



Full wwPDB EM Validation Report ⓘ

May 12, 2024 – 04:50 pm BST

PDB ID : 6R6H
EMDB ID : EMD-4736
Title : Structural basis of Cullin-2 RING E3 ligase regulation by the COP9 signalosome
Authors : Morris, E.P.; Faull, S.V.; Lau, A.M.C.; Politis, A.; Beuron, F.; Cronin, N.
Deposited on : 2019-03-27
Resolution : 8.40 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

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

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:

EMDB validation analysis : 0.0.1.dev92
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36.2

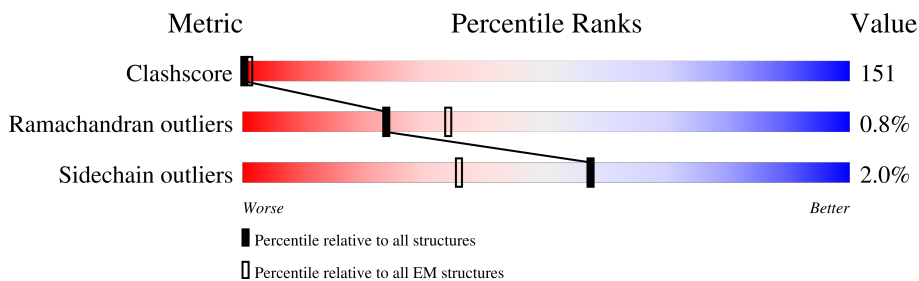
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 8.40 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 (#Entries) | EM structures (#Entries) |
|-----------------------|--------------------------|--------------------------|
| Clashscore | 158937 | 4297 |
| Ramachandran outliers | 154571 | 4023 |
| Sidechain outliers | 154315 | 3826 |

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 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 $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1 | A | 491 | |
| 2 | B | 443 | |
| 3 | C | 403 | |
| 4 | D | 406 | |
| 5 | E | 334 | |
| 6 | F | 308 | |
| 7 | H | 209 | |
| 8 | O | 745 | |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 9 | P | 105 | |
| 10 | Q | 99 | |
| 11 | R | 86 | |
| 12 | V | 150 | |
| 13 | G | 206 | |

2 Entry composition [i](#)

There are 14 unique types of molecules in this entry. The entry contains 32026 atoms, of which 1420 are hydrogens and 0 are deuteriums.

In the tables below, 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 COP9 signalosome complex subunit 1.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 1 | A | 419 | 3348 | 2113 | 588 | 625 | 22 | 0 | 0 |

- Molecule 2 is a protein called COP9 signalosome complex subunit 2.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 2 | B | 428 | 3512 | 2223 | 593 | 679 | 17 | 0 | 0 |

- Molecule 3 is a protein called COP9 signalosome complex subunit 3.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 3 | C | 400 | 3183 | 2028 | 533 | 596 | 26 | 0 | 0 |

There are 20 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|------------|
| C | 384 | ILE | - | expression tag | UNP Q9UNS2 |
| C | 385 | GLU | - | expression tag | UNP Q9UNS2 |
| C | 386 | LEU | - | expression tag | UNP Q9UNS2 |
| C | 387 | ASP | - | expression tag | UNP Q9UNS2 |
| C | 388 | GLU | - | expression tag | UNP Q9UNS2 |
| C | 389 | ARG | - | expression tag | UNP Q9UNS2 |
| C | 390 | LEU | - | expression tag | UNP Q9UNS2 |
| C | 391 | LYS | - | expression tag | UNP Q9UNS2 |
| C | 392 | ALA | - | expression tag | UNP Q9UNS2 |
| C | 393 | MET | - | expression tag | UNP Q9UNS2 |
| C | 394 | ASP | - | expression tag | UNP Q9UNS2 |
| C | 395 | GLN | - | expression tag | UNP Q9UNS2 |
| C | 396 | GLU | - | expression tag | UNP Q9UNS2 |
| C | 397 | ILE | - | expression tag | UNP Q9UNS2 |
| C | 398 | THR | - | expression tag | UNP Q9UNS2 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|------------|
| C | 399 | VAL | - | expression tag | UNP Q9UNS2 |
| C | 400 | ASN | - | expression tag | UNP Q9UNS2 |
| C | 401 | PRO | - | expression tag | UNP Q9UNS2 |
| C | 402 | GLN | - | expression tag | UNP Q9UNS2 |
| C | 403 | PHE | - | expression tag | UNP Q9UNS2 |

- Molecule 4 is a protein called COP9 signalosome complex subunit 4.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 4 | D | 405 | 3243 | 2041 | 565 | 621 | 16 | 0 | 0 |

- Molecule 5 is a protein called COP9 signalosome complex subunit 5.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 5 | E | 310 | 2452 | 1562 | 411 | 466 | 13 | 0 | 0 |

- Molecule 6 is a protein called COP9 signalosome complex subunit 6.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 6 | F | 281 | 2236 | 1429 | 371 | 421 | 15 | 0 | 0 |

- Molecule 7 is a protein called COP9 signalosome complex subunit 8.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 7 | H | 172 | 1379 | 883 | 239 | 253 | 4 | 0 | 0 |

- Molecule 8 is a protein called Cullin-2.

| Mol | Chain | Residues | Atoms | | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|------|------|----|---------|-------|
| | | | Total | C | H | N | O | S | | |
| 8 | O | 745 | 6508 | 3869 | 415 | 1032 | 1146 | 46 | 0 | 0 |

- Molecule 9 is a protein called Elongin-B.

| Mol | Chain | Residues | Atoms | | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|-----|-----|---|---------|-------|
| | | | Total | C | H | N | O | S | | |
| 9 | P | 105 | 903 | 520 | 82 | 136 | 160 | 5 | 0 | 0 |

There is a discrepancy between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|------------|
| P | 105 | ALA | - | expression tag | UNP Q15370 |

- Molecule 10 is a protein called ELOC_HUMAN.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace | |
|-----|-------|----------|-------|-----|-----|-----|-----|---------|-------|---|
| | | | Total | C | H | N | O | | | S |
| 10 | Q | 99 | 1577 | 505 | 782 | 121 | 165 | 4 | 0 | 0 |

- Molecule 11 is a protein called RBX1_HUMAN.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 11 | R | 86 | 690 | 433 | 128 | 120 | 9 | 0 | 0 |

- Molecule 12 is a protein called von Hippel-Lindau disease tumor suppressor.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace | |
|-----|-------|----------|-------|-----|-----|-----|-----|---------|-------|---|
| | | | Total | C | H | N | O | | | S |
| 12 | V | 150 | 1364 | 776 | 141 | 226 | 219 | 2 | 0 | 0 |

There are 2 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|------------|
| V | 208 | ALA | - | expression tag | UNP P40337 |
| V | 209 | ALA | - | expression tag | UNP P40337 |

- Molecule 13 is a protein called COP9 signalosome complex subunit 7b.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 13 | G | 206 | 1630 | 1032 | 276 | 316 | 6 | 0 | 0 |

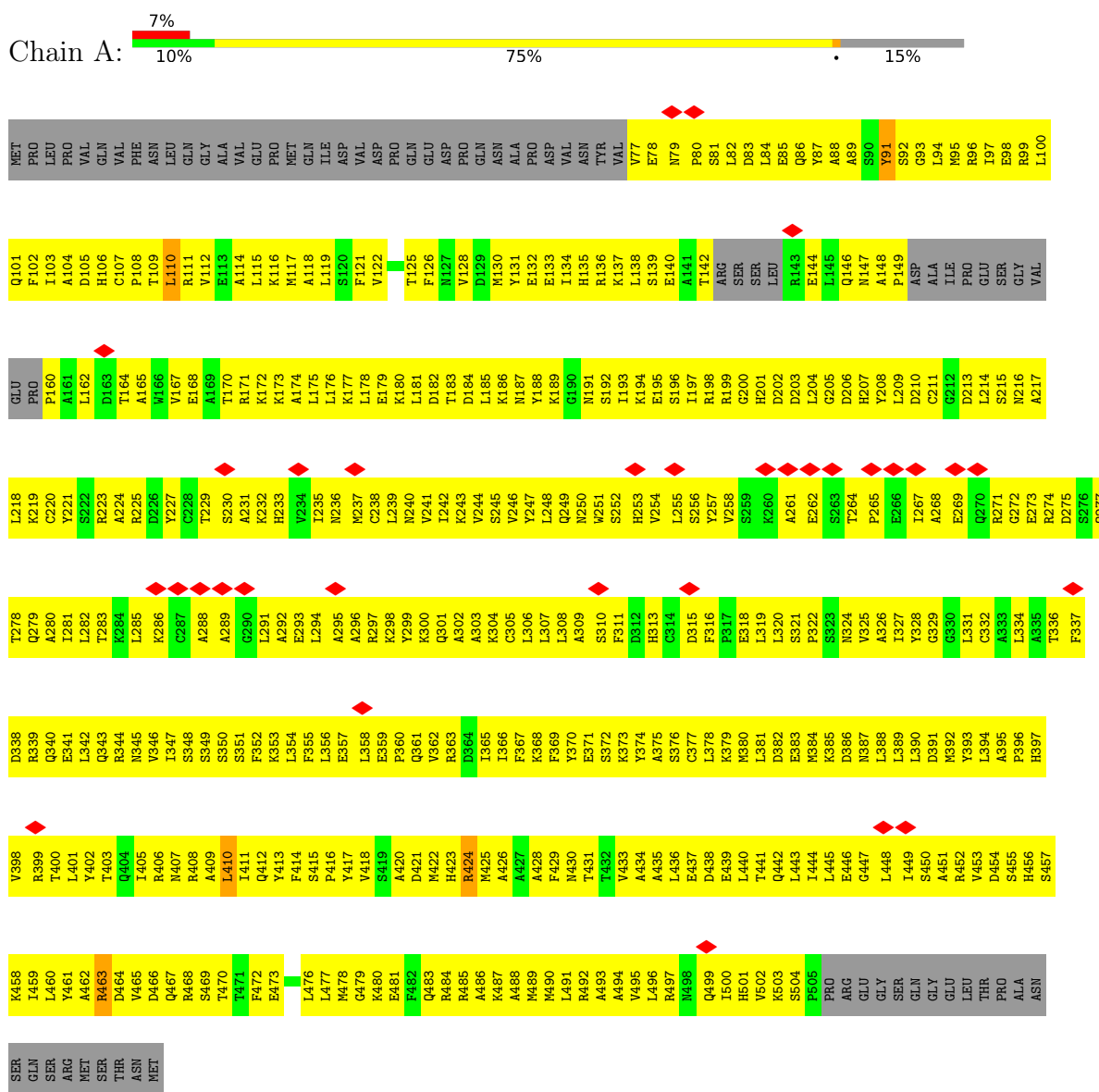
- Molecule 14 is ZINC ION (three-letter code: ZN) (formula: Zn).

| Mol | Chain | Residues | Atoms | | AltConf |
|-----|-------|----------|-------|----|---------|
| 14 | E | 1 | Total | Zn | 0 |
| | | | 1 | 1 | |

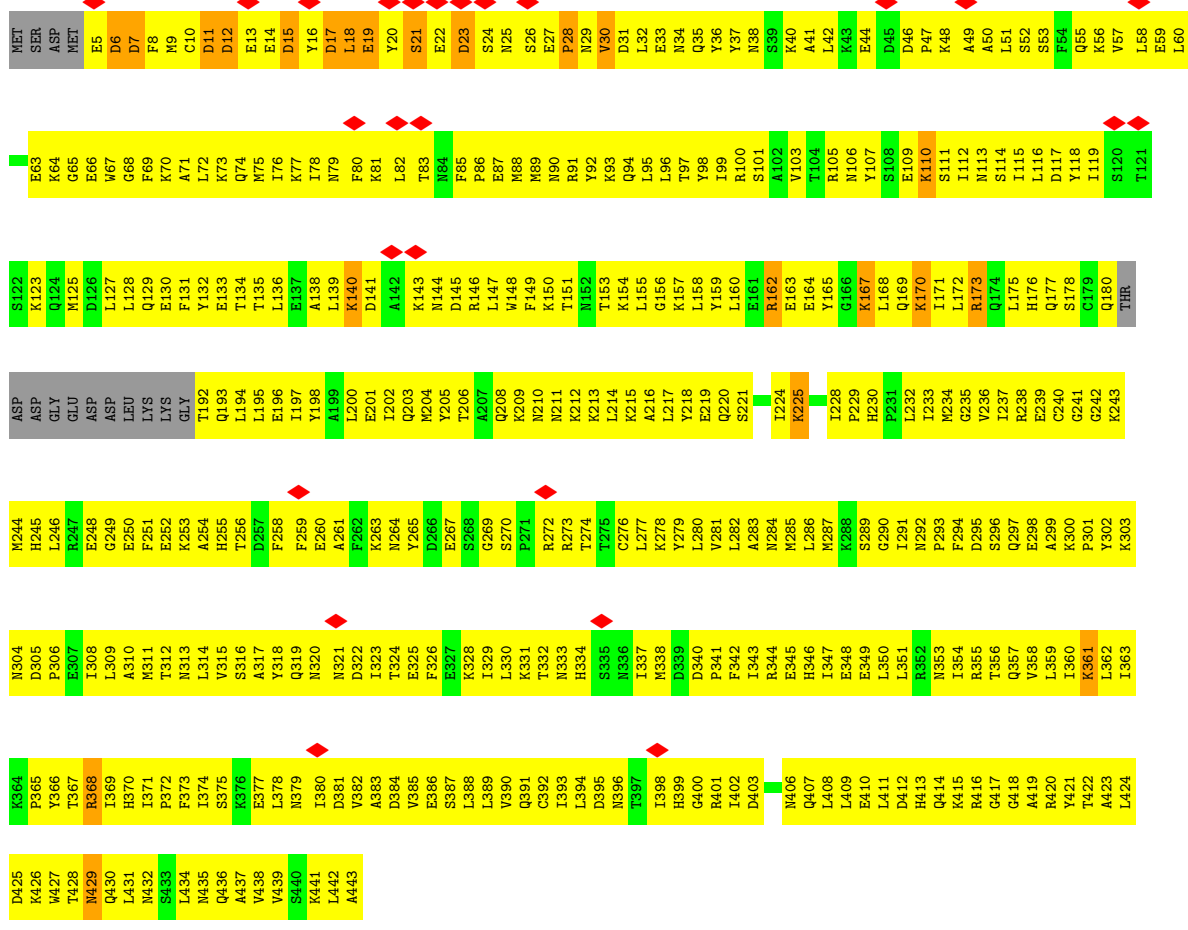
3 Residue-property plots

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 and atom inclusion in map density. 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. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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.

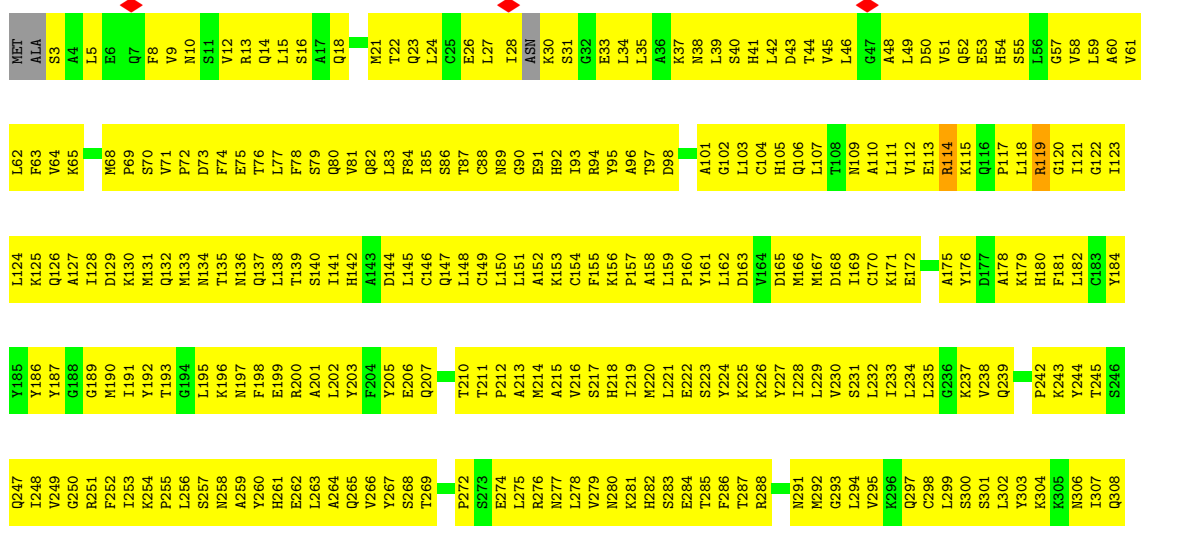
- Molecule 1: COP9 signalosome complex subunit 1



- Molecule 2: COP9 signalosome complex subunit 2



• Molecule 3: COP9 signalosome complex subunit 3



R309
L310
T311
K312
T313
F314
L315
L316
L317
S318
L319
Q320
M321
M322
A323
S324
R325
L326
Q327
L328
S329
G330
P331
Q332
E333
A334
E335
K336
L337
V338
L339
H340
M341
I342
E343
D344
G345
E346
I347
F348
A349
S350
I351
M352
Q353
K354
D355
G356
M357
V358
S359
F360
H361
D362
P363
P364
E365
K366
Y367
N368

N369
P370
A371
M372
H373
H374
N375
I376
D377
S378
E379
M380
Q381
L381
K382
C383
I384
E385
L386
D387
E388
R389
L390
K391
A392
M393
E394
Q395
E396
I397
T398
V399
M400
P401
F403

● Molecule 4: COP9 signalosome complex subunit 4



M1
A2
V5
R6
G7
D8
L9
A10
Q11
L12
M13
M14
M15
S16
S17
H19
K20
D21
L22
A23
G24
K25
Y26
R27
Q28
I29
L30
E31
K32
A33
I34
Q35
L36
S37
S38
G38
A39
E40
Q41
L42
E43
A44
L45
K46
A47
F48
H49
S49
E50
M51
M52
V53
M54
E55
N56
V57
S58
L59
V60
I61
A123

B63
Q64
L65
L66
T67
D68
F69
C70
T71
L72
L73
P74
M75
L76
P77
D78
S79
T80
A81
K82
E83
T84
Y85
H86
F87
T88
L89
E90
L91
K92
Q93
P94
R95
V96
I97
S98
F99
E100
E101
Q102
V103
E104
S105
I106
R107
Q108
F109
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A111
S112
I113
Y114
E115
E118
D119
W120
R121
M122
I123

A124
Q125
L126
L127
V128
A129
I130
P131
L132
E133
T134
G135
Q136
K137
Q138
Y139
M140
V141
D142
L143
K144
E145
L146
T147
Y148
L149
K150
I151
A152
R153
L154
Y155
L156
E157
V158
S159
A164
E165
A166
V167
I168
M169
R170
A171
S172
L173
L174
Q175
M176
E177
S178
T179
M180
E181
Q182
L183
Q184
I185
H186

Y187
K188
V189
C190
Y191
D192
R193
V194
L195
D196
E197
R198
R199
K200
F201
E202
E203
A204
A205
Q206
R207
Y208
M209
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E211
S212
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H218
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S220
R221
R222
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E224
A225
L226
K227
H228
A229
L230
H231
C232
T233
I234
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A236
S237
A238
G239
Q240
R241
Q242
S243
R244
M245
I246

A247
T248
L249
F250
K251
D252
E253
R254
C255
Q256
S257
M258
L259
A260
Y261
E262
I263
L264
A265
E266
K267
M268
L269
L270
R271
I272
L273
K274
G275
M276
Q277
L278
Q279
E280
F281
A282
A283
M284
L285
M286
P287
H288
Q289
K290
A291
T292
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D295
G296
S297
S298
V299
L300
R301
D302
A303
A304
V305
E306

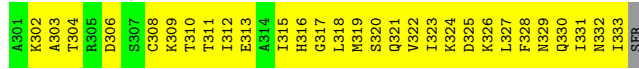
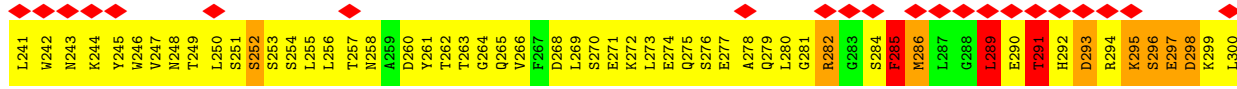
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Q316
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M318
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E323
L324
A325
G326
A327
L328
E329
I330
P331
A332
A333
K334
E335
W336
T337
A338
A339
S340
K341
M342
A403
T344
E345
G346
R347
M348
N349
G350
F351
L352
D353
Q354
I355
D356
G357
I358
V359
H360
F361
E362
T363
R364
E365
A366

L367
P368
W370
D371
K372
Q373
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E386
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S389
Q390
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Q403
M404
A405
Q406

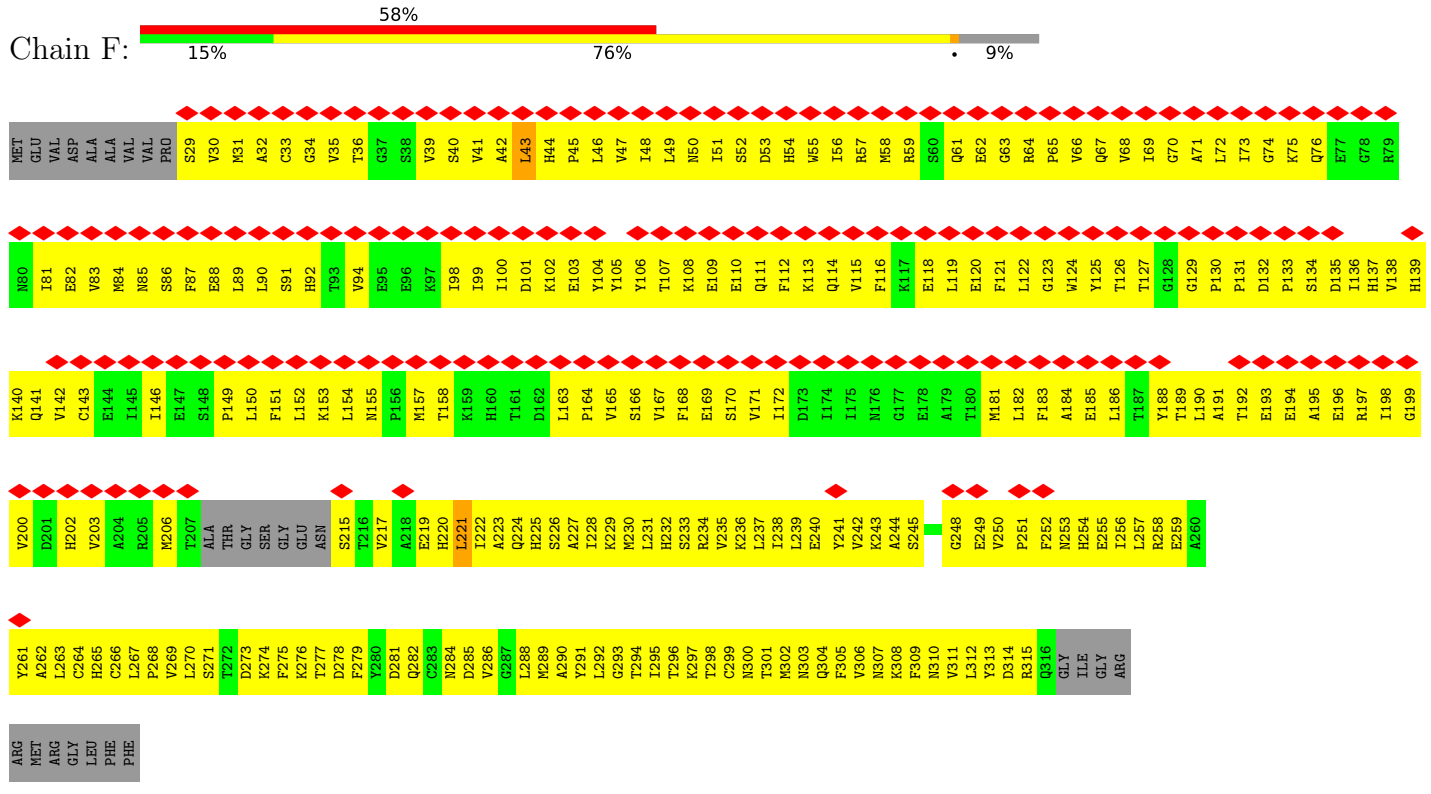
● Molecule 5: COP9 signalosome complex subunit 5



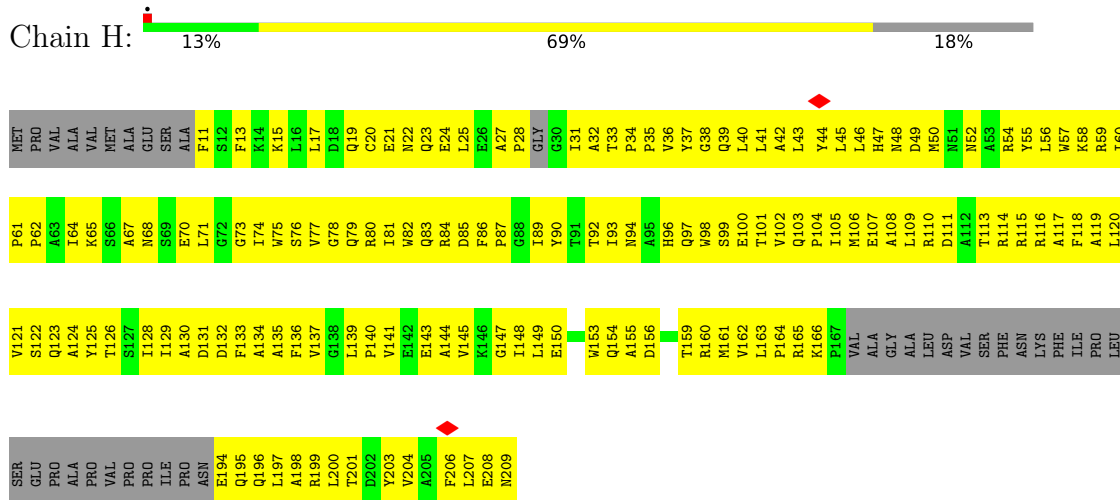
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ALA
SER
GLY
SER
GLY
MET
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GLN
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THR
TRP
GLU
LEU
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GLN
MET
GLN
GLU
ALA
G24
I25
D26
E27
I28
K29
Y30
Y31
D32
K33
K34
Q35
Q36
Q37
E38
I39
L40
A41
A42
K43
P44
W45
T46
K47
D48
H49
H50
Y51
F52
K53
A109
C55
K56
I57
S58
A59
F52
K53
A109
Q110
C55
K56
I57
S58
A59
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E104
H49
F165
V166
A167
M108
Q110
A111
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P172
T173
R174
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I176
M117
A118
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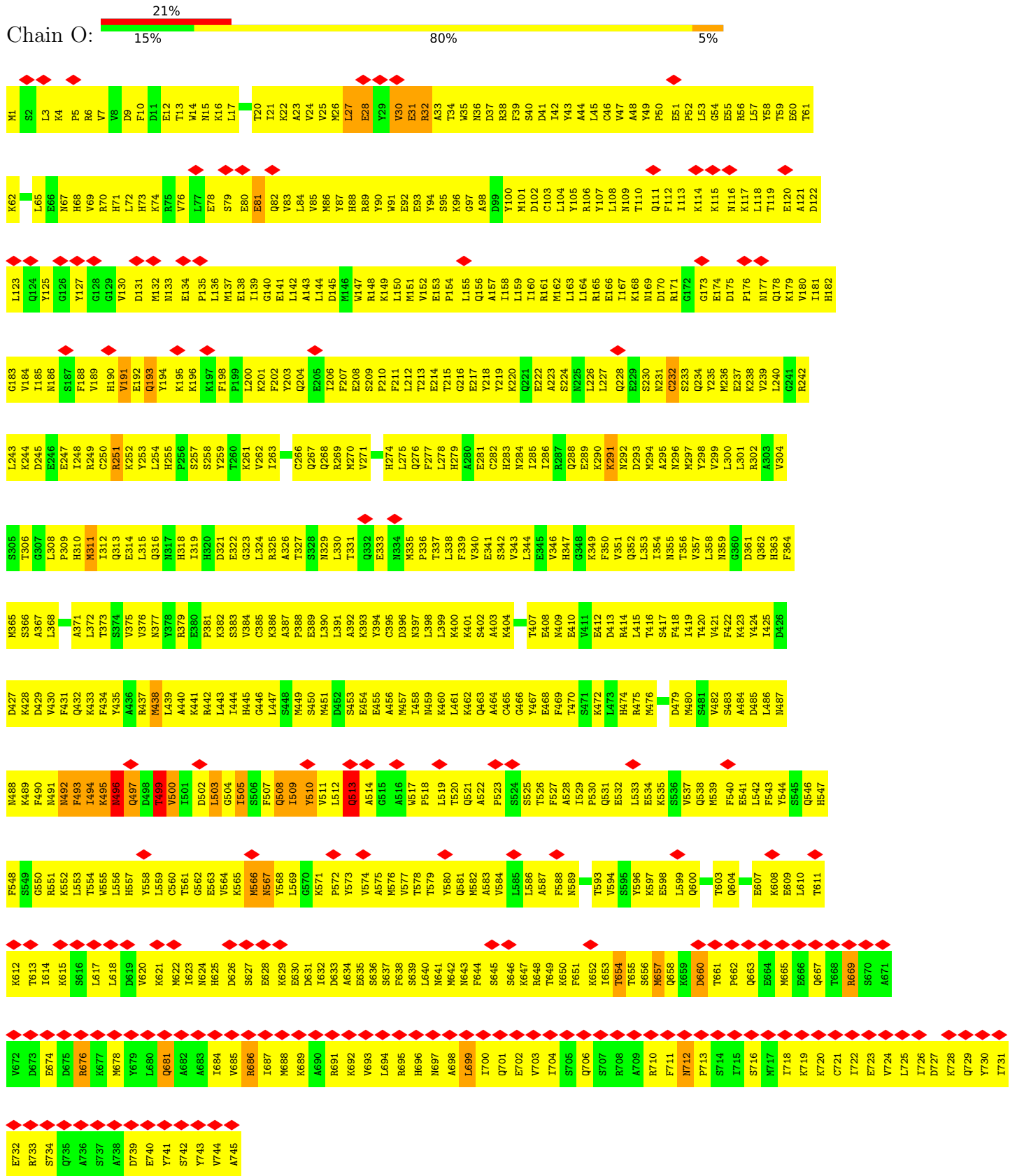
• Molecule 6: COP9 signalosome complex subunit 6



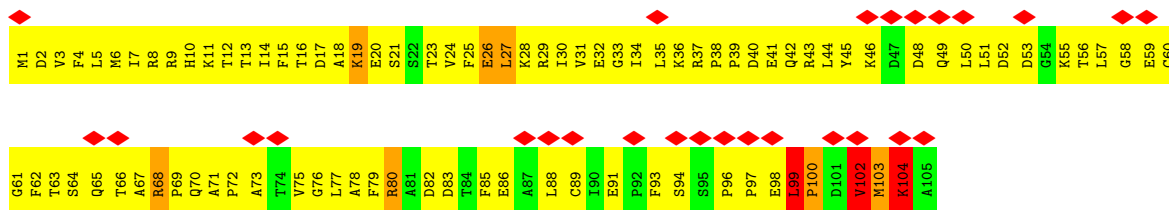
• Molecule 7: COP9 signalosome complex subunit 8



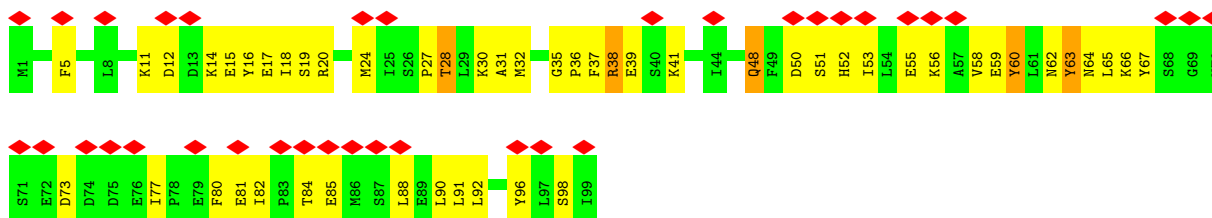
• Molecule 8: Cullin-2



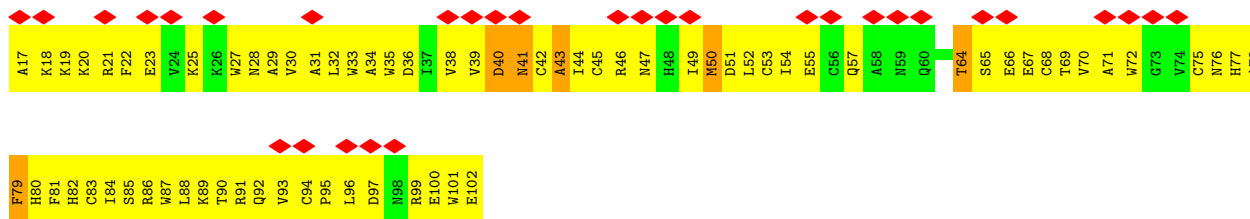
● Molecule 9: Elongin-B



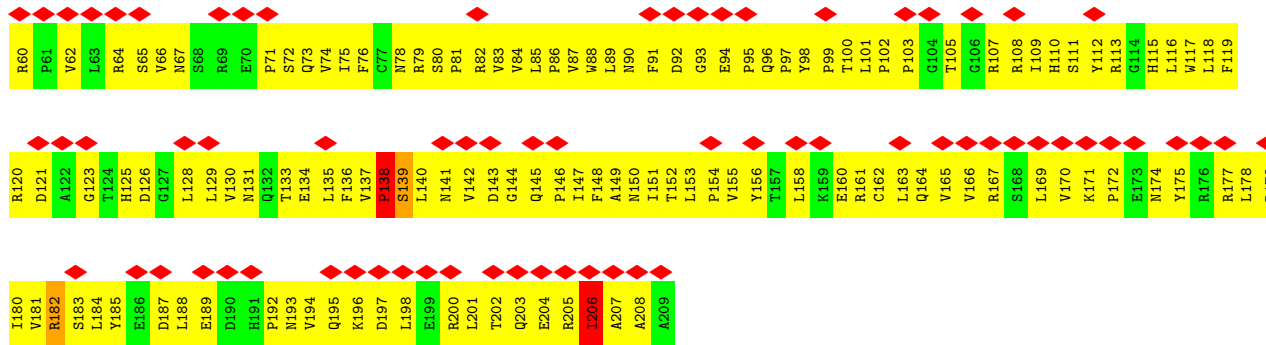
• Molecule 10: ELOC_HUMAN



• Molecule 11: RBX1_HUMAN

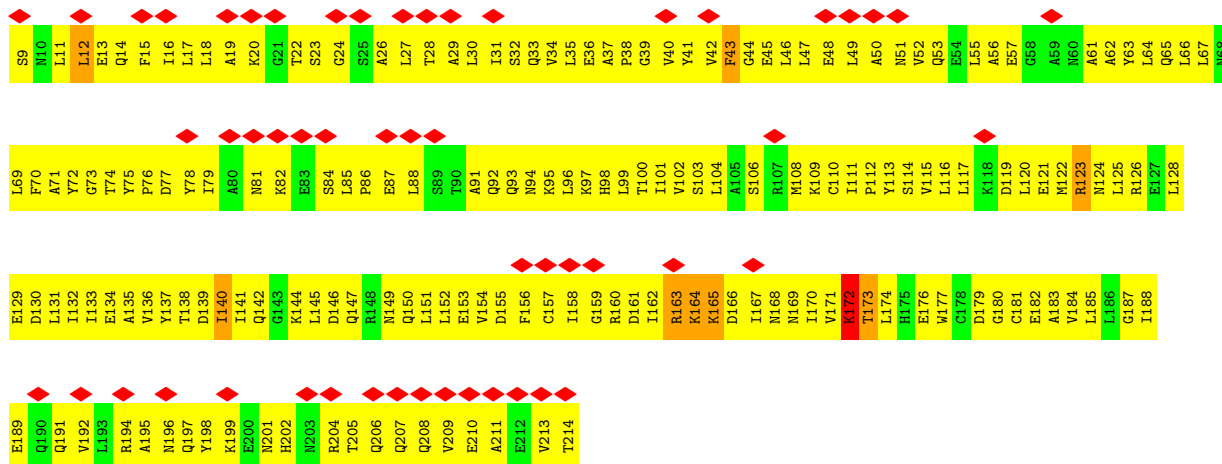


• Molecule 12: von Hippel-Lindau disease tumor suppressor



• Molecule 13: COP9 signalosome complex subunit 7b





4 Experimental information

| Property | Value | Source |
|--------------------------------------|---|-----------|
| EM reconstruction method | SINGLE PARTICLE | Depositor |
| Imposed symmetry | POINT, C1 | Depositor |
| Number of particles used | 24040 | Depositor |
| Resolution determination method | FSC 0.143 CUT-OFF | Depositor |
| CTF correction method | PHASE FLIPPING AND AMPLITUDE CORRECTION | Depositor |
| Microscope | FEI TITAN KRIOS | Depositor |
| Voltage (kV) | 300 | Depositor |
| Electron dose ($e^-/\text{\AA}^2$) | 45 | Depositor |
| Minimum defocus (nm) | 1800 | Depositor |
| Maximum defocus (nm) | 3000 | Depositor |
| Magnification | 47170 | Depositor |
| Image detector | GATAN K2 QUANTUM (4k x 4k) | Depositor |
| Maximum map value | 20.682 | Depositor |
| Minimum map value | -5.749 | Depositor |
| Average map value | 0.000 | Depositor |
| Map value standard deviation | 1.000 | Depositor |
| Recommended contour level | 6.0 | Depositor |
| Map size (Å) | 317.99997, 317.99997, 317.99997 | wwPDB |
| Map dimensions | 300, 300, 300 | wwPDB |
| Map angles (°) | 90.0, 90.0, 90.0 | wwPDB |
| Pixel spacing (Å) | 1.06, 1.06, 1.06 | Depositor |

5 Model quality i

5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section:
ZN

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 | 0.34 | 0/3404 | 0.53 | 1/4588 (0.0%) |
| 2 | B | 0.32 | 0/3572 | 0.57 | 8/4807 (0.2%) |
| 3 | C | 0.33 | 0/3241 | 0.52 | 0/4376 |
| 4 | D | 0.33 | 0/3291 | 0.50 | 1/4437 (0.0%) |
| 5 | E | 0.46 | 3/2503 (0.1%) | 1.21 | 10/3378 (0.3%) |
| 6 | F | 0.34 | 0/2279 | 0.61 | 1/3083 (0.0%) |
| 7 | H | 0.31 | 0/1411 | 0.48 | 0/1916 |
| 8 | O | 0.75 | 6/6206 (0.1%) | 0.96 | 11/8350 (0.1%) |
| 9 | P | 1.00 | 3/836 (0.4%) | 1.84 | 8/1129 (0.7%) |
| 10 | Q | 0.55 | 0/808 | 0.87 | 1/1087 (0.1%) |
| 11 | R | 0.40 | 0/706 | 0.66 | 0/955 |
| 12 | V | 0.39 | 1/1252 (0.1%) | 1.33 | 5/1705 (0.3%) |
| 13 | G | 0.95 | 1/1650 (0.1%) | 1.31 | 4/2234 (0.2%) |
| All | All | 0.53 | 14/31159 (0.0%) | 0.86 | 50/42045 (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 |
|-----|-------|---------------------|---------------------|
| 1 | A | 0 | 2 |
| 2 | B | 0 | 1 |
| 3 | C | 0 | 1 |
| 4 | D | 0 | 1 |
| 5 | E | 0 | 4 |
| 6 | F | 0 | 1 |
| 8 | O | 0 | 9 |
| 9 | P | 0 | 4 |
| 10 | Q | 0 | 2 |
| 11 | R | 0 | 6 |

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| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 12 | V | 0 | 4 |
| 13 | G | 0 | 2 |
| All | All | 0 | 37 |

All (14) bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|--------|--------|-------------|----------|
| 8 | O | 499 | THR | C-N | -37.18 | 0.48 | 1.34 |
| 9 | P | 102 | VAL | C-N | -21.83 | 0.83 | 1.34 |
| 9 | P | 99 | LEU | C-N | 14.17 | 1.61 | 1.34 |
| 5 | E | 252 | SER | C-N | 10.99 | 1.59 | 1.34 |
| 13 | G | 172 | LYS | C-N | -10.44 | 1.10 | 1.34 |
| 12 | V | 206 | ILE | C-N | -10.07 | 1.10 | 1.34 |
| 9 | P | 26 | GLU | C-N | 8.90 | 1.54 | 1.34 |
| 5 | E | 289 | LEU | C-N | -7.40 | 1.17 | 1.34 |
| 8 | O | 686 | ARG | NE-CZ | 6.08 | 1.41 | 1.33 |
| 8 | O | 691 | ARG | CZ-NH2 | 6.06 | 1.41 | 1.33 |
| 8 | O | 669 | ARG | NE-CZ | 5.72 | 1.40 | 1.33 |
| 8 | O | 674 | GLU | CD-OE1 | 5.68 | 1.31 | 1.25 |
| 8 | O | 676 | ARG | NE-CZ | 5.41 | 1.40 | 1.33 |
| 5 | E | 188 | THR | C-N | -5.10 | 1.22 | 1.34 |

All (50) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|--------|--------|-------------|----------|
| 8 | O | 499 | THR | O-C-N | -52.98 | 37.93 | 122.70 |
| 12 | V | 138 | PRO | CA-C-N | -42.65 | 23.38 | 117.20 |
| 5 | E | 252 | SER | C-N-CA | -39.14 | 23.84 | 121.70 |
| 9 | P | 104 | LYS | O-C-N | -35.51 | 65.89 | 122.70 |
| 9 | P | 102 | VAL | CA-C-N | -31.27 | 48.40 | 117.20 |
| 5 | E | 252 | SER | O-C-N | 28.26 | 167.91 | 122.70 |
| 5 | E | 252 | SER | CA-C-N | -28.06 | 55.47 | 117.20 |
| 9 | P | 102 | VAL | C-N-CA | -26.79 | 54.72 | 121.70 |
| 13 | G | 172 | LYS | O-C-N | -26.60 | 80.14 | 122.70 |
| 12 | V | 206 | ILE | O-C-N | -21.57 | 88.18 | 122.70 |
| 8 | O | 499 | THR | CA-C-N | 18.64 | 158.21 | 117.20 |
| 5 | E | 285 | PHE | C-N-CA | -16.45 | 80.59 | 121.70 |
| 13 | G | 172 | LYS | CA-C-N | 16.31 | 153.07 | 117.20 |
| 5 | E | 289 | LEU | O-C-N | 13.42 | 144.17 | 122.70 |
| 9 | P | 99 | LEU | O-C-N | -13.15 | 96.12 | 121.10 |
| 9 | P | 102 | VAL | O-C-N | 12.75 | 143.10 | 122.70 |
| 9 | P | 99 | LEU | C-N-CD | -12.05 | 94.09 | 120.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|--------|-------------|----------|
| 5 | E | 289 | LEU | CA-C-N | -11.78 | 91.28 | 117.20 |
| 12 | V | 138 | PRO | C-N-CA | -9.71 | 97.41 | 121.70 |
| 12 | V | 138 | PRO | O-C-N | 8.65 | 136.54 | 122.70 |
| 8 | O | 676 | ARG | NE-CZ-NH1 | 8.51 | 124.56 | 120.30 |
| 2 | B | 28 | PRO | CA-N-CD | -8.47 | 99.64 | 111.50 |
| 8 | O | 691 | ARG | NE-CZ-NH1 | 8.37 | 124.48 | 120.30 |
| 13 | G | 172 | LYS | C-N-CA | 7.95 | 141.56 | 121.70 |
| 6 | F | 43 | LEU | C-N-CA | 7.60 | 140.71 | 121.70 |
| 12 | V | 206 | ILE | C-N-CA | -7.56 | 102.80 | 121.70 |
| 8 | O | 678 | MET | CG-SD-CE | -7.24 | 88.61 | 100.20 |
| 8 | O | 691 | ARG | NE-CZ-NH2 | -7.13 | 116.73 | 120.30 |
| 8 | O | 499 | THR | C-N-CA | 7.13 | 139.52 | 121.70 |
| 5 | E | 289 | LEU | C-N-CA | 6.81 | 138.73 | 121.70 |
| 8 | O | 686 | ARG | NE-CZ-NH2 | -6.33 | 117.13 | 120.30 |
| 8 | O | 665 | MET | CG-SD-CE | -6.29 | 90.13 | 100.20 |
| 1 | A | 410 | LEU | CA-CB-CG | -6.27 | 100.88 | 115.30 |
| 5 | E | 285 | PHE | CA-C-N | -6.15 | 103.67 | 117.20 |
| 5 | E | 63 | LEU | CA-CB-CG | 5.88 | 128.81 | 115.30 |
| 9 | P | 26 | GLU | C-N-CA | -5.55 | 107.82 | 121.70 |
| 13 | G | 43 | PHE | CA-CB-CG | -5.40 | 100.95 | 113.90 |
| 2 | B | 6 | ASP | CB-CG-OD2 | 5.27 | 123.05 | 118.30 |
| 8 | O | 686 | ARG | NE-CZ-NH1 | 5.26 | 122.93 | 120.30 |
| 5 | E | 63 | LEU | CB-CG-CD2 | -5.25 | 102.08 | 111.00 |
| 10 | Q | 20 | ARG | NE-CZ-NH2 | -5.23 | 117.68 | 120.30 |
| 2 | B | 23 | ASP | CB-CG-OD2 | 5.20 | 122.97 | 118.30 |
| 2 | B | 12 | ASP | CB-CG-OD2 | 5.19 | 122.97 | 118.30 |
| 2 | B | 17 | ASP | CB-CG-OD2 | 5.19 | 122.97 | 118.30 |
| 2 | B | 15 | ASP | CB-CG-OD2 | 5.18 | 122.96 | 118.30 |
| 2 | B | 7 | ASP | CB-CG-OD2 | 5.15 | 122.94 | 118.30 |
| 2 | B | 11 | ASP | CB-CG-OD2 | 5.12 | 122.90 | 118.30 |
| 8 | O | 686 | ARG | N-CA-CB | 5.07 | 119.72 | 110.60 |
| 9 | P | 99 | LEU | CA-C-N | 5.02 | 131.15 | 117.10 |
| 4 | D | 300 | LEU | CA-CB-CG | -5.01 | 103.78 | 115.30 |

There are no chirality outliers.

