          | J            | 442        | PRO         |
| 2          | J            | 448        | MET         |
| 2          | J            | 458        | ARG         |
| 2          | J            | 463        | ASP         |
| 2          | J            | 486        | THR         |
| 2          | J            | 491        | LEU         |
| 2          | J            | 498        | GLU         |
| 2          | J            | 527        | TRP         |
| 2          | J            | 566        | TYR         |
| 2          | J            | 578        | PRO         |
| 1          | K            | 7          | LEU         |
| 1          | K            | 15         | ARG         |
| 1          | K            | 36         | SER         |
| 1          | K            | 42         | ASP         |
| 1          | K            | 47         | CYS         |
| 1          | K            | 65         | PHE         |
| 1          | K            | 77         | GLN         |
| 1          | K            | 98         | ASP         |
| 1          | K            | 103        | MET         |
| 1          | K            | 105        | ASN         |
| 1          | K            | 135        | CYS         |
| 1          | K            | 150        | ASN         |
| 1          | K            | 172        | MET         |
| 1          | K            | 187        | ASN         |
| 1          | K            | 201        | MET         |
| 1          | K            | 212        | PHE         |
| 1          | K            | 240        | ILE         |
| 1          | K            | 241        | SER         |
| 1          | K            | 242        | ASP         |
| 1          | K            | 261        | ASP         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | K            | 283        | ASN         |
| 1          | K            | 313        | LEU         |
| 1          | K            | 327        | VAL         |
| 1          | K            | 364        | ARG         |
| 1          | K            | 369        | SER         |
| 1          | K            | 370        | PHE         |
| 1          | K            | 377        | ASN         |
| 1          | K            | 395        | GLU         |
| 1          | K            | 411        | TYR         |
| 1          | K            | 415        | LYS         |
| 1          | K            | 420        | ASP         |
| 1          | K            | 434        | ARG         |
| 1          | K            | 435        | ASP         |
| 1          | K            | 451        | MET         |
| 1          | K            | 454        | TYR         |
| 1          | K            | 456        | VAL         |
| 1          | K            | 491        | GLN         |
| 1          | K            | 494        | GLU         |
| 1          | K            | 496        | GLU         |
| 1          | K            | 518        | SER         |
| 1          | K            | 531        | MET         |
| 1          | K            | 534        | SER         |
| 1          | K            | 567        | ASN         |
| 1          | K            | 577        | ARG         |
| 1          | K            | 584        | MET         |
| 2          | L            | 8          | THR         |
| 2          | L            | 38         | ILE         |
| 2          | L            | 59         | GLN         |
| 2          | L            | 62         | ASN         |
| 2          | L            | 94         | ASP         |
| 2          | L            | 99         | ASN         |
| 2          | L            | 122        | LEU         |
| 2          | L            | 123        | CYS         |
| 2          | L            | 138        | ARG         |
| 2          | L            | 164        | THR         |
| 2          | L            | 175        | MET         |
| 2          | L            | 179        | ASN         |
| 2          | L            | 189        | GLU         |
| 2          | L            | 230        | MET         |
| 2          | L            | 233        | ASP         |
| 2          | L            | 257        | LEU         |
| 2          | L            | 277        | TYR         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | L            | 280        | LEU         |
| 2          | L            | 287        | PRO         |
| 2          | L            | 290        | THR         |
| 2          | L            | 317        | LEU         |
| 2          | L            | 333        | TYR         |
| 2          | L            | 345        | LEU         |
| 2          | L            | 355        | LEU         |
| 2          | L            | 390        | ARG         |
| 2          | L            | 421        | TYR         |
| 2          | L            | 432        | LEU         |
| 2          | L            | 433        | CYS         |
| 2          | L            | 438        | SER         |
| 2          | L            | 439        | ASP         |
| 2          | L            | 442        | PRO         |
| 2          | L            | 448        | MET         |
| 2          | L            | 458        | ARG         |
| 2          | L            | 463        | ASP         |
| 2          | L            | 486        | THR         |
| 2          | L            | 491        | LEU         |
| 2          | L            | 498        | GLU         |
| 2          | L            | 527        | TRP         |
| 2          | L            | 566        | TYR         |
| 2          | L            | 578        | PRO         |
| 3          | M            | 7          | TYR         |
| 3          | M            | 11         | LEU         |
| 3          | M            | 16         | LEU         |
| 3          | M            | 17         | ILE         |
| 3          | M            | 27         | MET         |
| 3          | M            | 30         | VAL         |
| 3          | M            | 42         | GLU         |
| 3          | M            | 46         | LEU         |
| 3          | M            | 56         | ARG         |
| 3          | M            | 71         | SER         |
| 3          | M            | 78         | SER         |
| 3          | M            | 94         | TYR         |
| 3          | M            | 98         | LEU         |
| 3          | M            | 118        | MET         |
| 3          | M            | 158        | SER         |
| 3          | M            | 166        | TYR         |
| 3          | M            | 168        | LYS         |
| 3          | M            | 174        | ASP         |
| 3          | M            | 192        | SER         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 3          | M            | 200        | MET         |
| 3          | M            | 203        | PHE         |
| 3          | M            | 207        | MET         |
| 3          | M            | 210        | LEU         |
| 3          | M            | 255        | PHE         |
| 3          | M            | 267        | TYR         |
| 3          | M            | 269        | LEU         |
| 3          | M            | 270        | ASN         |
| 3          | M            | 333        | LYS         |
| 3          | M            | 356        | MET         |
| 3          | M            | 380        | PHE         |
| 3          | M            | 397        | ILE         |
| 3          | M            | 399        | GLU         |
| 3          | M            | 414        | GLN         |
| 3          | N            | 7          | TYR         |
| 3          | N            | 11         | LEU         |
| 3          | N            | 16         | LEU         |
| 3          | N            | 17         | ILE         |
| 3          | N            | 27         | MET         |
| 3          | N            | 30         | VAL         |
| 3          | N            | 42         | GLU         |
| 3          | N            | 46         | LEU         |
| 3          | N            | 56         | ARG         |
| 3          | N            | 71         | SER         |
| 3          | N            | 78         | SER         |
| 3          | N            | 94         | TYR         |
| 3          | N            | 98         | LEU         |
| 3          | N            | 118        | MET         |
| 3          | N            | 158        | SER         |
| 3          | N            | 166        | TYR         |
| 3          | N            | 168        | LYS         |
| 3          | N            | 174        | ASP         |
| 3          | N            | 192        | SER         |
| 3          | N            | 200        | MET         |
| 3          | N            | 203        | PHE         |
| 3          | N            | 207        | MET         |
| 3          | N            | 210        | LEU         |
| 3          | N            | 255        | PHE         |
| 3          | N            | 267        | TYR         |
| 3          | N            | 269        | LEU         |
| 3          | N            | 270        | ASN         |
| 3          | N            | 333        | LYS         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 3          | N            | 356        | MET         |
| 3          | N            | 380        | PHE         |
| 3          | N            | 397        | ILE         |
| 3          | N            | 399        | GLU         |
| 3          | N            | 414        | GLN         |
| 3          | O            | 7          | TYR         |
| 3          | O            | 11         | LEU         |
| 3          | O            | 16         | LEU         |
| 3          | O            | 17         | ILE         |
| 3          | O            | 27         | MET         |
| 3          | O            | 30         | VAL         |
| 3          | O            | 42         | GLU         |
| 3          | O            | 46         | LEU         |
| 3          | O            | 56         | ARG         |
| 3          | O            | 71         | SER         |
| 3          | O            | 78         | SER         |
| 3          | O            | 94         | TYR         |
| 3          | O            | 98         | LEU         |
| 3          | O            | 118        | MET         |
| 3          | O            | 158        | SER         |
| 3          | O            | 166        | TYR         |
| 3          | O            | 168        | LYS         |
| 3          | O            | 174        | ASP         |
| 3          | O            | 192        | SER         |
| 3          | O            | 200        | MET         |
| 3          | O            | 203        | PHE         |
| 3          | O            | 207        | MET         |
| 3          | O            | 210        | LEU         |
| 3          | O            | 255        | PHE         |
| 3          | O            | 267        | TYR         |
| 3          | O            | 269        | LEU         |
| 3          | O            | 270        | ASN         |
| 3          | O            | 333        | LYS         |
| 3          | O            | 356        | MET         |
| 3          | O            | 380        | PHE         |
| 3          | O            | 397        | ILE         |
| 3          | O            | 399        | GLU         |
| 3          | O            | 414        | GLN         |
| 3          | P            | 7          | TYR         |
| 3          | P            | 11         | LEU         |
| 3          | P            | 16         | LEU         |
| 3          | P            | 17         | ILE         |