All (37) planarity outliers are listed below:

| Mol | Chain | Res | Type | Group |
|-----|-------|-----|------|---------|
| 1 | A | 110 | LEU | Peptide |
| 1 | A | 91 | TYR | Peptide |
| 2 | B | 83 | THR | Peptide |
| 3 | C | 114 | ARG | Peptide |

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| Mol | Chain | Res | Type | Group |
|-----|-------|-----|------|-------------------|
| 4 | D | 309 | LEU | Peptide |
| 5 | E | 117 | MET | Peptide |
| 5 | E | 285 | PHE | Mainchain |
| 5 | E | 289 | LEU | Peptide |
| 5 | E | 77 | VAL | Peptide |
| 6 | F | 221 | LEU | Peptide |
| 13 | G | 172 | LYS | Peptide,Mainchain |
| 8 | O | 191 | VAL | Peptide |
| 8 | O | 193 | GLN | Peptide |
| 8 | O | 291 | LYS | Peptide |
| 8 | O | 499 | THR | Peptide,Mainchain |
| 8 | O | 508 | GLN | Peptide |
| 8 | O | 513 | GLN | Peptide |
| 8 | O | 567 | ASN | Peptide |
| 8 | O | 669 | ARG | Sidechain |
| 9 | P | 102 | VAL | Mainchain |
| 9 | P | 104 | LYS | Mainchain |
| 9 | P | 99 | LEU | Peptide,Mainchain |
| 10 | Q | 60 | TYR | Sidechain |
| 10 | Q | 63 | TYR | Sidechain |
| 11 | R | 40 | ASP | Peptide |
| 11 | R | 41 | ASN | Peptide |
| 11 | R | 50 | MET | Peptide |
| 11 | R | 51 | ASP | Peptide |
| 11 | R | 64 | THR | Peptide |
| 11 | R | 79 | PHE | Peptide |
| 12 | V | 138 | PRO | Peptide,Mainchain |
| 12 | V | 206 | ILE | Peptide,Mainchain |

5.2 Too-close contacts [\(i\)](#)

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 | 3348 | 0 | 3381 | 866 | 0 |
| 2 | B | 3512 | 0 | 3490 | 1227 | 0 |
| 3 | C | 3183 | 0 | 3201 | 848 | 0 |
| 4 | D | 3243 | 0 | 3231 | 992 | 0 |
| 5 | E | 2452 | 0 | 2389 | 1178 | 0 |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 6 | F | 2236 | 0 | 2216 | 1002 | 0 |
| 7 | H | 1379 | 0 | 1362 | 380 | 0 |
| 8 | O | 6093 | 415 | 6048 | 2116 | 0 |
| 9 | P | 821 | 82 | 807 | 469 | 0 |
| 10 | Q | 795 | 782 | 776 | 444 | 0 |
| 11 | R | 690 | 0 | 648 | 560 | 0 |
| 12 | V | 1223 | 141 | 1221 | 427 | 0 |
| 13 | G | 1630 | 0 | 1650 | 712 | 0 |
| 14 | E | 1 | 0 | 0 | 0 | 0 |
| All | All | 30606 | 1420 | 30420 | 9193 | 0 |

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 151.