*Continued on next page...*



*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 3          | P            | 27         | MET         |
| 3          | P            | 30         | VAL         |
| 3          | P            | 42         | GLU         |
| 3          | P            | 46         | LEU         |
| 3          | P            | 56         | ARG         |
| 3          | P            | 71         | SER         |
| 3          | P            | 78         | SER         |
| 3          | P            | 94         | TYR         |
| 3          | P            | 98         | LEU         |
| 3          | P            | 118        | MET         |
| 3          | P            | 158        | SER         |
| 3          | P            | 166        | TYR         |
| 3          | P            | 168        | LYS         |
| 3          | P            | 174        | ASP         |
| 3          | P            | 192        | SER         |
| 3          | P            | 200        | MET         |
| 3          | P            | 203        | PHE         |
| 3          | P            | 207        | MET         |
| 3          | P            | 210        | LEU         |
| 3          | P            | 255        | PHE         |
| 3          | P            | 267        | TYR         |
| 3          | P            | 269        | LEU         |
| 3          | P            | 270        | ASN         |
| 3          | P            | 333        | LYS         |
| 3          | P            | 356        | MET         |
| 3          | P            | 380        | PHE         |
| 3          | P            | 397        | ILE         |
| 3          | P            | 399        | GLU         |
| 3          | P            | 414        | GLN         |
| 4          | Q            | 3          | ARG         |
| 4          | Q            | 4          | PHE         |
| 4          | Q            | 8          | PHE         |
| 4          | Q            | 11         | GLN         |
| 4          | Q            | 14         | LEU         |
| 4          | Q            | 16         | LEU         |
| 4          | Q            | 30         | LYS         |
| 4          | Q            | 57         | VAL         |
| 4          | Q            | 59         | TYR         |
| 4          | Q            | 66         | TYR         |
| 4          | Q            | 76         | ASN         |
| 4          | Q            | 83         | LEU         |
| 4          | Q            | 86         | ARG         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 4          | Q            | 97         | SER         |
| 4          | Q            | 99         | CYS         |
| 4          | Q            | 107        | PHE         |
| 4          | Q            | 117        | PHE         |
| 4          | Q            | 125        | ASP         |
| 3          | R            | 7          | TYR         |
| 3          | R            | 11         | LEU         |
| 3          | R            | 16         | LEU         |
| 3          | R            | 17         | ILE         |
| 3          | R            | 27         | MET         |
| 3          | R            | 30         | VAL         |
| 3          | R            | 42         | GLU         |
| 3          | R            | 46         | LEU         |
| 3          | R            | 56         | ARG         |
| 3          | R            | 71         | SER         |
| 3          | R            | 78         | SER         |
| 3          | R            | 94         | TYR         |
| 3          | R            | 98         | LEU         |
| 3          | R            | 118        | MET         |
| 3          | R            | 158        | SER         |
| 3          | R            | 166        | TYR         |
| 3          | R            | 168        | LYS         |
| 3          | R            | 174        | ASP         |
| 3          | R            | 192        | SER         |
| 3          | R            | 200        | MET         |
| 3          | R            | 203        | PHE         |
| 3          | R            | 207        | MET         |
| 3          | R            | 210        | LEU         |
| 3          | R            | 255        | PHE         |
| 3          | R            | 267        | TYR         |
| 3          | R            | 269        | LEU         |
| 3          | R            | 270        | ASN         |
| 3          | R            | 333        | LYS         |
| 3          | R            | 356        | MET         |
| 3          | R            | 380        | PHE         |
| 3          | R            | 397        | ILE         |
| 3          | R            | 399        | GLU         |
| 3          | R            | 414        | GLN         |
| 4          | S            | 3          | ARG         |
| 4          | S            | 4          | PHE         |
| 4          | S            | 8          | PHE         |