All (9193) 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) |
|------------------|-------------------|--------------------------|-------------------|
| 9:P:15:PHE:CD2 | 10:Q:16:TYR:HB3 | 1.15 | 1.66 |
| 2:B:14:GLU:HB3 | 2:B:18:LEU:CD1 | 1.20 | 1.65 |
| 10:Q:91:LEU:HD23 | 12:V:184:LEU:CD1 | 1.19 | 1.65 |
| 8:O:49:TYR:CE1 | 10:Q:92:LEU:HD11 | 1.26 | 1.64 |
| 9:P:93:PHE:CE1 | 10:Q:16:TYR:HE2 | 1.10 | 1.63 |
| 5:E:242:TRP:CZ2 | 6:F:219:GLU:HG3 | 1.14 | 1.63 |
| 8:O:554:THR:CB | 11:R:32:LEU:HD12 | 1.16 | 1.61 |
| 9:P:4:PHE:CE2 | 10:Q:66:LYS:HD3 | 1.31 | 1.61 |
| 5:E:323:ILE:HD13 | 13:G:188:ILE:CD1 | 1.25 | 1.60 |
| 10:Q:60:TYR:CG | 12:V:158:LEU:HB2 | 1.29 | 1.60 |
| 5:E:242:TRP:CZ2 | 6:F:219:GLU:CG | 1.79 | 1.60 |
| 9:P:4:PHE:CZ | 10:Q:66:LYS:CD | 1.82 | 1.60 |
| 9:P:28:LYS:HE2 | 9:P:44:LEU:CD1 | 1.31 | 1.59 |
| 5:E:245:TYR:CZ | 6:F:222:ILE:CD1 | 1.76 | 1.59 |
| 8:O:725:LEU:CD2 | 11:R:46:ARG:HH22 | 0.95 | 1.59 |
| 8:O:49:TYR:HE1 | 10:Q:92:LEU:CD1 | 1.13 | 1.58 |
| 9:P:93:PHE:HD1 | 10:Q:16:TYR:CZ | 1.19 | 1.58 |
| 10:Q:91:LEU:HD21 | 12:V:184:LEU:CB | 1.18 | 1.58 |
| 12:V:146:PRO:CA | 12:V:147:ILE:HA | 1.30 | 1.58 |
| 6:F:261:TYR:CD1 | 13:G:170:ILE:HD11 | 1.36 | 1.57 |
| 9:P:15:PHE:HB2 | 10:Q:18:ILE:CD1 | 1.23 | 1.56 |
| 5:E:279:GLN:CG | 5:E:298:ASP:HB2 | 1.27 | 1.56 |
| 9:P:4:PHE:CZ | 10:Q:66:LYS:HD3 | 1.08 | 1.56 |
| 5:E:245:TYR:CE2 | 6:F:222:ILE:CD1 | 1.85 | 1.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:E:250:LEU:CB | 6:F:228:ILE:HD13 | 1.12 | 1.56 |
| 5:E:279:GLN:CB | 5:E:298:ASP:HB2 | 1.36 | 1.56 |
| 8:O:612:LYS:HG2 | 8:O:657:MET:SD | 1.45 | 1.55 |
| 5:E:242:TRP:CH2 | 6:F:219:GLU:CG | 1.87 | 1.55 |
| 6:F:267:LEU:HD13 | 13:G:177:TRP:CG | 1.37 | 1.55 |
| 8:O:692:LYS:HD2 | 8:O:743:TYR:CB | 1.33 | 1.55 |
| 5:E:326:LYS:HB3 | 13:G:184:VAL:CG1 | 1.14 | 1.54 |
| 6:F:217:VAL:HG11 | 13:G:192:VAL:CG2 | 1.15 | 1.54 |
| 5:E:250:LEU:HB2 | 6:F:228:ILE:CD1 | 1.10 | 1.54 |
| 4:D:388:ILE:HG22 | 4:D:393:PRO:CA | 1.36 | 1.53 |
| 5:E:326:LYS:CB | 13:G:184:VAL:HG11 | 1.39 | 1.53 |
| 5:E:326:LYS:CB | 13:G:184:VAL:CG1 | 1.86 | 1.53 |
| 9:P:93:PHE:CE1 | 10:Q:16:TYR:CE2 | 1.90 | 1.52 |
| 7:H:201:THR:CG2 | 13:G:195:ALA:HB2 | 1.07 | 1.52 |
| 8:O:32:ARG:HE | 10:Q:38:ARG:CB | 1.21 | 1.52 |
| 10:Q:91:LEU:CD2 | 12:V:184:LEU:HD13 | 1.09 | 1.52 |
| 5:E:323:ILE:CD1 | 13:G:188:ILE:HD12 | 1.38 | 1.52 |
| 4:D:388:ILE:HG23 | 4:D:396:THR:CB | 1.07 | 1.51 |
| 8:O:527:PHE:CD2 | 8:O:529:ILE:N | 1.74 | 1.51 |
| 8:O:103:CYS:HB3 | 10:Q:35:GLY:CA | 1.05 | 1.51 |
| 5:E:245:TYR:CZ | 6:F:222:ILE:CG1 | 1.93 | 1.51 |
| 4:D:388:ILE:CG2 | 4:D:396:THR:HB | 1.35 | 1.50 |
| 12:V:146:PRO:HA | 12:V:147:ILE:CA | 1.42 | 1.50 |
| 2:B:420:ARG:HG2 | 5:E:263:THR:CG2 | 1.05 | 1.50 |
| 9:P:99:LEU:HB3 | 9:P:103:MET:CG | 1.13 | 1.50 |
| 6:F:217:VAL:CG1 | 13:G:192:VAL:HG21 | 1.34 | 1.50 |
| 10:Q:91:LEU:HD21 | 12:V:184:LEU:CG | 1.38 | 1.50 |
| 5:E:279:GLN:HE21 | 5:E:295:LYS:CE | 1.21 | 1.49 |
| 9:P:70:GLN:C | 10:Q:59:GLU:HG2 | 1.16 | 1.49 |
| 4:D:388:ILE:CG2 | 4:D:396:THR:CB | 1.83 | 1.48 |
| 1:A:467:GLN:HG2 | 2:B:418:GLY:CA | 1.41 | 1.48 |
| 8:O:103:CYS:CB | 10:Q:35:GLY:HA2 | 1.02 | 1.48 |
| 8:O:32:ARG:HE | 10:Q:38:ARG:CA | 1.26 | 1.47 |
| 9:P:70:GLN:C | 10:Q:59:GLU:CG | 1.81 | 1.47 |
| 9:P:28:LYS:CE | 9:P:44:LEU:HD12 | 1.44 | 1.47 |
| 9:P:93:PHE:CD1 | 10:Q:16:TYR:CE2 | 2.02 | 1.47 |
| 8:O:569:LEU:CD1 | 11:R:19:LYS:H | 1.28 | 1.46 |
| 2:B:21:SER:C | 8:O:652:LYS:HD3 | 1.34 | 1.46 |
| 1:A:467:GLN:NE2 | 2:B:422:THR:HG23 | 1.24 | 1.45 |
| 7:H:194:GLU:N | 13:G:191:GLN:HG2 | 1.28 | 1.45 |
| 4:D:373:GLN:NE2 | 13:G:155:ASP:CB | 1.76 | 1.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 8:O:32:ARG:NE | 8:O:35:TRP:CZ3 | 1.84 | 1.45 |
| 2:B:24:SER:H | 8:O:652:LYS:NZ | 1.07 | 1.45 |
| 10:Q:88:LEU:HD22 | 12:V:179:ASP:CG | 1.35 | 1.45 |
| 8:O:692:LYS:NZ | 8:O:743:TYR:CD2 | 1.83 | 1.44 |
| 5:E:279:GLN:CB | 5:E:298:ASP:CB | 1.96 | 1.44 |
| 8:O:49:TYR:CE1 | 10:Q:92:LEU:CD1 | 1.86 | 1.44 |
| 9:P:93:PHE:CD1 | 10:Q:16:TYR:OH | 1.68 | 1.44 |
| 8:O:676:ARG:CD | 8:O:710:ARG:HH21 | 1.29 | 1.43 |
| 8:O:725:LEU:CD2 | 11:R:46:ARG:NH2 | 1.78 | 1.43 |
| 2:B:14:GLU:O | 2:B:18:LEU:CB | 1.65 | 1.43 |
| 8:O:491:ASN:O | 8:O:495:LYS:CG | 1.65 | 1.43 |
| 4:D:388:ILE:HG22 | 4:D:393:PRO:CB | 1.47 | 1.43 |
| 5:E:332:ASN:CB | 13:G:176:GLU:O | 1.67 | 1.43 |
| 9:P:11:LYS:NZ | 10:Q:14:LYS:HZ2 | 1.02 | 1.43 |
| 2:B:420:ARG:CG | 5:E:263:THR:CG2 | 1.96 | 1.43 |
| 5:E:252:SER:OG | 5:E:320:SER:CB | 1.65 | 1.43 |
| 9:P:15:PHE:CD2 | 10:Q:16:TYR:CB | 1.97 | 1.43 |
| 5:E:245:TYR:CZ | 6:F:222:ILE:HD11 | 1.39 | 1.42 |
| 8:O:530:PRO:CD | 11:R:27:TRP:CH2 | 2.00 | 1.42 |
| 10:Q:91:LEU:CD2 | 12:V:184:LEU:CD1 | 1.75 | 1.42 |
| 1:A:467:GLN:CG | 2:B:418:GLY:HA3 | 1.51 | 1.42 |
| 5:E:279:GLN:CG | 5:E:298:ASP:CB | 1.97 | 1.42 |
| 2:B:18:LEU:CD2 | 2:B:27:GLU:C | 1.87 | 1.41 |
| 4:D:314:LYS:HB3 | 13:G:137:TYR:CE1 | 1.53 | 1.41 |
| 4:D:384:LEU:HD12 | 4:D:387:LYS:CD | 1.45 | 1.41 |
| 2:B:297:GLN:NE2 | 11:R:70:VAL:CG1 | 1.83 | 1.41 |
| 9:P:93:PHE:CD1 | 10:Q:16:TYR:CZ | 2.03 | 1.41 |
| 5:E:242:TRP:CH2 | 6:F:219:GLU:CB | 2.01 | 1.41 |
| 5:E:279:GLN:HB3 | 5:E:298:ASP:CB | 1.50 | 1.41 |
| 5:E:279:GLN:HG2 | 5:E:294:ARG:NH1 | 1.36 | 1.41 |
| 2:B:260:GLU:OE2 | 11:R:66:GLU:CG | 1.70 | 1.40 |
| 7:H:201:THR:CG2 | 13:G:195:ALA:CB | 1.99 | 1.39 |
| 8:O:32:ARG:CZ | 10:Q:38:ARG:HA | 1.51 | 1.39 |
| 8:O:568:TYR:OH | 11:R:22:PHE:CE1 | 1.73 | 1.39 |
| 5:E:247:VAL:HA | 6:F:228:ILE:CB | 1.33 | 1.39 |
| 9:P:97:PRO:CD | 10:Q:52:HIS:CE1 | 2.00 | 1.39 |
| 8:O:554:THR:HB | 11:R:32:LEU:CD1 | 0.91 | 1.38 |
| 2:B:105:ARG:NH2 | 8:O:451:MET:SD | 1.96 | 1.38 |
| 4:D:384:LEU:CG | 4:D:387:LYS:CE | 1.94 | 1.38 |
| 5:E:242:TRP:CH2 | 6:F:219:GLU:HG3 | 1.51 | 1.38 |
| 2:B:14:GLU:OE2 | 2:B:67:TRP:CD1 | 1.75 | 1.38 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:E:279:GLN:HG2 | 5:E:294:ARG:CZ | 1.51 | 1.38 |
| 4:D:384:LEU:CG | 4:D:387:LYS:HE3 | 1.36 | 1.37 |
| 10:Q:91:LEU:CD2 | 12:V:184:LEU:HB3 | 1.55 | 1.37 |
| 6:F:261:TYR:HD1 | 13:G:170:ILE:CD1 | 1.36 | 1.36 |
| 2:B:11:ASP:OD1 | 2:B:67:TRP:CZ2 | 1.78 | 1.36 |
| 9:P:30:ILE:HD13 | 10:Q:5:PHE:CE2 | 1.59 | 1.36 |
| 2:B:14:GLU:CD | 2:B:67:TRP:CD1 | 1.98 | 1.36 |
| 8:O:552:LYS:CA | 11:R:33:TRP:HA | 1.24 | 1.36 |
| 5:E:245:TYR:OH | 6:F:222:ILE:CG1 | 1.69 | 1.36 |
| 9:P:28:LYS:O | 9:P:30:ILE:CD1 | 1.74 | 1.36 |
| 8:O:563:GLU:HG3 | 11:R:27:TRP:CB | 1.53 | 1.35 |
| 12:V:73:GLN:HG3 | 12:V:144:GLY:CA | 1.54 | 1.35 |
| 9:P:69:PRO:HA | 10:Q:62:ASN:ND2 | 1.03 | 1.35 |
| 5:E:244:LYS:CE | 6:F:230:MET:HA | 1.54 | 1.35 |
| 5:E:323:ILE:HG21 | 13:G:188:ILE:CD1 | 1.57 | 1.35 |
| 9:P:11:LYS:CE | 10:Q:14:LYS:NZ | 1.90 | 1.35 |
| 2:B:297:GLN:NE2 | 11:R:70:VAL:HG11 | 1.39 | 1.35 |
| 8:O:32:ARG:NH1 | 10:Q:38:ARG:HA | 1.37 | 1.35 |
| 8:O:567:ASN:HA | 11:R:23:GLU:CG | 1.56 | 1.35 |
| 5:E:247:VAL:CA | 6:F:228:ILE:HB | 1.40 | 1.34 |
| 9:P:4:PHE:CE2 | 10:Q:66:LYS:CD | 2.01 | 1.34 |
| 9:P:26:GLU:O | 9:P:28:LYS:N | 1.60 | 1.34 |
| 4:D:384:LEU:HG | 4:D:387:LYS:CE | 1.31 | 1.34 |
| 8:O:490:PHE:CD2 | 8:O:494:ILE:HG12 | 1.62 | 1.34 |
| 8:O:32:ARG:NE | 10:Q:38:ARG:CA | 1.90 | 1.34 |
| 8:O:490:PHE:CG | 8:O:494:ILE:HG12 | 1.42 | 1.34 |
| 9:P:30:ILE:HD13 | 10:Q:5:PHE:CZ | 1.61 | 1.34 |
| 2:B:297:GLN:NE2 | 11:R:70:VAL:CB | 1.90 | 1.33 |
| 9:P:69:PRO:CA | 10:Q:62:ASN:ND2 | 1.90 | 1.33 |
| 8:O:503:LEU:O | 8:O:504:GLY:N | 1.58 | 1.33 |
| 13:G:169:ASN:O | 13:G:173:THR:CG2 | 1.73 | 1.33 |
| 9:P:15:PHE:HB2 | 10:Q:18:ILE:CG1 | 1.56 | 1.33 |
| 8:O:43:TYR:CZ | 10:Q:48:GLN:OE1 | 1.82 | 1.33 |
| 8:O:503:LEU:CB | 8:O:504:GLY:N | 1.91 | 1.33 |
| 8:O:530:PRO:HD2 | 11:R:27:TRP:CH2 | 1.57 | 1.33 |
| 5:E:245:TYR:CE2 | 6:F:222:ILE:HD11 | 1.53 | 1.33 |
| 6:F:249:GLU:CA | 6:F:250:VAL:N | 1.89 | 1.33 |
| 5:E:323:ILE:CG2 | 13:G:188:ILE:HD13 | 1.59 | 1.32 |
| 8:O:484:ALA:HA | 8:O:507:PHE:CE2 | 1.61 | 1.32 |
| 9:P:15:PHE:CE2 | 10:Q:16:TYR:CB | 1.80 | 1.32 |
| 5:E:323:ILE:CG1 | 13:G:188:ILE:HD13 | 1.58 | 1.32 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 9:P:11:LYS:HE2 | 10:Q:14:LYS:NZ | 1.42 | 1.32 |
| 9:P:14:ILE:HD13 | 10:Q:17:GLU:CD | 1.47 | 1.32 |
| 5:E:326:LYS:HD2 | 13:G:184:VAL:CG1 | 1.59 | 1.32 |
| 2:B:420:ARG:CG | 5:E:263:THR:HG21 | 1.56 | 1.31 |
| 10:Q:80:PHE:O | 12:V:161:ARG:HG2 | 1.29 | 1.31 |
| 2:B:25:ASN:ND2 | 8:O:647:LYS:CD | 1.92 | 1.31 |
| 5:E:242:TRP:CH2 | 6:F:219:GLU:HB2 | 1.62 | 1.31 |
| 5:E:246:TRP:HB3 | 6:F:219:GLU:OE2 | 1.16 | 1.31 |
| 5:E:250:LEU:CB | 6:F:228:ILE:CD1 | 1.76 | 1.31 |
| 8:O:35:TRP:CB | 10:Q:39:GLU:HG3 | 1.43 | 1.31 |
| 8:O:676:ARG:NE | 8:O:710:ARG:HH21 | 1.25 | 1.31 |
| 5:E:242:TRP:CZ2 | 6:F:219:GLU:CD | 2.03 | 1.31 |
| 5:E:245:TYR:CZ | 6:F:222:ILE:HG12 | 1.57 | 1.31 |
| 8:O:505:ILE:O | 11:R:27:TRP:C | 1.67 | 1.31 |
| 5:E:243:ASN:C | 6:F:229:LYS:HE2 | 1.48 | 1.31 |
| 7:H:209:ASN:O | 13:G:202:HIS:CD2 | 1.84 | 1.31 |
| 8:O:569:LEU:O | 11:R:18:LYS:CD | 1.77 | 1.31 |
| 6:F:217:VAL:CB | 13:G:192:VAL:HG11 | 1.58 | 1.30 |
| 9:P:28:LYS:CE | 9:P:44:LEU:CD1 | 2.02 | 1.30 |
| 5:E:245:TYR:CE2 | 6:F:222:ILE:HD13 | 1.55 | 1.30 |
| 4:D:388:ILE:CD1 | 4:D:396:THR:HG21 | 1.61 | 1.30 |
| 2:B:18:LEU:HD22 | 2:B:27:GLU:C | 1.49 | 1.30 |
| 2:B:259:PHE:CE1 | 11:R:67:GLU:OE1 | 1.85 | 1.30 |
| 9:P:15:PHE:CD2 | 10:Q:58:VAL:HG21 | 1.67 | 1.30 |
| 5:E:279:GLN:C | 5:E:298:ASP:OD2 | 1.69 | 1.29 |
| 6:F:249:GLU:HA | 6:F:250:VAL:N | 1.38 | 1.29 |
| 8:O:660:ASP:O | 8:O:661:THR:N | 1.64 | 1.29 |
| 12:V:140:LEU:CD2 | 12:V:147:ILE:N | 1.93 | 1.29 |
| 2:B:5:GLU:CB | 2:B:9:MET:HG2 | 1.59 | 1.29 |
| 2:B:24:SER:OG | 8:O:652:LYS:HE3 | 1.13 | 1.29 |
| 4:D:315:LEU:HG | 13:G:137:TYR:CD2 | 1.66 | 1.29 |
| 8:O:687:ILE:HD11 | 8:O:706:GLN:NE2 | 1.45 | 1.29 |
| 5:E:279:GLN:HB3 | 5:E:298:ASP:CG | 1.48 | 1.29 |
| 8:O:688:MET:SD | 8:O:731:ILE:CG2 | 2.21 | 1.29 |
| 2:B:297:GLN:OE1 | 11:R:70:VAL:HG21 | 1.22 | 1.28 |
| 5:E:285:PHE:CD2 | 12:V:62:VAL:HG11 | 1.66 | 1.28 |
| 6:F:248:GLY:C | 6:F:250:VAL:N | 1.85 | 1.28 |
| 8:O:567:ASN:O | 11:R:21:ARG:CB | 1.81 | 1.28 |
| 10:Q:88:LEU:CD2 | 12:V:179:ASP:HB3 | 1.61 | 1.28 |
| 5:E:279:GLN:CG | 5:E:294:ARG:NE | 1.96 | 1.28 |
| 5:E:279:GLN:NE2 | 5:E:295:LYS:CE | 1.96 | 1.28 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:107:TYR:CD1 | 10:Q:28:THR:HG22 | 1.67 | 1.28 |
| 8:O:554:THR:N | 11:R:32:LEU:HB2 | 1.45 | 1.28 |
| 8:O:687:ILE:CD1 | 8:O:706:GLN:HE22 | 1.46 | 1.28 |
| 5:E:333:ILE:O | 13:G:177:TRP:CB | 1.82 | 1.27 |
| 9:P:70:GLN:O | 10:Q:59:GLU:HG2 | 1.28 | 1.27 |
| 2:B:6:ASP:O | 2:B:10:CYS:SG | 1.91 | 1.27 |
| 6:F:217:VAL:HB | 13:G:192:VAL:CG1 | 1.64 | 1.27 |
| 1:A:467:GLN:CD | 2:B:422:THR:HG23 | 1.53 | 1.27 |
| 2:B:21:SER:N | 8:O:652:LYS:HE2 | 1.45 | 1.27 |
| 2:B:260:GLU:OE2 | 11:R:66:GLU:CB | 1.82 | 1.27 |
| 4:D:388:ILE:CG2 | 4:D:393:PRO:CA | 2.12 | 1.27 |
| 8:O:569:LEU:O | 11:R:18:LYS:CE | 1.82 | 1.27 |
| 2:B:427:TRP:NE1 | 5:E:273:LEU:CD1 | 1.96 | 1.27 |
| 5:E:245:TYR:CE1 | 6:F:222:ILE:HD11 | 1.68 | 1.27 |
| 2:B:427:TRP:NE1 | 5:E:273:LEU:HD11 | 1.47 | 1.26 |
| 8:O:725:LEU:HD23 | 11:R:46:ARG:NH2 | 1.37 | 1.26 |
| 12:V:146:PRO:CA | 12:V:148:PHE:H | 1.45 | 1.26 |
| 8:O:530:PRO:HD2 | 11:R:27:TRP:CZ3 | 1.68 | 1.26 |
| 8:O:688:MET:CE | 8:O:725:LEU:HB3 | 1.64 | 1.26 |
| 2:B:32:LEU:HD21 | 8:O:649:THR:OG1 | 1.28 | 1.26 |
| 4:D:388:ILE:HG23 | 4:D:396:THR:OG1 | 1.23 | 1.26 |
| 12:V:207:ALA:O | 12:V:208:ALA:HA | 1.34 | 1.26 |
| 2:B:21:SER:H | 8:O:652:LYS:CE | 1.48 | 1.26 |
| 5:E:247:VAL:H | 6:F:229:LYS:CB | 1.47 | 1.26 |
| 5:E:323:ILE:CD1 | 13:G:188:ILE:CD1 | 2.00 | 1.26 |
| 1:A:297:ARG:NH1 | 12:V:142:VAL:HG21 | 1.52 | 1.25 |
| 2:B:296:SER:CB | 11:R:67:GLU:HG2 | 1.63 | 1.25 |
| 7:H:201:THR:HG23 | 13:G:195:ALA:CB | 1.61 | 1.25 |
| 8:O:569:LEU:HG | 11:R:20:LYS:N | 1.23 | 1.25 |
| 8:O:657:MET:O | 8:O:658:GLN:CB | 1.83 | 1.25 |
| 5:E:280:LEU:HG | 5:E:298:ASP:OD2 | 1.11 | 1.25 |
| 9:P:15:PHE:CB | 10:Q:18:ILE:CD1 | 2.13 | 1.25 |
| 2:B:14:GLU:CB | 2:B:18:LEU:CD1 | 2.12 | 1.25 |
| 5:E:279:GLN:CG | 5:E:294:ARG:CZ | 2.00 | 1.25 |
| 8:O:551:ARG:CB | 11:R:33:TRP:O | 1.81 | 1.25 |
| 12:V:146:PRO:CB | 12:V:148:PHE:H | 1.47 | 1.25 |
| 2:B:427:TRP:CD1 | 5:E:273:LEU:HD12 | 1.70 | 1.25 |
| 8:O:520:THR:C | 8:O:556:LEU:HD21 | 0.88 | 1.25 |
| 9:P:11:LYS:NZ | 10:Q:14:LYS:NZ | 1.79 | 1.25 |
| 6:F:197:ARG:NH1 | 6:F:215:SER:O | 1.67 | 1.25 |
| 2:B:439:VAL:HB | 3:C:243:LYS:NZ | 1.39 | 1.24 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 6:F:261:TYR:CD1 | 13:G:170:ILE:CD1 | 2.12 | 1.24 |
| 8:O:567:ASN:HA | 11:R:23:GLU:CB | 1.65 | 1.24 |
| 8:O:657:MET:O | 8:O:658:GLN:HB2 | 1.30 | 1.24 |
| 8:O:692:LYS:HD2 | 8:O:743:TYR:CG | 1.70 | 1.24 |
| 2:B:18:LEU:HD22 | 2:B:28:PRO:N | 1.52 | 1.24 |
| 5:E:279:GLN:NE2 | 5:E:295:LYS:HE2 | 1.51 | 1.24 |
| 5:E:326:LYS:CD | 13:G:184:VAL:CG1 | 2.14 | 1.24 |
| 8:O:508:GLN:CG | 8:O:559:LEU:HD12 | 1.68 | 1.24 |
| 8:O:511:VAL:HG11 | 8:O:551:ARG:NH2 | 1.50 | 1.24 |
| 2:B:18:LEU:HD21 | 2:B:27:GLU:O | 1.25 | 1.24 |
| 8:O:110:THR:OG1 | 10:Q:28:THR:CG2 | 1.86 | 1.24 |
| 8:O:490:PHE:HA | 8:O:543:PHE:CZ | 1.72 | 1.24 |
| 9:P:15:PHE:CD2 | 10:Q:18:ILE:HD11 | 1.72 | 1.24 |
| 10:Q:60:TYR:CG | 12:V:158:LEU:CB | 2.18 | 1.24 |
| 2:B:14:GLU:O | 2:B:18:LEU:HB2 | 1.10 | 1.24 |
| 5:E:243:ASN:HA | 6:F:229:LYS:NZ | 1.51 | 1.24 |
| 8:O:676:ARG:NE | 8:O:710:ARG:NH2 | 1.82 | 1.24 |
| 6:F:267:LEU:HD13 | 13:G:177:TRP:CD1 | 1.72 | 1.23 |
| 8:O:571:LYS:O | 11:R:18:LYS:HG2 | 1.16 | 1.23 |
| 10:Q:67:TYR:CE2 | 12:V:155:VAL:N | 1.96 | 1.23 |
| 4:D:384:LEU:CD1 | 4:D:387:LYS:CE | 2.16 | 1.23 |
| 5:E:331:ILE:C | 13:G:180:GLY:HA3 | 1.23 | 1.23 |
| 8:O:103:CYS:O | 10:Q:36:PRO:HD3 | 1.33 | 1.23 |
| 8:O:110:THR:OG1 | 10:Q:28:THR:HG23 | 1.06 | 1.23 |
| 8:O:552:LYS:CA | 11:R:33:TRP:CA | 2.15 | 1.23 |
| 8:O:688:MET:SD | 8:O:731:ILE:HG21 | 1.78 | 1.23 |
| 5:E:294:ARG:HA | 5:E:295:LYS:CE | 1.65 | 1.22 |
| 8:O:727:ASP:O | 11:R:55:GLU:N | 1.72 | 1.22 |
| 4:D:384:LEU:CD1 | 4:D:387:LYS:HD2 | 1.50 | 1.22 |
| 8:O:569:LEU:HD12 | 11:R:19:LYS:N | 1.49 | 1.22 |
| 9:P:97:PRO:CD | 10:Q:52:HIS:HE1 | 1.36 | 1.22 |
| 8:O:656:SER:OG | 8:O:658:GLN:HG3 | 1.40 | 1.22 |
| 8:O:26:MET:HE3 | 8:O:90:TYR:O | 1.36 | 1.22 |
| 2:B:5:GLU:HB2 | 2:B:9:MET:CG | 1.67 | 1.21 |
| 5:E:279:GLN:HG2 | 5:E:298:ASP:CB | 1.64 | 1.21 |
| 9:P:4:PHE:CE2 | 10:Q:66:LYS:CG | 2.24 | 1.21 |
| 9:P:15:PHE:CE2 | 10:Q:58:VAL:HG21 | 1.74 | 1.21 |
| 12:V:73:GLN:HB3 | 12:V:141:ASN:O | 1.38 | 1.21 |
| 2:B:18:LEU:HD23 | 2:B:27:GLU:CB | 1.68 | 1.21 |
| 2:B:24:SER:N | 8:O:652:LYS:NZ | 1.88 | 1.21 |
| 5:E:323:ILE:CG2 | 13:G:188:ILE:CD1 | 2.15 | 1.21 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:103:CYS:HB3 | 10:Q:35:GLY:C | 1.60 | 1.21 |
| 8:O:490:PHE:CE1 | 8:O:539:MET:HB2 | 1.74 | 1.21 |
| 5:E:243:ASN:HA | 6:F:229:LYS:CE | 1.68 | 1.21 |
| 12:V:72:SER:OG | 12:V:140:LEU:O | 1.58 | 1.21 |
| 2:B:14:GLU:O | 2:B:18:LEU:CG | 1.88 | 1.21 |
| 5:E:280:LEU:CG | 5:E:298:ASP:OD2 | 1.87 | 1.21 |
| 8:O:527:PHE:HB3 | 8:O:529:ILE:CD1 | 1.70 | 1.21 |
| 8:O:552:LYS:HA | 11:R:33:TRP:CA | 1.69 | 1.21 |
| 6:F:217:VAL:CG1 | 13:G:192:VAL:CG2 | 2.00 | 1.20 |
| 5:E:247:VAL:C | 6:F:228:ILE:HB | 1.60 | 1.20 |
| 8:O:490:PHE:CG | 8:O:494:ILE:CG1 | 2.21 | 1.20 |
| 8:O:530:PRO:CD | 11:R:27:TRP:CZ3 | 2.22 | 1.20 |
| 8:O:726:ILE:HG22 | 11:R:44:ILE:O | 1.34 | 1.20 |
| 6:F:217:VAL:CG2 | 13:G:192:VAL:HG13 | 1.70 | 1.20 |
| 8:O:491:ASN:O | 8:O:495:LYS:HG2 | 1.20 | 1.20 |
| 8:O:512:LEU:HG | 8:O:552:LYS:O | 1.06 | 1.20 |
| 9:P:28:LYS:C | 9:P:30:ILE:HD12 | 1.50 | 1.20 |
| 4:D:384:LEU:CD1 | 4:D:387:LYS:CD | 2.06 | 1.20 |
| 4:D:388:ILE:CG2 | 4:D:393:PRO:HA | 1.66 | 1.20 |
| 9:P:27:LEU:HD21 | 9:P:44:LEU:O | 1.37 | 1.20 |
| 8:O:554:THR:CB | 11:R:32:LEU:CD1 | 1.87 | 1.20 |
| 2:B:19:GLU:HB3 | 8:O:652:LYS:N | 1.25 | 1.19 |
| 8:O:527:PHE:HD2 | 8:O:529:ILE:N | 1.12 | 1.19 |
| 8:O:688:MET:HE2 | 8:O:725:LEU:CD1 | 1.73 | 1.19 |
| 10:Q:88:LEU:CD2 | 12:V:179:ASP:CB | 2.20 | 1.19 |
| 5:E:250:LEU:CA | 6:F:228:ILE:CD1 | 2.20 | 1.19 |
| 2:B:25:ASN:ND2 | 8:O:647:LYS:HD2 | 1.24 | 1.19 |
| 2:B:28:PRO:O | 2:B:31:ASP:OD1 | 1.57 | 1.19 |
| 5:E:242:TRP:CE2 | 6:F:219:GLU:CD | 2.15 | 1.19 |
| 6:F:249:GLU:N | 6:F:250:VAL:N | 1.89 | 1.19 |
| 2:B:18:LEU:CD2 | 2:B:27:GLU:O | 1.84 | 1.19 |
| 6:F:248:GLY:O | 6:F:250:VAL:N | 1.74 | 1.19 |
| 8:O:32:ARG:NE | 10:Q:38:ARG:HA | 1.49 | 1.19 |
| 5:E:246:TRP:CH2 | 6:F:229:LYS:HA | 1.76 | 1.18 |
| 8:O:555:TRP:CZ3 | 11:R:29:ALA:HB1 | 1.76 | 1.18 |
| 2:B:17:ASP:HB3 | 2:B:64:LYS:CD | 1.74 | 1.18 |
| 9:P:97:PRO:HD2 | 10:Q:52:HIS:CE1 | 1.72 | 1.18 |
| 10:Q:91:LEU:CG | 12:V:184:LEU:HD22 | 1.73 | 1.18 |
| 5:E:247:VAL:N | 6:F:229:LYS:HB2 | 1.58 | 1.18 |
| 8:O:530:PRO:HG2 | 11:R:27:TRP:CZ3 | 1.79 | 1.18 |
| 8:O:554:THR:H | 11:R:32:LEU:CB | 1.54 | 1.18 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 9:P:16:THR:OG1 | 10:Q:5:PHE:HE1 | 0.84 | 1.18 |
| 12:V:73:GLN:HG2 | 12:V:143:ASP:C | 1.62 | 1.18 |
| 5:E:243:ASN:CA | 6:F:229:LYS:HE2 | 1.73 | 1.17 |
| 6:F:261:TYR:CG | 13:G:170:ILE:HD11 | 1.78 | 1.17 |
| 8:O:32:ARG:NE | 8:O:35:TRP:CE3 | 1.99 | 1.17 |
| 8:O:692:LYS:NZ | 8:O:743:TYR:CE2 | 2.12 | 1.17 |
| 9:P:12:THR:CA | 10:Q:15:GLU:HB2 | 1.73 | 1.17 |
| 2:B:21:SER:N | 8:O:652:LYS:HG2 | 1.57 | 1.17 |
| 2:B:22:GLU:O | 8:O:647:LYS:CE | 1.90 | 1.17 |
| 2:B:297:GLN:HE22 | 11:R:70:VAL:CB | 1.51 | 1.17 |
| 7:H:194:GLU:N | 13:G:191:GLN:CG | 2.06 | 1.17 |
| 8:O:43:TYR:CE1 | 10:Q:48:GLN:OE1 | 1.96 | 1.17 |
| 12:V:73:GLN:CB | 12:V:141:ASN:O | 1.90 | 1.17 |
| 12:V:146:PRO:CA | 12:V:148:PHE:N | 2.08 | 1.17 |
| 12:V:146:PRO:HA | 12:V:148:PHE:N | 1.58 | 1.17 |
| 8:O:553:LEU:HA | 11:R:32:LEU:N | 1.58 | 1.17 |
| 2:B:260:GLU:OE2 | 11:R:66:GLU:HB2 | 1.42 | 1.17 |
| 8:O:511:VAL:CG1 | 8:O:551:ARG:CZ | 2.22 | 1.17 |
| 12:V:146:PRO:HA | 12:V:147:ILE:C | 1.63 | 1.17 |
| 2:B:292:ASN:CG | 11:R:71:ALA:HB2 | 1.65 | 1.16 |
| 2:B:427:TRP:HD1 | 5:E:270:SER:HA | 1.09 | 1.16 |
| 4:D:315:LEU:CG | 13:G:137:TYR:CD2 | 2.27 | 1.16 |
| 8:O:503:LEU:HB2 | 8:O:504:GLY:N | 1.56 | 1.16 |
| 8:O:530:PRO:CD | 11:R:27:TRP:HH2 | 1.43 | 1.16 |
| 9:P:4:PHE:HZ | 10:Q:66:LYS:CD | 1.32 | 1.16 |
| 13:G:140:ILE:HG23 | 13:G:141:ILE:HG13 | 1.26 | 1.16 |
| 1:A:467:GLN:CG | 2:B:418:GLY:CA | 2.13 | 1.16 |
| 8:O:511:VAL:HG12 | 8:O:551:ARG:CZ | 1.74 | 1.16 |
| 10:Q:88:LEU:CD2 | 12:V:179:ASP:CG | 2.14 | 1.16 |
| 2:B:441:LYS:NZ | 6:F:303:ASN:OD1 | 1.77 | 1.16 |
| 4:D:389:SER:HB2 | 4:D:394:GLU:OE1 | 1.41 | 1.16 |
| 5:E:244:LYS:HE2 | 6:F:230:MET:HA | 1.24 | 1.16 |
| 8:O:103:CYS:CA | 10:Q:35:GLY:CA | 2.22 | 1.16 |
| 2:B:14:GLU:OE2 | 2:B:67:TRP:CG | 1.99 | 1.16 |
| 5:E:279:GLN:HG3 | 5:E:294:ARG:CD | 1.75 | 1.16 |
| 5:E:327:LEU:CD2 | 13:G:181:CYS:O | 1.93 | 1.16 |
| 8:O:35:TRP:CB | 10:Q:39:GLU:CG | 2.22 | 1.16 |
| 9:P:17:ASP:OD2 | 10:Q:65:LEU:CD2 | 1.94 | 1.16 |
| 2:B:441:LYS:HG3 | 6:F:306:VAL:CG2 | 1.61 | 1.16 |
| 10:Q:73:ASP:OD1 | 12:V:154:PRO:HA | 1.43 | 1.16 |
| 8:O:564:VAL:N | 11:R:25:LYS:HE2 | 1.60 | 1.15 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:733:ARG:NH2 | 11:R:96:LEU:HD21 | 1.61 | 1.15 |
| 9:P:12:THR:HA | 10:Q:15:GLU:HB2 | 1.17 | 1.15 |
| 2:B:22:GLU:O | 8:O:647:LYS:HE3 | 1.00 | 1.15 |
| 2:B:297:GLN:CD | 11:R:70:VAL:HG11 | 1.64 | 1.15 |
| 2:B:424:LEU:HD12 | 6:F:289:MET:CE | 1.75 | 1.15 |
| 5:E:279:GLN:CG | 5:E:294:ARG:CD | 2.24 | 1.15 |
| 8:O:490:PHE:HE1 | 8:O:539:MET:CB | 1.59 | 1.15 |
| 9:P:93:PHE:HD1 | 10:Q:16:TYR:OH | 1.07 | 1.15 |
| 1:A:418:VAL:HG23 | 2:B:401:ARG:CZ | 1.77 | 1.15 |
| 2:B:17:ASP:HB3 | 2:B:64:LYS:HD2 | 1.21 | 1.15 |
| 2:B:11:ASP:OD1 | 2:B:67:TRP:CH2 | 1.98 | 1.15 |
| 4:D:388:ILE:CG2 | 4:D:396:THR:OG1 | 1.85 | 1.15 |
| 5:E:250:LEU:HD21 | 13:G:185:LEU:HD22 | 1.21 | 1.14 |
| 2:B:438:VAL:HG11 | 6:F:302:MET:HG2 | 1.17 | 1.14 |
| 5:E:250:LEU:CD2 | 13:G:185:LEU:HD22 | 1.77 | 1.14 |
| 8:O:508:GLN:NE2 | 8:O:559:LEU:O | 1.79 | 1.14 |
| 9:P:93:PHE:CE1 | 10:Q:55:GLU:CG | 2.20 | 1.14 |
| 5:E:242:TRP:CZ3 | 6:F:219:GLU:HB2 | 1.82 | 1.14 |
| 8:O:563:GLU:HA | 11:R:25:LYS:HE3 | 1.29 | 1.14 |
| 9:P:4:PHE:CD1 | 10:Q:62:ASN:OD1 | 2.00 | 1.14 |
| 2:B:424:LEU:HD13 | 6:F:289:MET:SD | 1.87 | 1.13 |
| 8:O:484:ALA:CA | 8:O:507:PHE:HE2 | 1.60 | 1.13 |
| 8:O:563:GLU:CG | 11:R:27:TRP:HB2 | 1.75 | 1.13 |
| 8:O:733:ARG:NH2 | 11:R:96:LEU:CD2 | 2.10 | 1.13 |
| 2:B:14:GLU:CG | 2:B:67:TRP:CD1 | 2.31 | 1.13 |
| 4:D:388:ILE:CG2 | 4:D:393:PRO:CB | 2.25 | 1.13 |
| 8:O:567:ASN:O | 11:R:21:ARG:HB3 | 0.97 | 1.13 |
| 10:Q:91:LEU:CG | 12:V:184:LEU:HD13 | 1.78 | 1.13 |
| 2:B:297:GLN:NE2 | 11:R:70:VAL:HB | 1.54 | 1.13 |
| 2:B:424:LEU:CD1 | 6:F:289:MET:CE | 2.25 | 1.13 |
| 8:O:692:LYS:HD2 | 8:O:743:TYR:HB3 | 1.19 | 1.13 |
| 8:O:692:LYS:CD | 8:O:743:TYR:CB | 2.25 | 1.13 |
| 10:Q:91:LEU:CD2 | 12:V:184:LEU:CB | 2.08 | 1.13 |
| 2:B:296:SER:C | 11:R:67:GLU:CG | 2.17 | 1.13 |
| 8:O:530:PRO:CG | 11:R:27:TRP:HZ3 | 1.62 | 1.13 |
| 8:O:554:THR:HB | 11:R:32:LEU:HD13 | 1.21 | 1.13 |
| 9:P:28:LYS:O | 9:P:30:ILE:HD13 | 1.47 | 1.13 |
| 10:Q:80:PHE:O | 12:V:161:ARG:CG | 1.97 | 1.13 |
| 10:Q:91:LEU:CD2 | 12:V:184:LEU:CG | 2.07 | 1.13 |
| 8:O:505:ILE:HG21 | 11:R:27:TRP:CE3 | 1.83 | 1.12 |
| 13:G:169:ASN:O | 13:G:173:THR:HG23 | 1.41 | 1.12 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 2:B:24:SER:OG | 8:O:652:LYS:CE | 1.95 | 1.12 |
| 8:O:569:LEU:O | 11:R:18:LYS:HD3 | 1.39 | 1.12 |
| 9:P:11:LYS:CE | 10:Q:14:LYS:HZ2 | 1.56 | 1.12 |
| 5:E:332:ASN:HB2 | 13:G:176:GLU:O | 1.30 | 1.12 |
| 6:F:170:SER:HA | 6:F:182:LEU:O | 1.46 | 1.12 |
| 8:O:103:CYS:CA | 10:Q:35:GLY:HA3 | 1.79 | 1.12 |
| 9:P:69:PRO:CA | 10:Q:62:ASN:HD22 | 1.51 | 1.12 |
| 5:E:318:LEU:HD23 | 7:H:200:LEU:HD21 | 1.32 | 1.12 |
| 8:O:291:LYS:HA | 8:O:294:MET:HB3 | 1.28 | 1.12 |
| 8:O:553:LEU:HA | 11:R:32:LEU:H | 1.00 | 1.12 |
| 1:A:467:GLN:NE2 | 2:B:422:THR:CG2 | 2.12 | 1.12 |
| 1:A:467:GLN:HE22 | 2:B:422:THR:CG2 | 1.63 | 1.12 |
| 5:E:332:ASN:ND2 | 13:G:180:GLY:N | 1.96 | 1.12 |
| 8:O:508:GLN:HG2 | 8:O:559:LEU:HD12 | 1.13 | 1.12 |
| 8:O:725:LEU:CG | 11:R:46:ARG:HH22 | 1.60 | 1.12 |
| 2:B:14:GLU:HB3 | 2:B:18:LEU:HD12 | 1.20 | 1.11 |
| 5:E:294:ARG:HA | 5:E:295:LYS:HE2 | 1.19 | 1.11 |
| 2:B:260:GLU:OE2 | 11:R:66:GLU:CD | 1.89 | 1.11 |
| 5:E:331:ILE:C | 13:G:180:GLY:CA | 2.14 | 1.11 |
| 6:F:267:LEU:CD1 | 13:G:177:TRP:CG | 2.33 | 1.11 |
| 8:O:612:LYS:HG2 | 8:O:657:MET:CG | 1.80 | 1.11 |
| 13:G:169:ASN:O | 13:G:173:THR:HG21 | 1.47 | 1.11 |
| 8:O:490:PHE:CE1 | 8:O:539:MET:CB | 2.32 | 1.11 |
| 9:P:11:LYS:NZ | 10:Q:14:LYS:HG3 | 1.66 | 1.11 |
| 2:B:18:LEU:HD13 | 8:O:648:ARG:NE | 1.66 | 1.11 |
| 2:B:18:LEU:HB3 | 8:O:648:ARG:HD3 | 1.30 | 1.11 |
| 5:E:323:ILE:HG21 | 13:G:188:ILE:HD11 | 1.15 | 1.11 |
| 8:O:110:THR:HG21 | 10:Q:28:THR:CA | 1.80 | 1.11 |
| 8:O:568:TYR:OH | 11:R:22:PHE:CZ | 2.02 | 1.11 |
| 8:O:572:PRO:O | 11:R:17:ALA:CA | 1.86 | 1.11 |
| 10:Q:91:LEU:CD1 | 12:V:184:LEU:HD22 | 1.80 | 1.11 |
| 2:B:292:ASN:OD1 | 11:R:102:GLU:OE2 | 1.67 | 1.10 |
| 4:D:388:ILE:CB | 4:D:396:THR:OG1 | 1.99 | 1.10 |
| 1:A:433:VAL:HA | 1:A:436:LEU:HB3 | 1.32 | 1.10 |
| 9:P:13:THR:O | 10:Q:16:TYR:C | 1.89 | 1.10 |
| 4:D:315:LEU:HD21 | 13:G:137:TYR:HB3 | 1.10 | 1.10 |
| 8:O:612:LYS:CG | 8:O:657:MET:SD | 2.38 | 1.10 |
| 8:O:687:ILE:CD1 | 8:O:706:GLN:NE2 | 2.08 | 1.10 |
| 13:G:69:LEU:HD12 | 13:G:73:GLY:HA3 | 1.20 | 1.10 |
| 2:B:21:SER:C | 8:O:652:LYS:CD | 2.19 | 1.10 |
| 2:B:236:VAL:O | 2:B:239:GLU:HB3 | 1.52 | 1.10 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:E:242:TRP:C | 6:F:229:LYS:HZ3 | 1.55 | 1.10 |
| 8:O:569:LEU:CG | 11:R:20:LYS:N | 2.13 | 1.10 |
| 9:P:97:PRO:HD3 | 10:Q:52:HIS:HE1 | 0.97 | 1.10 |
| 3:C:351:ILE:HB | 7:H:125:TYR:HA | 1.26 | 1.10 |
| 4:D:266:LYS:HA | 4:D:271:ARG:HB2 | 1.31 | 1.10 |
| 6:F:217:VAL:CG2 | 13:G:192:VAL:CG1 | 2.30 | 1.10 |
| 8:O:530:PRO:CG | 11:R:27:TRP:CZ3 | 2.34 | 1.10 |
| 8:O:727:ASP:HB3 | 11:R:54:ILE:H | 1.10 | 1.10 |
| 8:O:731:ILE:HG13 | 8:O:743:TYR:HA | 1.21 | 1.10 |
| 2:B:424:LEU:HA | 5:E:266:VAL:CG1 | 1.71 | 1.09 |
| 5:E:243:ASN:HA | 6:F:229:LYS:HZ1 | 1.03 | 1.09 |
| 8:O:103:CYS:CB | 10:Q:35:GLY:CA | 1.80 | 1.09 |
| 8:O:422:PHE:HA | 8:O:425:ILE:HD13 | 1.33 | 1.09 |
| 8:O:688:MET:CE | 8:O:725:LEU:HD13 | 1.80 | 1.09 |
| 2:B:21:SER:H | 8:O:652:LYS:CD | 1.63 | 1.09 |
| 4:D:314:LYS:HD3 | 13:G:137:TYR:HE1 | 1.11 | 1.09 |
| 4:D:314:LYS:CB | 13:G:137:TYR:CE1 | 2.35 | 1.09 |
| 5:E:249:THR:HA | 6:F:219:GLU:O | 1.39 | 1.09 |
| 5:E:326:LYS:CA | 13:G:184:VAL:HG11 | 1.81 | 1.09 |
| 6:F:217:VAL:CB | 13:G:192:VAL:CG1 | 2.24 | 1.09 |
| 8:O:512:LEU:CG | 8:O:552:LYS:O | 2.00 | 1.09 |
| 9:P:15:PHE:CB | 10:Q:18:ILE:HD12 | 1.78 | 1.09 |
| 1:A:418:VAL:HB | 2:B:401:ARG:HB2 | 1.29 | 1.09 |
| 2:B:296:SER:C | 11:R:67:GLU:HG3 | 1.72 | 1.09 |
| 8:O:567:ASN:HA | 11:R:23:GLU:HG2 | 1.30 | 1.09 |
| 9:P:28:LYS:HE3 | 9:P:44:LEU:HD12 | 1.12 | 1.09 |