| 4          | S            | 11         | GLN         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 4          | S            | 14         | LEU         |
| 4          | S            | 16         | LEU         |
| 4          | S            | 30         | LYS         |
| 4          | S            | 57         | VAL         |
| 4          | S            | 59         | TYR         |
| 4          | S            | 66         | TYR         |
| 4          | S            | 76         | ASN         |
| 4          | S            | 83         | LEU         |
| 4          | S            | 86         | ARG         |
| 4          | S            | 97         | SER         |
| 4          | S            | 99         | CYS         |
| 4          | S            | 107        | PHE         |
| 4          | S            | 117        | PHE         |
| 4          | S            | 125        | ASP         |
| 4          | T            | 3          | ARG         |
| 4          | T            | 4          | PHE         |
| 4          | T            | 8          | PHE         |
| 4          | T            | 11         | GLN         |
| 4          | T            | 14         | LEU         |
| 4          | T            | 16         | LEU         |
| 4          | T            | 30         | LYS         |
| 4          | T            | 57         | VAL         |
| 4          | T            | 59         | TYR         |
| 4          | T            | 66         | TYR         |
| 4          | T            | 76         | ASN         |
| 4          | T            | 83         | LEU         |
| 4          | T            | 86         | ARG         |
| 4          | T            | 97         | SER         |
| 4          | T            | 99         | CYS         |
| 4          | T            | 107        | PHE         |
| 4          | T            | 117        | PHE         |
| 4          | T            | 125        | ASP         |
| 4          | U            | 3          | ARG         |
| 4          | U            | 4          | PHE         |
| 4          | U            | 8          | PHE         |
| 4          | U            | 11         | GLN         |
| 4          | U            | 14         | LEU         |
| 4          | U            | 16         | LEU         |
| 4          | U            | 30         | LYS         |
| 4          | U            | 57         | VAL         |
| 4          | U            | 59         | TYR         |
| 4          | U            | 66         | TYR         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 4          | U            | 76         | ASN         |
| 4          | U            | 83         | LEU         |
| 4          | U            | 86         | ARG         |
| 4          | U            | 97         | SER         |
| 4          | U            | 99         | CYS         |
| 4          | U            | 107        | PHE         |
| 4          | U            | 117        | PHE         |
| 4          | U            | 125        | ASP         |
| 3          | V            | 7          | TYR         |
| 3          | V            | 11         | LEU         |
| 3          | V            | 16         | LEU         |
| 3          | V            | 17         | ILE         |
| 3          | V            | 27         | MET         |
| 3          | V            | 30         | VAL         |
| 3          | V            | 42         | GLU         |
| 3          | V            | 46         | LEU         |
| 3          | V            | 56         | ARG         |
| 3          | V            | 71         | SER         |
| 3          | V            | 78         | SER         |
| 3          | V            | 94         | TYR         |
| 3          | V            | 98         | LEU         |
| 3          | V            | 118        | MET         |
| 3          | V            | 158        | SER         |
| 3          | V            | 166        | TYR         |
| 3          | V            | 168        | LYS         |
| 3          | V            | 174        | ASP         |
| 3          | V            | 192        | SER         |
| 3          | V            | 200        | MET         |
| 3          | V            | 203        | PHE         |
| 3          | V            | 207        | MET         |
| 3          | V            | 210        | LEU         |
| 3          | V            | 255        | PHE         |
| 3          | V            | 267        | TYR         |
| 3          | V            | 269        | LEU         |
| 3          | V            | 270        | ASN         |
| 3          | V            | 333        | LYS         |
| 3          | V            | 356        | MET         |
| 3          | V            | 380        | PHE         |
| 3          | V            | 397        | ILE         |
| 3          | V            | 399        | GLU         |
| 3          | V            | 414        | GLN         |
| 4          | W            | 3          | ARG         |

*Continued on next page...*

*Continued from previous page...*

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 4   | W     | 4   | PHE  |
| 4   | W     | 8   | PHE  |
| 4   | W     | 11  | GLN  |
| 4   | W     | 14  | LEU  |
| 4   | W     | 16  | LEU  |
| 4   | W     | 30  | LYS  |
| 4   | W     | 57  | VAL  |
| 4   | W     | 59  | TYR  |
| 4   | W     | 66  | TYR  |
| 4   | W     | 76  | ASN  |
| 4   | W     | 83  | LEU  |
| 4   | W     | 86  | ARG  |
| 4   | W     | 97  | SER  |
| 4   | W     | 99  | CYS  |
| 4   | W     | 107 | PHE  |
| 4   | W     | 117 | PHE  |
| 4   | W     | 125 | ASP  |
| 4   | X     | 3   | ARG  |
| 4   | X     | 4   | PHE  |
| 4   | X     | 8   | PHE  |
| 4   | X     | 11  | GLN  |
| 4   | X     | 14  | LEU  |
| 4   | X     | 16  | LEU  |
| 4   | X     | 30  | LYS  |
| 4   | X     | 57  | VAL  |
| 4   | X     | 59  | TYR  |
| 4   | X     | 66  | TYR  |
| 4   | X     | 76  | ASN  |
| 4   | X     | 83  | LEU  |
| 4   | X     | 86  | ARG  |
| 4   | X     | 97  | SER  |
| 4   | X     | 99  | CYS  |
| 4   | X     | 107 | PHE  |
| 4   | X     | 117 | PHE  |
| 4   | X     | 125 | ASP  |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (215) such sidechains are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | A     | 20  | GLN  |
| 1   | A     | 43  | ASN  |
| 1   | A     | 67  | GLN  |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | A            | 100        | HIS         |
| 1          | A            | 105        | ASN         |
| 1          | A            | 113        | HIS         |
| 1          | A            | 150        | ASN         |
| 1          | A            | 163        | HIS         |
| 1          | A            | 187        | ASN         |
| 1          | A            | 188        | HIS         |
| 1          | A            | 211        | HIS         |
| 1          | A            | 235        | HIS         |
| 1          | A            | 311        | ASN         |
| 1          | A            | 374        | ASN         |
| 1          | A            | 377        | ASN         |
| 1          | A            | 443        | GLN         |
| 1          | A            | 469        | GLN         |
| 1          | A            | 542        | ASN         |
| 1          | A            | 567        | ASN         |
| 2          | B            | 59         | GLN         |
| 2          | B            | 75         | ASN         |
| 2          | B            | 99         | ASN         |
| 2          | B            | 152        | ASN         |
| 2          | B            | 195        | ASN         |
| 2          | B            | 350        | ASN         |
| 2          | B            | 400        | GLN         |
| 2          | B            | 481        | GLN         |
| 1          | C            | 20         | GLN         |
| 1          | C            | 43         | ASN         |
| 1          | C            | 67         | GLN         |
| 1          | C            | 100        | HIS         |
| 1          | C            | 105        | ASN         |
| 1          | C            | 113        | HIS         |
| 1          | C            | 150        | ASN         |
| 1          | C            | 163        | HIS         |
| 1          | C            | 187        | ASN         |
| 1          | C            | 188        | HIS         |
| 1          | C            | 211        | HIS         |
| 1          | C            | 235        | HIS         |
| 1          | C            | 311        | ASN         |
| 1          | C            | 374        | ASN         |
| 1          | C            | 377        | ASN         |
| 1          | C            | 443        | GLN         |
| 1          | C            | 469        | GLN         |
| 1          | C            | 567        | ASN         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | D            | 56         | ASN         |
| 2          | D            | 59         | GLN         |
| 2          | D            | 75         | ASN         |
| 2          | D            | 99         | ASN         |
| 2          | D            | 152        | ASN         |
| 2          | D            | 195        | ASN         |
| 2          | D            | 350        | ASN         |
| 2          | D            | 400        | GLN         |
| 2          | D            | 461        | ASN         |