| 8:O:567:ASN:HA | 11:R:23:GLU:HB3 | 1.33 | 1.09 |
| 9:P:71:ALA:N | 10:Q:59:GLU:HG2 | 1.68 | 1.09 |
| 9:P:93:PHE:HE1 | 10:Q:16:TYR:CE2 | 1.44 | 1.09 |
| 1:A:297:ARG:NH1 | 12:V:142:VAL:HG11 | 1.66 | 1.09 |
| 4:D:315:LEU:HD21 | 13:G:137:TYR:CB | 1.83 | 1.09 |
| 5:E:333:ILE:O | 13:G:177:TRP:HB2 | 0.92 | 1.09 |
| 8:O:503:LEU:HD22 | 8:O:532:GLU:HG2 | 1.10 | 1.09 |
| 8:O:554:THR:CA | 11:R:32:LEU:HD12 | 1.83 | 1.09 |
| 9:P:29:ARG:CB | 9:P:33:GLY:HA3 | 1.82 | 1.09 |
| 2:B:19:GLU:CB | 8:O:652:LYS:N | 2.10 | 1.08 |
| 5:E:252:SER:HB3 | 6:F:220:HIS:O | 1.54 | 1.08 |
| 8:O:505:ILE:HD12 | 8:O:533:LEU:CD2 | 1.83 | 1.08 |
| 8:O:657:MET:O | 8:O:658:GLN:N | 1.86 | 1.08 |
| 9:P:11:LYS:CE | 10:Q:14:LYS:HZ3 | 1.57 | 1.08 |
| 2:B:32:LEU:CD2 | 8:O:649:THR:OG1 | 2.00 | 1.08 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 2:B:427:TRP:HD1 | 5:E:270:SER:CA | 1.65 | 1.08 |
| 3:C:9:VAL:HG13 | 3:C:48:ALA:HA | 1.31 | 1.08 |
| 4:D:317:ASN:HA | 4:D:361:PHE:HB2 | 1.32 | 1.08 |
| 5:E:326:LYS:CD | 13:G:184:VAL:HG13 | 1.78 | 1.08 |
| 8:O:103:CYS:O | 10:Q:36:PRO:CD | 2.00 | 1.08 |
| 12:V:146:PRO:CA | 12:V:147:ILE:CA | 2.11 | 1.08 |
| 2:B:5:GLU:OE1 | 2:B:9:MET:SD | 2.11 | 1.08 |
| 5:E:247:VAL:HA | 6:F:228:ILE:CG2 | 1.84 | 1.08 |
| 5:E:279:GLN:HG3 | 5:E:294:ARG:NE | 1.62 | 1.08 |
| 5:E:326:LYS:CG | 13:G:184:VAL:CG1 | 2.29 | 1.08 |
| 8:O:676:ARG:HD2 | 8:O:710:ARG:HH21 | 1.17 | 1.08 |
| 9:P:16:THR:HA | 10:Q:19:SER:H | 1.08 | 1.08 |
| 9:P:27:LEU:CD2 | 9:P:44:LEU:O | 2.00 | 1.08 |
| 9:P:99:LEU:HB3 | 9:P:103:MET:HG3 | 1.14 | 1.08 |
| 8:O:563:GLU:HA | 11:R:25:LYS:CE | 1.81 | 1.08 |
| 2:B:18:LEU:HD23 | 2:B:27:GLU:HB3 | 1.24 | 1.08 |
| 8:O:657:MET:O | 8:O:658:GLN:CA | 2.00 | 1.08 |
| 5:E:125:LYS:HG2 | 5:E:130:LEU:HA | 1.36 | 1.07 |
| 5:E:332:ASN:ND2 | 13:G:179:ASP:HB2 | 1.69 | 1.07 |
| 8:O:692:LYS:CD | 8:O:743:TYR:HB3 | 1.84 | 1.07 |
| 2:B:14:GLU:HG2 | 2:B:67:TRP:CD1 | 1.87 | 1.07 |
| 2:B:420:ARG:CB | 5:E:263:THR:HG22 | 1.84 | 1.07 |
| 5:E:323:ILE:HG12 | 13:G:188:ILE:HG21 | 1.09 | 1.07 |
| 8:O:676:ARG:CZ | 8:O:710:ARG:NH2 | 2.18 | 1.07 |
| 9:P:43:ARG:HB3 | 9:P:78:ALA:HB3 | 1.34 | 1.07 |
| 9:P:93:PHE:CE1 | 10:Q:55:GLU:HG3 | 1.66 | 1.07 |
| 13:G:170:ILE:O | 13:G:173:THR:OG1 | 1.70 | 1.07 |
| 2:B:21:SER:H | 8:O:652:LYS:CG | 1.66 | 1.07 |
| 7:H:201:THR:HG23 | 13:G:195:ALA:HB2 | 1.10 | 1.07 |
| 8:O:26:MET:CE | 8:O:90:TYR:O | 2.00 | 1.07 |
| 8:O:490:PHE:O | 8:O:494:ILE:N | 1.74 | 1.07 |
| 8:O:687:ILE:HD11 | 8:O:706:GLN:HE22 | 0.93 | 1.07 |
| 12:V:71:PRO:HB3 | 12:V:110:HIS:HB3 | 1.37 | 1.07 |
| 2:B:14:GLU:CB | 2:B:18:LEU:HD11 | 1.74 | 1.07 |
| 5:E:246:TRP:CZ3 | 6:F:229:LYS:HA | 1.88 | 1.07 |
| 8:O:527:PHE:CE2 | 8:O:529:ILE:N | 2.21 | 1.07 |
| 2:B:296:SER:HB2 | 11:R:67:GLU:HG2 | 1.14 | 1.07 |
| 4:D:304:VAL:HA | 4:D:308:ASN:HB3 | 1.37 | 1.07 |
| 9:P:99:LEU:C | 9:P:100:PRO:O | 1.92 | 1.07 |
| 5:E:245:TYR:CD2 | 6:F:222:ILE:HD11 | 1.88 | 1.06 |
| 5:E:285:PHE:CZ | 12:V:62:VAL:HG21 | 1.88 | 1.06 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:E:323:ILE:CB | 13:G:188:ILE:HD13 | 1.85 | 1.06 |
| 6:F:217:VAL:HG12 | 13:G:192:VAL:HG21 | 1.32 | 1.06 |
| 8:O:530:PRO:HG2 | 11:R:27:TRP:HZ3 | 1.11 | 1.06 |
| 9:P:4:PHE:HZ | 10:Q:66:LYS:HD2 | 1.16 | 1.06 |
| 9:P:14:ILE:CD1 | 10:Q:17:GLU:OE1 | 2.03 | 1.06 |
| 12:V:146:PRO:HD3 | 12:V:148:PHE:CD1 | 1.88 | 1.06 |
| 1:A:297:ARG:HH11 | 12:V:142:VAL:HG21 | 1.04 | 1.06 |
| 2:B:210:ASN:HB3 | 2:B:213:LYS:HE2 | 1.38 | 1.06 |
| 2:B:296:SER:OG | 11:R:67:GLU:OE2 | 1.73 | 1.06 |
| 2:B:368:ARG:HD3 | 4:D:353:ASP:HB2 | 1.33 | 1.06 |
| 5:E:78:MET:HB2 | 5:E:110:GLN:HA | 1.34 | 1.06 |
| 6:F:217:VAL:HG21 | 13:G:192:VAL:HG13 | 1.11 | 1.06 |
| 6:F:258:ARG:HD2 | 13:G:160:ARG:N | 1.68 | 1.06 |
| 8:O:569:LEU:CD1 | 11:R:19:LYS:N | 2.06 | 1.06 |
| 8:O:676:ARG:NE | 8:O:710:ARG:NE | 2.04 | 1.06 |
| 2:B:427:TRP:CB | 5:E:270:SER:HB2 | 1.86 | 1.06 |
| 2:B:14:GLU:CD | 2:B:67:TRP:NE1 | 2.09 | 1.06 |
| 9:P:23:THR:HA | 9:P:56:THR:HA | 1.36 | 1.06 |
| 2:B:18:LEU:HD22 | 8:O:648:ARG:HD2 | 1.35 | 1.05 |
| 2:B:424:LEU:CD1 | 6:F:289:MET:HE2 | 1.85 | 1.05 |
| 8:O:530:PRO:HD3 | 11:R:27:TRP:HH2 | 0.95 | 1.05 |
| 8:O:568:TYR:OH | 11:R:22:PHE:CD1 | 1.99 | 1.05 |
| 8:O:676:ARG:NE | 8:O:710:ARG:CZ | 2.18 | 1.05 |
| 8:O:676:ARG:CZ | 8:O:710:ARG:CZ | 2.34 | 1.05 |
| 8:O:676:ARG:HE | 8:O:710:ARG:NE | 1.53 | 1.05 |
| 9:P:11:LYS:HZ1 | 10:Q:14:LYS:CE | 1.68 | 1.05 |
| 9:P:15:PHE:HB2 | 10:Q:18:ILE:HD12 | 1.12 | 1.05 |
| 12:V:146:PRO:C | 12:V:147:ILE:HA | 1.76 | 1.05 |
| 13:G:117:LEU:HD21 | 13:G:128:LEU:HD12 | 1.29 | 1.05 |
| 5:E:250:LEU:CB | 6:F:228:ILE:HD11 | 1.86 | 1.05 |
| 5:E:279:GLN:HG2 | 5:E:298:ASP:HB3 | 1.25 | 1.05 |
| 8:O:106:ARG:NH1 | 10:Q:27:PRO:O | 1.87 | 1.05 |
| 8:O:527:PHE:HB3 | 8:O:529:ILE:HD12 | 1.07 | 1.05 |
| 9:P:14:ILE:HD13 | 10:Q:17:GLU:OE1 | 1.55 | 1.05 |
| 4:D:101:GLU:HG3 | 4:D:137:LYS:HB3 | 1.35 | 1.05 |
| 4:D:141:VAL:HG13 | 4:D:174:LEU:HD22 | 1.39 | 1.05 |
| 8:O:49:TYR:CZ | 10:Q:92:LEU:HD11 | 1.90 | 1.05 |
| 1:A:343:GLN:HA | 1:A:347:ILE:HB | 1.33 | 1.05 |
| 5:E:237:LEU:HD13 | 6:F:48:ILE:HG22 | 1.37 | 1.05 |
| 5:E:250:LEU:C | 6:F:228:ILE:HD11 | 1.77 | 1.05 |
| 5:E:293:ASP:HA | 5:E:295:LYS:HA | 1.38 | 1.05 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 8:O:563:GLU:C | 11:R:25:LYS:HE2 | 1.75 | 1.05 |
| 8:O:676:ARG:CD | 8:O:710:ARG:NH2 | 2.14 | 1.05 |
| 4:D:373:GLN:NE2 | 13:G:155:ASP:HB3 | 0.98 | 1.05 |
| 5:E:241:LEU:HD13 | 6:F:190:LEU:HB2 | 1.34 | 1.05 |
| 5:E:246:TRP:HB3 | 6:F:219:GLU:CD | 1.76 | 1.05 |
| 8:O:529:ILE:HA | 8:O:533:LEU:HD12 | 1.31 | 1.05 |
| 8:O:684:ILE:HG22 | 8:O:725:LEU:HD11 | 1.38 | 1.05 |
| 4:D:127:LEU:HD13 | 4:D:151:ILE:HG12 | 1.36 | 1.04 |
| 5:E:250:LEU:O | 5:E:328:PHE:CE2 | 2.11 | 1.04 |
| 5:E:323:ILE:CG1 | 13:G:188:ILE:CD1 | 2.32 | 1.04 |
| 6:F:70:GLY:O | 6:F:124:TRP:HA | 1.56 | 1.04 |
| 8:O:32:ARG:CG | 10:Q:38:ARG:HB3 | 1.87 | 1.04 |
| 8:O:484:ALA:HA | 8:O:507:PHE:HE2 | 0.89 | 1.04 |
| 2:B:296:SER:HB2 | 11:R:67:GLU:CG | 1.86 | 1.04 |
| 8:O:7:VAL:HA | 8:O:53:LEU:HD11 | 1.38 | 1.04 |
| 2:B:18:LEU:HB3 | 8:O:648:ARG:CD | 1.86 | 1.04 |
| 2:B:192:THR:CG2 | 8:O:474:HIS:NE2 | 2.21 | 1.04 |
| 2:B:295:ASP:O | 11:R:70:VAL:O | 1.76 | 1.04 |
| 2:B:439:VAL:CB | 3:C:243:LYS:NZ | 2.04 | 1.04 |
| 5:E:250:LEU:CD2 | 5:E:323:ILE:HG22 | 1.86 | 1.04 |
| 8:O:483:SER:O | 8:O:507:PHE:CZ | 2.11 | 1.04 |
| 8:O:676:ARG:NE | 8:O:710:ARG:HE | 1.56 | 1.04 |
| 13:G:94:ASN:HA | 13:G:97:LYS:HD2 | 1.40 | 1.04 |
| 3:C:43:ASP:HA | 3:C:58:VAL:HG13 | 1.40 | 1.04 |
| 8:O:49:TYR:HE1 | 10:Q:92:LEU:HD12 | 0.88 | 1.04 |
| 9:P:16:THR:HA | 10:Q:19:SER:N | 1.70 | 1.04 |
| 10:Q:88:LEU:HD22 | 12:V:179:ASP:CB | 1.85 | 1.04 |
| 2:B:296:SER:CA | 11:R:67:GLU:HG2 | 1.86 | 1.03 |
| 3:C:22:THR:HA | 3:C:95:TYR:HB3 | 1.37 | 1.03 |
| 4:D:55:GLU:HA | 4:D:59:LEU:HD21 | 1.39 | 1.03 |
| 8:O:103:CYS:C | 10:Q:35:GLY:HA3 | 1.79 | 1.03 |
| 8:O:676:ARG:HH21 | 8:O:710:ARG:CB | 1.71 | 1.03 |
| 8:O:693:VAL:C | 8:O:699:LEU:HD23 | 1.78 | 1.03 |
| 2:B:19:GLU:CB | 8:O:652:LYS:H | 1.67 | 1.03 |
| 2:B:297:GLN:CD | 11:R:70:VAL:HG21 | 1.78 | 1.03 |
| 2:B:368:ARG:HD3 | 4:D:353:ASP:CB | 1.87 | 1.03 |
| 2:B:424:LEU:HD12 | 6:F:289:MET:HE2 | 1.35 | 1.03 |
| 5:E:242:TRP:CE2 | 6:F:219:GLU:OE2 | 2.12 | 1.03 |
| 5:E:243:ASN:CA | 6:F:229:LYS:HZ1 | 1.70 | 1.03 |
| 5:E:280:LEU:N | 5:E:298:ASP:OD2 | 1.91 | 1.03 |
| 8:O:491:ASN:O | 8:O:495:LYS:HG3 | 1.53 | 1.03 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:O:567:ASN:CA | 11:R:23:GLU:CG | 2.36 | 1.03 |
| 8:O:575:ALA:HB1 | 8:O:653:ILE:HG12 | 1.37 | 1.03 |
| 2:B:205:TYR:HA | 2:B:208:GLN:HB2 | 1.39 | 1.03 |
| 5:E:243:ASN:O | 6:F:229:LYS:HE2 | 1.59 | 1.03 |
| 5:E:285:PHE:CE2 | 12:V:62:VAL:HG21 | 1.94 | 1.03 |
| 6:F:151:PHE:O | 6:F:167:VAL:HA | 1.59 | 1.03 |
| 7:H:33:THR:HG22 | 7:H:35:PRO:HD2 | 1.36 | 1.03 |
| 8:O:567:ASN:CA | 11:R:23:GLU:HG2 | 1.86 | 1.03 |
| 2:B:297:GLN:N | 11:R:67:GLU:OE2 | 1.91 | 1.03 |
| 4:D:235:LEU:HA | 4:D:300:LEU:HD22 | 1.38 | 1.03 |
| 5:E:285:PHE:CG | 12:V:62:VAL:HG11 | 1.93 | 1.03 |
| 7:H:209:ASN:C | 13:G:202:HIS:CD2 | 2.30 | 1.03 |
| 8:O:102:ASP:HA | 8:O:105:TYR:HB3 | 1.34 | 1.03 |
| 8:O:505:ILE:C | 11:R:27:TRP:C | 2.16 | 1.03 |
| 5:E:279:GLN:CD | 5:E:298:ASP:HB2 | 1.79 | 1.02 |
| 6:F:258:ARG:HD2 | 13:G:159:GLY:CA | 1.89 | 1.02 |
| 9:P:26:GLU:C | 9:P:28:LYS:N | 2.10 | 1.02 |
| 10:Q:67:TYR:HB2 | 12:V:155:VAL:HG21 | 1.03 | 1.02 |
| 12:V:140:LEU:HD23 | 12:V:147:ILE:N | 1.65 | 1.02 |
| 13:G:47:LEU:HD12 | 13:G:52:VAL:HG23 | 1.40 | 1.02 |
| 2:B:251:PHE:HA | 2:B:254:ALA:HB3 | 1.42 | 1.02 |
| 2:B:292:ASN:OD1 | 11:R:71:ALA:HB1 | 1.60 | 1.02 |
| 3:C:85:ILE:HG21 | 3:C:124:LEU:HA | 1.41 | 1.02 |
| 5:E:243:ASN:CA | 6:F:229:LYS:CE | 2.32 | 1.02 |
| 7:H:194:GLU:N | 13:G:187:GLY:O | 1.91 | 1.02 |
| 7:H:201:THR:HG21 | 13:G:195:ALA:HB2 | 1.06 | 1.02 |
| 9:P:7:ILE:HD11 | 9:P:27:LEU:O | 1.59 | 1.02 |
| 12:V:86:PRO:HB2 | 12:V:98:TYR:HB2 | 1.39 | 1.02 |
| 2:B:441:LYS:HG3 | 6:F:306:VAL:HG21 | 1.08 | 1.02 |
| 4:D:384:LEU:O | 4:D:387:LYS:CB | 2.06 | 1.02 |
| 5:E:332:ASN:ND2 | 13:G:179:ASP:CB | 2.22 | 1.02 |
| 6:F:258:ARG:HD2 | 13:G:159:GLY:HA2 | 1.36 | 1.02 |
| 7:H:80:ARG:HB3 | 7:H:89:ILE:HG12 | 1.37 | 1.02 |
| 7:H:123:GLN:HA | 7:H:166:LYS:HE3 | 1.41 | 1.02 |
| 1:A:467:GLN:OE1 | 2:B:422:THR:CG2 | 2.07 | 1.02 |
| 2:B:295:ASP:HB3 | 11:R:71:ALA:HA | 1.41 | 1.02 |
| 5:E:246:TRP:CZ2 | 6:F:229:LYS:O | 2.12 | 1.02 |
| 7:H:209:ASN:O | 13:G:202:HIS:NE2 | 1.91 | 1.02 |
| 8:O:676:ARG:HH21 | 8:O:710:ARG:CG | 1.72 | 1.02 |
| 12:V:74:VAL:HG23 | 12:V:140:LEU:N | 1.75 | 1.02 |
| 2:B:21:SER:O | 8:O:652:LYS:HD3 | 1.58 | 1.02 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 4:D:314:LYS:HD3 | 13:G:137:TYR:CE1 | 1.94 | 1.02 |
| 8:O:575:ALA:HB2 | 8:O:650:LYS:HG2 | 1.38 | 1.02 |
| 2:B:27:GLU:CD | 2:B:64:LYS:HG2 | 1.81 | 1.01 |
| 4:D:388:ILE:HG21 | 4:D:396:THR:HB | 1.36 | 1.01 |
| 8:O:35:TRP:HB2 | 10:Q:39:GLU:HG3 | 1.37 | 1.01 |
| 8:O:35:TRP:HB3 | 10:Q:39:GLU:CG | 1.84 | 1.01 |
| 9:P:17:ASP:OD2 | 10:Q:65:LEU:HD22 | 1.60 | 1.01 |
| 9:P:30:ILE:CD1 | 10:Q:5:PHE:CZ | 2.41 | 1.01 |
| 6:F:254:HIS:CG | 13:G:162:ILE:HG12 | 1.90 | 1.01 |
| 9:P:14:ILE:CD1 | 10:Q:17:GLU:CD | 2.16 | 1.01 |
| 12:V:73:GLN:HG3 | 12:V:144:GLY:HA3 | 1.06 | 1.01 |
| 12:V:146:PRO:HB3 | 12:V:148:PHE:H | 1.21 | 1.01 |
| 5:E:323:ILE:HB | 6:F:221:LEU:HD21 | 1.42 | 1.01 |
| 6:F:264:CYS:SG | 13:G:174:LEU:HD23 | 2.00 | 1.01 |
| 8:O:297:MET:HG3 | 8:O:301:LEU:HD12 | 1.41 | 1.01 |
| 8:O:725:LEU:HD21 | 11:R:46:ARG:HH22 | 1.20 | 1.01 |
| 1:A:146:GLN:HA | 1:A:149:PRO:HG2 | 1.42 | 1.01 |
| 2:B:24:SER:N | 8:O:652:LYS:HZ1 | 1.52 | 1.01 |
| 2:B:420:ARG:HB3 | 5:E:263:THR:HG22 | 1.41 | 1.01 |
| 5:E:246:TRP:CB | 6:F:219:GLU:OE2 | 2.09 | 1.01 |
| 5:E:332:ASN:HB3 | 13:G:176:GLU:O | 1.55 | 1.01 |
| 7:H:201:THR:HG22 | 13:G:195:ALA:HB2 | 1.40 | 1.01 |
| 5:E:242:TRP:O | 6:F:229:LYS:NZ | 1.94 | 1.01 |
| 5:E:252:SER:OG | 5:E:320:SER:HB2 | 0.84 | 1.01 |
| 6:F:217:VAL:HG11 | 13:G:192:VAL:HG22 | 1.04 | 1.01 |
| 6:F:267:LEU:HD22 | 13:G:177:TRP:NE1 | 1.74 | 1.01 |
| 8:O:569:LEU:O | 11:R:18:LYS:HE3 | 1.56 | 1.01 |
| 8:O:688:MET:HE1 | 8:O:725:LEU:CB | 1.90 | 1.01 |
| 10:Q:67:TYR:CB | 12:V:155:VAL:HG21 | 1.85 | 1.01 |
| 2:B:21:SER:O | 8:O:652:LYS:HB3 | 1.60 | 1.00 |
| 2:B:292:ASN:OD1 | 11:R:71:ALA:CB | 2.08 | 1.00 |
| 2:B:420:ARG:HG2 | 5:E:263:THR:HG22 | 1.32 | 1.00 |
| 4:D:388:ILE:CB | 4:D:393:PRO:HB3 | 1.86 | 1.00 |
| 5:E:242:TRP:HH2 | 6:F:219:GLU:CB | 1.69 | 1.00 |
| 5:E:250:LEU:N | 6:F:225:HIS:HB2 | 1.73 | 1.00 |
| 6:F:254:HIS:CE1 | 13:G:162:ILE:HD13 | 1.96 | 1.00 |
| 8:O:594:VAL:HG13 | 8:O:598:GLU:HB2 | 1.41 | 1.00 |
| 8:O:692:LYS:HD2 | 8:O:743:TYR:HB2 | 1.43 | 1.00 |
| 13:G:69:LEU:HD23 | 13:G:96:LEU:HD11 | 1.40 | 1.00 |
| 2:B:420:ARG:HG2 | 5:E:263:THR:CB | 1.89 | 1.00 |
| 2:B:427:TRP:HB2 | 5:E:270:SER:HB2 | 1.43 | 1.00 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 2:B:441:LYS:CD | 6:F:306:VAL:HB | 1.87 | 1.00 |
| 7:H:84:ARG:HA | 7:H:89:ILE:HD11 | 1.36 | 1.00 |
| 8:O:103:CYS:CA | 10:Q:35:GLY:HA2 | 1.86 | 1.00 |
| 8:O:469:PHE:HA | 8:O:472:LYS:HD2 | 1.42 | 1.00 |
| 1:A:420:ALA:HB3 | 1:A:460:LEU:HB3 | 1.42 | 1.00 |
| 4:D:2:ALA:HA | 4:D:44:ALA:HB2 | 1.43 | 1.00 |
| 4:D:9:LEU:HD22 | 4:D:26:TYR:HA | 1.42 | 1.00 |
| 5:E:117:MET:HG2 | 5:E:120:TYR:HB3 | 1.42 | 1.00 |
| 5:E:159:GLN:HG2 | 5:E:165:PHE:HB3 | 1.43 | 1.00 |
| 5:E:244:LYS:CE | 6:F:230:MET:CA | 2.40 | 1.00 |
| 5:E:247:VAL:H | 6:F:229:LYS:HB2 | 1.16 | 1.00 |
| 2:B:298:GLU:HG2 | 11:R:35:TRP:HE3 | 1.26 | 1.00 |
| 4:D:384:LEU:HD12 | 4:D:387:LYS:CG | 1.92 | 1.00 |
| 8:O:490:PHE:HA | 8:O:543:PHE:CE2 | 1.96 | 1.00 |
| 9:P:43:ARG:HG2 | 9:P:88:LEU:HD12 | 1.44 | 1.00 |
| 9:P:12:THR:HA | 10:Q:15:GLU:CB | 1.90 | 1.00 |
| 9:P:100:PRO:HD3 | 10:Q:85:GLU:HA | 1.41 | 1.00 |
| 12:V:118:LEU:HD12 | 12:V:120:ARG:HD3 | 1.44 | 1.00 |
| 3:C:85:ILE:HG22 | 3:C:126:GLN:HB2 | 1.44 | 1.00 |
| 8:O:32:ARG:HG3 | 10:Q:38:ARG:HB3 | 1.39 | 1.00 |
| 8:O:511:VAL:CG1 | 8:O:551:ARG:NH2 | 2.22 | 1.00 |
| 8:O:559:LEU:HB2 | 11:R:30:VAL:CG2 | 1.90 | 1.00 |
| 9:P:13:THR:N | 10:Q:15:GLU:HB2 | 1.75 | 1.00 |
| 5:E:243:ASN:CA | 6:F:229:LYS:NZ | 2.23 | 0.99 |
| 7:H:46:LEU:HA | 7:H:109:LEU:HD13 | 1.44 | 0.99 |
| 9:P:15:PHE:CB | 10:Q:18:ILE:HG13 | 1.92 | 0.99 |
| 5:E:280:LEU:HG | 5:E:298:ASP:CG | 1.81 | 0.99 |
| 12:V:73:GLN:CG | 12:V:144:GLY:CA | 2.40 | 0.99 |
| 2:B:10:CYS:SG | 2:B:70:LYS:HE3 | 2.02 | 0.99 |
| 9:P:15:PHE:CB | 10:Q:18:ILE:CG1 | 2.39 | 0.99 |
| 9:P:93:PHE:CD1 | 10:Q:55:GLU:HB2 | 1.96 | 0.99 |
| 2:B:116:LEU:HD23 | 2:B:128:LEU:HD11 | 1.41 | 0.99 |
| 5:E:57:ILE:HG12 | 5:E:92:ILE:HB | 1.44 | 0.99 |
| 6:F:152:LEU:HA | 6:F:166:SER:O | 1.61 | 0.99 |
| 8:O:551:ARG:HB2 | 11:R:33:TRP:O | 1.19 | 0.99 |
| 3:C:317:LEU:HD23 | 3:C:322:MET:HE2 | 1.44 | 0.99 |
| 2:B:14:GLU:CB | 2:B:18:LEU:HD12 | 1.80 | 0.99 |
| 5:E:246:TRP:CE3 | 6:F:229:LYS:HA | 1.97 | 0.99 |
| 8:O:32:ARG:CZ | 10:Q:38:ARG:CA | 2.36 | 0.99 |
| 8:O:563:GLU:HG3 | 11:R:27:TRP:HB2 | 1.02 | 0.99 |
| 10:Q:88:LEU:HD21 | 12:V:179:ASP:HB3 | 1.39 | 0.99 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:32:ARG:NH1 | 10:Q:38:ARG:CA | 2.25 | 0.99 |
| 2:B:424:LEU:CA | 5:E:266:VAL:CG1 | 2.23 | 0.99 |
| 8:O:32:ARG:HH11 | 10:Q:38:ARG:CA | 1.75 | 0.99 |
| 8:O:43:TYR:OH | 10:Q:48:GLN:OE1 | 1.81 | 0.99 |
| 8:O:725:LEU:CG | 11:R:46:ARG:NH2 | 2.23 | 0.99 |
| 10:Q:60:TYR:CB | 12:V:158:LEU:HB2 | 1.93 | 0.99 |
| 6:F:123:GLY:HA2 | 6:F:142:VAL:HG11 | 1.41 | 0.99 |
| 8:O:35:TRP:HB3 | 10:Q:39:GLU:HG3 | 1.00 | 0.99 |
| 1:A:198:ARG:HG2 | 1:A:224:ALA:HB1 | 1.45 | 0.99 |
| 5:E:327:LEU:HD22 | 13:G:181:CYS:HB2 | 1.42 | 0.99 |
| 8:O:32:ARG:NE | 10:Q:38:ARG:HB3 | 1.76 | 0.99 |
| 9:P:15:PHE:CG | 10:Q:58:VAL:HG21 | 1.98 | 0.99 |
| 1:A:125:THR:HA | 1:A:210:ASP:HA | 1.45 | 0.98 |
| 5:E:285:PHE:CE1 | 12:V:62:VAL:HG21 | 1.97 | 0.98 |
| 8:O:490:PHE:CZ | 8:O:494:ILE:HG21 | 1.97 | 0.98 |
| 8:O:527:PHE:CB | 8:O:529:ILE:HD12 | 1.91 | 0.98 |
| 8:O:611:THR:HB | 8:O:630:GLU:HA | 1.39 | 0.98 |
| 8:O:700:ILE:HB | 8:O:718:ILE:HG13 | 1.42 | 0.98 |
| 8:O:569:LEU:HD12 | 11:R:19:LYS:H | 0.86 | 0.98 |
| 4:D:314:LYS:HB3 | 13:G:137:TYR:CZ | 1.97 | 0.98 |
| 8:O:530:PRO:HD3 | 11:R:27:TRP:CH2 | 1.80 | 0.98 |
| 2:B:105:ARG:NH2 | 8:O:451:MET:CE | 2.25 | 0.98 |
| 12:V:84:VAL:HB | 12:V:101:LEU:HB2 | 1.45 | 0.98 |
| 12:V:146:PRO:HB3 | 12:V:148:PHE:HB2 | 1.45 | 0.98 |
| 1:A:433:VAL:HG22 | 1:A:436:LEU:HD23 | 1.44 | 0.98 |
| 2:B:21:SER:N | 8:O:652:LYS:CE | 2.12 | 0.98 |
| 3:C:328:LEU:HB3 | 3:C:334:ALA:HB2 | 1.45 | 0.98 |
| 5:E:246:TRP:CZ2 | 6:F:229:LYS:CA | 2.43 | 0.98 |
| 8:O:379:ARG:HD3 | 8:O:387:ALA:HB2 | 1.44 | 0.98 |
| 8:O:566:MET:HA | 11:R:18:LYS:CB | 1.92 | 0.98 |
| 10:Q:91:LEU:HD11 | 12:V:184:LEU:HD22 | 1.42 | 0.98 |
| 5:E:167:ALA:HB3 | 5:E:186:PHE:HB2 | 1.44 | 0.98 |
| 5:E:318:LEU:HB2 | 6:F:286:VAL:HG11 | 1.43 | 0.98 |
| 6:F:254:HIS:NE2 | 13:G:44:GLY:HA3 | 1.78 | 0.98 |
| 6:F:267:LEU:HD22 | 13:G:177:TRP:CD1 | 1.99 | 0.98 |
| 4:D:388:ILE:HD13 | 4:D:396:THR:HG21 | 0.99 | 0.98 |
| 8:O:688:MET:HE1 | 8:O:725:LEU:HB3 | 1.00 | 0.98 |
| 9:P:29:ARG:CB | 9:P:33:GLY:CA | 2.42 | 0.98 |
| 12:V:73:GLN:CG | 12:V:144:GLY:HA3 | 1.92 | 0.98 |
| 5:E:243:ASN:C | 6:F:229:LYS:CE | 2.32 | 0.98 |
| 5:E:327:LEU:HD21 | 13:G:181:CYS:O | 1.60 | 0.98 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 7:H:155:ALA:HA | 7:H:162:VAL:HG13 | 1.45 | 0.98 |
| 8:O:35:TRP:CD1 | 10:Q:38:ARG:NH2 | 2.04 | 0.98 |
| 1:A:297:ARG:NH1 | 12:V:142:VAL:CG2 | 2.26 | 0.98 |
| 1:A:297:ARG:CZ | 12:V:142:VAL:HG11 | 1.93 | 0.98 |
| 9:P:28:LYS:O | 9:P:30:ILE:HA | 1.64 | 0.98 |
| 2:B:439:VAL:CB | 3:C:243:LYS:HZ3 | 1.67 | 0.97 |
| 5:E:249:THR:CA | 6:F:219:GLU:O | 1.97 | 0.97 |
| 6:F:261:TYR:CB | 13:G:170:ILE:HD11 | 1.95 | 0.97 |
| 2:B:21:SER:N | 8:O:652:LYS:CG | 2.23 | 0.97 |
| 2:B:330:LEU:HA | 2:B:333:ASN:HB2 | 1.47 | 0.97 |
| 9:P:71:ALA:N | 10:Q:59:GLU:CD | 2.18 | 0.97 |
| 2:B:297:GLN:HE22 | 11:R:70:VAL:HB | 0.83 | 0.97 |
| 8:O:243:LEU:HD22 | 8:O:267:GLN:HG2 | 1.47 | 0.97 |
| 9:P:4:PHE:HE2 | 10:Q:66:LYS:CG | 1.73 | 0.97 |
| 2:B:441:LYS:CD | 6:F:303:ASN:OD1 | 2.13 | 0.97 |
| 5:E:273:LEU:HD23 | 5:E:303:ALA:HB1 | 1.47 | 0.97 |
| 7:H:209:ASN:OXT | 13:G:202:HIS:CG | 2.17 | 0.97 |
| 1:A:341:GLU:HG3 | 1:A:344:ARG:HH21 | 1.25 | 0.97 |
| 7:H:114:ARG:HA | 7:H:137:VAL:HG11 | 1.43 | 0.97 |
| 8:O:503:LEU:HB3 | 8:O:504:GLY:N | 1.75 | 0.97 |
| 3:C:339:LEU:O | 3:C:343:GLU:HB2 | 1.65 | 0.97 |
| 5:E:185:ALA:HB3 | 5:E:224:LEU:HB2 | 1.43 | 0.97 |
| 5:E:250:LEU:C | 6:F:228:ILE:CD1 | 2.32 | 0.97 |
| 8:O:32:ARG:HE | 10:Q:38:ARG:HB3 | 1.28 | 0.97 |
| 8:O:107:TYR:CD1 | 10:Q:28:THR:CG2 | 2.47 | 0.97 |
| 8:O:490:PHE:CE2 | 8:O:494:ILE:HG21 | 1.99 | 0.97 |
| 8:O:571:LYS:O | 11:R:18:LYS:CG | 2.12 | 0.97 |
| 2:B:438:VAL:HG11 | 6:F:302:MET:CG | 1.95 | 0.97 |
| 4:D:388:ILE:HG22 | 4:D:393:PRO:HB2 | 1.46 | 0.97 |
| 5:E:285:PHE:CG | 12:V:62:VAL:CG1 | 2.48 | 0.97 |
| 8:O:548:PHE:HB2 | 11:R:33:TRP:CE3 | 2.00 | 0.97 |
| 8:O:692:LYS:CE | 8:O:743:TYR:CD2 | 2.48 | 0.97 |
| 2:B:41:ALA:HB2 | 2:B:53:SER:HB2 | 1.46 | 0.97 |
| 5:E:250:LEU:O | 6:F:228:ILE:HD11 | 1.63 | 0.97 |
| 5:E:323:ILE:HG12 | 13:G:188:ILE:HD13 | 1.46 | 0.97 |
| 8:O:395:CYS:HA | 8:O:398:LEU:HB2 | 1.46 | 0.97 |
| 8:O:505:ILE:HD11 | 8:O:532:GLU:HB2 | 1.47 | 0.97 |
| 9:P:12:THR:C | 10:Q:15:GLU:HB2 | 1.85 | 0.97 |
| 9:P:13:THR:C | 10:Q:16:TYR:CA | 2.26 | 0.96 |
| 12:V:175:TYR:HA | 12:V:178:LEU:HG | 1.47 | 0.96 |
| 4:D:334:LYS:HG3 | 4:D:337:LYS:HD3 | 1.45 | 0.96 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:E:247:VAL:N | 6:F:229:LYS:CB | 2.19 | 0.96 |
| 8:O:566:MET:HA | 11:R:18:LYS:CA | 1.87 | 0.96 |
| 2:B:427:TRP:CD1 | 5:E:270:SER:HA | 1.99 | 0.96 |
| 4:D:388:ILE:HD13 | 4:D:396:THR:CG2 | 1.94 | 0.96 |
| 8:O:103:CYS:SG | 10:Q:35:GLY:HA2 | 2.04 | 0.96 |
| 2:B:424:LEU:HA | 5:E:266:VAL:HG12 | 1.44 | 0.96 |
| 8:O:44:ALA:O | 8:O:48:ALA:HB2 | 1.66 | 0.96 |
| 9:P:15:PHE:CE2 | 10:Q:16:TYR:HB2 | 1.98 | 0.96 |
| 1:A:467:GLN:CD | 2:B:422:THR:CG2 | 2.33 | 0.96 |
| 5:E:245:TYR:CD1 | 6:F:222:ILE:HD11 | 2.01 | 0.96 |
| 8:O:409:ASN:HA | 8:O:412:GLU:HB2 | 1.48 | 0.96 |
| 5:E:279:GLN:NE2 | 5:E:295:LYS:HE3 | 1.78 | 0.96 |
| 8:O:565:LYS:HG2 | 8:O:574:VAL:HG13 | 1.44 | 0.96 |
| 5:E:272:LYS:O | 5:E:275:GLN:HB2 | 1.65 | 0.96 |
| 8:O:148:ARG:HB3 | 8:O:191:VAL:HG11 | 1.47 | 0.96 |
| 8:O:695:ARG:HA | 8:O:740:GLU:HA | 1.43 | 0.96 |
| 10:Q:67:TYR:HE2 | 12:V:155:VAL:N | 1.44 | 0.96 |
| 2:B:296:SER:CB | 11:R:67:GLU:CG | 2.43 | 0.96 |
| 2:B:427:TRP:CD1 | 5:E:273:LEU:CD1 | 2.41 | 0.96 |
| 7:H:129:ILE:HG23 | 7:H:160:ARG:HD3 | 1.47 | 0.96 |
| 9:P:97:PRO:HD2 | 10:Q:52:HIS:NE2 | 1.81 | 0.96 |
| 10:Q:60:TYR:CD2 | 12:V:158:LEU:HB2 | 1.99 | 0.96 |
| 13:G:108:MET:HB3 | 13:G:111:ILE:HD13 | 1.47 | 0.96 |
| 1:A:135:HIS:HB2 | 1:A:162:LEU:HD22 | 1.46 | 0.96 |
| 5:E:247:VAL:O | 6:F:228:ILE:HB | 1.63 | 0.96 |
| 5:E:326:LYS:CB | 13:G:184:VAL:HG12 | 1.66 | 0.96 |
| 7:H:39:GLN:HG3 | 7:H:101:THR:HG23 | 1.48 | 0.96 |
| 8:O:494:ILE:H | 8:O:494:ILE:HD12 | 1.28 | 0.95 |
| 8:O:503:LEU:O | 8:O:504:GLY:CA | 2.14 | 0.95 |
| 1:A:246:VAL:HG12 | 1:A:319:LEU:HD23 | 1.44 | 0.95 |
| 5:E:298:ASP:C | 5:E:299:LYS:N | 2.18 | 0.95 |
| 8:O:560:CYS:HB2 | 8:O:579:THR:HG23 | 1.47 | 0.95 |
| 2:B:14:GLU:HG2 | 2:B:67:TRP:HD1 | 1.30 | 0.95 |
| 2:B:427:TRP:HE1 | 5:E:273:LEU:CD1 | 1.73 | 0.95 |
| 3:C:69:PRO:HD2 | 3:C:114:ARG:HH21 | 1.29 | 0.95 |
| 7:H:194:GLU:HB2 | 7:H:197:LEU:HB2 | 1.48 | 0.95 |
| 5:E:326:LYS:CG | 13:G:184:VAL:HG11 | 1.92 | 0.95 |
| 5:E:56:LYS:HG3 | 5:E:89:THR:HG21 | 1.45 | 0.95 |
| 8:O:249:ARG:HG3 | 8:O:252:LYS:HD2 | 1.49 | 0.95 |
| 1:A:213:ASP:HB3 | 1:A:216:ASN:HD22 | 1.31 | 0.95 |
| 5:E:246:TRP:CZ2 | 6:F:229:LYS:HA | 1.73 | 0.95 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 6:F:258:ARG:CD | 13:G:159:GLY:HA2 | 1.95 | 0.95 |
| 7:H:209:ASN:OXT | 13:G:202:HIS:CD2 | 2.19 | 0.95 |
| 8:O:544:TYR:OH | 11:R:33:TRP:CE3 | 2.20 | 0.95 |
| 5:E:245:TYR:OH | 6:F:222:ILE:HG12 | 0.78 | 0.95 |
| 8:O:490:PHE:CD1 | 8:O:494:ILE:HG12 | 2.01 | 0.95 |
| 3:C:52:GLN:HA | 3:C:88:CYS:HB3 | 1.48 | 0.95 |
| 2:B:17:ASP:CB | 2:B:64:LYS:HD2 | 1.97 | 0.95 |
| 2:B:245:HIS:HA | 2:B:248:GLU:HB3 | 1.48 | 0.95 |
| 5:E:332:ASN:HD22 | 13:G:180:GLY:N | 1.61 | 0.95 |
| 9:P:30:ILE:CD1 | 10:Q:5:PHE:CE2 | 2.49 | 0.95 |
| 1:A:277:GLN:HG2 | 1:A:280:ALA:HA | 1.47 | 0.95 |
| 2:B:165:TYR:HA | 2:B:168:LEU:HB3 | 1.44 | 0.95 |
| 6:F:72:LEU:HA | 6:F:86:SER:HB3 | 1.49 | 0.95 |
| 8:O:107:TYR:HD1 | 10:Q:28:THR:HG22 | 0.99 | 0.95 |
| 13:G:44:GLY:HA3 | 13:G:162:ILE:HD13 | 1.48 | 0.95 |
| 5:E:293:ASP:CA | 5:E:295:LYS:HA | 1.77 | 0.94 |
| 6:F:261:TYR:HA | 13:G:170:ILE:HD12 | 1.47 | 0.94 |
| 1:A:418:VAL:HB | 2:B:401:ARG:CB | 1.96 | 0.94 |
| 8:O:32:ARG:HE | 8:O:35:TRP:CE3 | 1.21 | 0.94 |
| 8:O:32:ARG:HE | 8:O:35:TRP:HE3 | 1.03 | 0.94 |
| 8:O:688:MET:CE | 8:O:725:LEU:CB | 2.45 | 0.94 |
| 1:A:339:ARG:HH12 | 1:A:370:TYR:HA | 1.33 | 0.94 |
| 8:O:681:GLN:NE2 | 8:O:728:LYS:HZ2 | 1.64 | 0.94 |
| 9:P:98:GLU:O | 10:Q:85:GLU:HG3 | 1.66 | 0.94 |
| 8:O:490:PHE:HB2 | 8:O:543:PHE:CE2 | 2.02 | 0.94 |
| 10:Q:67:TYR:HB2 | 12:V:155:VAL:CG2 | 1.97 | 0.94 |
| 1:A:286:LYS:HB3 | 1:A:305:CYS:HB3 | 1.46 | 0.94 |
| 3:C:192:TYR:HA | 3:C:195:LEU:HB2 | 1.47 | 0.94 |
| 5:E:245:TYR:CE1 | 6:F:222:ILE:CG1 | 2.50 | 0.94 |
| 5:E:323:ILE:HG22 | 6:F:221:LEU:HD11 | 1.49 | 0.94 |
| 9:P:28:LYS:HE2 | 9:P:44:LEU:HD11 | 0.97 | 0.94 |
| 3:C:348:PHE:HB3 | 3:C:361:HIS:HB2 | 1.49 | 0.94 |
| 8:O:103:CYS:O | 10:Q:35:GLY:HA3 | 1.67 | 0.94 |
| 8:O:512:LEU:HB2 | 8:O:551:ARG:HB3 | 1.46 | 0.94 |
| 8:O:729:GLN:HG3 | 11:R:55:GLU:HG3 | 1.50 | 0.94 |
| 10:Q:91:LEU:HG | 12:V:184:LEU:HD22 | 1.45 | 0.94 |
| 4:D:323:GLU:CD | 13:G:125:LEU:HD23 | 1.88 | 0.94 |
| 7:H:46:LEU:HD23 | 7:H:109:LEU:HB2 | 1.50 | 0.94 |
| 9:P:103:MET:HA | 10:Q:84:THR:HG21 | 1.49 | 0.94 |
| 2:B:47:PRO:HA | 2:B:50:ALA:HB3 | 1.48 | 0.94 |
| 3:C:15:LEU:HD12 | 3:C:24:LEU:HD13 | 1.49 | 0.94 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 3:C:218:HIS:HA | 3:C:221:LEU:HB2 | 1.49 | 0.94 |
| 4:D:315:LEU:CD2 | 13:G:137:TYR:HB3 | 1.98 | 0.94 |
| 6:F:45:PRO:HD3 | 6:F:196:GLU:HG3 | 1.49 | 0.94 |
| 6:F:169:GLU:O | 6:F:183:PHE:HA | 1.65 | 0.94 |
| 8:O:486:LEU:HD23 | 8:O:489:LYS:HD2 | 1.49 | 0.94 |
| 8:O:564:VAL:HG23 | 11:R:19:LYS:HE2 | 1.46 | 0.94 |
| 8:O:727:ASP:HB3 | 11:R:54:ILE:N | 1.82 | 0.94 |
| 9:P:15:PHE:HB2 | 10:Q:18:ILE:HG13 | 1.43 | 0.94 |
| 1:A:467:GLN:CG | 2:B:418:GLY:C | 2.34 | 0.94 |
| 2:B:441:LYS:O | 6:F:310:ASN:OD1 | 1.84 | 0.94 |
| 5:E:311:THR:HB | 7:H:207:LEU:HD11 | 1.50 | 0.94 |
| 8:O:38:ARG:HH11 | 8:O:42:ILE:HD11 | 1.31 | 0.94 |
| 8:O:494:ILE:HG22 | 8:O:500:VAL:HG11 | 1.49 | 0.94 |
| 9:P:7:ILE:CD1 | 9:P:27:LEU:O | 2.15 | 0.94 |
| 9:P:93:PHE:CG | 10:Q:16:TYR:OH | 2.20 | 0.94 |
| 5:E:323:ILE:CG1 | 13:G:188:ILE:HG21 | 1.98 | 0.94 |
| 5:E:327:LEU:HD23 | 5:E:331:ILE:HD11 | 1.46 | 0.94 |
| 6:F:267:LEU:CD1 | 13:G:177:TRP:CD1 | 2.50 | 0.94 |
| 10:Q:91:LEU:HD23 | 12:V:184:LEU:HD12 | 1.48 | 0.94 |
| 2:B:442:LEU:HD22 | 6:F:309:PHE:HE2 | 1.31 | 0.93 |
| 3:C:231:SER:HA | 3:C:235:LEU:HD12 | 1.50 | 0.93 |
| 4:D:315:LEU:CG | 13:G:137:TYR:HD2 | 1.74 | 0.93 |
| 6:F:258:ARG:CD | 13:G:160:ARG:N | 2.30 | 0.93 |
| 8:O:327:THR:HA | 8:O:342:SER:HB3 | 1.47 | 0.93 |
| 8:O:508:GLN:CD | 8:O:559:LEU:CD1 | 2.35 | 0.93 |
| 8:O:676:ARG:HH21 | 8:O:710:ARG:HB3 | 1.32 | 0.93 |
| 1:A:95:MET:HB3 | 1:A:319:LEU:HD11 | 1.49 | 0.93 |
| 8:O:32:ARG:CD | 10:Q:38:ARG:HB3 | 1.97 | 0.93 |
| 8:O:656:SER:OG | 8:O:658:GLN:CG | 2.16 | 0.93 |
| 13:G:71:ALA:HB1 | 13:G:164:LYS:H | 1.29 | 0.93 |
| 5:E:158:ASN:HA | 5:E:161:PHE:HB2 | 1.48 | 0.93 |
| 5:E:248:ASN:HB3 | 6:F:222:ILE:O | 1.65 | 0.93 |
| 6:F:258:ARG:CD | 13:G:159:GLY:CA | 2.39 | 0.93 |
| 3:C:75:GLU:O | 3:C:78:PHE:HB3 | 1.68 | 0.93 |
| 4:D:73:LEU:HD22 | 4:D:84:ILE:HG21 | 1.49 | 0.93 |