| 2          | D            | 481        | GLN         |
| 1          | E            | 20         | GLN         |
| 1          | E            | 43         | ASN         |
| 1          | E            | 67         | GLN         |
| 1          | E            | 100        | HIS         |
| 1          | E            | 105        | ASN         |
| 1          | E            | 113        | HIS         |
| 1          | E            | 150        | ASN         |
| 1          | E            | 163        | HIS         |
| 1          | E            | 187        | ASN         |
| 1          | E            | 188        | HIS         |
| 1          | E            | 211        | HIS         |
| 1          | E            | 235        | HIS         |
| 1          | E            | 311        | ASN         |
| 1          | E            | 374        | ASN         |
| 1          | E            | 377        | ASN         |
| 1          | E            | 443        | GLN         |
| 1          | E            | 469        | GLN         |
| 1          | E            | 567        | ASN         |
| 2          | F            | 56         | ASN         |
| 2          | F            | 59         | GLN         |
| 2          | F            | 75         | ASN         |
| 2          | F            | 99         | ASN         |
| 2          | F            | 152        | ASN         |
| 2          | F            | 195        | ASN         |
| 2          | F            | 350        | ASN         |
| 2          | F            | 400        | GLN         |
| 2          | F            | 481        | GLN         |
| 1          | G            | 20         | GLN         |
| 1          | G            | 43         | ASN         |
| 1          | G            | 67         | GLN         |
| 1          | G            | 100        | HIS         |
| 1          | G            | 105        | ASN         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | G            | 113        | HIS         |
| 1          | G            | 150        | ASN         |
| 1          | G            | 163        | HIS         |
| 1          | G            | 187        | ASN         |
| 1          | G            | 188        | HIS         |
| 1          | G            | 211        | HIS         |
| 1          | G            | 235        | HIS         |
| 1          | G            | 311        | ASN         |
| 1          | G            | 374        | ASN         |
| 1          | G            | 377        | ASN         |
| 1          | G            | 443        | GLN         |
| 1          | G            | 469        | GLN         |
| 1          | G            | 567        | ASN         |
| 2          | H            | 59         | GLN         |
| 2          | H            | 75         | ASN         |
| 2          | H            | 99         | ASN         |
| 2          | H            | 152        | ASN         |
| 2          | H            | 195        | ASN         |
| 2          | H            | 350        | ASN         |
| 2          | H            | 400        | GLN         |
| 2          | H            | 481        | GLN         |
| 1          | I            | 20         | GLN         |
| 1          | I            | 43         | ASN         |
| 1          | I            | 67         | GLN         |
| 1          | I            | 100        | HIS         |
| 1          | I            | 105        | ASN         |
| 1          | I            | 113        | HIS         |
| 1          | I            | 150        | ASN         |
| 1          | I            | 163        | HIS         |
| 1          | I            | 187        | ASN         |
| 1          | I            | 188        | HIS         |
| 1          | I            | 211        | HIS         |
| 1          | I            | 235        | HIS         |
| 1          | I            | 311        | ASN         |
| 1          | I            | 374        | ASN         |
| 1          | I            | 377        | ASN         |
| 1          | I            | 443        | GLN         |
| 1          | I            | 469        | GLN         |
| 1          | I            | 567        | ASN         |
| 2          | J            | 56         | ASN         |
| 2          | J            | 59         | GLN         |
| 2          | J            | 75         | ASN         |