| 5:E:279:GLN:CB | 5:E:298:ASP:CG | 2.27 | 0.93 |
| 5:E:279:GLN:HG3 | 5:E:294:ARG:HD3 | 1.49 | 0.93 |
| 1:A:132:GLU:HG2 | 1:A:164:THR:HG21 | 1.47 | 0.93 |
| 1:A:334:LEU:HD13 | 1:A:366:ILE:HG12 | 1.51 | 0.93 |
| 3:C:42:LEU:HB2 | 3:C:61:VAL:HG11 | 1.49 | 0.93 |
| 4:D:315:LEU:CD1 | 13:G:137:TYR:HD2 | 1.79 | 0.93 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 9:P:11:LYS:HZ3 | 10:Q:14:LYS:HZ2 | 0.96 | 0.93 |
| 9:P:11:LYS:O | 10:Q:15:GLU:N | 2.02 | 0.93 |
| 10:Q:91:LEU:CG | 12:V:184:LEU:CD2 | 2.47 | 0.93 |
| 5:E:323:ILE:HG12 | 13:G:188:ILE:CG2 | 1.97 | 0.93 |
| 6:F:267:LEU:HD13 | 13:G:177:TRP:CD2 | 2.04 | 0.93 |
| 8:O:568:TYR:CE1 | 11:R:22:PHE:CG | 2.56 | 0.93 |
| 1:A:339:ARG:NE | 2:B:394:LEU:HD11 | 1.84 | 0.93 |
| 3:C:112:VAL:HG13 | 3:C:151:LEU:HD11 | 1.50 | 0.93 |
| 8:O:505:ILE:O | 11:R:28:ASN:N | 2.00 | 0.93 |
| 1:A:251:TRP:HB3 | 1:A:292:ALA:HB2 | 1.51 | 0.93 |
| 3:C:202:LEU:HB2 | 3:C:230:VAL:HG11 | 1.49 | 0.93 |
| 5:E:79:GLY:O | 5:E:136:TRP:HA | 1.68 | 0.93 |
| 9:P:15:PHE:HB2 | 10:Q:18:ILE:HD11 | 1.50 | 0.93 |
| 11:R:45:CYS:HB3 | 11:R:53:CYS:HB2 | 1.48 | 0.93 |
| 4:D:205:ALA:HB2 | 4:D:232:CYS:HB2 | 1.47 | 0.93 |
| 4:D:388:ILE:HG23 | 4:D:393:PRO:HA | 1.51 | 0.93 |
| 13:G:56:ALA:HB1 | 13:G:64:LEU:HD13 | 1.51 | 0.93 |
| 4:D:305:ILE:HA | 4:D:309:LEU:HD12 | 1.50 | 0.92 |
| 5:E:285:PHE:CB | 12:V:62:VAL:HG13 | 1.98 | 0.92 |
| 5:E:56:LYS:HB2 | 5:E:91:ILE:HG12 | 1.49 | 0.92 |
| 9:P:11:LYS:HE2 | 10:Q:14:LYS:HZ3 | 0.76 | 0.92 |
| 2:B:427:TRP:CH2 | 6:F:293:GLY:HA2 | 2.05 | 0.92 |
| 2:B:427:TRP:HH2 | 6:F:293:GLY:CA | 1.81 | 0.92 |
| 5:E:246:TRP:CB | 6:F:219:GLU:CD | 2.37 | 0.92 |
| 8:O:489:LYS:HG2 | 8:O:492:ASN:HD21 | 1.31 | 0.92 |
| 8:O:555:TRP:HZ3 | 11:R:30:VAL:H | 0.96 | 0.92 |
| 8:O:566:MET:HA | 11:R:18:LYS:HB2 | 1.49 | 0.92 |
| 8:O:733:ARG:HH21 | 11:R:96:LEU:CD2 | 1.79 | 0.92 |
| 12:V:73:GLN:CG | 12:V:143:ASP:C | 2.38 | 0.92 |
| 1:A:271:ARG:HH21 | 1:A:274:ARG:HD3 | 1.34 | 0.92 |
| 2:B:441:LYS:CG | 6:F:306:VAL:HG21 | 1.99 | 0.92 |
| 5:E:326:LYS:HB3 | 13:G:184:VAL:HG12 | 0.92 | 0.92 |
| 8:O:505:ILE:O | 11:R:27:TRP:CA | 2.17 | 0.92 |
| 8:O:548:PHE:CB | 11:R:33:TRP:CE3 | 2.52 | 0.92 |
| 12:V:89:LEU:HD12 | 12:V:198:LEU:HB3 | 1.50 | 0.92 |
| 2:B:136:LEU:HD23 | 2:B:139:LEU:HD12 | 1.47 | 0.92 |
| 4:D:384:LEU:CD1 | 4:D:387:LYS:HE2 | 1.99 | 0.92 |
| 6:F:65:PRO:HB3 | 6:F:157:MET:HG3 | 1.50 | 0.92 |
| 8:O:106:ARG:CZ | 10:Q:27:PRO:O | 2.18 | 0.92 |
| 8:O:580:TYR:HB3 | 8:O:609:GLU:HB3 | 1.48 | 0.92 |
| 12:V:95:PRO:HB3 | 12:V:198:LEU:HD11 | 1.48 | 0.92 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 13:G:62:ALA:HB1 | 13:G:86:PRO:HD3 | 1.48 | 0.92 |
| 2:B:357:GLN:HA | 2:B:360:ILE:HD12 | 1.51 | 0.92 |
| 1:A:467:GLN:OE1 | 2:B:422:THR:HG23 | 1.65 | 0.92 |
| 5:E:250:LEU:O | 5:E:324:LYS:HG2 | 1.70 | 0.92 |
| 5:E:252:SER:CB | 6:F:220:HIS:O | 2.18 | 0.92 |
| 5:E:285:PHE:CB | 12:V:62:VAL:CG1 | 2.47 | 0.92 |
| 8:O:106:ARG:NH2 | 10:Q:31:ALA:HB2 | 1.84 | 0.92 |
| 8:O:113:ILE:HA | 8:O:117:LYS:HD2 | 1.50 | 0.92 |
| 8:O:462:LYS:HB2 | 8:O:470:THR:HG21 | 1.51 | 0.92 |
| 8:O:692:LYS:NZ | 8:O:743:TYR:HD2 | 1.63 | 0.92 |
| 9:P:11:LYS:HZ1 | 10:Q:14:LYS:NZ | 1.61 | 0.92 |
| 6:F:122:LEU:HD21 | 6:F:150:LEU:HD13 | 1.50 | 0.92 |
| 8:O:188:PHE:HB3 | 8:O:206:ILE:HD13 | 1.49 | 0.92 |
| 8:O:512:LEU:HG | 8:O:552:LYS:C | 1.85 | 0.92 |
| 5:E:242:TRP:C | 6:F:229:LYS:NZ | 2.22 | 0.92 |
| 1:A:502:VAL:H | 3:C:213:ALA:HA | 1.31 | 0.91 |
| 8:O:164:LEU:HD11 | 8:O:210:PRO:HB3 | 1.50 | 0.91 |
| 8:O:563:GLU:HG3 | 11:R:27:TRP:CA | 1.99 | 0.91 |
| 9:P:13:THR:C | 10:Q:16:TYR:C | 2.15 | 0.91 |
| 1:A:99:ARG:HH22 | 1:A:391:ASP:HA | 1.34 | 0.91 |
| 2:B:214:LEU:HA | 2:B:217:LEU:HD12 | 1.52 | 0.91 |
| 4:D:92:ILE:HD13 | 4:D:103:VAL:HG13 | 1.51 | 0.91 |
| 5:E:75:LEU:HD22 | 5:E:101:GLU:HG2 | 1.50 | 0.91 |
| 5:E:246:TRP:CD2 | 6:F:229:LYS:HA | 1.91 | 0.91 |
| 5:E:279:GLN:C | 5:E:298:ASP:CG | 2.24 | 0.91 |
| 8:O:511:VAL:O | 8:O:551:ARG:HB3 | 1.70 | 0.91 |
| 10:Q:91:LEU:HG | 12:V:184:LEU:CD2 | 2.00 | 0.91 |
| 12:V:146:PRO:HB3 | 12:V:148:PHE:N | 1.83 | 0.91 |
| 13:G:69:LEU:CD2 | 13:G:96:LEU:HD11 | 1.98 | 0.91 |
| 3:C:12:VAL:HG22 | 3:C:24:LEU:HD11 | 1.49 | 0.91 |
| 4:D:151:ILE:HA | 4:D:154:LEU:HD12 | 1.52 | 0.91 |
| 5:E:244:LYS:HE2 | 6:F:230:MET:CA | 2.00 | 0.91 |
| 8:O:640:LEU:HD23 | 11:R:20:LYS:HD2 | 1.51 | 0.91 |
| 2:B:22:GLU:N | 8:O:652:LYS:HD3 | 1.84 | 0.91 |
| 2:B:439:VAL:CB | 3:C:243:LYS:HZ2 | 1.73 | 0.91 |
| 7:H:154:GLN:HB3 | 7:H:163:LEU:HB2 | 1.50 | 0.91 |
| 5:E:106:ARG:HB2 | 5:E:109:ALA:HB2 | 1.51 | 0.91 |
| 8:O:555:TRP:HZ3 | 11:R:29:ALA:HB1 | 1.29 | 0.91 |
| 8:O:688:MET:SD | 8:O:731:ILE:HG22 | 2.10 | 0.91 |
| 9:P:4:PHE:HE2 | 10:Q:66:LYS:CD | 1.71 | 0.91 |
| 9:P:71:ALA:N | 10:Q:59:GLU:CG | 2.26 | 0.91 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 6:F:258:ARG:HD2 | 13:G:160:ARG:H | 1.33 | 0.91 |
| 9:P:27:LEU:CD2 | 9:P:44:LEU:HB2 | 2.01 | 0.91 |
| 4:D:319:ILE:HG23 | 4:D:324:LEU:HB2 | 1.53 | 0.91 |
| 6:F:274:LYS:N | 6:F:277:THR:HG1 | 1.69 | 0.91 |
| 8:O:110:THR:HG21 | 10:Q:28:THR:HA | 1.52 | 0.91 |
| 9:P:11:LYS:HZ1 | 10:Q:14:LYS:CG | 1.83 | 0.91 |
| 10:Q:88:LEU:CD2 | 12:V:179:ASP:OD2 | 2.17 | 0.91 |
| 4:D:389:SER:CB | 4:D:394:GLU:OE1 | 2.18 | 0.91 |
| 5:E:251:SER:HA | 5:E:324:LYS:HD3 | 1.52 | 0.91 |
| 12:V:146:PRO:CB | 12:V:148:PHE:N | 2.30 | 0.91 |
| 3:C:159:LEU:HA | 3:C:162:LEU:HB2 | 1.52 | 0.91 |
| 8:O:505:ILE:CG2 | 11:R:27:TRP:CE3 | 2.54 | 0.91 |
| 8:O:508:GLN:CD | 8:O:559:LEU:HD12 | 1.90 | 0.90 |
| 8:O:564:VAL:HG23 | 11:R:19:LYS:CE | 2.00 | 0.90 |
| 8:O:725:LEU:HG | 11:R:46:ARG:CZ | 2.02 | 0.90 |
| 9:P:15:PHE:CG | 10:Q:16:TYR:HB3 | 2.05 | 0.90 |
| 5:E:171:ASP:HB3 | 5:E:174:ARG:HB2 | 1.49 | 0.90 |
| 6:F:35:VAL:HG22 | 6:F:171:VAL:HG22 | 1.53 | 0.90 |
| 8:O:676:ARG:NH2 | 8:O:710:ARG:CB | 2.33 | 0.90 |
| 9:P:14:ILE:HD13 | 10:Q:17:GLU:OE2 | 1.70 | 0.90 |
| 2:B:442:LEU:HD22 | 6:F:309:PHE:CE2 | 2.04 | 0.90 |
| 5:E:332:ASN:ND2 | 13:G:179:ASP:C | 2.24 | 0.90 |
| 8:O:106:ARG:CZ | 10:Q:31:ALA:HB2 | 1.75 | 0.90 |
| 2:B:25:ASN:O | 2:B:28:PRO:CD | 2.18 | 0.90 |
| 2:B:192:THR:CG2 | 8:O:474:HIS:CE1 | 2.55 | 0.90 |
| 2:B:427:TRP:CD1 | 5:E:270:SER:CA | 2.52 | 0.90 |
| 3:C:12:VAL:HG13 | 3:C:24:LEU:HD21 | 1.52 | 0.90 |
| 6:F:267:LEU:HD23 | 6:F:269:VAL:HG23 | 1.50 | 0.90 |
| 8:O:32:ARG:CZ | 8:O:35:TRP:HZ3 | 1.84 | 0.90 |
| 8:O:567:ASN:C | 11:R:21:ARG:HB3 | 1.87 | 0.90 |
| 8:O:700:ILE:HD12 | 8:O:718:ILE:HB | 1.51 | 0.90 |
| 11:R:19:LYS:HD3 | 11:R:25:LYS:HZ3 | 1.33 | 0.90 |
| 13:G:34:VAL:HG11 | 13:G:43:PHE:HZ | 1.37 | 0.90 |
| 13:G:122:MET:HE2 | 13:G:131:LEU:HD12 | 1.52 | 0.90 |
| 3:C:82:GLN:HA | 3:C:85:ILE:HB | 1.52 | 0.90 |
| 8:O:23:ALA:O | 8:O:27:LEU:O | 1.89 | 0.90 |
| 12:V:74:VAL:HG23 | 12:V:140:LEU:H | 1.32 | 0.90 |
| 13:G:42:VAL:HA | 13:G:67:LEU:HD11 | 1.50 | 0.90 |
| 2:B:292:ASN:CG | 11:R:71:ALA:CB | 2.40 | 0.90 |
| 5:E:61:ALA:O | 5:E:65:MET:HB3 | 1.71 | 0.90 |
| 5:E:247:VAL:HA | 6:F:228:ILE:HB | 0.96 | 0.90 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:E:285:PHE:CD2 | 12:V:62:VAL:CG1 | 2.53 | 0.90 |
| 8:O:379:ARG:HG2 | 8:O:384:VAL:HG22 | 1.52 | 0.90 |
| 9:P:13:THR:N | 10:Q:15:GLU:CB | 2.32 | 0.90 |
| 2:B:79:ASN:HB2 | 2:B:88:MET:HB2 | 1.52 | 0.90 |
| 4:D:182:GLN:HA | 4:D:185:ILE:HD12 | 1.54 | 0.90 |
| 1:A:297:ARG:HH12 | 12:V:142:VAL:HG11 | 1.35 | 0.90 |
| 3:C:104:CYS:HA | 3:C:107:LEU:HD13 | 1.52 | 0.90 |
| 5:E:282:ARG:HA | 5:E:282:ARG:HH11 | 1.36 | 0.90 |
| 8:O:490:PHE:CA | 8:O:543:PHE:CE2 | 2.55 | 0.90 |
| 2:B:441:LYS:HD2 | 6:F:303:ASN:OD1 | 1.70 | 0.90 |
| 4:D:314:LYS:HB3 | 13:G:137:TYR:CD1 | 2.07 | 0.90 |
| 5:E:250:LEU:CD2 | 13:G:185:LEU:CD2 | 2.46 | 0.90 |
| 3:C:323:ALA:HA | 3:C:328:LEU:HB2 | 1.54 | 0.90 |
| 4:D:88:THR:HG22 | 4:D:92:ILE:HD11 | 1.53 | 0.90 |
| 4:D:388:ILE:HB | 4:D:393:PRO:HB3 | 1.52 | 0.90 |
| 5:E:28:ILE:HD11 | 5:E:56:LYS:HD3 | 1.53 | 0.90 |
| 5:E:250:LEU:CA | 6:F:228:ILE:HD12 | 2.00 | 0.90 |
| 12:V:74:VAL:HG21 | 12:V:111:SER:HB3 | 1.52 | 0.90 |
| 2:B:32:LEU:HD21 | 8:O:649:THR:HG1 | 1.20 | 0.89 |
| 8:O:721:CYS:O | 11:R:46:ARG:CD | 2.20 | 0.89 |
| 10:Q:91:LEU:HD21 | 12:V:184:LEU:HB3 | 0.92 | 0.89 |
| 12:V:74:VAL:CG2 | 12:V:140:LEU:N | 2.34 | 0.89 |
| 2:B:368:ARG:HG2 | 4:D:353:ASP:OD1 | 1.71 | 0.89 |
| 3:C:320:GLN:HB2 | 3:C:331:PRO:HD3 | 1.55 | 0.89 |
| 13:G:62:ALA:HA | 13:G:65:GLN:HE21 | 1.37 | 0.89 |
| 5:E:279:GLN:HG2 | 5:E:294:ARG:NE | 1.73 | 0.89 |
| 8:O:567:ASN:H | 11:R:19:LYS:CA | 1.85 | 0.89 |
| 8:O:569:LEU:CG | 11:R:19:LYS:H | 1.85 | 0.89 |
| 8:O:725:LEU:CG | 11:R:46:ARG:NH1 | 2.32 | 0.89 |
| 12:V:146:PRO:HB3 | 12:V:148:PHE:CB | 2.02 | 0.89 |
| 2:B:24:SER:N | 8:O:652:LYS:HZ2 | 1.59 | 0.89 |
| 8:O:32:ARG:NE | 8:O:35:TRP:HZ3 | 1.35 | 0.89 |
| 8:O:503:LEU:C | 8:O:504:GLY:N | 2.24 | 0.89 |
| 8:O:696:HIS:HB2 | 8:O:739:ASP:HA | 1.53 | 0.89 |
| 1:A:305:CYS:HA | 1:A:308:LEU:HD12 | 1.52 | 0.89 |
| 2:B:146:ARG:HG2 | 2:B:229:PRO:HG3 | 1.54 | 0.89 |
| 2:B:297:GLN:HE21 | 11:R:70:VAL:CG1 | 1.82 | 0.89 |
| 8:O:490:PHE:CA | 8:O:543:PHE:CZ | 2.55 | 0.89 |
| 8:O:505:ILE:HD12 | 8:O:533:LEU:HD23 | 1.53 | 0.89 |
| 12:V:203:GLN:O | 12:V:207:ALA:HA | 1.72 | 0.89 |
| 2:B:99:ILE:HG22 | 2:B:100:ARG:HG3 | 1.52 | 0.89 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 5:E:205:THR:HG23 | 5:E:302:LYS:HG2 | 1.52 | 0.89 |
| 8:O:555:TRP:HZ3 | 11:R:30:VAL:N | 1.68 | 0.89 |
| 9:P:97:PRO:HD3 | 10:Q:52:HIS:CE1 | 1.85 | 0.89 |
| 5:E:76:GLU:HB3 | 5:E:103:THR:HB | 1.55 | 0.89 |
| 8:O:567:ASN:N | 11:R:19:LYS:HA | 1.88 | 0.89 |
| 8:O:657:MET:SD | 8:O:657:MET:N | 2.36 | 0.89 |
| 9:P:11:LYS:NZ | 10:Q:14:LYS:CG | 2.35 | 0.89 |
| 3:C:233:ILE:HA | 3:C:301:SER:HB3 | 1.53 | 0.89 |
| 8:O:490:PHE:CD1 | 8:O:494:ILE:CG1 | 2.56 | 0.89 |
| 2:B:24:SER:H | 8:O:652:LYS:HZ1 | 1.06 | 0.89 |
| 2:B:420:ARG:CG | 5:E:263:THR:HG22 | 1.83 | 0.89 |
| 5:E:33:LYS:HD2 | 5:E:130:LEU:HB3 | 1.55 | 0.89 |
| 7:H:80:ARG:O | 7:H:84:ARG:N | 2.06 | 0.89 |
| 8:O:567:ASN:HB2 | 11:R:20:LYS:CA | 2.01 | 0.89 |
| 9:P:27:LEU:HD21 | 9:P:44:LEU:CB | 2.03 | 0.89 |
| 9:P:30:ILE:CD1 | 10:Q:5:PHE:HZ | 1.86 | 0.89 |
| 4:D:77:PRO:HB2 | 4:D:80:THR:HB | 1.53 | 0.88 |
| 5:E:242:TRP:O | 6:F:229:LYS:HD3 | 1.74 | 0.88 |
| 8:O:544:TYR:CE1 | 11:R:33:TRP:CD2 | 2.46 | 0.88 |
| 9:P:70:GLN:CA | 10:Q:59:GLU:CG | 2.51 | 0.88 |
| 13:G:47:LEU:HD12 | 13:G:52:VAL:CG2 | 2.02 | 0.88 |
| 1:A:411:ILE:HG23 | 1:A:448:LEU:HD13 | 1.52 | 0.88 |
| 5:E:280:LEU:HD11 | 5:E:300:LEU:HB2 | 1.54 | 0.88 |
| 6:F:167:VAL:O | 6:F:185:GLU:HA | 1.71 | 0.88 |
| 8:O:81:GLU:HA | 8:O:84:LEU:HB2 | 1.53 | 0.88 |
| 8:O:544:TYR:HE1 | 11:R:33:TRP:CD2 | 1.87 | 0.88 |
| 2:B:340:ASP:HB3 | 2:B:343:ILE:HB | 1.53 | 0.88 |
| 5:E:285:PHE:CD1 | 12:V:62:VAL:CG2 | 2.57 | 0.88 |
| 5:E:326:LYS:HB3 | 13:G:184:VAL:CB | 2.03 | 0.88 |
| 8:O:200:LEU:HA | 8:O:203:TYR:HB3 | 1.53 | 0.88 |
| 8:O:567:ASN:CB | 11:R:23:GLU:HG2 | 2.02 | 0.88 |
| 1:A:467:GLN:HE22 | 2:B:422:THR:H | 1.21 | 0.88 |
| 5:E:250:LEU:HD22 | 5:E:323:ILE:HG22 | 1.51 | 0.88 |
| 6:F:217:VAL:HG21 | 13:G:192:VAL:CG1 | 1.95 | 0.88 |
| 8:O:81:GLU:HG2 | 8:O:84:LEU:HD22 | 1.54 | 0.88 |
| 2:B:6:ASP:OD2 | 2:B:77:LYS:NZ | 2.04 | 0.88 |
| 5:E:80:LEU:HD23 | 5:E:117:MET:HB2 | 1.56 | 0.88 |
| 6:F:267:LEU:HB3 | 13:G:177:TRP:HD1 | 1.36 | 0.88 |
| 9:P:15:PHE:CZ | 10:Q:58:VAL:HG21 | 2.08 | 0.88 |
| 1:A:104:ALA:HB1 | 1:A:111:ARG:HA | 1.55 | 0.88 |
| 5:E:285:PHE:CD2 | 12:V:62:VAL:HG21 | 2.08 | 0.88 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:O:32:ARG:HH11 | 10:Q:38:ARG:HA | 1.09 | 0.88 |
| 6:F:261:TYR:CA | 13:G:170:ILE:HD12 | 2.02 | 0.88 |
| 8:O:563:GLU:CA | 11:R:25:LYS:HE2 | 2.04 | 0.88 |
| 2:B:11:ASP:OD1 | 2:B:67:TRP:HZ2 | 1.32 | 0.88 |
| 8:O:32:ARG:O | 8:O:35:TRP:N | 2.06 | 0.88 |
| 9:P:4:PHE:CE2 | 10:Q:66:LYS:HG3 | 2.05 | 0.88 |
| 9:P:30:ILE:HA | 10:Q:5:PHE:CE2 | 2.08 | 0.88 |
| 2:B:10:CYS:HA | 2:B:70:LYS:HD3 | 1.54 | 0.88 |
| 4:D:60:VAL:HG13 | 4:D:63:ARG:HD2 | 1.54 | 0.88 |
| 8:O:362:GLN:HA | 8:O:365:MET:HB2 | 1.54 | 0.88 |
| 8:O:386:LYS:HA | 8:O:389:GLU:HB2 | 1.56 | 0.88 |
| 8:O:391:LEU:O | 8:O:395:CYS:N | 2.07 | 0.88 |
| 9:P:15:PHE:CD2 | 10:Q:18:ILE:CD1 | 2.53 | 0.88 |
| 1:A:297:ARG:NH1 | 12:V:142:VAL:CG1 | 2.36 | 0.88 |
| 1:A:352:PHE:HA | 1:A:355:PHE:HD2 | 1.39 | 0.88 |
| 3:C:316:THR:HG21 | 3:C:357:MET:HB3 | 1.54 | 0.88 |
| 4:D:315:LEU:HD11 | 13:G:137:TYR:HD2 | 1.37 | 0.88 |
| 5:E:312:ILE:HA | 5:E:315:ILE:HD12 | 1.57 | 0.88 |
| 8:O:689:LYS:HA | 8:O:743:TYR:CE1 | 2.09 | 0.88 |
| 9:P:11:LYS:CE | 10:Q:14:LYS:HG3 | 2.03 | 0.88 |
| 9:P:70:GLN:O | 10:Q:59:GLU:CG | 2.07 | 0.88 |
| 1:A:78:GLU:HA | 1:A:107:CYS:HA | 1.55 | 0.87 |
| 3:C:322:MET:HA | 3:C:325:ARG:HB2 | 1.55 | 0.87 |
| 4:D:342:MET:HA | 4:D:345:GLU:HB2 | 1.55 | 0.87 |
| 8:O:520:THR:O | 8:O:556:LEU:HD21 | 1.74 | 0.87 |
| 8:O:571:LYS:HD3 | 8:O:642:MET:HA | 1.55 | 0.87 |
| 8:O:624:ASN:HB2 | 8:O:639:SER:HB2 | 1.54 | 0.87 |
| 9:P:99:LEU:O | 9:P:100:PRO:O | 1.89 | 0.87 |
| 13:G:101:ILE:HG22 | 13:G:116:LEU:HG | 1.54 | 0.87 |
| 3:C:390:LEU:HD22 | 6:F:302:MET:HA | 1.56 | 0.87 |
| 4:D:388:ILE:CG1 | 4:D:396:THR:HG21 | 2.04 | 0.87 |
| 5:E:148:SER:HB2 | 5:E:210:LYS:HG3 | 1.55 | 0.87 |
| 7:H:52:ASN:HA | 7:H:55:TYR:HD2 | 1.38 | 0.87 |
| 7:H:198:ALA:HA | 13:G:191:GLN:HE21 | 1.39 | 0.87 |
| 8:O:42:ILE:HD12 | 8:O:108:LEU:HD13 | 1.56 | 0.87 |
| 8:O:505:ILE:HD12 | 8:O:533:LEU:HD21 | 1.55 | 0.87 |
| 8:O:676:ARG:NH2 | 8:O:710:ARG:HB3 | 1.89 | 0.87 |
| 13:G:165:LYS:HG3 | 13:G:167:ILE:HD13 | 1.55 | 0.87 |
| 1:A:225:ARG:HA | 1:A:237:MET:HG3 | 1.56 | 0.87 |
| 1:A:417:TYR:CD1 | 2:B:402:ILE:HB | 2.09 | 0.87 |
| 2:B:18:LEU:HD22 | 2:B:28:PRO:CA | 2.05 | 0.87 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 3:C:94:ARG:HD2 | 3:C:131:MET:HG3 | 1.57 | 0.87 |
| 9:P:15:PHE:HD2 | 10:Q:18:ILE:HD11 | 1.15 | 0.87 |
| 10:Q:88:LEU:HD22 | 12:V:179:ASP:OD2 | 1.74 | 0.87 |
| 2:B:18:LEU:HD13 | 8:O:648:ARG:CZ | 2.03 | 0.87 |
| 2:B:427:TRP:HE1 | 5:E:273:LEU:HD11 | 1.27 | 0.87 |
| 4:D:238:ALA:HA | 4:D:242:ARG:HD3 | 1.57 | 0.87 |
| 7:H:43:LEU:HA | 7:H:46:LEU:HD12 | 1.54 | 0.87 |
| 13:G:117:LEU:CD2 | 13:G:128:LEU:HD12 | 2.03 | 0.87 |
| 2:B:89:MET:HG2 | 2:B:93:LYS:HE3 | 1.55 | 0.87 |
| 3:C:222:GLU:HG2 | 3:C:225:LYS:HD2 | 1.56 | 0.87 |
| 13:G:92:GLN:HA | 13:G:95:LYS:HD2 | 1.56 | 0.87 |
| 1:A:245:SER:HA | 1:A:248:LEU:HB2 | 1.53 | 0.87 |
| 2:B:155:LEU:HD12 | 2:B:158:LEU:HD12 | 1.54 | 0.87 |
| 8:O:694:LEU:HD21 | 8:O:699:LEU:CD2 | 2.04 | 0.87 |
| 3:C:46:LEU:HB3 | 3:C:58:VAL:HG22 | 1.56 | 0.87 |
| 9:P:4:PHE:CZ | 10:Q:66:LYS:CG | 2.53 | 0.87 |
| 9:P:99:LEU:HD12 | 9:P:103:MET:HB3 | 1.57 | 0.87 |
| 1:A:128:VAL:HA | 1:A:131:TYR:HB3 | 1.57 | 0.87 |
| 2:B:298:GLU:HG2 | 11:R:35:TRP:CE3 | 2.09 | 0.87 |
| 4:D:388:ILE:CG1 | 4:D:396:THR:OG1 | 2.23 | 0.87 |
| 5:E:96:PHE:H | 5:E:137:TYR:HB2 | 1.36 | 0.87 |
| 5:E:173:THR:HA | 5:E:176:ILE:HD12 | 1.56 | 0.87 |
| 5:E:282:ARG:HH11 | 5:E:282:ARG:CA | 1.87 | 0.87 |
| 6:F:43:LEU:HD22 | 6:F:84:MET:HB3 | 1.57 | 0.87 |
| 6:F:171:VAL:HB | 6:F:182:LEU:HD12 | 1.56 | 0.87 |
| 8:O:503:LEU:HD22 | 8:O:532:GLU:CG | 2.03 | 0.87 |
| 9:P:4:PHE:HE2 | 10:Q:66:LYS:HG3 | 1.34 | 0.87 |
| 9:P:4:PHE:CE1 | 10:Q:62:ASN:OD1 | 2.26 | 0.87 |
| 9:P:12:THR:HG23 | 10:Q:15:GLU:OE1 | 1.75 | 0.87 |
| 1:A:389:LEU:HD12 | 1:A:395:ALA:HA | 1.57 | 0.87 |
| 5:E:148:SER:O | 5:E:152:VAL:N | 2.08 | 0.87 |
| 8:O:552:LYS:HA | 11:R:33:TRP:HA | 0.88 | 0.87 |
| 8:O:725:LEU:HG | 11:R:46:ARG:NH2 | 1.88 | 0.87 |
| 13:G:167:ILE:H | 13:G:167:ILE:HD12 | 1.40 | 0.87 |
| 1:A:78:GLU:HB2 | 1:A:108:PRO:HD2 | 1.56 | 0.86 |
| 2:B:439:VAL:HB | 3:C:243:LYS:HZ3 | 1.25 | 0.86 |
| 13:G:34:VAL:HG11 | 13:G:43:PHE:CZ | 2.09 | 0.86 |
| 2:B:18:LEU:HD22 | 8:O:648:ARG:CD | 2.05 | 0.86 |
| 2:B:46:ASP:HB3 | 2:B:48:LYS:HE2 | 1.56 | 0.86 |
| 2:B:297:GLN:OE1 | 11:R:70:VAL:CG2 | 2.17 | 0.86 |
| 3:C:332:GLN:HA | 3:C:335:GLU:HG2 | 1.56 | 0.86 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:E:242:TRP:HH2 | 6:F:219:GLU:N | 1.73 | 0.86 |
| 5:E:326:LYS:CD | 13:G:184:VAL:HG11 | 1.92 | 0.86 |
| 6:F:261:TYR:CB | 13:G:170:ILE:CD1 | 2.52 | 0.86 |
| 13:G:110:CYS:HB3 | 13:G:151:LEU:HB3 | 1.57 | 0.86 |
| 1:A:467:GLN:HG2 | 2:B:418:GLY:C | 1.92 | 0.86 |
| 2:B:424:LEU:CD1 | 6:F:289:MET:SD | 2.61 | 0.86 |
| 8:O:511:VAL:O | 8:O:551:ARG:HD2 | 1.76 | 0.86 |
| 12:V:178:LEU:HD13 | 12:V:180:ILE:HD11 | 1.56 | 0.86 |
| 1:A:282:LEU:HD23 | 1:A:285:LEU:HD12 | 1.55 | 0.86 |
| 2:B:441:LYS:CE | 6:F:303:ASN:OD1 | 2.23 | 0.86 |
| 4:D:81:ALA:HA | 4:D:84:ILE:HD12 | 1.54 | 0.86 |
| 6:F:99:ILE:HA | 6:F:141:GLN:HE22 | 1.40 | 0.86 |
| 8:O:25:VAL:O | 8:O:27:LEU:HD22 | 1.74 | 0.86 |
| 8:O:379:ARG:HH12 | 8:O:386:LYS:HB3 | 1.39 | 0.86 |
| 8:O:537:VAL:HG23 | 8:O:553:LEU:HB3 | 1.57 | 0.86 |
| 8:O:610:LEU:HD12 | 8:O:613:THR:HB | 1.57 | 0.86 |
| 11:R:77:HIS:HB3 | 11:R:99:ARG:HD2 | 1.57 | 0.86 |
| 13:G:18:LEU:CB | 13:G:30:LEU:HD13 | 2.05 | 0.86 |
| 13:G:69:LEU:HD12 | 13:G:73:GLY:CA | 2.04 | 0.86 |
| 2:B:317:ALA:HA | 2:B:320:ASN:HB2 | 1.56 | 0.86 |
| 4:D:388:ILE:HG12 | 4:D:396:THR:OG1 | 1.75 | 0.86 |
| 5:E:248:ASN:N | 6:F:225:HIS:CG | 2.22 | 0.86 |
| 6:F:267:LEU:HB3 | 13:G:177:TRP:CD1 | 2.11 | 0.86 |
| 9:P:69:PRO:HA | 10:Q:62:ASN:HD21 | 1.13 | 0.86 |
| 2:B:157:LYS:HA | 2:B:160:LEU:HG | 1.57 | 0.86 |
| 8:O:511:VAL:HG12 | 8:O:551:ARG:NE | 1.89 | 0.86 |
| 9:P:99:LEU:CB | 9:P:103:MET:CG | 1.88 | 0.86 |
| 1:A:297:ARG:HH12 | 12:V:142:VAL:CG1 | 1.88 | 0.86 |
| 2:B:29:ASN:O | 2:B:31:ASP:N | 2.09 | 0.86 |
| 5:E:285:PHE:CD1 | 12:V:62:VAL:HG21 | 2.11 | 0.86 |
| 8:O:65:LEU:HD21 | 8:O:143:ALA:HA | 1.56 | 0.86 |
| 8:O:575:ALA:H | 11:R:19:LYS:CE | 1.88 | 0.86 |
| 12:V:73:GLN:HB2 | 12:V:141:ASN:O | 1.74 | 0.86 |
| 1:A:416:PRO:HB2 | 2:B:402:ILE:HD12 | 1.57 | 0.86 |
| 3:C:13:ARG:HG3 | 3:C:48:ALA:HB1 | 1.57 | 0.86 |
| 5:E:251:SER:O | 6:F:223:ALA:N | 2.09 | 0.86 |
| 8:O:38:ARG:HG3 | 8:O:104:LEU:HD13 | 1.57 | 0.86 |
| 8:O:490:PHE:HA | 8:O:543:PHE:HZ | 1.30 | 0.86 |
| 8:O:559:LEU:HB2 | 11:R:30:VAL:HG21 | 1.57 | 0.86 |
| 13:G:122:MET:CE | 13:G:131:LEU:HD12 | 2.06 | 0.86 |
| 1:A:339:ARG:CZ | 2:B:394:LEU:HD11 | 2.05 | 0.86 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:E:246:TRP:CA | 6:F:219:GLU:CD | 2.44 | 0.86 |
| 5:E:326:LYS:HD2 | 13:G:184:VAL:HG13 | 0.90 | 0.86 |
| 10:Q:88:LEU:HD21 | 12:V:179:ASP:CB | 2.00 | 0.86 |
| 2:B:192:THR:HG21 | 8:O:474:HIS:NE2 | 1.91 | 0.86 |
| 4:D:89:LEU:HD23 | 4:D:92:ILE:HD12 | 1.58 | 0.86 |
| 4:D:270:ASP:HB2 | 4:D:314:LYS:HE3 | 1.56 | 0.86 |
| 8:O:565:LYS:C | 11:R:23:GLU:OE2 | 2.14 | 0.86 |
| 1:A:104:ALA:HB2 | 1:A:114:ALA:HB3 | 1.56 | 0.85 |
| 3:C:339:LEU:O | 3:C:343:GLU:CB | 2.24 | 0.85 |
| 8:O:688:MET:HE2 | 8:O:725:LEU:HD13 | 0.88 | 0.85 |
| 2:B:21:SER:N | 8:O:652:LYS:CD | 2.35 | 0.85 |
| 5:E:332:ASN:HD22 | 13:G:179:ASP:C | 1.80 | 0.85 |
| 8:O:676:ARG:CZ | 8:O:710:ARG:NE | 2.39 | 0.85 |
| 10:Q:88:LEU:CD1 | 12:V:179:ASP:OD2 | 2.23 | 0.85 |
| 1:A:387:ASN:HA | 1:A:390:LEU:HB2 | 1.59 | 0.85 |
| 1:A:467:GLN:HE22 | 2:B:422:THR:N | 1.73 | 0.85 |
| 2:B:297:GLN:HG2 | 11:R:67:GLU:HG3 | 1.56 | 0.85 |
| 4:D:388:ILE:CA | 4:D:396:THR:OG1 | 2.24 | 0.85 |
| 8:O:385:CYS:HA | 8:O:427:ASP:HB3 | 1.58 | 0.85 |
| 8:O:503:LEU:CD2 | 8:O:532:GLU:HG2 | 2.02 | 0.85 |
| 8:O:692:LYS:CD | 8:O:743:TYR:CG | 2.56 | 0.85 |
| 9:P:70:GLN:C | 10:Q:59:GLU:HG3 | 1.96 | 0.85 |
| 3:C:198:PHE:HB2 | 3:C:234:LEU:HD22 | 1.58 | 0.85 |
| 5:E:144:GLY:HA2 | 5:E:171:ASP:HA | 1.58 | 0.85 |
| 5:E:247:VAL:CA | 6:F:228:ILE:CB | 2.11 | 0.85 |
| 8:O:505:ILE:O | 11:R:27:TRP:N | 2.09 | 0.85 |
| 10:Q:77:ILE:HG21 | 12:V:155:VAL:HG23 | 1.57 | 0.85 |
| 4:D:343:ILE:HG23 | 4:D:350:GLY:H | 1.41 | 0.85 |
| 4:D:388:ILE:HG22 | 4:D:393:PRO:C | 1.95 | 0.85 |
| 11:R:39:VAL:H | 11:R:49:ILE:HG12 | 1.41 | 0.85 |
| 13:G:102:VAL:HG21 | 13:G:160:ARG:NH1 | 1.90 | 0.85 |
| 2:B:428:THR:O | 2:B:431:LEU:HB2 | 1.76 | 0.85 |
| 4:D:27:ARG:HA | 4:D:30:LEU:HB3 | 1.57 | 0.85 |
| 5:E:59:ALA:HB3 | 6:F:46:LEU:HB2 | 1.57 | 0.85 |
| 10:Q:60:TYR:CD1 | 12:V:158:LEU:HB2 | 2.09 | 0.85 |
| 13:G:12:LEU:O | 13:G:16:ILE:HG12 | 1.77 | 0.85 |
| 1:A:339:ARG:HA | 1:A:342:LEU:HD12 | 1.58 | 0.85 |
| 1:A:382:ASP:HA | 1:A:385:LYS:HB2 | 1.58 | 0.85 |
| 2:B:192:THR:HG21 | 8:O:474:HIS:CE1 | 2.12 | 0.85 |
| 3:C:301:SER:HA | 3:C:304:LYS:HD2 | 1.58 | 0.85 |
| 5:E:183:LEU:HD22 | 5:E:226:VAL:HG11 | 1.58 | 0.85 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 8:O:569:LEU:HB2 | 11:R:18:LYS:HB3 | 1.56 | 0.85 |
| 8:O:614:ILE:HG22 | 8:O:628:GLU:HG2 | 1.58 | 0.85 |
| 9:P:80:ARG:HG3 | 9:P:83:ASP:HA | 1.58 | 0.85 |
| 2:B:20:TYR:N | 8:O:652:LYS:HG3 | 1.91 | 0.85 |
| 2:B:21:SER:CA | 8:O:652:LYS:HE2 | 2.07 | 0.85 |
| 3:C:341:MET:HA | 3:C:346:GLU:HB2 | 1.59 | 0.85 |
| 5:E:77:VAL:HG21 | 5:E:97:ALA:HB1 | 1.57 | 0.85 |
| 6:F:310:ASN:HA | 6:F:314:ASP:HB3 | 1.59 | 0.85 |
| 9:P:3:VAL:HB | 9:P:67:ALA:HB3 | 1.59 | 0.85 |
| 5:E:306:ASP:HA | 5:E:309:LYS:HE3 | 1.58 | 0.85 |
| 8:O:508:GLN:CG | 8:O:559:LEU:CD1 | 2.53 | 0.85 |
| 8:O:548:PHE:CB | 11:R:33:TRP:CZ3 | 2.60 | 0.85 |
| 8:O:567:ASN:CA | 11:R:23:GLU:HB3 | 2.07 | 0.85 |
| 8:O:676:ARG:NH2 | 8:O:710:ARG:NE | 2.25 | 0.85 |
| 2:B:424:LEU:HD13 | 6:F:289:MET:CE | 2.02 | 0.85 |
| 3:C:23:GLN:HG3 | 3:C:27:LEU:HG | 1.58 | 0.85 |
| 6:F:39:VAL:HB | 6:F:76:GLN:HB2 | 1.59 | 0.85 |
| 1:A:391:ASP:HB3 | 1:A:394:LEU:HB3 | 1.58 | 0.84 |
| 4:D:373:GLN:HE21 | 13:G:155:ASP:HB3 | 1.36 | 0.84 |
| 5:E:205:THR:CG2 | 5:E:302:LYS:HG2 | 2.06 | 0.84 |
| 8:O:232:CYS:HA | 8:O:235:TYR:HB3 | 1.58 | 0.84 |
| 8:O:319:ILE:HD13 | 8:O:368:LEU:HA | 1.59 | 0.84 |
| 8:O:729:GLN:CG | 11:R:55:GLU:HG3 | 2.06 | 0.84 |
| 13:G:101:ILE:HG22 | 13:G:116:LEU:CD1 | 2.07 | 0.84 |
| 1:A:411:ILE:HG12 | 1:A:448:LEU:HD22 | 1.59 | 0.84 |
| 1:A:421:ASP:HA | 1:A:459:ILE:HG23 | 1.57 | 0.84 |
| 2:B:194:LEU:HA | 2:B:197:ILE:HD12 | 1.59 | 0.84 |
| 3:C:38:ASN:HA | 3:C:41:HIS:HB2 | 1.59 | 0.84 |
| 4:D:388:ILE:CB | 4:D:393:PRO:CB | 2.53 | 0.84 |
| 11:R:91:ARG:HG2 | 11:R:93:VAL:HG22 | 1.59 | 0.84 |
| 3:C:77:LEU:HA | 3:C:80:GLN:HB2 | 1.58 | 0.84 |
| 8:O:333:GLU:HG2 | 8:O:338:LEU:HD12 | 1.59 | 0.84 |
| 8:O:490:PHE:CB | 8:O:543:PHE:CE2 | 2.60 | 0.84 |
| 9:P:15:PHE:CE2 | 10:Q:58:VAL:CG2 | 2.60 | 0.84 |
| 4:D:22:LEU:HD12 | 4:D:25:LYS:HD2 | 1.58 | 0.84 |
| 5:E:77:VAL:HG12 | 5:E:100:VAL:HG22 | 1.58 | 0.84 |
| 6:F:258:ARG:HD2 | 13:G:159:GLY:C | 1.97 | 0.84 |
| 7:H:153:TRP:HA | 7:H:165:ARG:HG2 | 1.57 | 0.84 |
| 8:O:508:GLN:HB3 | 8:O:559:LEU:HG | 1.59 | 0.84 |
| 8:O:681:GLN:NE2 | 8:O:728:LYS:NZ | 2.26 | 0.84 |
| 8:O:684:ILE:HG22 | 8:O:725:LEU:CD1 | 2.07 | 0.84 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 2:B:297:GLN:HE21 | 11:R:70:VAL:HG11 | 1.41 | 0.84 |
| 2:B:367:THR:HA | 2:B:411:LEU:HB2 | 1.59 | 0.84 |
| 4:D:260:ALA:O | 4:D:263:ILE:HB | 1.75 | 0.84 |
| 4:D:403:GLN:HA | 4:D:406:GLN:HB2 | 1.57 | 0.84 |
| 8:O:719:LYS:O | 8:O:723:GLU:HG2 | 1.78 | 0.84 |
| 2:B:27:GLU:OE2 | 2:B:64:LYS:HG2 | 1.76 | 0.84 |
| 8:O:693:VAL:C | 8:O:699:LEU:CD2 | 2.45 | 0.84 |
| 2:B:27:GLU:CD | 2:B:64:LYS:CG | 2.46 | 0.84 |
| 3:C:278:LEU:HD12 | 3:C:281:LYS:HD3 | 1.57 | 0.84 |
| 5:E:246:TRP:HA | 6:F:219:GLU:CD | 1.98 | 0.84 |
| 8:O:568:TYR:CZ | 11:R:22:PHE:CD1 | 2.66 | 0.84 |
| 1:A:467:GLN:OE1 | 2:B:422:THR:HG21 | 1.77 | 0.84 |
| 2:B:258:PHE:HB3 | 2:B:280:LEU:HD22 | 1.60 | 0.84 |
| 5:E:242:TRP:HZ2 | 6:F:219:GLU:HG3 | 1.02 | 0.84 |
| 8:O:24:VAL:HA | 8:O:27:LEU:O | 1.78 | 0.84 |
| 9:P:8:ARG:HH22 | 10:Q:14:LYS:HB3 | 1.42 | 0.84 |
| 2:B:192:THR:HG21 | 8:O:459:ASN:ND2 | 1.93 | 0.84 |
| 2:B:439:VAL:HB | 3:C:243:LYS:HZ2 | 1.07 | 0.84 |
| 4:D:361:PHE:HB3 | 4:D:364:ARG:HH12 | 1.43 | 0.84 |
| 5:E:55:CYS:HB3 | 5:E:226:VAL:HG22 | 1.58 | 0.84 |
| 5:E:242:TRP:O | 6:F:229:LYS:CD | 2.26 | 0.84 |
| 8:O:520:THR:O | 8:O:556:LEU:HD11 | 1.77 | 0.84 |
| 8:O:656:SER:O | 8:O:658:GLN:NE2 | 2.11 | 0.84 |
| 5:E:80:LEU:HD11 | 5:E:133:ALA:HB1 | 1.59 | 0.84 |
| 5:E:246:TRP:CE3 | 6:F:228:ILE:HG22 | 2.13 | 0.84 |
| 5:E:279:GLN:HE21 | 5:E:295:LYS:HE2 | 0.67 | 0.84 |
| 8:O:555:TRP:CZ3 | 11:R:29:ALA:CB | 2.61 | 0.84 |
| 1:A:339:ARG:HG2 | 1:A:343:GLN:HE22 | 1.43 | 0.83 |
| 4:D:314:LYS:CD | 13:G:137:TYR:HE1 | 1.90 | 0.83 |
| 4:D:389:SER:HB2 | 4:D:394:GLU:CD | 1.98 | 0.83 |
| 6:F:202:HIS:O | 6:F:206:MET:N | 2.11 | 0.83 |
| 7:H:20:CYS:HB3 | 7:H:40:LEU:HG | 1.60 | 0.83 |
| 8:O:563:GLU:CA | 11:R:25:LYS:CE | 2.55 | 0.83 |
| 8:O:676:ARG:HE | 8:O:710:ARG:HE | 0.84 | 0.83 |
| 12:V:113:ARG:HG2 | 12:V:139:SER:HB3 | 1.59 | 0.83 |
| 12:V:163:LEU:HD23 | 12:V:188:LEU:HA | 1.60 | 0.83 |
| 2:B:22:GLU:C | 8:O:647:LYS:HE3 | 1.97 | 0.83 |
| 2:B:58:LEU:HD22 | 2:B:91:ARG:HH12 | 1.43 | 0.83 |
| 3:C:233:ILE:HG21 | 3:C:297:GLN:HB3 | 1.57 | 0.83 |
| 5:E:279:GLN:HB3 | 5:E:298:ASP:OD1 | 1.77 | 0.83 |
| 5:E:332:ASN:HB3 | 13:G:176:GLU:C | 1.97 | 0.83 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:20:THR:HG21 | 8:O:38:ARG:HG2 | 1.61 | 0.83 |
| 8:O:656:SER:O | 8:O:658:GLN:CG | 2.25 | 0.83 |
| 1:A:84:LEU:HD13 | 1:A:100:LEU:HD23 | 1.61 | 0.83 |
| 2:B:260:GLU:CD | 11:R:66:GLU:CD | 2.35 | 0.83 |
| 3:C:317:LEU:HD11 | 3:C:325:ARG:HH12 | 1.43 | 0.83 |
| 4:D:12:LEU:HD22 | 4:D:25:LYS:HB3 | 1.57 | 0.83 |
| 6:F:257:LEU:O | 6:F:261:TYR:HB2 | 1.77 | 0.83 |
| 6:F:269:VAL:HG12 | 6:F:270:LEU:HD22 | 1.58 | 0.83 |
| 8:O:564:VAL:N | 11:R:25:LYS:CE | 2.40 | 0.83 |
| 8:O:676:ARG:HD2 | 8:O:710:ARG:NH2 | 1.82 | 0.83 |
| 13:G:172:LYS:HA | 13:G:172:LYS:HE3 | 1.57 | 0.83 |
| 13:G:210:GLU:O | 13:G:213:VAL:HG22 | 1.78 | 0.83 |
| 2:B:260:GLU:OE2 | 11:R:66:GLU:HG2 | 1.73 | 0.83 |
| 5:E:60:LEU:HA | 5:E:63:LEU:HD12 | 1.59 | 0.83 |
| 5:E:279:GLN:HG2 | 5:E:294:ARG:CD | 1.96 | 0.83 |
| 8:O:676:ARG:NH2 | 8:O:710:ARG:CG | 2.40 | 0.83 |
| 8:O:700:ILE:HG21 | 8:O:718:ILE:HD12 | 1.60 | 0.83 |
| 9:P:70:GLN:HA | 10:Q:59:GLU:HG3 | 1.60 | 0.83 |
| 2:B:14:GLU:HB3 | 2:B:18:LEU:HD11 | 0.84 | 0.83 |
| 3:C:70:SER:HB3 | 3:C:114:ARG:HD2 | 1.59 | 0.83 |
| 3:C:214:MET:HA | 3:C:248:ILE:HG21 | 1.59 | 0.83 |
| 5:E:244:LYS:NZ | 6:F:230:MET:HA | 1.91 | 0.83 |
| 8:O:483:SER:O | 8:O:507:PHE:HZ | 1.60 | 0.83 |
| 8:O:544:TYR:O | 8:O:548:PHE:N | 2.10 | 0.83 |
| 8:O:568:TYR:HE1 | 11:R:22:PHE:CG | 1.94 | 0.83 |
| 8:O:689:LYS:HG3 | 8:O:743:TYR:OH | 1.78 | 0.83 |
| 8:O:700:ILE:HD12 | 8:O:718:ILE:CB | 2.08 | 0.83 |
| 10:Q:80:PHE:O | 12:V:161:ARG:NE | 2.12 | 0.83 |
| 5:E:245:TYR:CG | 6:F:222:ILE:HD11 | 2.12 | 0.83 |
| 2:B:25:ASN:HD22 | 8:O:647:LYS:HD2 | 1.00 | 0.83 |
| 4:D:103:VAL:HA | 4:D:106:ILE:HD12 | 1.58 | 0.83 |
| 5:E:249:THR:HB | 6:F:225:HIS:CE1 | 2.12 | 0.83 |
| 8:O:729:GLN:HG3 | 11:R:55:GLU:CG | 2.09 | 0.83 |
| 12:V:181:VAL:H | 12:V:184:LEU:HD12 | 1.44 | 0.83 |
| 2:B:314:LEU:HD22 | 2:B:326:PHE:HA | 1.61 | 0.83 |
| 3:C:94:ARG:HB3 | 3:C:97:THR:HG22 | 1.58 | 0.83 |
| 6:F:151:PHE:HB3 | 6:F:168:PHE:HB2 | 1.59 | 0.83 |
| 8:O:117:LYS:HD3 | 8:O:136:LEU:HD13 | 1.59 | 0.83 |
| 8:O:503:LEU:O | 8:O:504:GLY:C | 2.17 | 0.83 |
| 8:O:726:ILE:CG2 | 11:R:44:ILE:O | 2.24 | 0.83 |
| 1:A:463:ARG:HH21 | 1:A:466:ASP:H | 1.27 | 0.83 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 4:D:366:ALA:HB3 | 4:D:368:PRO:HD2 | 1.61 | 0.83 |
| 8:O:484:ALA:CA | 8:O:507:PHE:CE2 | 2.44 | 0.83 |
| 9:P:17:ASP:OD2 | 10:Q:65:LEU:HD23 | 1.76 | 0.83 |
| 9:P:93:PHE:CD1 | 10:Q:55:GLU:CB | 2.60 | 0.83 |
| 4:D:146:GLU:HA | 4:D:183:LEU:HD11 | 1.60 | 0.83 |
| 5:E:247:VAL:H | 6:F:229:LYS:HB3 | 1.42 | 0.83 |
| 8:O:724:VAL:O | 11:R:54:ILE:HD13 | 1.78 | 0.83 |
| 13:G:98:HIS:HA | 13:G:101:ILE:HG12 | 1.61 | 0.83 |
| 13:G:179:ASP:HA | 13:G:182:GLU:HG2 | 1.60 | 0.83 |
| 1:A:297:ARG:HH12 | 12:V:142:VAL:CB | 1.92 | 0.82 |
| 7:H:114:ARG:O | 7:H:118:PHE:HB2 | 1.79 | 0.82 |
| 9:P:15:PHE:CG | 10:Q:18:ILE:HD11 | 2.13 | 0.82 |
| 8:O:1:MET:HE1 | 12:V:181:VAL:HA | 1.58 | 0.82 |
| 8:O:569:LEU:HA | 11:R:20:LYS:HB3 | 1.61 | 0.82 |
| 9:P:6:MET:SD | 10:Q:16:TYR:CE2 | 2.72 | 0.82 |
| 2:B:112:ILE:HA | 2:B:115:ILE:HD12 | 1.61 | 0.82 |
| 5:E:82:LEU:H | 5:E:94:ASP:HB3 | 1.44 | 0.82 |
| 13:G:136:VAL:HG12 | 13:G:141:ILE:HB | 1.59 | 0.82 |
| 2:B:399:HIS:HB3 | 2:B:412:ASP:HB3 | 1.60 | 0.82 |
| 3:C:12:VAL:HB | 3:C:48:ALA:HB2 | 1.58 | 0.82 |
| 5:E:248:ASN:N | 6:F:225:HIS:CD2 | 2.47 | 0.82 |
| 5:E:308:CYS:HA | 7:H:207:LEU:HD22 | 1.58 | 0.82 |
| 6:F:254:HIS:CG | 13:G:162:ILE:CG1 | 2.62 | 0.82 |
| 7:H:133:PHE:HE2 | 7:H:139:LEU:HD12 | 1.43 | 0.82 |
| 8:O:490:PHE:CB | 8:O:543:PHE:HE2 | 1.93 | 0.82 |
| 10:Q:91:LEU:CD2 | 12:V:180:ILE:HB | 2.10 | 0.82 |
| 10:Q:91:LEU:HD22 | 12:V:184:LEU:HB3 | 1.61 | 0.82 |
| 1:A:502:VAL:HG12 | 3:C:215:ALA:HB3 | 1.61 | 0.82 |
| 2:B:297:GLN:CG | 11:R:70:VAL:HG11 | 2.09 | 0.82 |
| 3:C:122:GLY:HA2 | 3:C:125:LYS:HG2 | 1.60 | 0.82 |
| 3:C:306:ASN:HB3 | 3:C:326:VAL:HA | 1.62 | 0.82 |
| 4:D:384:LEU:HD12 | 4:D:387:LYS:CE | 1.94 | 0.82 |
| 8:O:392:ALA:O | 8:O:396:ASP:N | 2.11 | 0.82 |
| 8:O:688:MET:CE | 8:O:725:LEU:CD1 | 2.49 | 0.82 |
| 9:P:30:ILE:N | 10:Q:5:PHE:CE2 | 2.47 | 0.82 |
| 12:V:73:GLN:CG | 12:V:143:ASP:O | 2.27 | 0.82 |
| 12:V:130:VAL:HG11 | 12:V:136:PHE:HB2 | 1.62 | 0.82 |
| 1:A:467:GLN:NE2 | 2:B:422:THR:H | 1.76 | 0.82 |
| 3:C:27:LEU:HB3 | 3:C:30:LYS:HG2 | 1.61 | 0.82 |
| 8:O:612:LYS:CG | 8:O:657:MET:HG2 | 2.09 | 0.82 |
| 13:G:14:GLN:O | 13:G:18:LEU:HG | 1.80 | 0.82 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 3:C:15:LEU:HB2 | 3:C:24:LEU:HD22 | 1.59 | 0.82 |
| 5:E:285:PHE:CE1 | 12:V:62:VAL:CG2 | 2.62 | 0.82 |
| 8:O:420:THR:HA | 8:O:423:LYS:HE2 | 1.61 | 0.82 |
| 8:O:508:GLN:CD | 8:O:559:LEU:O | 2.18 | 0.82 |
| 9:P:30:ILE:HD13 | 10:Q:5:PHE:HE2 | 1.35 | 0.82 |
| 12:V:113:ARG:HG2 | 12:V:139:SER:CB | 2.08 | 0.82 |
| 2:B:18:LEU:CD2 | 8:O:648:ARG:HD2 | 2.10 | 0.82 |
| 2:B:296:SER:C | 11:R:67:GLU:HG2 | 1.90 | 0.82 |
| 3:C:306:ASN:HB2 | 3:C:326:VAL:HG13 | 1.60 | 0.82 |
| 4:D:315:LEU:CD2 | 13:G:134:GLU:HA | 2.09 | 0.82 |
| 7:H:62:PRO:HA | 7:H:65:LYS:HD2 | 1.62 | 0.82 |
| 8:O:83:VAL:HA | 8:O:86:MET:HB2 | 1.61 | 0.82 |
| 4:D:263:ILE:HA | 4:D:266:LYS:HE2 | 1.61 | 0.82 |
| 4:D:315:LEU:HG | 13:G:137:TYR:CE2 | 2.15 | 0.82 |
| 6:F:242:VAL:HG22 | 6:F:256:ILE:HD12 | 1.58 | 0.82 |
| 8:O:537:VAL:HA | 8:O:553:LEU:HG | 1.59 | 0.82 |
| 8:O:617:LEU:HB3 | 8:O:623:ILE:HB | 1.60 | 0.82 |
| 2:B:297:GLN:N | 11:R:67:GLU:CG | 2.42 | 0.82 |
| 3:C:23:GLN:HA | 3:C:26:GLU:HG2 | 1.62 | 0.82 |
| 4:D:192:ALA:HA | 4:D:195:LEU:HD12 | 1.62 | 0.82 |
| 6:F:258:ARG:CD | 13:G:159:GLY:C | 2.48 | 0.82 |
| 7:H:87:PRO:HD3 | 7:H:135:ALA:HB1 | 1.62 | 0.82 |
| 2:B:18:LEU:HD22 | 8:O:648:ARG:NH1 | 1.93 | 0.81 |
| 4:D:210:GLU:HA | 4:D:213:TYR:HD2 | 1.45 | 0.81 |
| 4:D:314:LYS:CB | 13:G:137:TYR:CZ | 2.57 | 0.81 |
| 4:D:388:ILE:HG21 | 4:D:396:THR:CB | 1.98 | 0.81 |
| 5:E:251:SER:O | 5:E:253:SER:CB | 2.28 | 0.81 |
| 5:E:324:LYS:HG2 | 6:F:221:LEU:HB3 | 1.60 | 0.81 |
| 8:O:204:GLN:HA | 8:O:208:GLU:HB3 | 1.60 | 0.81 |
| 8:O:278:LEU:HD22 | 8:O:301:LEU:HD11 | 1.62 | 0.81 |
| 13:G:132:ILE:CD1 | 13:G:145:LEU:HD11 | 2.10 | 0.81 |
| 2:B:27:GLU:CG | 2:B:64:LYS:HG2 | 2.09 | 0.81 |
| 2:B:260:GLU:HA | 2:B:263:LYS:HD3 | 1.61 | 0.81 |
| 4:D:85:TYR:HB3 | 4:D:110:LEU:HB2 | 1.62 | 0.81 |
| 12:V:140:LEU:HD21 | 12:V:147:ILE:N | 1.95 | 0.81 |
| 13:G:108:MET:HB3 | 13:G:111:ILE:CD1 | 2.10 | 0.81 |
| 4:D:169:ASN:ND2 | 11:R:75:CYS:SG | 2.53 | 0.81 |
| 5:E:262:THR:HA | 5:E:265:GLN:HB2 | 1.61 | 0.81 |
| 5:E:332:ASN:HD22 | 13:G:179:ASP:CB | 1.90 | 0.81 |
| 6:F:235:VAL:HG22 | 6:F:238:ILE:HD12 | 1.61 | 0.81 |
| 8:O:12:GLU:HG2 | 8:O:16:LYS:HE3 | 1.61 | 0.81 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:400:LYS:HG3 | 8:O:403:ALA:HB2 | 1.61 | 0.81 |
| 8:O:556:LEU:HB3 | 11:R:30:VAL:HG11 | 1.63 | 0.81 |
| 8:O:722:ILE:HG21 | 8:O:741:TYR:CE2 | 2.15 | 0.81 |
| 8:O:725:LEU:HG | 11:R:46:ARG:NH1 | 1.94 | 0.81 |
| 9:P:70:GLN:CA | 10:Q:59:GLU:HG3 | 2.10 | 0.81 |
| 9:P:70:GLN:HE21 | 10:Q:63:TYR:HE1 | 1.29 | 0.81 |
| 10:Q:73:ASP:OD1 | 12:V:154:PRO:CA | 2.26 | 0.81 |
| 11:R:50:MET:HE2 | 11:R:70:VAL:HB | 1.61 | 0.81 |
| 12:V:73:GLN:HG3 | 12:V:144:GLY:HA2 | 1.58 | 0.81 |
| 12:V:76:PHE:HB3 | 12:V:101:LEU:HD11 | 1.59 | 0.81 |
| 13:G:135:ALA:O | 13:G:138:THR:HG22 | 1.80 | 0.81 |
| 1:A:422:MET:H | 1:A:459:ILE:HA | 1.45 | 0.81 |
| 2:B:330:LEU:HD23 | 2:B:333:ASN:HD22 | 1.45 | 0.81 |
| 7:H:99:SER:HA | 7:H:104:PRO:HD3 | 1.59 | 0.81 |
| 7:H:194:GLU:HG3 | 13:G:188:ILE:HG23 | 1.63 | 0.81 |
| 9:P:4:PHE:CG | 10:Q:62:ASN:OD1 | 2.32 | 0.81 |
| 2:B:330:LEU:HD13 | 2:B:347:ILE:HD11 | 1.61 | 0.81 |
| 4:D:315:LEU:CD2 | 13:G:137:TYR:CB | 2.56 | 0.81 |
| 5:E:245:TYR:CD2 | 6:F:222:ILE:CD1 | 2.53 | 0.81 |
| 5:E:299:LYS:HG2 | 5:E:302:LYS:HD2 | 1.61 | 0.81 |
| 7:H:194:GLU:O | 13:G:191:GLN:HG3 | 1.80 | 0.81 |
| 8:O:300:LEU:O | 8:O:304:VAL:N | 2.13 | 0.81 |
| 11:R:88:LEU:HD12 | 11:R:92:GLN:HA | 1.61 | 0.81 |
| 12:V:203:GLN:O | 12:V:207:ALA:CA | 2.27 | 0.81 |
| 1:A:255:LEU:HD11 | 1:A:289:ALA:HA | 1.61 | 0.81 |
| 2:B:333:ASN:HB3 | 2:B:337:ILE:HB | 1.62 | 0.81 |
| 4:D:208:TYR:HB2 | 4:D:229:ALA:HB2 | 1.63 | 0.81 |
| 4:D:320:THR:HA | 4:D:358:ILE:HA | 1.62 | 0.81 |
| 8:O:65:LEU:HD22 | 8:O:142:LEU:HG | 1.61 | 0.81 |
| 1:A:95:MET:HA | 1:A:98:GLU:HB2 | 1.60 | 0.81 |
| 1:A:416:PRO:HB3 | 2:B:393:ILE:HD12 | 1.60 | 0.81 |
| 2:B:368:ARG:CG | 4:D:353:ASP:CG | 2.48 | 0.81 |
| 2:B:427:TRP:HA | 5:E:270:SER:OG | 1.80 | 0.81 |
| 5:E:176:ILE:HA | 6:F:194:GLU:HG2 | 1.63 | 0.81 |
| 5:E:252:SER:CB | 5:E:320:SER:HB2 | 2.08 | 0.81 |
| 9:P:28:LYS:O | 9:P:30:ILE:HD12 | 1.52 | 0.81 |
| 9:P:93:PHE:CB | 10:Q:16:TYR:OH | 2.29 | 0.81 |
| 1:A:273:GLU:HG3 | 1:A:281:ILE:HD13 | 1.62 | 0.81 |
| 2:B:195:LEU:H | 2:B:228:ILE:HD11 | 1.45 | 0.81 |
| 5:E:98:LEU:HB3 | 5:E:100:VAL:HG13 | 1.62 | 0.81 |
| 5:E:244:LYS:HA | 6:F:229:LYS:HG2 | 1.62 | 0.81 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 8:O:392:ALA:HB2 | 8:O:431:PHE:HE1 | 1.44 | 0.81 |
| 9:P:15:PHE:CZ | 10:Q:58:VAL:CG2 | 2.64 | 0.81 |
| 9:P:28:LYS:CE | 9:P:44:LEU:HD11 | 1.91 | 0.81 |
| 12:V:113:ARG:NE | 12:V:139:SER:OG | 2.14 | 0.81 |
| 2:B:125:MET:HG3 | 2:B:158:LEU:HD13 | 1.63 | 0.81 |
| 3:C:114:ARG:HB3 | 3:C:115:LYS:HG3 | 1.63 | 0.81 |
| 5:E:279:GLN:HB3 | 5:E:298:ASP:HB2 | 1.17 | 0.81 |
| 13:G:27:LEU:O | 13:G:31:ILE:HG22 | 1.81 | 0.81 |
| 13:G:42:VAL:HA | 13:G:67:LEU:CD1 | 2.11 | 0.81 |
| 13:G:113:TYR:CE2 | 13:G:150:GLN:HA | 2.16 | 0.81 |
| 2:B:19:GLU:HA | 8:O:652:LYS:HG3 | 1.63 | 0.81 |
| 3:C:378:GLN:HG3 | 3:C:381:LEU:HD12 | 1.62 | 0.81 |
| 4:D:6:ARG:HE | 4:D:43:GLU:HG2 | 1.46 | 0.81 |
| 5:E:240:LEU:HB2 | 6:F:163:LEU:HD13 | 1.63 | 0.81 |
| 8:O:281:GLU:HA | 8:O:284:ASN:HD22 | 1.46 | 0.81 |
| 8:O:503:LEU:CA | 8:O:504:GLY:N | 2.43 | 0.81 |
| 4:D:226:LEU:HG | 4:D:258:LEU:HD11 | 1.62 | 0.80 |
| 4:D:319:ILE:HD13 | 4:D:327:LEU:HD22 | 1.64 | 0.80 |
| 5:E:252:SER:N | 6:F:221:LEU:C | 2.35 | 0.80 |
| 5:E:285:PHE:HB3 | 12:V:62:VAL:CG1 | 2.10 | 0.80 |
| 5:E:298:ASP:OD1 | 5:E:299:LYS:HB2 | 1.81 | 0.80 |
| 5:E:298:ASP:O | 5:E:299:LYS:N | 2.14 | 0.80 |
| 5:E:331:ILE:O | 13:G:180:GLY:HA3 | 1.80 | 0.80 |
| 8:O:462:LYS:HG3 | 8:O:467:TYR:HA | 1.63 | 0.80 |
| 8:O:612:LYS:HG2 | 8:O:657:MET:HG2 | 1.63 | 0.80 |
| 8:O:685:VAL:HG22 | 8:O:725:LEU:CD2 | 2.11 | 0.80 |
| 9:P:27:LEU:HD23 | 9:P:44:LEU:HB2 | 1.61 | 0.80 |
| 9:P:30:ILE:CA | 10:Q:5:PHE:CE2 | 2.64 | 0.80 |
| 2:B:14:GLU:O | 2:B:18:LEU:HG | 1.79 | 0.80 |
| 4:D:30:LEU:HD22 | 4:D:65:LEU:HD22 | 1.61 | 0.80 |
| 4:D:167:TYR:O | 4:D:170:ARG:NH1 | 2.15 | 0.80 |
| 5:E:296:SER:O | 5:E:298:ASP:N | 2.12 | 0.80 |
| 8:O:548:PHE:CG | 11:R:33:TRP:CZ3 | 2.69 | 0.80 |
| 8:O:721:CYS:O | 11:R:46:ARG:HD3 | 1.80 | 0.80 |
| 12:V:140:LEU:HD22 | 12:V:147:ILE:N | 1.97 | 0.80 |
| 13:G:27:LEU:CD1 | 13:G:55:LEU:HB3 | 2.10 | 0.80 |
| 4:D:315:LEU:CD1 | 13:G:137:TYR:CD2 | 2.61 | 0.80 |
| 4:D:388:ILE:CD1 | 4:D:396:THR:CG2 | 2.54 | 0.80 |
| 7:H:198:ALA:HA | 13:G:191:GLN:NE2 | 1.96 | 0.80 |
| 8:O:565:LYS:HB2 | 11:R:23:GLU:OE2 | 1.81 | 0.80 |
| 9:P:15:PHE:HD2 | 10:Q:18:ILE:CD1 | 1.91 | 0.80 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 9:P:16:THR:OG1 | 10:Q:5:PHE:CE1 | 1.74 | 0.80 |
| 3:C:5:LEU:HB3 | 3:C:42:LEU:HG | 1.62 | 0.80 |
| 5:E:332:ASN:HD22 | 13:G:179:ASP:CA | 1.95 | 0.80 |
| 9:P:26:GLU:O | 9:P:27:LEU:C | 2.19 | 0.80 |
| 9:P:93:PHE:O | 10:Q:51:SER:HB2 | 1.82 | 0.80 |
| 12:V:135:LEU:HB2 | 12:V:201:LEU:HD22 | 1.62 | 0.80 |
| 13:G:142:GLN:H | 13:G:154:VAL:HG13 | 1.46 | 0.80 |
| 1:A:303:ALA:HB2 | 1:A:332:CYS:HB2 | 1.63 | 0.80 |
| 3:C:342:ILE:HG21 | 7:H:124:ALA:HA | 1.64 | 0.80 |
| 4:D:315:LEU:CD2 | 13:G:137:TYR:CD2 | 2.65 | 0.80 |
| 5:E:98:LEU:HD11 | 5:E:113:ALA:HB2 | 1.62 | 0.80 |
| 5:E:248:ASN:CB | 6:F:222:ILE:O | 2.28 | 0.80 |
| 5:E:279:GLN:O | 5:E:298:ASP:OD2 | 1.92 | 0.80 |
| 8:O:110:THR:CB | 10:Q:28:THR:HG23 | 2.10 | 0.80 |
| 9:P:14:ILE:CG1 | 10:Q:17:GLU:CG | 2.34 | 0.80 |
| 13:G:30:LEU:O | 13:G:34:VAL:HG23 | 1.80 | 0.80 |
| 4:D:89:LEU:HA | 4:D:92:ILE:HD12 | 1.64 | 0.80 |
| 4:D:322:GLU:HA | 4:D:332:ALA:HB2 | 1.64 | 0.80 |
| 5:E:120:TYR:HA | 6:F:111:GLN:HB3 | 1.63 | 0.80 |
| 8:O:105:TYR:O | 8:O:109:ASN:N | 2.15 | 0.80 |
| 8:O:728:LYS:HA | 11:R:54:ILE:C | 2.02 | 0.80 |
| 1:A:444:ILE:HG12 | 1:A:449:ILE:HG21 | 1.62 | 0.80 |
| 2:B:295:ASP:HB3 | 11:R:71:ALA:CA | 2.12 | 0.80 |
| 4:D:9:LEU:HD23 | 4:D:12:LEU:HD12 | 1.64 | 0.80 |
| 4:D:297:SER:OG | 4:D:302:ARG:NH1 | 2.15 | 0.80 |
| 8:O:110:THR:HG21 | 10:Q:28:THR:CB | 2.11 | 0.80 |
| 8:O:131:ASP:HB2 | 8:O:135:PRO:HB3 | 1.64 | 0.80 |
| 9:P:15:PHE:HE2 | 10:Q:16:TYR:CB | 1.78 | 0.80 |
| 11:R:41:ASN:H | 11:R:49:ILE:HB | 1.46 | 0.80 |
| 2:B:386:GLU:HA | 2:B:389:LEU:HD12 | 1.63 | 0.80 |
| 2:B:427:TRP:HH2 | 6:F:293:GLY:HA2 | 1.41 | 0.80 |
| 5:E:188:THR:HG22 | 5:E:221:TYR:HB3 | 1.62 | 0.80 |
| 5:E:327:LEU:HD23 | 13:G:181:CYS:O | 1.81 | 0.80 |
| 8:O:325:ARG:HA | 8:O:329:ASN:HB2 | 1.62 | 0.80 |
| 12:V:180:ILE:HD13 | 12:V:188:LEU:HD12 | 1.64 | 0.80 |
| 5:E:247:VAL:O | 6:F:228:ILE:CB | 2.29 | 0.80 |
| 8:O:45:LEU:HD22 | 8:O:57:LEU:HD22 | 1.64 | 0.80 |
| 1:A:97:ILE:HG23 | 1:A:118:ALA:HB1 | 1.63 | 0.80 |
| 4:D:319:ILE:HD11 | 4:D:323:GLU:HG3 | 1.62 | 0.80 |
| 4:D:406:GLN:HB3 | 6:F:236:LYS:HG3 | 1.64 | 0.80 |
| 5:E:53:LYS:O | 5:E:225:GLU:N | 2.10 | 0.80 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:E:245:TYR:HE1 | 6:F:192:THR:HG22 | 1.46 | 0.80 |
| 5:E:332:ASN:C | 13:G:177:TRP:HA | 2.02 | 0.80 |
| 8:O:522:ALA:O | 8:O:557:HIS:HB2 | 1.81 | 0.80 |
| 12:V:73:GLN:N | 12:V:140:LEU:O | 2.15 | 0.80 |
| 2:B:25:ASN:C | 2:B:28:PRO:HD3 | 2.01 | 0.79 |
| 2:B:259:PHE:HE2 | 11:R:66:GLU:CB | 1.95 | 0.79 |
| 7:H:44:TYR:HB3 | 7:H:49:ASP:HB3 | 1.64 | 0.79 |
| 8:O:521:GLN:HE22 | 8:O:554:THR:C | 1.84 | 0.79 |
| 1:A:101:GLN:HE22 | 1:A:130:MET:HB3 | 1.44 | 0.79 |
| 5:E:323:ILE:CG2 | 13:G:188:ILE:HD11 | 1.98 | 0.79 |
| 6:F:43:LEU:HB3 | 6:F:84:MET:HE2 | 1.63 | 0.79 |
| 8:O:38:ARG:HB2 | 8:O:104:LEU:HD22 | 1.64 | 0.79 |
| 8:O:440:ALA:HB1 | 8:O:519:LEU:HG | 1.62 | 0.79 |
| 8:O:489:LYS:HG2 | 8:O:492:ASN:ND2 | 1.95 | 0.79 |
| 9:P:68:ARG:HE | 9:P:71:ALA:HB3 | 1.48 | 0.79 |
| 10:Q:91:LEU:HD21 | 12:V:184:LEU:CD2 | 2.12 | 0.79 |
| 1:A:416:PRO:HB3 | 2:B:393:ILE:CD1 | 2.12 | 0.79 |
| 2:B:28:PRO:C | 2:B:31:ASP:OD1 | 2.19 | 0.79 |
| 2:B:365:PRO:HG3 | 4:D:344:THR:CG2 | 2.12 | 0.79 |
| 3:C:351:ILE:N | 7:H:124:ALA:O | 2.15 | 0.79 |
| 4:D:366:ALA:O | 4:D:370:TRP:N | 2.16 | 0.79 |
| 8:O:101:MET:HB3 | 8:O:139:ILE:HD13 | 1.64 | 0.79 |
| 8:O:696:HIS:CB | 8:O:739:ASP:HA | 2.12 | 0.79 |
| 13:G:27:LEU:HG | 13:G:55:LEU:HD13 | 1.64 | 0.79 |
| 2:B:297:GLN:CD | 11:R:70:VAL:CG2 | 2.51 | 0.79 |
| 2:B:368:ARG:CG | 4:D:353:ASP:OD1 | 2.31 | 0.79 |
| 4:D:395:TRP:CZ2 | 6:F:249:GLU:N | 2.36 | 0.79 |
| 5:E:37:GLN:HA | 5:E:40:LEU:HD12 | 1.65 | 0.79 |
| 6:F:231:LEU:HA | 6:F:234:ARG:HB2 | 1.64 | 0.79 |
| 8:O:612:LYS:CG | 8:O:657:MET:CG | 2.59 | 0.79 |
| 8:O:676:ARG:HH21 | 8:O:710:ARG:NE | 1.80 | 0.79 |
| 2:B:292:ASN:ND2 | 11:R:71:ALA:HB2 | 1.97 | 0.79 |
| 8:O:49:TYR:CZ | 10:Q:92:LEU:CD1 | 2.59 | 0.79 |
| 8:O:490:PHE:HE1 | 8:O:539:MET:HB2 | 1.22 | 0.79 |
| 8:O:555:TRP:CZ3 | 11:R:30:VAL:N | 2.47 | 0.79 |
| 1:A:97:ILE:HG12 | 1:A:118:ALA:HA | 1.63 | 0.79 |
| 2:B:427:TRP:CE2 | 5:E:273:LEU:HD11 | 2.17 | 0.79 |
| 3:C:248:ILE:HA | 3:C:251:ARG:HB2 | 1.64 | 0.79 |
| 4:D:261:TYR:O | 4:D:265:GLU:N | 2.14 | 0.79 |
| 5:E:77:VAL:HB | 5:E:98:LEU:HB2 | 1.64 | 0.79 |
| 1:A:420:ALA:O | 1:A:460:LEU:N | 2.14 | 0.79 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:429:PHE:HB3 | 1:A:431:THR:HG22 | 1.64 | 0.79 |
| 3:C:94:ARG:NH1 | 3:C:130:LYS:O | 2.15 | 0.79 |
| 3:C:340:HIS:HA | 3:C:343:GLU:HB3 | 1.64 | 0.79 |
| 3:C:355:ASP:HB3 | 3:C:357:MET:HE2 | 1.63 | 0.79 |
| 8:O:461:LEU:O | 8:O:465:CYS:N | 2.16 | 0.79 |
| 10:Q:81:GLU:HA | 12:V:161:ARG:NH2 | 1.98 | 0.79 |
| 11:R:50:MET:HE1 | 11:R:52:LEU:HD21 | 1.64 | 0.79 |
| 11:R:94:CYS:SG | 11:R:99:ARG:N | 2.55 | 0.79 |
| 1:A:297:ARG:NH1 | 12:V:142:VAL:CB | 2.46 | 0.79 |
| 5:E:323:ILE:HG23 | 13:G:188:ILE:HD13 | 1.62 | 0.79 |
| 8:O:544:TYR:OH | 8:O:551:ARG:O | 2.00 | 0.79 |
| 8:O:692:LYS:HZ1 | 8:O:743:TYR:HD2 | 1.24 | 0.79 |
| 8:O:733:ARG:NH2 | 11:R:96:LEU:HD22 | 1.97 | 0.79 |
| 9:P:30:ILE:CA | 10:Q:5:PHE:HE2 | 1.96 | 0.79 |
| 10:Q:60:TYR:HB2 | 12:V:158:LEU:HD13 | 1.62 | 0.79 |
| 13:G:145:LEU:HA | 13:G:152:LEU:HD12 | 1.63 | 0.79 |
| 1:A:293:GLU:O | 1:A:297:ARG:N | 2.16 | 0.79 |
| 3:C:310:LEU:HD11 | 3:C:325:ARG:HB3 | 1.64 | 0.79 |
| 4:D:314:LYS:CD | 13:G:137:TYR:CE1 | 2.65 | 0.79 |
| 8:O:656:SER:O | 8:O:658:GLN:HG3 | 1.82 | 0.79 |
| 13:G:69:LEU:HD22 | 13:G:85:LEU:HD11 | 1.64 | 0.79 |
| 13:G:206:GLN:O | 13:G:209:VAL:HG12 | 1.83 | 0.79 |
| 1:A:451:ALA:HA | 1:A:463:ARG:H | 1.48 | 0.79 |
| 2:B:5:GLU:HB3 | 2:B:8:PHE:HB2 | 1.64 | 0.79 |
| 2:B:438:VAL:CG1 | 6:F:302:MET:HG2 | 2.07 | 0.79 |
| 6:F:254:HIS:CB | 13:G:162:ILE:HG12 | 2.12 | 0.79 |
| 8:O:569:LEU:CG | 11:R:20:LYS:H | 1.87 | 0.79 |
| 13:G:62:ALA:CB | 13:G:86:PRO:HD3 | 2.11 | 0.79 |
| 2:B:24:SER:HG | 8:O:652:LYS:HE3 | 1.47 | 0.78 |
| 2:B:421:TYR:O | 2:B:425:ASP:N | 2.16 | 0.78 |
| 5:E:238:LEU:HD22 | 6:F:200:VAL:HG13 | 1.65 | 0.78 |
| 5:E:268:ASP:O | 5:E:272:LYS:N | 2.11 | 0.78 |
| 5:E:285:PHE:CG | 12:V:62:VAL:HG21 | 2.18 | 0.78 |
| 7:H:57:TRP:O | 7:H:65:LYS:NZ | 2.13 | 0.78 |
| 9:P:100:PRO:HG3 | 10:Q:88:LEU:HG | 1.64 | 0.78 |
| 10:Q:60:TYR:CD2 | 12:V:158:LEU:CB | 2.64 | 0.78 |
| 13:G:132:ILE:HD13 | 13:G:145:LEU:HD11 | 1.63 | 0.78 |
| 1:A:387:ASN:HA | 1:A:390:LEU:HD12 | 1.65 | 0.78 |
| 2:B:19:GLU:OE1 | 8:O:651:PHE:CD1 | 2.27 | 0.78 |
| 2:B:85:PHE:HZ | 2:B:123:LYS:HE2 | 1.48 | 0.78 |
| 4:D:352:ILE:HD11 | 4:D:359:VAL:HG23 | 1.65 | 0.78 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 5:E:188:THR:HA | 5:E:221:TYR:HA | 1.65 | 0.78 |
| 5:E:332:ASN:CB | 13:G:176:GLU:C | 2.52 | 0.78 |
| 8:O:193:GLN:O | 8:O:196:LYS:N | 2.15 | 0.78 |
| 8:O:533:LEU:HD11 | 11:R:27:TRP:CH2 | 2.18 | 0.78 |
| 9:P:76:GLY:HA3 | 9:P:88:LEU:HD21 | 1.66 | 0.78 |
| 10:Q:91:LEU:CG | 12:V:184:LEU:CD1 | 2.50 | 0.78 |
| 1:A:279:GLN:NE2 | 1:A:315:ASP:O | 2.16 | 0.78 |
| 1:A:437:GLU:HA | 1:A:440:LEU:HD12 | 1.63 | 0.78 |
| 4:D:42:LEU:HG | 4:D:46:LYS:HE3 | 1.65 | 0.78 |
| 4:D:169:ASN:OD1 | 4:D:172:SER:OG | 2.01 | 0.78 |
| 4:D:375:GLN:HG3 | 6:F:224:GLN:HG3 | 1.64 | 0.78 |
| 5:E:250:LEU:N | 6:F:228:ILE:HD12 | 1.97 | 0.78 |
| 9:P:29:ARG:CB | 9:P:33:GLY:N | 2.46 | 0.78 |
| 13:G:101:ILE:HG22 | 13:G:116:LEU:CG | 2.12 | 0.78 |
| 2:B:381:ASP:O | 2:B:385:VAL:N | 2.15 | 0.78 |
| 3:C:121:ILE:HG12 | 3:C:145:LEU:HD11 | 1.66 | 0.78 |
| 5:E:136:TRP:NE1 | 5:E:166:VAL:O | 2.16 | 0.78 |
| 8:O:50:PRO:HA | 8:O:53:LEU:HD13 | 1.65 | 0.78 |
| 8:O:567:ASN:C | 11:R:21:ARG:CB | 2.28 | 0.78 |
| 12:V:113:ARG:CG | 12:V:139:SER:CB | 2.61 | 0.78 |
| 2:B:295:ASP:O | 11:R:71:ALA:HA | 1.82 | 0.78 |
| 3:C:331:PRO:HA | 3:C:334:ALA:HB3 | 1.63 | 0.78 |
| 4:D:77:PRO:O | 4:D:81:ALA:N | 2.15 | 0.78 |
| 4:D:237:SER:O | 4:D:347:ARG:NH1 | 2.15 | 0.78 |
| 4:D:266:LYS:HD2 | 4:D:273:ILE:HD13 | 1.66 | 0.78 |
| 4:D:388:ILE:HA | 4:D:396:THR:OG1 | 1.83 | 0.78 |
| 6:F:193:GLU:HB3 | 6:F:196:GLU:HB3 | 1.66 | 0.78 |
| 6:F:310:ASN:O | 6:F:315:ARG:NH2 | 2.17 | 0.78 |
| 8:O:567:ASN:OD1 | 11:R:19:LYS:HB3 | 1.84 | 0.78 |
| 5:E:123:ASN:HB2 | 6:F:111:GLN:HE22 | 1.48 | 0.78 |
| 5:E:158:ASN:O | 5:E:162:GLN:N | 2.17 | 0.78 |
| 5:E:250:LEU:H | 6:F:225:HIS:HD1 | 1.28 | 0.78 |
| 5:E:292:HIS:O | 5:E:295:LYS:N | 2.16 | 0.78 |
| 6:F:70:GLY:HA3 | 6:F:125:TYR:CE1 | 2.18 | 0.78 |
| 8:O:284:ASN:HB3 | 8:O:288:GLN:HE21 | 1.48 | 0.78 |
| 8:O:551:ARG:HB3 | 11:R:33:TRP:O | 1.80 | 0.78 |
| 8:O:562:GLY:HA3 | 8:O:577:VAL:H | 1.49 | 0.78 |
| 2:B:44:GLU:HG3 | 2:B:49:ALA:HB3 | 1.64 | 0.78 |
| 8:O:528:ALA:O | 8:O:529:ILE:O | 2.00 | 0.78 |
| 9:P:57:LEU:HA | 9:P:60:CYS:HB2 | 1.66 | 0.78 |
| 11:R:84:ILE:HA | 11:R:95:PRO:HG3 | 1.65 | 0.78 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 13:G:27:LEU:HD11 | 13:G:55:LEU:HB3 | 1.65 | 0.78 |
| 13:G:116:LEU:HD13 | 13:G:119:ASP:HB3 | 1.66 | 0.78 |
| 1:A:478:MET:HE1 | 2:B:431:LEU:HD13 | 1.66 | 0.78 |
| 2:B:296:SER:O | 11:R:67:GLU:HG3 | 1.83 | 0.78 |
| 6:F:242:VAL:HG21 | 13:G:174:LEU:HD11 | 1.65 | 0.78 |
| 8:O:32:ARG:CD | 8:O:35:TRP:CZ3 | 2.67 | 0.78 |
| 8:O:49:TYR:OH | 10:Q:92:LEU:HG | 1.83 | 0.78 |
| 8:O:392:ALA:HB2 | 8:O:431:PHE:CE1 | 2.19 | 0.78 |
| 2:B:32:LEU:HD11 | 8:O:649:THR:OG1 | 1.84 | 0.78 |
| 4:D:234:ILE:HA | 4:D:267:MET:HE1 | 1.66 | 0.78 |
| 5:E:279:GLN:HG2 | 5:E:294:ARG:HD2 | 1.64 | 0.78 |
| 8:O:490:PHE:HB2 | 8:O:543:PHE:HE2 | 1.48 | 0.78 |
| 8:O:567:ASN:N | 11:R:19:LYS:CA | 2.45 | 0.78 |
| 8:O:569:LEU:H | 11:R:18:LYS:HD3 | 1.49 | 0.78 |
| 9:P:15:PHE:CD1 | 10:Q:58:VAL:CG2 | 2.67 | 0.78 |
| 12:V:120:ARG:NH1 | 12:V:126:ASP:O | 2.17 | 0.78 |
| 2:B:442:LEU:CD2 | 6:F:309:PHE:HE2 | 1.96 | 0.78 |
| 3:C:121:ILE:HG23 | 3:C:145:LEU:HD21 | 1.66 | 0.78 |
| 6:F:261:TYR:CD1 | 13:G:170:ILE:HD13 | 2.19 | 0.78 |
| 8:O:284:ASN:O | 8:O:288:GLN:N | 2.17 | 0.78 |
| 8:O:660:ASP:C | 8:O:663:GLN:H | 1.88 | 0.78 |
| 8:O:732:GLU:HG3 | 8:O:733:ARG:H | 1.49 | 0.78 |
| 12:V:120:ARG:NH1 | 12:V:197:ASP:OD2 | 2.17 | 0.78 |
| 1:A:443:LEU:HA | 1:A:447:GLY:H | 1.48 | 0.77 |
| 2:B:278:LYS:HE2 | 2:B:308:ILE:HB | 1.66 | 0.77 |
| 3:C:80:GLN:O | 3:C:83:LEU:HB2 | 1.85 | 0.77 |
| 4:D:307:HIS:O | 4:D:311:SER:N | 2.17 | 0.77 |
| 5:E:242:TRP:CH2 | 6:F:219:GLU:CD | 2.42 | 0.77 |
| 6:F:257:LEU:HD22 | 13:G:166:ASP:HB2 | 1.66 | 0.77 |
| 9:P:15:PHE:CE1 | 10:Q:58:VAL:CG2 | 2.67 | 0.77 |
| 9:P:98:GLU:C | 10:Q:85:GLU:HG3 | 1.95 | 0.77 |
| 12:V:120:ARG:NH2 | 12:V:125:HIS:O | 2.17 | 0.77 |
| 1:A:486:ALA:HB1 | 3:C:386:LEU:HD11 | 1.67 | 0.77 |
| 2:B:27:GLU:N | 2:B:28:PRO:HD3 | 2.00 | 0.77 |
| 3:C:93:ILE:HB | 3:C:94:ARG:HH11 | 1.49 | 0.77 |
| 8:O:725:LEU:CG | 11:R:46:ARG:CZ | 2.59 | 0.77 |
| 12:V:207:ALA:C | 12:V:208:ALA:HA | 2.03 | 0.77 |
| 13:G:22:THR:HG23 | 13:G:26:ALA:C | 2.05 | 0.77 |
| 13:G:31:ILE:O | 13:G:35:LEU:HG | 1.84 | 0.77 |
| 1:A:133:GLU:OE2 | 1:A:136:ARG:NH2 | 2.17 | 0.77 |
| 2:B:14:GLU:O | 2:B:18:LEU:CD1 | 2.32 | 0.77 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:259:PHE:CZ | 11:R:67:GLU:OE1 | 2.37 | 0.77 |
| 2:B:424:LEU:HD12 | 6:F:289:MET:HE1 | 1.62 | 0.77 |
| 5:E:296:SER:C | 5:E:298:ASP:H | 1.87 | 0.77 |
| 11:R:40:ASP:HB2 | 11:R:77:HIS:HD1 | 1.50 | 0.77 |
| 1:A:421:ASP:O | 1:A:425:MET:N | 2.15 | 0.77 |
| 2:B:297:GLN:N | 11:R:67:GLU:HG3 | 2.00 | 0.77 |
| 5:E:201:SER:OG | 5:E:218:CYS:O | 2.02 | 0.77 |
| 6:F:264:CYS:HA | 6:F:267:LEU:HD12 | 1.67 | 0.77 |
| 8:O:106:ARG:HH12 | 10:Q:27:PRO:CA | 1.97 | 0.77 |
| 8:O:316:GLN:HG3 | 8:O:371:ALA:HB2 | 1.67 | 0.77 |
| 8:O:567:ASN:OD1 | 11:R:19:LYS:CB | 2.21 | 0.77 |
| 12:V:197:ASP:OD1 | 12:V:200:ARG:NH1 | 2.18 | 0.77 |
| 12:V:203:GLN:O | 12:V:207:ALA:CB | 2.33 | 0.77 |
| 1:A:128:VAL:HG13 | 1:A:131:TYR:HD2 | 1.50 | 0.77 |
| 1:A:297:ARG:NH2 | 12:V:142:VAL:HG11 | 1.98 | 0.77 |
| 4:D:70:CYS:HA | 4:D:73:LEU:HG | 1.64 | 0.77 |
| 4:D:195:LEU:HB3 | 4:D:200:LYS:HB2 | 1.67 | 0.77 |
| 4:D:304:VAL:O | 4:D:309:LEU:N | 2.17 | 0.77 |
| 5:E:25:ILE:HG22 | 5:E:231:SER:HA | 1.67 | 0.77 |
| 5:E:108:ASN:HA | 5:E:154:THR:HG23 | 1.65 | 0.77 |
| 8:O:379:ARG:NH1 | 8:O:383:SER:O | 2.16 | 0.77 |
| 8:O:523:PRO:HD2 | 8:O:558:TYR:CE1 | 2.19 | 0.77 |
| 8:O:563:GLU:HG3 | 11:R:27:TRP:CG | 2.20 | 0.77 |
| 9:P:100:PRO:N | 10:Q:88:LEU:HD11 | 1.99 | 0.77 |
| 1:A:185:LEU:HG | 1:A:189:LYS:HE3 | 1.66 | 0.77 |
| 1:A:368:LYS:O | 1:A:372:SER:N | 2.17 | 0.77 |
| 2:B:77:LYS:O | 2:B:81:LYS:N | 2.14 | 0.77 |
| 2:B:195:LEU:HD23 | 2:B:228:ILE:HD13 | 1.67 | 0.77 |
| 2:B:359:LEU:HD11 | 2:B:378:LEU:HD11 | 1.66 | 0.77 |
| 2:B:402:ILE:HA | 2:B:409:LEU:HD13 | 1.66 | 0.77 |
| 3:C:40:SER:O | 3:C:44:THR:N | 2.16 | 0.77 |
| 3:C:182:LEU:HB3 | 3:C:219:ILE:HG21 | 1.65 | 0.77 |
| 6:F:41:VAL:HG21 | 6:F:119:LEU:HA | 1.65 | 0.77 |
| 6:F:51:ILE:HA | 6:F:125:TYR:CZ | 2.19 | 0.77 |
| 7:H:43:LEU:HD23 | 7:H:46:LEU:HD12 | 1.65 | 0.77 |
| 9:P:9:ARG:HH11 | 9:P:77:LEU:HD11 | 1.49 | 0.77 |
| 13:G:132:ILE:HD12 | 13:G:133:ILE:N | 1.99 | 0.77 |
| 1:A:418:VAL:HG23 | 2:B:401:ARG:NE | 1.99 | 0.77 |
| 8:O:633:ASP:HB3 | 8:O:635:GLU:HB3 | 1.65 | 0.77 |
| 8:O:688:MET:SD | 8:O:731:ILE:CB | 2.73 | 0.77 |
| 9:P:37:ARG:HB3 | 9:P:42:GLN:HE21 | 1.50 | 0.77 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:101:GLN:HA | 1:A:115:LEU:HD23 | 1.66 | 0.77 |
| 4:D:388:ILE:HG23 | 4:D:396:THR:HB | 0.92 | 0.77 |
| 6:F:258:ARG:HD3 | 13:G:161:ASP:H | 1.50 | 0.77 |
| 8:O:51:GLU:HB2 | 8:O:52:PRO:HD3 | 1.67 | 0.77 |
| 8:O:182:HIS:HB2 | 8:O:253:TYR:HA | 1.65 | 0.77 |
| 8:O:490:PHE:CZ | 8:O:494:ILE:CG2 | 2.67 | 0.77 |
| 8:O:563:GLU:CB | 11:R:27:TRP:HB2 | 2.14 | 0.77 |
| 9:P:16:THR:CB | 10:Q:5:PHE:HE1 | 1.96 | 0.77 |
| 13:G:31:ILE:HG13 | 13:G:63:TYR:CE1 | 2.19 | 0.77 |
| 3:C:250:GLY:HA2 | 3:C:254:LYS:HB3 | 1.66 | 0.77 |
| 3:C:310:LEU:HD22 | 3:C:314:PHE:HE2 | 1.48 | 0.77 |
| 7:H:114:ARG:CA | 7:H:137:VAL:HG11 | 2.14 | 0.77 |