*Continued on next page...*



*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 2          | J            | 99         | ASN         |
| 2          | J            | 152        | ASN         |
| 2          | J            | 195        | ASN         |
| 2          | J            | 350        | ASN         |
| 2          | J            | 400        | GLN         |
| 2          | J            | 461        | ASN         |
| 2          | J            | 481        | GLN         |
| 1          | K            | 20         | GLN         |
| 1          | K            | 43         | ASN         |
| 1          | K            | 67         | GLN         |
| 1          | K            | 100        | HIS         |
| 1          | K            | 105        | ASN         |
| 1          | K            | 113        | HIS         |
| 1          | K            | 150        | ASN         |
| 1          | K            | 163        | HIS         |
| 1          | K            | 187        | ASN         |
| 1          | K            | 188        | HIS         |
| 1          | K            | 211        | HIS         |
| 1          | K            | 235        | HIS         |
| 1          | K            | 311        | ASN         |
| 1          | K            | 374        | ASN         |
| 1          | K            | 377        | ASN         |
| 1          | K            | 443        | GLN         |
| 1          | K            | 469        | GLN         |
| 1          | K            | 567        | ASN         |
| 2          | L            | 56         | ASN         |
| 2          | L            | 59         | GLN         |
| 2          | L            | 75         | ASN         |
| 2          | L            | 99         | ASN         |
| 2          | L            | 152        | ASN         |
| 2          | L            | 195        | ASN         |
| 2          | L            | 350        | ASN         |
| 2          | L            | 400        | GLN         |
| 2          | L            | 481        | GLN         |
| 3          | M            | 188        | ASN         |
| 3          | M            | 270        | ASN         |
| 3          | M            | 308        | ASN         |
| 3          | M            | 313        | HIS         |
| 3          | M            | 415        | ASN         |
| 3          | N            | 270        | ASN         |
| 3          | N            | 308        | ASN         |
| 3          | N            | 313        | HIS         |

*Continued on next page...*

*Continued from previous page...*

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 3          | N            | 415        | ASN         |
| 3          | O            | 188        | ASN         |
| 3          | O            | 270        | ASN         |
| 3          | O            | 308        | ASN         |
| 3          | O            | 313        | HIS         |
| 3          | O            | 415        | ASN         |
| 3          | P            | 270        | ASN         |
| 3          | P            | 308        | ASN         |
| 3          | P            | 313        | HIS         |
| 3          | P            | 415        | ASN         |
| 4          | Q            | 11         | GLN         |
| 4          | Q            | 76         | ASN         |
| 4          | Q            | 85         | HIS         |
| 4          | Q            | 142        | GLN         |
| 3          | R            | 188        | ASN         |
| 3          | R            | 270        | ASN         |
| 3          | R            | 308        | ASN         |
| 3          | R            | 313        | HIS         |
| 3          | R            | 415        | ASN         |
| 4          | S            | 11         | GLN         |
| 4          | S            | 76         | ASN         |
| 4          | S            | 85         | HIS         |
| 4          | S            | 142        | GLN         |
| 4          | T            | 11         | GLN         |
| 4          | T            | 76         | ASN         |
| 4          | T            | 85         | HIS         |
| 4          | T            | 142        | GLN         |
| 4          | U            | 11         | GLN         |
| 4          | U            | 76         | ASN         |
| 4          | U            | 85         | HIS         |
| 4          | U            | 142        | GLN         |
| 3          | V            | 188        | ASN         |
| 3          | V            | 270        | ASN         |
| 3          | V            | 308        | ASN         |
| 3          | V            | 313        | HIS         |
| 3          | V            | 415        | ASN         |
| 4          | W            | 11         | GLN         |
| 4          | W            | 76         | ASN         |
| 4          | W            | 85         | HIS         |
| 4          | W            | 142        | GLN         |
| 4          | X            | 11         | GLN         |
| 4          | X            | 76         | ASN         |

*Continued on next page...*

*Continued from previous page...*

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 4   | X     | 85  | HIS  |
| 4   | X     | 142 | GLN  |

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

### 5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

### 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

### 5.6 Ligand geometry [i](#)

There are no ligands in this entry.

### 5.7 Other polymers [i](#)

There are no such residues in this entry.

### 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

## 6 Fit of model and data

### 6.1 Protein, DNA and RNA chains

EDS was not executed - this section is therefore empty.

### 6.2 Non-standard residues in protein, DNA, RNA chains

EDS was not executed - this section is therefore empty.

### 6.3 Carbohydrates

EDS was not executed - this section is therefore empty.

### 6.4 Ligands

EDS was not executed - this section is therefore empty.

### 6.5 Other polymers

EDS was not executed - this section is therefore empty.