| 8:O:110:THR:HG21 | 10:Q:28:THR:N | 2.00 | 0.77 |
| 11:R:100:GLU:HG2 | 11:R:102:GLU:HB3 | 1.67 | 0.77 |
| 2:B:17:ASP:OD2 | 2:B:66:GLU:OE2 | 2.02 | 0.77 |
| 5:E:244:LYS:NZ | 6:F:230:MET:SD | 2.57 | 0.77 |
| 5:E:285:PHE:CG | 12:V:62:VAL:CG2 | 2.68 | 0.77 |
| 6:F:231:LEU:HD12 | 6:F:234:ARG:HB2 | 1.64 | 0.77 |
| 9:P:13:THR:CG2 | 10:Q:16:TYR:CD2 | 2.40 | 0.77 |
| 12:V:195:GLN:HA | 12:V:198:LEU:HD12 | 1.66 | 0.77 |
| 1:A:208:TYR:HB3 | 1:A:213:ASP:HB2 | 1.65 | 0.76 |
| 4:D:27:ARG:O | 4:D:31:GLU:N | 2.18 | 0.76 |
| 4:D:33:ALA:HA | 4:D:36:LEU:HG | 1.68 | 0.76 |
| 8:O:149:LYS:HA | 8:O:152:VAL:HB | 1.68 | 0.76 |
| 8:O:393:LYS:O | 8:O:396:ASP:HB2 | 1.85 | 0.76 |
| 8:O:574:VAL:HA | 11:R:19:LYS:HE3 | 1.66 | 0.76 |
| 2:B:367:THR:OG1 | 2:B:368:ARG:NH1 | 2.18 | 0.76 |
| 2:B:371:ILE:HD11 | 2:B:409:LEU:HB2 | 1.67 | 0.76 |
| 2:B:441:LYS:NZ | 6:F:303:ASN:CG | 2.38 | 0.76 |
| 3:C:156:LYS:HA | 3:C:159:LEU:HD12 | 1.65 | 0.76 |
| 4:D:387:LYS:C | 4:D:390:GLN:N | 2.39 | 0.76 |
| 6:F:261:TYR:HA | 13:G:170:ILE:CD1 | 2.15 | 0.76 |
| 2:B:10:CYS:SG | 2:B:70:LYS:CE | 2.73 | 0.76 |
| 2:B:25:ASN:ND2 | 8:O:647:LYS:HD3 | 1.96 | 0.76 |
| 4:D:85:TYR:HD1 | 4:D:106:ILE:HG23 | 1.51 | 0.76 |
| 5:E:250:LEU:CD2 | 5:E:323:ILE:CG2 | 2.63 | 0.76 |
| 5:E:326:LYS:HA | 13:G:184:VAL:HG11 | 1.65 | 0.76 |
| 5:E:331:ILE:O | 13:G:180:GLY:CA | 2.33 | 0.76 |
| 7:H:17:LEU:HA | 7:H:43:LEU:HD13 | 1.67 | 0.76 |
| 7:H:17:LEU:HD13 | 7:H:43:LEU:HB2 | 1.66 | 0.76 |
| 8:O:596:TYR:O | 8:O:600:GLN:HB2 | 1.86 | 0.76 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 8:O:692:LYS:HD2 | 8:O:743:TYR:CD2 | 2.20 | 0.76 |
| 2:B:14:GLU:C | 2:B:18:LEU:HD12 | 2.06 | 0.76 |
| 2:B:259:PHE:CE2 | 11:R:66:GLU:HB2 | 2.21 | 0.76 |
| 2:B:426:LYS:HD2 | 2:B:429:ASN:HB3 | 1.66 | 0.76 |
| 2:B:427:TRP:CA | 5:E:270:SER:HB2 | 2.15 | 0.76 |
| 3:C:383:CYS:SG | 6:F:291:TYR:OH | 2.44 | 0.76 |
| 5:E:251:SER:O | 5:E:253:SER:HB3 | 1.83 | 0.76 |
| 5:E:265:GLN:O | 5:E:269:LEU:N | 2.16 | 0.76 |
| 8:O:16:LYS:HZ3 | 8:O:41:ASP:HA | 1.50 | 0.76 |
| 3:C:216:VAL:HA | 3:C:253:ILE:HD11 | 1.67 | 0.76 |
| 5:E:285:PHE:O | 5:E:286:MET:CB | 2.16 | 0.76 |
| 9:P:15:PHE:HB3 | 10:Q:18:ILE:HG13 | 1.67 | 0.76 |
| 2:B:24:SER:H | 8:O:652:LYS:HZ2 | 0.78 | 0.76 |
| 2:B:85:PHE:O | 2:B:89:MET:N | 2.17 | 0.76 |
| 2:B:441:LYS:HD2 | 6:F:303:ASN:HA | 1.66 | 0.76 |
| 3:C:5:LEU:HA | 3:C:8:PHE:HE2 | 1.50 | 0.76 |
| 4:D:240:GLN:HG2 | 4:D:347:ARG:HD3 | 1.67 | 0.76 |
| 4:D:263:ILE:O | 4:D:267:MET:N | 2.19 | 0.76 |
| 5:E:69:ALA:HB2 | 5:E:139:SER:HB2 | 1.67 | 0.76 |
| 6:F:75:LYS:HB2 | 6:F:82:GLU:HB3 | 1.67 | 0.76 |
| 13:G:18:LEU:O | 13:G:22:THR:HB | 1.86 | 0.76 |
| 1:A:87:TYR:HA | 1:A:91:TYR:HD2 | 1.51 | 0.76 |
| 4:D:31:GLU:HA | 4:D:34:ILE:HD12 | 1.67 | 0.76 |
| 4:D:384:LEU:O | 4:D:387:LYS:HB3 | 1.84 | 0.76 |
| 6:F:252:PHE:CZ | 13:G:165:LYS:HA | 2.21 | 0.76 |
| 8:O:113:ILE:HB | 8:O:119:THR:HG21 | 1.66 | 0.76 |
| 8:O:437:ARG:NH2 | 8:O:518:PRO:O | 2.17 | 0.76 |
| 8:O:688:MET:SD | 8:O:725:LEU:HB3 | 2.24 | 0.76 |
| 9:P:15:PHE:CG | 10:Q:18:ILE:CD1 | 2.69 | 0.76 |
| 12:V:73:GLN:HG2 | 12:V:143:ASP:O | 1.83 | 0.76 |
| 13:G:50:ALA:O | 13:G:53:GLN:HG2 | 1.85 | 0.76 |
| 13:G:96:LEU:HA | 13:G:99:LEU:CD1 | 2.16 | 0.76 |
| 13:G:96:LEU:HA | 13:G:99:LEU:HD12 | 1.66 | 0.76 |
| 1:A:107:CYS:O | 1:A:111:ARG:N | 2.12 | 0.76 |
| 1:A:136:ARG:NH1 | 1:A:140:GLU:OE2 | 2.18 | 0.76 |
| 1:A:272:GLY:O | 1:A:277:GLN:N | 2.19 | 0.76 |
| 2:B:420:ARG:CG | 5:E:263:THR:CB | 2.58 | 0.76 |
| 4:D:52:MET:O | 4:D:95:ARG:NH1 | 2.19 | 0.76 |
| 5:E:246:TRP:CE3 | 6:F:229:LYS:CA | 2.63 | 0.76 |
| 7:H:81:ILE:O | 7:H:84:ARG:NE | 2.19 | 0.76 |
| 12:V:181:VAL:HB | 12:V:184:LEU:HG | 1.67 | 0.76 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 13:G:172:LYS:HA | 13:G:172:LYS:CE | 2.15 | 0.76 |
| 2:B:295:ASP:CB | 11:R:71:ALA:HA | 2.16 | 0.76 |
| 2:B:338:MET:HE1 | 2:B:347:ILE:HG21 | 1.67 | 0.76 |
| 5:E:250:LEU:HD22 | 13:G:185:LEU:CD2 | 2.16 | 0.76 |
| 8:O:693:VAL:O | 8:O:699:LEU:HD23 | 1.85 | 0.76 |
| 4:D:264:LEU:O | 4:D:268:TYR:N | 2.18 | 0.76 |
| 6:F:261:TYR:HB2 | 13:G:170:ILE:CD1 | 2.16 | 0.76 |
| 8:O:49:TYR:CE1 | 10:Q:92:LEU:HD12 | 1.79 | 0.76 |
| 3:C:400:ASN:HD22 | 6:F:312:LEU:HG | 1.49 | 0.75 |
| 4:D:307:HIS:HA | 4:D:310:LEU:HB3 | 1.66 | 0.75 |
| 5:E:251:SER:O | 6:F:224:GLN:N | 2.19 | 0.75 |
| 5:E:255:LEU:HD12 | 5:E:321:GLN:HG3 | 1.68 | 0.75 |
| 8:O:59:THR:HA | 8:O:135:PRO:HD2 | 1.68 | 0.75 |
| 8:O:569:LEU:C | 11:R:18:LYS:HD3 | 2.06 | 0.75 |
| 2:B:20:TYR:N | 8:O:652:LYS:CG | 2.49 | 0.75 |
| 2:B:205:TYR:HE1 | 2:B:213:LYS:HB2 | 1.51 | 0.75 |
| 2:B:205:TYR:O | 2:B:209:LYS:N | 2.19 | 0.75 |
| 2:B:260:GLU:OE2 | 11:R:66:GLU:OE1 | 2.04 | 0.75 |
| 5:E:200:PRO:HD2 | 5:E:222:TYR:HA | 1.67 | 0.75 |
| 5:E:244:LYS:HE3 | 6:F:229:LYS:O | 1.86 | 0.75 |
| 7:H:129:ILE:HA | 7:H:160:ARG:HG2 | 1.67 | 0.75 |
| 8:O:113:ILE:O | 8:O:119:THR:OG1 | 2.02 | 0.75 |
| 1:A:258:VAL:HG13 | 1:A:285:LEU:HD22 | 1.69 | 0.75 |
| 1:A:451:ALA:HA | 1:A:462:ALA:HA | 1.68 | 0.75 |
| 4:D:281:PHE:HA | 4:D:284:MET:HB2 | 1.66 | 0.75 |
| 5:E:129:ARG:HG3 | 6:F:57:ARG:HH11 | 1.50 | 0.75 |
| 5:E:279:GLN:HG3 | 5:E:295:LYS:HE3 | 1.69 | 0.75 |
| 8:O:35:TRP:HD1 | 10:Q:38:ARG:HH21 | 1.31 | 0.75 |
| 2:B:296:SER:OG | 11:R:67:GLU:CD | 2.25 | 0.75 |
| 5:E:327:LEU:CD2 | 13:G:181:CYS:C | 2.55 | 0.75 |
| 5:E:327:LEU:HD23 | 13:G:181:CYS:HA | 1.67 | 0.75 |
| 6:F:238:ILE:HG22 | 13:G:174:LEU:HD13 | 1.69 | 0.75 |
| 9:P:70:GLN:C | 10:Q:59:GLU:CD | 2.43 | 0.75 |
| 11:R:84:ILE:HG21 | 11:R:101:TRP:HA | 1.66 | 0.75 |
| 12:V:146:PRO:N | 12:V:147:ILE:HA | 1.86 | 0.75 |
| 4:D:114:TYR:O | 4:D:118:GLU:N | 2.18 | 0.75 |
| 5:E:250:LEU:HB3 | 6:F:228:ILE:CD1 | 2.11 | 0.75 |
| 8:O:27:LEU:O | 8:O:27:LEU:HD23 | 1.86 | 0.75 |
| 8:O:73:HIS:HE1 | 8:O:154:PRO:HG3 | 1.51 | 0.75 |
| 8:O:249:ARG:HA | 8:O:252:LYS:HG3 | 1.66 | 0.75 |
| 8:O:512:LEU:HB2 | 8:O:551:ARG:CB | 2.17 | 0.75 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 13:G:18:LEU:HB3 | 13:G:30:LEU:HD13 | 1.68 | 0.75 |
| 5:E:294:ARG:NH1 | 5:E:297:GLU:C | 2.34 | 0.75 |
| 5:E:294:ARG:CA | 5:E:295:LYS:HE2 | 2.10 | 0.75 |
| 8:O:584:VAL:HG11 | 8:O:610:LEU:HB2 | 1.69 | 0.75 |
| 8:O:694:LEU:HD11 | 8:O:699:LEU:HD23 | 1.66 | 0.75 |
| 8:O:696:HIS:HA | 8:O:722:ILE:CD1 | 2.16 | 0.75 |
| 9:P:41:GLU:HG2 | 9:P:82:ASP:HA | 1.67 | 0.75 |
| 2:B:58:LEU:HD13 | 2:B:72:LEU:HD21 | 1.68 | 0.75 |
| 2:B:427:TRP:HA | 5:E:270:SER:CB | 2.16 | 0.75 |
| 4:D:101:GLU:H | 4:D:137:LYS:HG2 | 1.51 | 0.75 |
| 4:D:148:TYR:HB3 | 4:D:171:ALA:HB2 | 1.67 | 0.75 |
| 7:H:24:GLU:HA | 7:H:32:ALA:HB2 | 1.69 | 0.75 |
| 8:O:688:MET:SD | 8:O:725:LEU:CB | 2.75 | 0.75 |
| 10:Q:80:PHE:O | 12:V:161:ARG:CD | 2.35 | 0.75 |
| 13:G:112:PRO:HA | 13:G:151:LEU:HD23 | 1.69 | 0.75 |
| 1:A:79:ASN:HB3 | 1:A:390:LEU:HD21 | 1.69 | 0.75 |
| 2:B:317:ALA:O | 2:B:321:ASN:N | 2.20 | 0.75 |
| 4:D:63:ARG:HA | 4:D:99:PHE:HE1 | 1.52 | 0.75 |
| 6:F:267:LEU:CD2 | 13:G:177:TRP:CD1 | 2.69 | 0.75 |
| 7:H:121:VAL:HG13 | 7:H:128:ILE:HG21 | 1.68 | 0.75 |
| 8:O:362:GLN:O | 8:O:366:SER:N | 2.19 | 0.75 |
| 8:O:458:ILE:HA | 8:O:461:LEU:HG | 1.69 | 0.75 |
| 4:D:371:ASP:HA | 4:D:374:ILE:HD12 | 1.68 | 0.75 |
| 5:E:285:PHE:HD2 | 12:V:62:VAL:HG11 | 1.48 | 0.75 |
| 6:F:69:ILE:HD11 | 6:F:98:ILE:HG22 | 1.69 | 0.75 |
| 7:H:98:TRP:HB3 | 7:H:102:VAL:HB | 1.67 | 0.75 |
| 8:O:170:ASP:HB2 | 8:O:249:ARG:HE | 1.52 | 0.75 |
| 8:O:192:GLU:OE2 | 8:O:202:PHE:N | 2.20 | 0.75 |
| 4:D:233:THR:HG22 | 4:D:246:LEU:HG | 1.67 | 0.74 |
| 5:E:285:PHE:CD1 | 12:V:62:VAL:HG22 | 2.21 | 0.74 |
| 5:E:326:LYS:O | 13:G:184:VAL:HB | 1.87 | 0.74 |
| 6:F:33:CYS:HA | 6:F:184:ALA:HB2 | 1.68 | 0.74 |
| 8:O:98:ALA:HB1 | 8:O:140:GLY:HA2 | 1.69 | 0.74 |
| 8:O:102:ASP:OD1 | 8:O:109:ASN:ND2 | 2.20 | 0.74 |
| 2:B:370:HIS:HB3 | 2:B:373:PHE:HB2 | 1.69 | 0.74 |
| 3:C:82:GLN:O | 3:C:86:SER:N | 2.20 | 0.74 |
| 5:E:249:THR:N | 6:F:222:ILE:HD12 | 2.02 | 0.74 |
| 8:O:106:ARG:HA | 8:O:109:ASN:HD22 | 1.52 | 0.74 |
| 8:O:485:ASP:HA | 8:O:488:ASN:HD22 | 1.52 | 0.74 |
| 8:O:544:TYR:HE2 | 8:O:552:LYS:HG2 | 1.50 | 0.74 |
| 12:V:65:SER:HB2 | 12:V:91:PHE:HD1 | 1.50 | 0.74 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:193:ILE:HB | 1:A:196:SER:HB2 | 1.69 | 0.74 |
| 2:B:86:PRO:HA | 2:B:89:MET:HB3 | 1.69 | 0.74 |
| 3:C:59:LEU:HD22 | 3:C:81:VAL:HG22 | 1.68 | 0.74 |
| 5:E:245:TYR:HH | 6:F:222:ILE:HG12 | 0.95 | 0.74 |
| 6:F:43:LEU:HD23 | 6:F:191:ALA:H | 1.50 | 0.74 |
| 8:O:573:TYR:HB3 | 8:O:650:LYS:HE2 | 1.69 | 0.74 |
| 13:G:47:LEU:HA | 13:G:52:VAL:HG21 | 1.69 | 0.74 |
| 2:B:18:LEU:O | 2:B:20:TYR:HD2 | 1.70 | 0.74 |
| 2:B:27:GLU:HG2 | 2:B:64:LYS:HG2 | 1.67 | 0.74 |
| 2:B:341:PRO:O | 2:B:345:GLU:N | 2.20 | 0.74 |
| 8:O:32:ARG:CD | 8:O:35:TRP:CE3 | 2.67 | 0.74 |
| 9:P:99:LEU:HD12 | 9:P:103:MET:CB | 1.94 | 0.74 |
| 12:V:89:LEU:HB3 | 12:V:116:LEU:HD22 | 1.67 | 0.74 |
| 2:B:18:LEU:HA | 2:B:27:GLU:HB2 | 1.69 | 0.74 |
| 2:B:256:THR:N | 11:R:64:THR:OG1 | 2.15 | 0.74 |
| 2:B:375:SER:O | 2:B:379:ASN:N | 2.21 | 0.74 |
| 4:D:274:ARG:NH2 | 4:D:329:GLU:OE2 | 2.19 | 0.74 |
| 5:E:90:MET:SD | 5:E:187:ARG:NH1 | 2.60 | 0.74 |
| 5:E:246:TRP:C | 6:F:229:LYS:HB2 | 2.07 | 0.74 |
| 5:E:251:SER:HA | 5:E:324:LYS:CD | 2.17 | 0.74 |
| 5:E:273:LEU:O | 5:E:276:SER:OG | 2.04 | 0.74 |
| 5:E:285:PHE:HB2 | 12:V:62:VAL:HG13 | 1.68 | 0.74 |
| 6:F:262:ALA:HB1 | 13:G:157:CYS:SG | 2.27 | 0.74 |
| 8:O:103:CYS:HA | 10:Q:35:GLY:HA3 | 1.68 | 0.74 |
| 8:O:505:ILE:CD1 | 8:O:533:LEU:CD2 | 2.64 | 0.74 |
| 10:Q:88:LEU:HD13 | 12:V:179:ASP:OD2 | 1.85 | 0.74 |
| 13:G:110:CYS:HB3 | 13:G:151:LEU:CB | 2.17 | 0.74 |
| 2:B:159:TYR:CE2 | 2:B:167:LYS:HE2 | 2.22 | 0.74 |
| 2:B:238:ARG:O | 2:B:242:GLY:N | 2.21 | 0.74 |
| 2:B:245:HIS:O | 2:B:249:GLY:N | 2.17 | 0.74 |
| 3:C:352:ASN:O | 3:C:356:GLY:N | 2.21 | 0.74 |
| 4:D:78:ASP:HA | 4:D:81:ALA:HB3 | 1.68 | 0.74 |
| 6:F:152:LEU:HG | 6:F:165:VAL:HG13 | 1.68 | 0.74 |
| 9:P:25:PHE:HA | 9:P:39:PRO:HG3 | 1.67 | 0.74 |
| 13:G:72:TYR:CE2 | 13:G:164:LYS:HB3 | 2.23 | 0.74 |
| 1:A:408:ARG:HA | 1:A:411:ILE:HD12 | 1.70 | 0.74 |
| 3:C:210:THR:HG22 | 3:C:245:THR:HA | 1.69 | 0.74 |
| 3:C:365:GLU:OE2 | 3:C:369:ASN:ND2 | 2.21 | 0.74 |
| 4:D:293:THR:HA | 4:D:299:ILE:HG13 | 1.68 | 0.74 |
| 6:F:288:LEU:O | 6:F:292:LEU:HG | 1.88 | 0.74 |
| 7:H:90:TYR:HA | 7:H:93:ILE:HB | 1.68 | 0.74 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:428:LYS:HB2 | 8:O:432:GLN:HE21 | 1.53 | 0.74 |
| 9:P:63:THR:OG1 | 9:P:66:THR:N | 2.21 | 0.74 |
| 12:V:120:ARG:HG3 | 12:V:194:VAL:HG22 | 1.70 | 0.74 |
| 13:G:15:PHE:CE1 | 13:G:34:VAL:HG22 | 2.23 | 0.74 |
| 13:G:19:ALA:HB1 | 13:G:52:VAL:HG13 | 1.68 | 0.74 |
| 2:B:18:LEU:HD13 | 8:O:648:ARG:HE | 1.52 | 0.74 |
| 6:F:267:LEU:CG | 13:G:177:TRP:CD1 | 2.71 | 0.74 |
| 8:O:361:ASP:O | 8:O:364:PHE:N | 2.20 | 0.74 |
| 8:O:548:PHE:HB3 | 11:R:33:TRP:CZ3 | 2.21 | 0.74 |
| 8:O:676:ARG:NH2 | 8:O:710:ARG:HG2 | 2.03 | 0.74 |
| 8:O:722:ILE:O | 8:O:726:ILE:HG12 | 1.88 | 0.74 |
| 9:P:15:PHE:CG | 10:Q:58:VAL:CG2 | 2.68 | 0.74 |
| 4:D:119:ASP:OD2 | 4:D:122:ASN:ND2 | 2.21 | 0.74 |
| 4:D:388:ILE:CG1 | 4:D:396:THR:CG2 | 2.64 | 0.74 |
| 5:E:61:ALA:O | 5:E:65:MET:CB | 2.36 | 0.74 |
| 5:E:246:TRP:CZ2 | 6:F:229:LYS:C | 2.60 | 0.74 |
| 5:E:329:ASN:HB3 | 6:F:276:LYS:HE2 | 1.68 | 0.74 |
| 9:P:56:THR:O | 9:P:60:CYS:N | 2.21 | 0.74 |
| 12:V:146:PRO:HD3 | 12:V:148:PHE:CE1 | 2.22 | 0.74 |
| 13:G:94:ASN:HA | 13:G:97:LYS:CD | 2.16 | 0.74 |
| 13:G:97:LYS:HB3 | 13:G:120:LEU:HD13 | 1.68 | 0.74 |
| 1:A:79:ASN:ND2 | 1:A:386:ASP:O | 2.21 | 0.74 |
| 2:B:110:LYS:HA | 2:B:113:ASN:HD22 | 1.52 | 0.74 |
| 5:E:28:ILE:HG21 | 5:E:229:PHE:HB2 | 1.69 | 0.74 |
| 5:E:246:TRP:H | 6:F:229:LYS:CD | 2.00 | 0.74 |
| 5:E:260:ASP:O | 5:E:263:THR:OG1 | 2.02 | 0.74 |
| 5:E:327:LEU:HD22 | 13:G:181:CYS:CB | 2.17 | 0.74 |
| 8:O:84:LEU:HD23 | 8:O:159:LEU:HG | 1.70 | 0.74 |
| 8:O:454:GLU:O | 8:O:458:ILE:HD12 | 1.88 | 0.74 |
| 8:O:469:PHE:HA | 8:O:472:LYS:CD | 2.18 | 0.74 |
| 9:P:13:THR:HG23 | 10:Q:16:TYR:CD2 | 2.23 | 0.74 |
| 9:P:14:ILE:HG12 | 10:Q:17:GLU:CG | 2.17 | 0.74 |
| 9:P:93:PHE:HA | 10:Q:16:TYR:OH | 1.87 | 0.74 |
| 1:A:278:THR:HG22 | 1:A:313:HIS:HA | 1.68 | 0.73 |
| 1:A:373:LYS:O | 1:A:377:CYS:N | 2.19 | 0.73 |
| 1:A:433:VAL:O | 1:A:437:GLU:CB | 2.35 | 0.73 |
| 5:E:246:TRP:CB | 6:F:229:LYS:HD2 | 1.69 | 0.73 |
| 8:O:611:THR:HB | 8:O:630:GLU:CA | 2.16 | 0.73 |
| 12:V:203:GLN:O | 12:V:207:ALA:HB2 | 1.88 | 0.73 |
| 1:A:87:TYR:O | 1:A:91:TYR:N | 2.21 | 0.73 |
| 1:A:133:GLU:HG3 | 1:A:137:LYS:HE3 | 1.68 | 0.73 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 2:B:32:LEU:HD21 | 8:O:649:THR:CB | 2.16 | 0.73 |
| 2:B:259:PHE:CE2 | 11:R:66:GLU:CB | 2.71 | 0.73 |
| 4:D:232:CYS:O | 4:D:236:ALA:N | 2.21 | 0.73 |
| 4:D:285:LEU:HD22 | 4:D:289:GLN:HB3 | 1.70 | 0.73 |
| 4:D:320:THR:HG22 | 4:D:358:ILE:HG12 | 1.68 | 0.73 |
| 7:H:90:TYR:O | 7:H:94:ASN:N | 2.21 | 0.73 |
| 2:B:221:SER:HA | 2:B:224:ILE:HD11 | 1.69 | 0.73 |
| 8:O:483:SER:O | 8:O:507:PHE:CE2 | 2.42 | 0.73 |
| 8:O:725:LEU:HD23 | 11:R:46:ARG:CZ | 2.18 | 0.73 |
| 11:R:82:HIS:O | 11:R:86:ARG:HG2 | 1.88 | 0.73 |
| 13:G:12:LEU:H | 13:G:12:LEU:HD13 | 1.53 | 0.73 |
| 13:G:41:TYR:HB2 | 13:G:161:ASP:OD1 | 1.88 | 0.73 |
| 13:G:91:ALA:O | 13:G:95:LYS:HG3 | 1.88 | 0.73 |
| 13:G:113:TYR:OH | 13:G:145:LEU:HB3 | 1.87 | 0.73 |
| 1:A:436:LEU:O | 1:A:440:LEU:HG | 1.88 | 0.73 |
| 2:B:159:TYR:HE2 | 2:B:167:LYS:HE2 | 1.51 | 0.73 |
| 2:B:428:THR:HA | 2:B:431:LEU:HD12 | 1.71 | 0.73 |
| 3:C:316:THR:HG23 | 3:C:358:VAL:H | 1.53 | 0.73 |
| 5:E:59:ALA:H | 6:F:46:LEU:HD13 | 1.53 | 0.73 |
| 7:H:111:ASP:OD1 | 7:H:114:ARG:NH1 | 2.22 | 0.73 |
| 8:O:490:PHE:HE1 | 8:O:539:MET:CG | 2.01 | 0.73 |
| 8:O:505:ILE:HG22 | 11:R:27:TRP:CB | 2.14 | 0.73 |
| 8:O:610:LEU:O | 8:O:614:ILE:HD12 | 1.89 | 0.73 |
| 13:G:98:HIS:HD2 | 13:G:135:ALA:HB2 | 1.52 | 0.73 |
| 2:B:41:ALA:HB1 | 2:B:50:ALA:HB1 | 1.71 | 0.73 |
| 4:D:187:TYR:HD2 | 4:D:188:LYS:HD2 | 1.53 | 0.73 |
| 8:O:302:ARG:HA | 8:O:308:LEU:HG | 1.69 | 0.73 |
| 8:O:438:MET:HA | 8:O:441:LYS:HE2 | 1.69 | 0.73 |
| 10:Q:91:LEU:CD2 | 12:V:184:LEU:CD2 | 2.65 | 0.73 |
| 6:F:261:TYR:HB2 | 13:G:170:ILE:HD11 | 1.69 | 0.73 |
| 8:O:50:PRO:HB3 | 8:O:53:LEU:HB2 | 1.71 | 0.73 |
| 8:O:565:LYS:HG3 | 11:R:19:LYS:HD3 | 1.71 | 0.73 |
| 8:O:617:LEU:O | 8:O:622:MET:N | 2.20 | 0.73 |
| 8:O:687:ILE:HD13 | 8:O:706:GLN:NE2 | 2.03 | 0.73 |
| 9:P:11:LYS:HE3 | 10:Q:14:LYS:HG3 | 1.70 | 0.73 |
| 12:V:98:TYR:HB3 | 12:V:99:PRO:HD2 | 1.69 | 0.73 |
| 1:A:332:CYS:O | 1:A:336:THR:OG1 | 2.03 | 0.73 |
| 2:B:212:LYS:HG2 | 2:B:215:LYS:HE3 | 1.71 | 0.73 |
| 2:B:441:LYS:HD3 | 6:F:306:VAL:HB | 1.71 | 0.73 |
| 6:F:110:GLU:OE2 | 6:F:114:GLN:NE2 | 2.22 | 0.73 |
| 8:O:36:ASN:HA | 8:O:39:PHE:HD2 | 1.53 | 0.73 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 8:O:179:LYS:O | 8:O:183:GLY:N | 2.18 | 0.73 |
| 8:O:622:MET:HE1 | 8:O:653:ILE:HD13 | 1.71 | 0.73 |
| 8:O:688:MET:SD | 8:O:731:ILE:HB | 2.29 | 0.73 |
| 9:P:98:GLU:C | 10:Q:85:GLU:CG | 2.55 | 0.73 |
| 9:P:100:PRO:HG3 | 10:Q:88:LEU:CG | 2.17 | 0.73 |
| 2:B:329:ILE:O | 2:B:333:ASN:N | 2.21 | 0.73 |
| 3:C:153:LYS:O | 7:H:59:ARG:NH1 | 2.22 | 0.73 |
| 3:C:387:ASP:HB2 | 6:F:298:THR:HG23 | 1.70 | 0.73 |
| 4:D:31:GLU:OE2 | 4:D:35:GLN:NE2 | 2.20 | 0.73 |
| 5:E:60:LEU:N | 6:F:46:LEU:HD22 | 2.03 | 0.73 |
| 5:E:247:VAL:O | 6:F:228:ILE:CG1 | 2.36 | 0.73 |
| 5:E:250:LEU:O | 5:E:328:PHE:HE2 | 1.69 | 0.73 |
| 6:F:51:ILE:HG21 | 6:F:154:LEU:HD13 | 1.70 | 0.73 |
| 8:O:160:ILE:HG21 | 8:O:210:PRO:HG2 | 1.71 | 0.73 |
| 8:O:544:TYR:OH | 11:R:33:TRP:HE3 | 1.69 | 0.73 |
| 8:O:562:GLY:N | 8:O:577:VAL:O | 2.22 | 0.73 |
| 8:O:656:SER:O | 8:O:658:GLN:CD | 2.27 | 0.73 |
| 8:O:657:MET:C | 8:O:658:GLN:HB2 | 2.09 | 0.73 |
| 8:O:700:ILE:CD1 | 8:O:718:ILE:HB | 2.19 | 0.73 |
| 9:P:15:PHE:CD2 | 10:Q:58:VAL:CG2 | 2.62 | 0.73 |
| 9:P:15:PHE:N | 10:Q:18:ILE:HD12 | 2.04 | 0.73 |
| 1:A:452:ARG:O | 1:A:461:TYR:N | 2.22 | 0.73 |
| 1:A:504:SER:HA | 3:C:215:ALA:HB2 | 1.71 | 0.73 |
| 2:B:28:PRO:HD2 | 2:B:29:ASN:N | 2.04 | 0.73 |
| 2:B:194:LEU:HB3 | 2:B:228:ILE:HD12 | 1.71 | 0.73 |
| 2:B:338:MET:HE1 | 2:B:344:ARG:HA | 1.68 | 0.73 |
| 3:C:205:TYR:HB2 | 3:C:227:TYR:HB2 | 1.69 | 0.73 |
| 5:E:128:GLY:HA3 | 6:F:61:GLN:HE22 | 1.54 | 0.73 |
| 5:E:240:LEU:HD23 | 5:E:243:ASN:HD22 | 1.54 | 0.73 |
| 5:E:251:SER:CA | 5:E:324:LYS:HD3 | 2.19 | 0.73 |
| 8:O:105:TYR:OH | 8:O:137:MET:O | 2.06 | 0.73 |
| 8:O:131:ASP:OD2 | 8:O:135:PRO:HA | 1.89 | 0.73 |
| 8:O:166:GLU:HA | 8:O:169:ASN:HD22 | 1.53 | 0.73 |
| 8:O:399:LEU:O | 8:O:449:MET:N | 2.21 | 0.73 |
| 2:B:28:PRO:HD2 | 2:B:29:ASN:H | 1.52 | 0.73 |
| 3:C:136:ASN:ND2 | 3:C:160:PRO:O | 2.21 | 0.73 |
| 3:C:347:ILE:HD13 | 3:C:358:VAL:HG12 | 1.70 | 0.73 |
| 5:E:39:ILE:HB | 5:E:85:VAL:HG23 | 1.71 | 0.73 |
| 5:E:98:LEU:HD13 | 5:E:100:VAL:HG11 | 1.71 | 0.73 |
| 5:E:248:ASN:CA | 6:F:222:ILE:O | 2.36 | 0.73 |
| 8:O:65:LEU:HG | 8:O:94:TYR:OH | 1.89 | 0.73 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 13:G:149:ASN:HB3 | 13:G:151:LEU:HG | 1.70 | 0.73 |
| 6:F:98:ILE:HG22 | 6:F:138:VAL:HG21 | 1.71 | 0.72 |
| 9:P:30:ILE:N | 10:Q:5:PHE:CD2 | 2.57 | 0.72 |
| 9:P:63:THR:H | 9:P:66:THR:HB | 1.54 | 0.72 |
| 13:G:56:ALA:O | 13:G:57:GLU:HG3 | 1.89 | 0.72 |
| 13:G:98:HIS:CD2 | 13:G:135:ALA:HB2 | 2.24 | 0.72 |
| 2:B:23:ASP:H | 8:O:652:LYS:HZ3 | 1.37 | 0.72 |
| 2:B:431:LEU:HD21 | 6:F:296:THR:OG1 | 1.89 | 0.72 |
| 4:D:52:MET:HA | 4:D:57:VAL:HG11 | 1.70 | 0.72 |
| 4:D:141:VAL:HA | 4:D:144:LYS:HE3 | 1.71 | 0.72 |
| 5:E:330:GLN:HA | 6:F:268:PRO:HB2 | 1.70 | 0.72 |
| 6:F:254:HIS:NE2 | 13:G:44:GLY:CA | 2.50 | 0.72 |
| 7:H:148:ILE:O | 7:H:153:TRP:N | 2.16 | 0.72 |
| 7:H:209:ASN:OXT | 13:G:202:HIS:CB | 2.36 | 0.72 |
| 8:O:505:ILE:HG21 | 11:R:27:TRP:HE3 | 1.47 | 0.72 |
| 8:O:511:VAL:HG11 | 8:O:551:ARG:CZ | 1.96 | 0.72 |
| 8:O:512:LEU:H | 11:R:32:LEU:HD22 | 1.51 | 0.72 |
| 8:O:553:LEU:CA | 11:R:32:LEU:H | 1.93 | 0.72 |
| 8:O:571:LYS:NZ | 8:O:642:MET:SD | 2.62 | 0.72 |
| 8:O:729:GLN:CG | 11:R:55:GLU:CG | 2.66 | 0.72 |
| 9:P:99:LEU:CD1 | 10:Q:84:THR:OG1 | 2.36 | 0.72 |
| 9:P:104:LYS:HD3 | 12:V:169:LEU:HD22 | 1.69 | 0.72 |
| 13:G:140:ILE:HD13 | 13:G:158:ILE:H | 1.53 | 0.72 |
| 1:A:144:GLU:O | 1:A:147:ASN:ND2 | 2.22 | 0.72 |
| 2:B:89:MET:HA | 2:B:92:TYR:CE1 | 2.23 | 0.72 |
| 2:B:255:HIS:HA | 2:B:258:PHE:HD2 | 1.53 | 0.72 |
| 3:C:374:HIS:O | 3:C:378:GLN:NE2 | 2.22 | 0.72 |
| 5:E:119:ALA:HB1 | 6:F:111:GLN:HG2 | 1.71 | 0.72 |
| 11:R:45:CYS:HB2 | 11:R:54:ILE:H | 1.49 | 0.72 |
| 2:B:5:GLU:O | 2:B:9:MET:HB2 | 1.89 | 0.72 |
| 4:D:388:ILE:HG12 | 4:D:396:THR:CG2 | 2.18 | 0.72 |
| 5:E:70:ARG:HD3 | 5:E:176:ILE:HD11 | 1.72 | 0.72 |
| 8:O:35:TRP:HB2 | 10:Q:39:GLU:CG | 2.04 | 0.72 |
| 8:O:490:PHE:CD2 | 8:O:494:ILE:CG1 | 2.57 | 0.72 |
| 12:V:89:LEU:HD21 | 12:V:93:GLY:HA2 | 1.72 | 0.72 |
| 13:G:22:THR:CG2 | 13:G:27:LEU:HA | 2.19 | 0.72 |
| 3:C:27:LEU:O | 3:C:30:LYS:N | 2.22 | 0.72 |
| 3:C:217:SER:O | 3:C:221:LEU:N | 2.17 | 0.72 |
| 4:D:385:LEU:HD13 | 6:F:238:ILE:HG13 | 1.71 | 0.72 |
| 5:E:282:ARG:HH11 | 5:E:282:ARG:CB | 2.03 | 0.72 |
| 6:F:217:VAL:HB | 13:G:192:VAL:HG11 | 0.78 | 0.72 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 9:P:1:MET:HG3 | 9:P:64:SER:HB2 | 1.70 | 0.72 |
| 1:A:342:LEU:O | 1:A:347:ILE:N | 2.22 | 0.72 |
| 2:B:342:PHE:HA | 2:B:345:GLU:HB3 | 1.70 | 0.72 |
| 3:C:374:HIS:ND1 | 3:C:377:ASP:OD2 | 2.23 | 0.72 |
| 4:D:324:LEU:HD22 | 4:D:359:VAL:HB | 1.70 | 0.72 |
| 5:E:37:GLN:NE2 | 5:E:132:ASN:OD1 | 2.23 | 0.72 |
| 5:E:183:LEU:HD22 | 5:E:226:VAL:HG21 | 1.71 | 0.72 |
| 5:E:244:LYS:HE3 | 6:F:230:MET:HA | 1.66 | 0.72 |
| 8:O:465:CYS:SG | 8:O:466:GLY:N | 2.62 | 0.72 |
| 8:O:505:ILE:CD1 | 8:O:533:LEU:HD23 | 2.20 | 0.72 |
| 8:O:569:LEU:HB2 | 11:R:18:LYS:CB | 2.20 | 0.72 |
| 8:O:600:GLN:HA | 8:O:603:THR:HG23 | 1.71 | 0.72 |
| 8:O:699:LEU:O | 8:O:703:VAL:HG23 | 1.90 | 0.72 |
| 9:P:7:ILE:HA | 9:P:75:VAL:HB | 1.71 | 0.72 |
| 9:P:98:GLU:O | 10:Q:85:GLU:HA | 1.89 | 0.72 |
| 12:V:207:ALA:O | 12:V:208:ALA:CA | 2.26 | 0.72 |
| 3:C:85:ILE:O | 3:C:89:ASN:ND2 | 2.23 | 0.72 |
| 7:H:94:ASN:HA | 7:H:97:GLN:HE21 | 1.55 | 0.72 |
| 8:O:103:CYS:C | 10:Q:35:GLY:CA | 2.52 | 0.72 |
| 8:O:103:CYS:HA | 10:Q:35:GLY:CA | 2.18 | 0.72 |
| 8:O:293:ASP:O | 8:O:297:MET:CB | 2.37 | 0.72 |
| 8:O:489:LYS:CG | 8:O:492:ASN:HD21 | 1.67 | 0.72 |
| 1:A:185:LEU:HB2 | 1:A:204:LEU:HD21 | 1.71 | 0.72 |
| 1:A:321:SER:OG | 1:A:324:ASN:N | 2.21 | 0.72 |
| 2:B:436:GLN:O | 3:C:243:LYS:NZ | 2.22 | 0.72 |
| 4:D:85:TYR:HB2 | 4:D:110:LEU:HD13 | 1.70 | 0.72 |
| 5:E:146:TRP:HB3 | 5:E:169:VAL:HG22 | 1.70 | 0.72 |
| 5:E:247:VAL:HA | 6:F:228:ILE:HG22 | 1.72 | 0.72 |
| 6:F:46:LEU:HG | 6:F:46:LEU:O | 1.89 | 0.72 |
| 6:F:103:GLU:HA | 6:F:106:TYR:HD2 | 1.54 | 0.72 |
| 6:F:262:ALA:CB | 13:G:157:CYS:SG | 2.78 | 0.72 |
| 8:O:569:LEU:HG | 11:R:20:LYS:H | 0.92 | 0.72 |
| 12:V:60:ARG:HB3 | 12:V:91:PHE:HB3 | 1.71 | 0.72 |
| 3:C:216:VAL:HG13 | 3:C:253:ILE:HG12 | 1.71 | 0.72 |
| 3:C:319:LEU:HD22 | 3:C:334:ALA:HB1 | 1.72 | 0.72 |
| 4:D:315:LEU:HD11 | 13:G:137:TYR:CD2 | 2.22 | 0.72 |
| 5:E:147:LEU:HD22 | 5:E:151:ASP:HB3 | 1.70 | 0.72 |
| 5:E:246:TRP:CZ3 | 6:F:228:ILE:O | 2.43 | 0.72 |
| 5:E:246:TRP:H | 6:F:229:LYS:HD3 | 1.53 | 0.72 |
| 6:F:267:LEU:HD13 | 13:G:177:TRP:CB | 2.16 | 0.72 |
| 8:O:550:GLY:HA2 | 11:R:36:ASP:OD1 | 1.90 | 0.72 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 10:Q:88:LEU:HD23 | 12:V:179:ASP:HB3 | 1.66 | 0.72 |
| 12:V:74:VAL:HG21 | 12:V:138:PRO:HB3 | 1.70 | 0.72 |
| 13:G:27:LEU:HD12 | 13:G:55:LEU:HD22 | 1.72 | 0.72 |
| 1:A:84:LEU:HD23 | 1:A:87:TYR:HD2 | 1.54 | 0.72 |
| 1:A:418:VAL:HG23 | 2:B:401:ARG:NH2 | 2.04 | 0.72 |
| 1:A:433:VAL:O | 1:A:437:GLU:HB2 | 1.90 | 0.72 |
| 2:B:21:SER:O | 8:O:652:LYS:CB | 2.36 | 0.72 |
| 3:C:319:LEU:O | 3:C:323:ALA:N | 2.22 | 0.72 |
| 3:C:344:ASP:HB2 | 3:C:346:GLU:HG3 | 1.72 | 0.72 |
| 3:C:387:ASP:HA | 3:C:390:LEU:HD12 | 1.72 | 0.72 |
| 5:E:189:TYR:N | 5:E:220:GLN:O | 2.22 | 0.72 |
| 5:E:281:GLY:HA3 | 5:E:282:ARG:HH22 | 1.54 | 0.72 |
| 6:F:122:LEU:HG | 6:F:150:LEU:HB3 | 1.70 | 0.72 |
| 8:O:45:LEU:HD21 | 8:O:57:LEU:HD13 | 1.71 | 0.72 |
| 8:O:490:PHE:CD1 | 8:O:494:ILE:HG13 | 2.25 | 0.72 |
| 2:B:442:LEU:CD2 | 6:F:309:PHE:CE2 | 2.70 | 0.71 |
| 5:E:83:GLY:HA3 | 5:E:134:ILE:HG21 | 1.72 | 0.71 |
| 5:E:262:THR:O | 5:E:266:VAL:N | 2.18 | 0.71 |
| 5:E:274:GLU:O | 5:E:278:ALA:N | 2.21 | 0.71 |
| 6:F:237:LEU:O | 6:F:241:TYR:HB2 | 1.89 | 0.71 |
| 6:F:258:ARG:NE | 13:G:159:GLY:C | 2.26 | 0.71 |
| 9:P:79:PHE:N | 9:P:86:GLU:OE1 | 2.22 | 0.71 |
| 13:G:24:GLY:N | 13:G:27:LEU:HB2 | 2.04 | 0.71 |
| 5:E:186:PHE:HA | 5:E:222:TYR:O | 1.89 | 0.71 |
| 8:O:386:LYS:O | 8:O:390:LEU:N | 2.20 | 0.71 |
| 8:O:557:HIS:HB3 | 8:O:579:THR:HG21 | 1.72 | 0.71 |
| 3:C:73:ASP:HA | 3:C:76:THR:OG1 | 1.91 | 0.71 |
| 5:E:323:ILE:HD11 | 7:H:197:LEU:HD21 | 1.72 | 0.71 |
| 11:R:53:CYS:O | 11:R:57:GLN:N | 2.21 | 0.71 |
| 12:V:161:ARG:HH12 | 12:V:165:VAL:HB | 1.55 | 0.71 |
| 13:G:185:LEU:O | 13:G:189:GLU:HG3 | 1.90 | 0.71 |
| 2:B:18:LEU:HD22 | 8:O:648:ARG:CZ | 2.20 | 0.71 |
| 3:C:12:VAL:O | 3:C:16:SER:N | 2.17 | 0.71 |
| 3:C:260:TYR:HA | 3:C:263:LEU:HB3 | 1.71 | 0.71 |
| 4:D:388:ILE:CG2 | 4:D:396:THR:CG2 | 2.68 | 0.71 |
| 8:O:468:GLU:O | 8:O:472:LYS:HG3 | 1.89 | 0.71 |
| 8:O:610:LEU:HB3 | 8:O:631:ASP:HA | 1.72 | 0.71 |
| 9:P:18:ALA:HB1 | 9:P:26:GLU:HG3 | 1.72 | 0.71 |
| 9:P:43:ARG:NH2 | 9:P:86:GLU:O | 2.23 | 0.71 |
| 12:V:73:GLN:CG | 12:V:144:GLY:N | 2.53 | 0.71 |
| 12:V:88:TRP:HD1 | 12:V:116:LEU:H | 1.36 | 0.71 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 2:B:414:GLN:OE1 | 2:B:416:ARG:NE | 2.23 | 0.71 |
| 5:E:246:TRP:CD2 | 6:F:229:LYS:CA | 2.36 | 0.71 |
| 5:E:327:LEU:HD23 | 13:G:181:CYS:CA | 2.19 | 0.71 |
| 7:H:209:ASN:OXT | 13:G:202:HIS:HB2 | 1.90 | 0.71 |
| 8:O:569:LEU:CA | 11:R:20:LYS:HB3 | 2.20 | 0.71 |
| 8:O:612:LYS:HE2 | 8:O:657:MET:H | 1.55 | 0.71 |
| 9:P:15:PHE:CD1 | 10:Q:58:VAL:HG21 | 2.25 | 0.71 |
| 12:V:87:VAL:HA | 12:V:96:GLN:O | 1.91 | 0.71 |
| 1:A:245:SER:HB3 | 1:A:250:ASN:HB2 | 1.71 | 0.71 |
| 2:B:259:PHE:HE2 | 11:R:66:GLU:HB3 | 1.54 | 0.71 |
| 3:C:121:ILE:HA | 3:C:145:LEU:HD11 | 1.72 | 0.71 |
| 6:F:254:HIS:NE2 | 13:G:162:ILE:HD13 | 2.05 | 0.71 |
| 8:O:407:THR:HB | 8:O:410:GLU:HB2 | 1.72 | 0.71 |
| 8:O:573:TYR:HB3 | 8:O:650:LYS:HB3 | 1.70 | 0.71 |
| 8:O:733:ARG:HH21 | 11:R:96:LEU:HD21 | 1.36 | 0.71 |
| 9:P:69:PRO:CA | 10:Q:62:ASN:HD21 | 1.79 | 0.71 |
| 11:R:78:ALA:HA | 11:R:100:GLU:HB3 | 1.73 | 0.71 |
| 12:V:76:PHE:CB | 12:V:101:LEU:HD11 | 2.19 | 0.71 |
| 1:A:467:GLN:HE22 | 2:B:422:THR:HG23 | 0.93 | 0.71 |
| 2:B:70:LYS:O | 2:B:74:GLN:HG2 | 1.89 | 0.71 |
| 2:B:79:ASN:CB | 2:B:88:MET:HB2 | 2.21 | 0.71 |
| 3:C:179:LYS:HG2 | 3:C:182:LEU:HD12 | 1.72 | 0.71 |
| 4:D:215:THR:HA | 4:D:222:ARG:HD3 | 1.71 | 0.71 |
| 4:D:381:VAL:HG12 | 6:F:231:LEU:HD11 | 1.72 | 0.71 |
| 5:E:55:CYS:HA | 5:E:90:MET:O | 1.91 | 0.71 |
| 5:E:243:ASN:N | 6:F:229:LYS:NZ | 2.39 | 0.71 |
| 9:P:1:MET:O | 9:P:20:GLU:N | 2.18 | 0.71 |
| 1:A:417:TYR:CE1 | 2:B:402:ILE:HG21 | 2.25 | 0.71 |
| 2:B:18:LEU:HD23 | 2:B:27:GLU:CA | 2.21 | 0.71 |
| 4:D:104:ALA:O | 4:D:107:ARG:HB2 | 1.90 | 0.71 |
| 4:D:128:VAL:HG22 | 4:D:167:TYR:OH | 1.90 | 0.71 |
| 4:D:155:TYR:O | 4:D:159:ASP:N | 2.24 | 0.71 |
| 6:F:94:VAL:HG23 | 6:F:99:ILE:HG13 | 1.72 | 0.71 |
| 1:A:138:LEU:HG | 1:A:160:PRO:HA | 1.71 | 0.71 |
| 1:A:188:TYR:HA | 1:A:191:ASN:HD22 | 1.56 | 0.71 |
| 1:A:245:SER:HA | 1:A:248:LEU:HD12 | 1.73 | 0.71 |
| 2:B:76:ILE:HA | 2:B:88:MET:HG2 | 1.73 | 0.71 |
| 4:D:90:GLU:OE1 | 4:D:91:LYS:NZ | 2.24 | 0.71 |
| 4:D:384:LEU:O | 4:D:387:LYS:HB2 | 1.89 | 0.71 |
| 6:F:109:GLU:O | 6:F:113:LYS:N | 2.15 | 0.71 |
| 6:F:309:PHE:O | 6:F:313:TYR:N | 2.21 | 0.71 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:42:ILE:HD13 | 8:O:45:LEU:HD12 | 1.72 | 0.71 |
| 8:O:490:PHE:CE1 | 8:O:539:MET:HB3 | 2.23 | 0.71 |
| 8:O:732:GLU:HB2 | 8:O:744:VAL:HG21 | 1.73 | 0.71 |
| 13:G:69:LEU:HA | 13:G:73:GLY:HA3 | 1.72 | 0.71 |
| 2:B:255:HIS:HE1 | 11:R:68:CYS:SG | 2.13 | 0.71 |
| 2:B:297:GLN:NE2 | 11:R:70:VAL:CG2 | 2.54 | 0.71 |
| 4:D:287:PRO:HA | 4:D:290:LYS:HD2 | 1.73 | 0.71 |
| 1:A:230:SER:HB3 | 1:A:232:LYS:HG2 | 1.70 | 0.70 |
| 1:A:453:VAL:HG22 | 1:A:460:LEU:HA | 1.73 | 0.70 |
| 2:B:11:ASP:OD1 | 2:B:67:TRP:HH2 | 1.70 | 0.70 |
| 5:E:82:LEU:HB2 | 5:E:94:ASP:HB2 | 1.73 | 0.70 |
| 8:O:692:LYS:CD | 8:O:743:TYR:CD2 | 2.72 | 0.70 |
| 1:A:334:LEU:HD21 | 1:A:365:ILE:HG22 | 1.73 | 0.70 |
| 2:B:18:LEU:CD1 | 8:O:648:ARG:NE | 2.52 | 0.70 |
| 2:B:251:PHE:O | 2:B:255:HIS:N | 2.22 | 0.70 |
| 5:E:242:TRP:HH2 | 6:F:219:GLU:H | 1.36 | 0.70 |
| 6:F:142:VAL:HG12 | 6:F:149:PRO:HB2 | 1.73 | 0.70 |
| 9:P:9:ARG:HA | 9:P:77:LEU:HD22 | 1.71 | 0.70 |
| 9:P:12:THR:HA | 10:Q:15:GLU:CG | 2.21 | 0.70 |
| 11:R:64:THR:HB | 11:R:68:CYS:HB2 | 1.73 | 0.70 |
| 13:G:129:GLU:HA | 13:G:132:ILE:HG13 | 1.74 | 0.70 |
| 13:G:149:ASN:CB | 13:G:151:LEU:HG | 2.21 | 0.70 |
| 1:A:311:PHE:HB3 | 1:A:354:LEU:HD12 | 1.71 | 0.70 |
| 2:B:17:ASP:CB | 2:B:64:LYS:CD | 2.60 | 0.70 |
| 2:B:263:LYS:HE2 | 8:O:475:ARG:HH12 | 1.57 | 0.70 |
| 2:B:431:LEU:HD21 | 6:F:296:THR:HA | 1.73 | 0.70 |
| 3:C:82:GLN:HE21 | 3:C:126:GLN:HE22 | 1.39 | 0.70 |
| 6:F:57:ARG:NH1 | 6:F:88:GLU:OE1 | 2.24 | 0.70 |
| 8:O:16:LYS:NZ | 8:O:41:ASP:HA | 2.06 | 0.70 |
| 8:O:243:LEU:HD21 | 8:O:270:MET:SD | 2.31 | 0.70 |
| 8:O:697:ASN:O | 8:O:700:ILE:HG22 | 1.90 | 0.70 |
| 9:P:17:ASP:CG | 10:Q:65:LEU:HD23 | 2.12 | 0.70 |
| 10:Q:82:ILE:CD1 | 12:V:162:CYS:SG | 2.79 | 0.70 |
| 13:G:43:PHE:CD2 | 13:G:67:LEU:HD13 | 2.27 | 0.70 |
| 13:G:97:LYS:O | 13:G:100:THR:HG22 | 1.90 | 0.70 |
| 13:G:100:THR:CG2 | 13:G:120:LEU:HD21 | 2.20 | 0.70 |
| 2:B:19:GLU:CA | 8:O:652:LYS:HG3 | 2.22 | 0.70 |
| 4:D:320:THR:HA | 4:D:358:ILE:HG12 | 1.73 | 0.70 |
| 4:D:400:MET:HA | 4:D:403:GLN:HB3 | 1.72 | 0.70 |
| 5:E:96:PHE:O | 5:E:138:HIS:N | 2.24 | 0.70 |
| 7:H:147:GLY:HA2 | 7:H:150:GLU:HG2 | 1.74 | 0.70 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 8:O:159:LEU:HD22 | 8:O:188:PHE:HE2 | 1.56 | 0.70 |
| 8:O:467:TYR:O | 8:O:470:THR:OG1 | 2.06 | 0.70 |
| 8:O:529:ILE:HG23 | 8:O:533:LEU:HB2 | 1.74 | 0.70 |
| 8:O:626:ASP:HB2 | 8:O:636:SER:HA | 1.72 | 0.70 |
| 8:O:685:VAL:HG22 | 8:O:725:LEU:HD22 | 1.72 | 0.70 |
| 1:A:478:MET:CE | 2:B:428:THR:HG23 | 2.21 | 0.70 |
| 2:B:14:GLU:CG | 2:B:67:TRP:NE1 | 2.51 | 0.70 |
| 2:B:323:ILE:HD11 | 2:B:355:ARG:HA | 1.74 | 0.70 |
| 2:B:370:HIS:HA | 2:B:408:LEU:HD23 | 1.73 | 0.70 |
| 4:D:58:SER:HB3 | 4:D:61:ILE:HB | 1.73 | 0.70 |
| 4:D:114:TYR:HB3 | 4:D:123:ALA:HB2 | 1.72 | 0.70 |
| 6:F:65:PRO:CB | 6:F:157:MET:HG3 | 2.22 | 0.70 |
| 6:F:264:CYS:SG | 13:G:174:LEU:CD2 | 2.78 | 0.70 |
| 8:O:283:HIS:HA | 8:O:286:ILE:HD12 | 1.73 | 0.70 |
| 13:G:61:ALA:O | 13:G:65:GLN:HG3 | 1.92 | 0.70 |
| 1:A:467:GLN:HG2 | 2:B:418:GLY:HA3 | 0.71 | 0.70 |
| 2:B:14:GLU:CG | 2:B:67:TRP:HD1 | 1.89 | 0.70 |
| 2:B:368:ARG:CB | 2:B:410:GLU:HA | 2.21 | 0.70 |
| 4:D:301:ASP:HB2 | 4:D:302:ARG:HH11 | 1.57 | 0.70 |
| 6:F:143:CYS:HA | 6:F:149:PRO:HG3 | 1.74 | 0.70 |
| 8:O:611:THR:N | 8:O:630:GLU:O | 2.24 | 0.70 |
| 9:P:15:PHE:CA | 10:Q:18:ILE:HD12 | 2.22 | 0.70 |
| 1:A:353:LYS:HA | 1:A:356:LEU:HD12 | 1.74 | 0.70 |
| 3:C:225:LYS:HA | 3:C:260:TYR:CE2 | 2.26 | 0.70 |
| 4:D:15:SER:HG | 4:D:25:LYS:HZ3 | 1.37 | 0.70 |
| 4:D:89:LEU:HD12 | 4:D:110:LEU:HD23 | 1.73 | 0.70 |
| 4:D:304:VAL:O | 4:D:308:ASN:C | 2.30 | 0.70 |
| 8:O:397:ASN:HA | 8:O:400:LYS:HE3 | 1.74 | 0.70 |
| 8:O:575:ALA:H | 11:R:19:LYS:HE2 | 1.56 | 0.70 |
| 8:O:693:VAL:O | 8:O:699:LEU:CD2 | 2.40 | 0.70 |
| 8:O:725:LEU:HD21 | 11:R:46:ARG:NH2 | 1.86 | 0.70 |
| 13:G:140:ILE:HD13 | 13:G:140:ILE:O | 1.91 | 0.70 |
| 1:A:194:LYS:HA | 1:A:227:TYR:HD1 | 1.55 | 0.70 |
| 2:B:32:LEU:CD1 | 8:O:649:THR:OG1 | 2.40 | 0.70 |
| 2:B:119:ILE:HA | 2:B:123:LYS:HB2 | 1.74 | 0.70 |
| 2:B:343:ILE:O | 2:B:347:ILE:HB | 1.91 | 0.70 |
| 2:B:420:ARG:HG2 | 5:E:263:THR:HG21 | 0.70 | 0.70 |
| 2:B:420:ARG:CD | 5:E:263:THR:HG21 | 2.22 | 0.70 |
| 3:C:190:MET:HA | 3:C:226:LYS:HE2 | 1.74 | 0.70 |
| 4:D:263:ILE:HD13 | 4:D:266:LYS:HE3 | 1.74 | 0.70 |
| 5:E:214:PHE:O | 5:E:218:CYS:N | 2.25 | 0.70 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:E:246:TRP:HB3 | 6:F:229:LYS:HD2 | 1.66 | 0.70 |
| 8:O:508:GLN:HB3 | 11:R:30:VAL:HG22 | 1.74 | 0.70 |
| 8:O:522:ALA:CB | 8:O:558:TYR:CE2 | 2.71 | 0.70 |
| 9:P:64:SER:OG | 10:Q:66:LYS:NZ | 2.24 | 0.70 |
| 11:R:97:ASP:O | 11:R:99:ARG:NH1 | 2.24 | 0.70 |
| 13:G:56:ALA:CB | 13:G:64:LEU:HD13 | 2.22 | 0.70 |
| 3:C:26:GLU:HB3 | 3:C:96:ALA:HB1 | 1.74 | 0.70 |
| 3:C:74:PHE:HB2 | 3:C:111:LEU:HD21 | 1.74 | 0.70 |
| 4:D:149:LEU:HD13 | 4:D:186:HIS:HB2 | 1.73 | 0.70 |
| 4:D:346:GLY:O | 4:D:349:ASN:ND2 | 2.24 | 0.70 |
| 5:E:136:TRP:HZ2 | 5:E:167:ALA:HA | 1.57 | 0.70 |
| 5:E:144:GLY:H | 5:E:172:PRO:HD2 | 1.56 | 0.70 |
| 6:F:124:TRP:CZ2 | 6:F:138:VAL:HB | 2.26 | 0.70 |
| 7:H:13:PHE:HE1 | 7:H:46:LEU:HD22 | 1.55 | 0.70 |
| 7:H:38:GLY:HA2 | 7:H:71:LEU:HD13 | 1.73 | 0.70 |
| 8:O:544:TYR:CE1 | 8:O:548:PHE:HB2 | 2.27 | 0.70 |
| 8:O:559:LEU:HB2 | 11:R:30:VAL:HG22 | 1.72 | 0.70 |
| 8:O:567:ASN:OD1 | 11:R:23:GLU:OE2 | 2.09 | 0.70 |
| 11:R:87:TRP:HA | 11:R:90:THR:HG22 | 1.72 | 0.70 |
| 1:A:342:LEU:O | 1:A:346:VAL:N | 2.24 | 0.70 |
| 2:B:21:SER:O | 8:O:652:LYS:CD | 2.34 | 0.70 |
| 2:B:302:TYR:CE1 | 11:R:35:TRP:CZ3 | 2.78 | 0.70 |
| 3:C:5:LEU:HD11 | 3:C:35:LEU:HG | 1.74 | 0.70 |
| 3:C:158:ALA:O | 3:C:162:LEU:N | 2.24 | 0.70 |
| 3:C:274:GLU:HA | 3:C:277:ASN:HD22 | 1.57 | 0.70 |
| 4:D:60:VAL:HA | 4:D:63:ARG:HG3 | 1.74 | 0.70 |
| 4:D:107:ARG:HD3 | 4:D:130:ILE:HG12 | 1.74 | 0.70 |
| 5:E:276:SER:HB3 | 5:E:300:LEU:HA | 1.73 | 0.70 |
| 8:O:46:CYS:SG | 10:Q:96:TYR:CD2 | 2.84 | 0.70 |
| 8:O:335:MET:HG3 | 8:O:337:THR:H | 1.56 | 0.70 |
| 8:O:505:ILE:CD1 | 8:O:532:GLU:HB2 | 2.22 | 0.70 |
| 8:O:696:HIS:NE2 | 8:O:719:LYS:HA | 2.07 | 0.70 |
| 13:G:110:CYS:HB2 | 13:G:151:LEU:HD13 | 1.74 | 0.70 |
| 1:A:378:LEU:HD12 | 1:A:406:ARG:HH11 | 1.56 | 0.69 |
| 2:B:441:LYS:HZ1 | 6:F:303:ASN:ND2 | 1.90 | 0.69 |
| 4:D:293:THR:N | 4:D:297:SER:O | 2.25 | 0.69 |
| 4:D:378:CYS:HB2 | 6:F:227:ALA:HB1 | 1.74 | 0.69 |
| 5:E:242:TRP:HH2 | 6:F:219:GLU:CA | 2.05 | 0.69 |
| 8:O:103:CYS:C | 10:Q:36:PRO:HD3 | 2.10 | 0.69 |
| 8:O:438:MET:HE3 | 8:O:441:LYS:HE2 | 1.74 | 0.69 |
| 8:O:632:ILE:HG13 | 8:O:636:SER:HB2 | 1.74 | 0.69 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 11:R:41:ASN:OD1 | 11:R:49:ILE:N | 2.25 | 0.69 |
| 11:R:43:ALA:HB1 | 11:R:96:LEU:HD12 | 1.74 | 0.69 |
| 2:B:23:ASP:H | 8:O:652:LYS:NZ | 1.89 | 0.69 |
| 2:B:211:ASN:O | 2:B:215:LYS:N | 2.24 | 0.69 |
| 3:C:336:LYS:O | 3:C:339:LEU:HB3 | 1.91 | 0.69 |
| 4:D:264:LEU:HA | 4:D:267:MET:HB2 | 1.75 | 0.69 |
| 5:E:60:LEU:HA | 5:E:63:LEU:CD1 | 2.21 | 0.69 |
| 5:E:269:LEU:HA | 5:E:272:LYS:HD2 | 1.74 | 0.69 |
| 6:F:261:TYR:CA | 13:G:170:ILE:CD1 | 2.70 | 0.69 |
| 7:H:204:VAL:O | 7:H:208:GLU:N | 2.17 | 0.69 |
| 8:O:511:VAL:O | 8:O:551:ARG:CD | 2.40 | 0.69 |
| 8:O:710:ARG:HB3 | 8:O:711:PHE:HD1 | 1.57 | 0.69 |
| 9:P:15:PHE:CD1 | 10:Q:58:VAL:HG23 | 2.28 | 0.69 |
| 13:G:98:HIS:CA | 13:G:101:ILE:HG12 | 2.22 | 0.69 |
| 3:C:351:ILE:HG22 | 3:C:353:GLN:HB2 | 1.74 | 0.69 |
| 4:D:367:LEU:HA | 4:D:370:TRP:HB3 | 1.73 | 0.69 |
| 5:E:285:PHE:CB | 12:V:62:VAL:HG11 | 2.16 | 0.69 |
| 9:P:27:LEU:CD2 | 9:P:44:LEU:CB | 2.65 | 0.69 |
| 12:V:146:PRO:HB3 | 12:V:148:PHE:CA | 2.23 | 0.69 |
| 1:A:294:LEU:HA | 1:A:299:TYR:CE1 | 2.27 | 0.69 |
| 2:B:273:ARG:NH2 | 2:B:276:CYS:SG | 2.63 | 0.69 |
| 4:D:240:GLN:HG2 | 4:D:347:ARG:CD | 2.22 | 0.69 |
| 5:E:66:VAL:HG13 | 6:F:195:ALA:HB3 | 1.73 | 0.69 |
| 7:H:37:TYR:HB3 | 7:H:71:LEU:HD22 | 1.72 | 0.69 |
| 8:O:523:PRO:HD2 | 8:O:558:TYR:CZ | 2.27 | 0.69 |
| 8:O:555:TRP:HZ3 | 11:R:29:ALA:CB | 2.03 | 0.69 |
| 9:P:11:LYS:HZ1 | 10:Q:14:LYS:CD | 2.05 | 0.69 |
| 12:V:60:ARG:NH1 | 12:V:65:SER:O | 2.25 | 0.69 |
| 1:A:417:TYR:CE1 | 2:B:402:ILE:CG2 | 2.75 | 0.69 |
| 2:B:252:GLU:O | 11:R:64:THR:OG1 | 2.10 | 0.69 |
| 2:B:331:LYS:O | 2:B:334:HIS:ND1 | 2.26 | 0.69 |
| 2:B:422:THR:O | 2:B:425:ASP:HB3 | 1.91 | 0.69 |
| 3:C:380:MET:HA | 6:F:291:TYR:CE1 | 2.28 | 0.69 |
| 4:D:386:GLU:O | 4:D:390:GLN:N | 2.25 | 0.69 |
| 5:E:78:MET:SD | 5:E:106:ARG:NH1 | 2.65 | 0.69 |
| 5:E:139:SER:HA | 5:E:145:CYS:SG | 2.33 | 0.69 |
| 6:F:43:LEU:HB3 | 6:F:191:ALA:HB2 | 1.75 | 0.69 |
| 6:F:69:ILE:HG13 | 6:F:91:SER:HB3 | 1.74 | 0.69 |
| 7:H:98:TRP:O | 7:H:103:GLN:N | 2.22 | 0.69 |
| 9:P:16:THR:CB | 10:Q:5:PHE:CE1 | 2.71 | 0.69 |
| 13:G:132:ILE:CD1 | 13:G:145:LEU:HD21 | 2.22 | 0.69 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:346:VAL:HA | 1:A:349:SER:HB2 | 1.75 | 0.69 |
| 1:A:483:GLN:HG2 | 3:C:382:LYS:HD2 | 1.74 | 0.69 |
| 2:B:47:PRO:HB2 | 2:B:51:LEU:HG | 1.75 | 0.69 |
| 4:D:108:GLN:O | 4:D:112:SER:N | 2.20 | 0.69 |
| 4:D:406:GLN:HG3 | 6:F:240:GLU:HG3 | 1.73 | 0.69 |
| 8:O:505:ILE:CG2 | 11:R:27:TRP:HE3 | 2.04 | 0.69 |
| 9:P:15:PHE:CD2 | 10:Q:16:TYR:HB2 | 2.14 | 0.69 |
| 13:G:15:PHE:HD1 | 13:G:30:LEU:CD1 | 2.04 | 0.69 |
| 1:A:104:ALA:CB | 1:A:111:ARG:HA | 2.23 | 0.69 |
| 1:A:255:LEU:HD23 | 1:A:258:VAL:HG21 | 1.74 | 0.69 |
| 1:A:467:GLN:HG3 | 2:B:418:GLY:CA | 2.21 | 0.69 |
| 2:B:425:ASP:O | 2:B:429:ASN:N | 2.25 | 0.69 |
| 3:C:42:LEU:CB | 3:C:61:VAL:HG11 | 2.22 | 0.69 |
| 3:C:93:ILE:HB | 3:C:94:ARG:HD3 | 1.73 | 0.69 |
| 4:D:362:GLU:O | 4:D:364:ARG:NH1 | 2.25 | 0.69 |
| 5:E:77:VAL:HG11 | 5:E:98:LEU:O | 1.92 | 0.69 |
| 6:F:82:GLU:HA | 6:F:188:TYR:HB2 | 1.74 | 0.69 |
| 6:F:254:HIS:CE1 | 13:G:44:GLY:HA3 | 2.27 | 0.69 |
| 9:P:11:LYS:HZ2 | 10:Q:14:LYS:HG3 | 1.56 | 0.69 |
| 12:V:90:ASN:HB3 | 12:V:96:GLN:HG2 | 1.74 | 0.69 |
| 13:G:95:LYS:O | 13:G:99:LEU:HG | 1.93 | 0.69 |
| 1:A:94:LEU:HB2 | 1:A:247:TYR:HB3 | 1.73 | 0.69 |
| 1:A:264:THR:HB | 1:A:265:PRO:HD3 | 1.74 | 0.69 |
| 1:A:352:PHE:O | 1:A:356:LEU:N | 2.24 | 0.69 |
| 2:B:18:LEU:CD1 | 8:O:648:ARG:CZ | 2.71 | 0.69 |
| 2:B:94:GLN:O | 2:B:97:THR:OG1 | 2.05 | 0.69 |
| 2:B:192:THR:HG22 | 8:O:474:HIS:CE1 | 2.27 | 0.69 |
| 2:B:297:GLN:N | 11:R:67:GLU:CD | 2.46 | 0.69 |
| 2:B:297:GLN:HG2 | 11:R:67:GLU:CG | 2.23 | 0.69 |
| 2:B:353:ASN:O | 2:B:357:GLN:NE2 | 2.25 | 0.69 |
| 3:C:5:LEU:HD12 | 3:C:38:ASN:HB3 | 1.74 | 0.69 |
| 3:C:123:ILE:HG22 | 3:C:124:LEU:HD12 | 1.74 | 0.69 |
| 3:C:191:ILE:O | 3:C:195:LEU:N | 2.15 | 0.69 |
| 4:D:97:ILE:HA | 4:D:100:GLU:HB2 | 1.75 | 0.69 |
| 4:D:305:ILE:O | 4:D:309:LEU:HB2 | 1.93 | 0.69 |
| 5:E:145:CYS:O | 5:E:169:VAL:HA | 1.93 | 0.69 |
| 5:E:230:LYS:NZ | 6:F:203:VAL:O | 2.25 | 0.69 |
| 5:E:269:LEU:O | 5:E:272:LYS:HB2 | 1.92 | 0.69 |
| 6:F:34:GLY:CA | 6:F:171:VAL:HG23 | 2.23 | 0.69 |
| 6:F:41:VAL:N | 6:F:74:GLY:O | 2.25 | 0.69 |
| 6:F:235:VAL:HA | 6:F:238:ILE:HB | 1.74 | 0.69 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 7:H:61:PRO:HG2 | 7:H:64:ILE:HD12 | 1.74 | 0.69 |
| 8:O:177:ASN:O | 8:O:180:VAL:N | 2.25 | 0.69 |
| 8:O:285:ILE:HG23 | 8:O:290:LYS:H | 1.56 | 0.69 |
| 8:O:353:LEU:O | 8:O:356:THR:OG1 | 2.11 | 0.69 |
| 8:O:451:MET:O | 8:O:455:GLU:HG2 | 1.92 | 0.69 |
| 8:O:568:TYR:CE1 | 11:R:22:PHE:CB | 2.75 | 0.69 |
| 8:O:648:ARG:HB2 | 8:O:651:PHE:HB2 | 1.72 | 0.69 |
| 10:Q:82:ILE:HD13 | 12:V:162:CYS:SG | 2.32 | 0.69 |
| 12:V:101:LEU:HB3 | 12:V:105:THR:HB | 1.73 | 0.69 |
| 13:G:41:TYR:CD2 | 13:G:160:ARG:HD2 | 2.28 | 0.69 |
| 1:A:331:LEU:HD21 | 1:A:362:VAL:HG22 | 1.75 | 0.69 |
| 3:C:40:SER:HA | 3:C:43:ASP:HB3 | 1.75 | 0.69 |
| 3:C:231:SER:O | 3:C:235:LEU:HB2 | 1.93 | 0.69 |
| 4:D:369:THR:HA | 4:D:372:LYS:HD2 | 1.74 | 0.69 |
| 4:D:382:ASN:OD1 | 6:F:234:ARG:HG3 | 1.93 | 0.69 |
| 5:E:189:TYR:HB3 | 5:E:193:TYR:O | 1.93 | 0.69 |
| 5:E:251:SER:O | 5:E:253:SER:HB2 | 1.92 | 0.69 |
| 7:H:98:TRP:HD1 | 7:H:101:THR:HB | 1.58 | 0.69 |
| 8:O:692:LYS:CE | 8:O:743:TYR:HD2 | 1.97 | 0.69 |
| 8:O:732:GLU:HB2 | 8:O:744:VAL:CG2 | 2.23 | 0.69 |
| 13:G:15:PHE:CD1 | 13:G:34:VAL:HG22 | 2.27 | 0.69 |
| 4:D:269:LEU:HB2 | 4:D:271:ARG:CZ | 2.23 | 0.69 |
| 6:F:35:VAL:O | 6:F:170:SER:N | 2.26 | 0.69 |
| 7:H:148:ILE:HA | 7:H:153:TRP:HB2 | 1.74 | 0.69 |
| 9:P:30:ILE:N | 10:Q:5:PHE:HE2 | 1.89 | 0.69 |
| 9:P:98:GLU:O | 10:Q:85:GLU:CG | 2.41 | 0.69 |
| 2:B:96:LEU:O | 2:B:99:ILE:HG13 | 1.93 | 0.68 |
| 3:C:162:LEU:O | 3:C:200:ARG:NH2 | 2.26 | 0.68 |
| 3:C:297:GLN:O | 3:C:300:SER:OG | 2.10 | 0.68 |
| 5:E:247:VAL:O | 6:F:228:ILE:HD12 | 1.92 | 0.68 |
| 7:H:121:VAL:O | 7:H:125:TYR:HB2 | 1.93 | 0.68 |
| 10:Q:91:LEU:HD22 | 12:V:180:ILE:HB | 1.75 | 0.68 |
| 13:G:129:GLU:HA | 13:G:132:ILE:CG1 | 2.23 | 0.68 |
| 1:A:194:LYS:HA | 1:A:227:TYR:CD1 | 2.28 | 0.68 |
| 1:A:417:TYR:HE1 | 2:B:402:ILE:HG21 | 1.57 | 0.68 |
| 4:D:6:ARG:HG2 | 4:D:47:ALA:CB | 2.23 | 0.68 |
| 5:E:244:LYS:HE3 | 6:F:230:MET:CA | 2.21 | 0.68 |
| 5:E:279:GLN:CG | 5:E:294:ARG:HD2 | 2.18 | 0.68 |
| 6:F:75:LYS:HG2 | 6:F:84:MET:SD | 2.32 | 0.68 |
| 8:O:10:PHE:HE1 | 8:O:57:LEU:HA | 1.57 | 0.68 |
| 8:O:354:ILE:HA | 8:O:358:LEU:HB2 | 1.76 | 0.68 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:O:476:MET:SD | 8:O:510:TYR:OH | 2.47 | 0.68 |
| 8:O:586:LEU:HA | 8:O:589:ASN:HD21 | 1.56 | 0.68 |
| 13:G:22:THR:HG23 | 13:G:27:LEU:N | 2.08 | 0.68 |
| 2:B:169:GLN:HE21 | 2:B:173:ARG:HD3 | 1.58 | 0.68 |
| 6:F:46:LEU:HA | 6:F:49:LEU:HG | 1.74 | 0.68 |
| 6:F:73:ILE:CG1 | 6:F:85:ASN:HB3 | 2.23 | 0.68 |
| 12:V:130:VAL:HG23 | 12:V:151:ILE:HD13 | 1.75 | 0.68 |
| 13:G:108:MET:HG3 | 13:G:110:CYS:H | 1.57 | 0.68 |
| 2:B:18:LEU:HD23 | 2:B:27:GLU:HB2 | 1.73 | 0.68 |
| 2:B:135:THR:O | 2:B:139:LEU:N | 2.27 | 0.68 |
| 2:B:176:HIS:O | 2:B:180:GLN:N | 2.19 | 0.68 |
| 3:C:126:GLN:O | 3:C:130:LYS:HG2 | 1.92 | 0.68 |
| 3:C:198:PHE:HD2 | 3:C:234:LEU:HD13 | 1.59 | 0.68 |
| 4:D:378:CYS:CB | 6:F:227:ALA:HB1 | 2.24 | 0.68 |
| 5:E:251:SER:O | 6:F:223:ALA:HB3 | 1.93 | 0.68 |
| 5:E:274:GLU:HA | 5:E:277:GLU:HB3 | 1.76 | 0.68 |
| 8:O:102:ASP:O | 8:O:106:ARG:N | 2.27 | 0.68 |
| 8:O:336:PRO:HA | 8:O:339:PHE:HB3 | 1.76 | 0.68 |
| 8:O:578:THR:HG22 | 8:O:579:THR:H | 1.59 | 0.68 |
| 8:O:701:GLN:HA | 8:O:704:ILE:HD12 | 1.75 | 0.68 |
| 12:V:73:GLN:HG2 | 12:V:144:GLY:N | 2.07 | 0.68 |
| 12:V:90:ASN:HB3 | 12:V:96:GLN:CG | 2.24 | 0.68 |
| 1:A:103:ILE:HD11 | 1:A:392:MET:HB2 | 1.76 | 0.68 |
| 2:B:146:ARG:O | 2:B:150:LYS:N | 2.26 | 0.68 |
| 4:D:156:LEU:HD22 | 4:D:197:TYR:HE2 | 1.58 | 0.68 |
| 4:D:212:SER:HA | 4:D:222:ARG:HB3 | 1.75 | 0.68 |
| 5:E:147:LEU:HB3 | 5:E:151:ASP:O | 1.92 | 0.68 |
| 5:E:246:TRP:CA | 6:F:219:GLU:OE1 | 2.40 | 0.68 |
| 6:F:47:VAL:HG11 | 6:F:85:ASN:OD1 | 1.94 | 0.68 |
| 6:F:94:VAL:CG2 | 6:F:99:ILE:HG13 | 2.24 | 0.68 |
| 6:F:242:VAL:CG2 | 13:G:174:LEU:HD11 | 2.24 | 0.68 |
| 7:H:196:GLN:O | 7:H:199:ARG:HG2 | 1.93 | 0.68 |
| 8:O:58:TYR:OH | 8:O:138:GLU:O | 2.06 | 0.68 |
| 8:O:565:LYS:CB | 11:R:23:GLU:OE2 | 2.41 | 0.68 |
| 8:O:620:VAL:HG21 | 8:O:653:ILE:HG22 | 1.75 | 0.68 |
| 8:O:676:ARG:NH2 | 8:O:710:ARG:CZ | 2.56 | 0.68 |
| 12:V:146:PRO:HD3 | 12:V:148:PHE:CG | 2.28 | 0.68 |
| 13:G:81:ASN:HB3 | 13:G:84:SER:OG | 1.94 | 0.68 |
| 5:E:250:LEU:C | 5:E:324:LYS:HG2 | 2.14 | 0.68 |
| 8:O:32:ARG:NE | 10:Q:38:ARG:C | 2.47 | 0.68 |
| 8:O:200:LEU:O | 8:O:204:GLN:N | 2.20 | 0.68 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 8:O:508:GLN:NE2 | 8:O:559:LEU:CA | 2.56 | 0.68 |
| 8:O:685:VAL:CG2 | 8:O:725:LEU:HD21 | 2.24 | 0.68 |
| 2:B:47:PRO:O | 2:B:51:LEU:N | 2.24 | 0.68 |
| 2:B:322:ASP:O | 2:B:325:GLU:HG3 | 1.94 | 0.68 |
| 2:B:365:PRO:HB3 | 4:D:344:THR:HG22 | 1.76 | 0.68 |
| 2:B:441:LYS:HZ2 | 6:F:303:ASN:CG | 1.95 | 0.68 |
| 5:E:250:LEU:H | 6:F:225:HIS:CG | 2.10 | 0.68 |
| 8:O:565:LYS:CA | 11:R:23:GLU:OE2 | 2.41 | 0.68 |
| 8:O:568:TYR:HE1 | 11:R:22:PHE:CB | 2.06 | 0.68 |
| 9:P:3:VAL:HG21 | 9:P:57:LEU:HD13 | 1.75 | 0.68 |
| 1:A:422:MET:HA | 1:A:425:MET:HB3 | 1.75 | 0.68 |
| 2:B:132:TYR:HE1 | 2:B:154:LYS:HB2 | 1.58 | 0.68 |
| 2:B:168:LEU:O | 2:B:172:LEU:HG | 1.93 | 0.68 |
| 2:B:296:SER:HA | 11:R:67:GLU:O | 1.94 | 0.68 |
| 3:C:190:MET:HG2 | 3:C:226:LYS:HE2 | 1.76 | 0.68 |
| 3:C:214:MET:HA | 3:C:248:ILE:HG12 | 1.75 | 0.68 |
| 4:D:31:GLU:HA | 4:D:34:ILE:HB | 1.75 | 0.68 |
| 5:E:250:LEU:N | 6:F:225:HIS:CB | 2.52 | 0.68 |
| 6:F:258:ARG:HD3 | 13:G:161:ASP:N | 2.09 | 0.68 |
| 8:O:726:ILE:HD12 | 8:O:733:ARG:HG2 | 1.74 | 0.68 |
| 12:V:80:SER:HB3 | 12:V:153:LEU:HB2 | 1.75 | 0.68 |
| 13:G:24:GLY:H | 13:G:55:LEU:HD22 | 1.59 | 0.68 |
| 1:A:100:LEU:HD22 | 1:A:117:MET:HB2 | 1.75 | 0.68 |
| 2:B:342:PHE:O | 2:B:346:HIS:N | 2.19 | 0.68 |
| 5:E:247:VAL:HB | 6:F:226:SER:O | 1.93 | 0.68 |
| 6:F:254:HIS:HA | 6:F:257:LEU:HD12 | 1.76 | 0.68 |
| 8:O:7:VAL:HA | 8:O:53:LEU:CD1 | 2.20 | 0.68 |
| 8:O:618:LEU:HD12 | 8:O:621:LYS:HD3 | 1.75 | 0.68 |
| 9:P:5:LEU:HG | 9:P:67:ALA:HB1 | 1.76 | 0.68 |
| 9:P:9:ARG:H | 9:P:12:THR:HB | 1.58 | 0.68 |
| 1:A:173:LYS:HA | 1:A:176:LEU:HD12 | 1.76 | 0.68 |
| 1:A:394:LEU:HG | 1:A:398:VAL:HB | 1.76 | 0.68 |
| 2:B:163:GLU:HB3 | 2:B:165:TYR:HE2 | 1.59 | 0.68 |
| 2:B:265:TYR:O | 2:B:269:GLY:N | 2.24 | 0.68 |
| 3:C:377:ASP:O | 3:C:381:LEU:HG | 1.94 | 0.68 |
| 5:E:329:ASN:OD1 | 6:F:270:LEU:HB3 | 1.94 | 0.68 |
| 6:F:58:MET:HB3 | 6:F:66:VAL:HG11 | 1.74 | 0.68 |
| 7:H:206:PHE:O | 7:H:209:ASN:ND2 | 2.27 | 0.68 |
| 8:O:285:ILE:HA | 8:O:288:GLN:O | 1.94 | 0.68 |
| 8:O:476:MET:HB2 | 8:O:517:TRP:CZ3 | 2.29 | 0.68 |
| 11:R:81:PHE:HA | 11:R:102:GLU:HA | 1.76 | 0.68 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:27:GLU:CG | 2:B:64:LYS:CG | 2.71 | 0.67 |
| 2:B:421:TYR:CD1 | 6:F:289:MET:HE3 | 2.29 | 0.67 |
| 4:D:36:LEU:HB3 | 4:D:40:GLU:HG2 | 1.75 | 0.67 |
| 5:E:78:MET:HG3 | 5:E:98:LEU:HD12 | 1.74 | 0.67 |
| 8:O:522:ALA:HB1 | 8:O:523:PRO:HD2 | 1.76 | 0.67 |
| 8:O:569:LEU:N | 11:R:18:LYS:HD3 | 2.08 | 0.67 |
| 8:O:693:VAL:HG12 | 8:O:699:LEU:HA | 1.74 | 0.67 |
| 9:P:69:PRO:CB | 10:Q:62:ASN:ND2 | 2.56 | 0.67 |
| 12:V:72:SER:OG | 12:V:140:LEU:C | 2.31 | 0.67 |
| 13:G:102:VAL:HG21 | 13:G:160:ARG:HH12 | 1.58 | 0.67 |
| 2:B:300:LYS:O | 2:B:303:LYS:HG2 | 1.94 | 0.67 |
| 3:C:85:ILE:CG2 | 3:C:126:GLN:HB2 | 2.24 | 0.67 |
| 4:D:315:LEU:HB3 | 13:G:134:GLU:CD | 2.14 | 0.67 |
| 5:E:242:TRP:CE3 | 6:F:219:GLU:OE1 | 2.47 | 0.67 |
| 5:E:242:TRP:NE1 | 6:F:219:GLU:OE2 | 2.27 | 0.67 |
| 8:O:32:ARG:HG3 | 8:O:35:TRP:HE3 | 1.59 | 0.67 |
| 8:O:379:ARG:NH1 | 8:O:386:LYS:HB3 | 2.08 | 0.67 |
| 1:A:278:THR:CG2 | 1:A:313:HIS:HA | 2.24 | 0.67 |
| 2:B:424:LEU:O | 2:B:427:TRP:HB3 | 1.94 | 0.67 |
| 3:C:125:LYS:HA | 3:C:128:ILE:HB | 1.76 | 0.67 |
| 3:C:367:TYR:CD1 | 3:C:372:MET:HB3 | 2.29 | 0.67 |
| 5:E:74:ASN:HA | 5:E:141:PRO:HB2 | 1.76 | 0.67 |
| 5:E:304:THR:OG1 | 6:F:300:ASN:ND2 | 2.21 | 0.67 |
| 5:E:327:LEU:CD2 | 13:G:181:CYS:CA | 2.71 | 0.67 |
| 1:A:444:ILE:HA | 1:A:449:ILE:HB | 1.76 | 0.67 |
| 4:D:167:TYR:O | 4:D:170:ARG:HG3 | 1.95 | 0.67 |
| 4:D:195:LEU:HB3 | 4:D:204:ALA:HB2 | 1.76 | 0.67 |
| 7:H:154:GLN:HG2 | 7:H:163:LEU:HD12 | 1.75 | 0.67 |
| 8:O:6:ARG:HB2 | 8:O:49:TYR:HB2 | 1.77 | 0.67 |
| 8:O:21:ILE:HA | 8:O:24:VAL:HG12 | 1.76 | 0.67 |
| 8:O:563:GLU:HG3 | 11:R:27:TRP:HA | 1.74 | 0.67 |
| 12:V:84:VAL:O | 12:V:86:PRO:HD3 | 1.94 | 0.67 |
| 1:A:81:SER:OG | 1:A:387:ASN:N | 2.28 | 0.67 |
| 2:B:57:VAL:HG12 | 2:B:68:GLY:HA2 | 1.74 | 0.67 |
| 6:F:69:ILE:HG22 | 6:F:89:LEU:HD12 | 1.76 | 0.67 |
| 7:H:17:LEU:O | 7:H:21:GLU:HG2 | 1.95 | 0.67 |
| 7:H:102:VAL:O | 7:H:106:MET:HG2 | 1.95 | 0.67 |
| 8:O:106:ARG:CZ | 10:Q:31:ALA:CB | 2.62 | 0.67 |
| 2:B:24:SER:CB | 8:O:652:LYS:HZ1 | 2.07 | 0.67 |
| 2:B:175:LEU:HD22 | 2:B:193:GLN:HG2 | 1.77 | 0.67 |
| 4:D:148:TYR:CD2 | 4:D:171:ALA:HA | 2.30 | 0.67 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 4:D:308:ASN:O | 4:D:312:ALA:HB3 | 1.95 | 0.67 |
| 5:E:252:SER:OG | 5:E:320:SER:CA | 2.42 | 0.67 |
| 8:O:428:LYS:O | 8:O:431:PHE:N | 2.28 | 0.67 |
| 8:O:614:ILE:HB | 8:O:628:GLU:HA | 1.77 | 0.67 |
| 12:V:113:ARG:CG | 12:V:139:SER:HB3 | 2.21 | 0.67 |
| 13:G:112:PRO:HD2 | 13:G:115:VAL:HG21 | 1.76 | 0.67 |
| 1:A:184:ASP:HA | 1:A:187:ASN:HD22 | 1.58 | 0.67 |
| 2:B:329:ILE:HG22 | 2:B:333:ASN:ND2 | 2.09 | 0.67 |
| 2:B:441:LYS:HZ1 | 6:F:303:ASN:HD21 | 1.43 | 0.67 |
| 5:E:240:LEU:HA | 5:E:243:ASN:HD22 | 1.59 | 0.67 |
| 5:E:245:TYR:CE1 | 6:F:222:ILE:CD1 | 2.40 | 0.67 |
| 5:E:326:LYS:CG | 13:G:184:VAL:HG12 | 2.10 | 0.67 |
| 6:F:59:ARG:O | 6:F:63:GLY:N | 2.27 | 0.67 |
| 7:H:120:LEU:HD12 | 7:H:124:ALA:HB3 | 1.77 | 0.67 |
| 8:O:110:THR:HG21 | 10:Q:28:THR:OG1 | 1.94 | 0.67 |
| 8:O:698:ALA:O | 8:O:702:GLU:HG3 | 1.95 | 0.67 |
| 1:A:374:TYR:CD1 | 1:A:409:ALA:HB1 | 2.29 | 0.67 |
| 2:B:21:SER:CA | 8:O:652:LYS:CD | 2.73 | 0.67 |
| 2:B:149:PHE:HZ | 2:B:196:GLU:HB3 | 1.59 | 0.67 |
| 2:B:194:LEU:HD23 | 2:B:224:ILE:HG12 | 1.77 | 0.67 |
| 2:B:256:THR:HB | 11:R:65:SER:H | 1.60 | 0.67 |
| 2:B:367:THR:HG21 | 2:B:413:HIS:HD2 | 1.59 | 0.67 |
| 3:C:35:LEU:HB2 | 3:C:39:LEU:HD21 | 1.76 | 0.67 |
| 3:C:125:LYS:HA | 3:C:128:ILE:HD12 | 1.77 | 0.67 |
| 5:E:200:PRO:HD2 | 5:E:222:TYR:CA | 2.25 | 0.67 |
| 5:E:251:SER:C | 5:E:253:SER:CB | 2.62 | 0.67 |
| 6:F:54:HIS:CA | 6:F:88:GLU:HG2 | 2.25 | 0.67 |
| 7:H:201:THR:HG21 | 13:G:195:ALA:CB | 1.94 | 0.67 |
| 8:O:548:PHE:HB3 | 11:R:33:TRP:CE3 | 2.30 | 0.67 |
| 8:O:608:LYS:HA | 8:O:611:THR:HG22 | 1.76 | 0.67 |
| 11:R:87:TRP:O | 11:R:91:ARG:N | 2.23 | 0.67 |
| 1:A:297:ARG:HA | 1:A:299:TYR:CE2 | 2.30 | 0.67 |
| 2:B:365:PRO:HG3 | 4:D:344:THR:HG22 | 1.75 | 0.67 |
| 2:B:368:ARG:HD3 | 4:D:353:ASP:CG | 2.15 | 0.67 |
| 2:B:427:TRP:HE1 | 5:E:273:LEU:CG | 2.07 | 0.67 |
| 3:C:91:GLU:O | 3:C:94:ARG:NH1 | 2.28 | 0.67 |
| 4:D:256:GLN:HG2 | 4:D:261:TYR:CE2 | 2.30 | 0.67 |
| 4:D:315:LEU:HD21 | 13:G:137:TYR:CD2 | 2.27 | 0.67 |
| 5:E:279:GLN:CA | 5:E:298:ASP:CG | 2.63 | 0.67 |
| 6:F:32:ALA:CB | 6:F:182:LEU:HA | 2.24 | 0.67 |
| 6:F:43:LEU:CD2 | 6:F:84:MET:HB3 | 2.25 | 0.67 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 7:H:17:LEU:HB2 | 7:H:43:LEU:HB3 | 1.76 | 0.67 |
| 7:H:33:THR:HB | 7:H:36:VAL:HG23 | 1.77 | 0.67 |
| 8:O:46:CYS:SG | 8:O:111:GLN:NE2 | 2.66 | 0.67 |
| 8:O:508:GLN:NE2 | 8:O:559:LEU:C | 2.47 | 0.67 |
| 12:V:83:VAL:O | 12:V:121:ASP:HA | 1.94 | 0.67 |
| 8:O:508:GLN:HB3 | 8:O:559:LEU:CG | 2.23 | 0.67 |
| 9:P:80:ARG:HG3 | 9:P:83:ASP:CA | 2.26 | 0.67 |
| 13:G:46:LEU:O | 13:G:49:LEU:HD13 | 1.95 | 0.67 |
| 3:C:106:GLN:HA | 3:C:109:ASN:HD22 | 1.60 | 0.66 |
| 3:C:265:GLN:O | 3:C:268:SER:OG | 2.11 | 0.66 |
| 4:D:22:LEU:HG | 4:D:26:TYR:CE2 | 2.29 | 0.66 |
| 5:E:155:GLN:HG2 | 5:E:188:THR:HG21 | 1.78 | 0.66 |
| 6:F:34:GLY:HA2 | 6:F:171:VAL:HG23 | 1.77 | 0.66 |
| 8:O:106:ARG:HH12 | 10:Q:27:PRO:C | 1.98 | 0.66 |
| 8:O:388:PRO:O | 8:O:392:ALA:N | 2.27 | 0.66 |
| 8:O:450:SER:HB3 | 8:O:453:SER:HB2 | 1.76 | 0.66 |
| 13:G:196:ASN:O | 13:G:199:LYS:HB2 | 1.96 | 0.66 |
| 1:A:119:LEU:HD13 | 1:A:162:LEU:HD11 | 1.75 | 0.66 |
| 1:A:349:SER:O | 1:A:353:LYS:HB2 | 1.94 | 0.66 |
| 1:A:452:ARG:N | 1:A:461:TYR:O | 2.26 | 0.66 |
| 2:B:434:LEU:O | 2:B:437:ALA:HB3 | 1.94 | 0.66 |
| 5:E:96:PHE:N | 5:E:137:TYR:HB2 | 2.10 | 0.66 |
| 6:F:41:VAL:CG2 | 6:F:119:LEU:HA | 2.25 | 0.66 |
| 6:F:54:HIS:CE1 | 6:F:68:VAL:HB | 2.29 | 0.66 |
| 6:F:267:LEU:CB | 13:G:177:TRP:CD1 | 2.78 | 0.66 |
| 8:O:125:TYR:CE2 | 8:O:136:LEU:HD12 | 2.30 | 0.66 |
| 8:O:209:SER:HB2 | 8:O:210:PRO:HD3 | 1.77 | 0.66 |
| 8:O:695:ARG:HD3 | 8:O:740:GLU:CB | 2.26 | 0.66 |
| 1:A:192:SER:HA | 1:A:197:ILE:HD11 | 1.76 | 0.66 |
| 2:B:125:MET:HG2 | 2:B:129:GLN:HB2 | 1.78 | 0.66 |
| 2:B:435:ASN:OD1 | 2:B:436:GLN:N | 2.29 | 0.66 |
| 3:C:137:GLN:NE2 | 3:C:168:ASP:HB3 | 2.10 | 0.66 |
| 4:D:379:PHE:HA | 4:D:382:ASN:ND2 | 2.09 | 0.66 |
| 5:E:36:GLN:O | 5:E:40:LEU:HG | 1.95 | 0.66 |
| 8:O:198:PHE:HD2 | 8:O:201:LYS:HB2 | 1.61 | 0.66 |
| 8:O:660:ASP:CB | 8:O:663:GLN:HB3 | 2.26 | 0.66 |
| 9:P:4:PHE:CD2 | 10:Q:62:ASN:ND2 | 2.61 | 0.66 |
| 9:P:28:LYS:O | 10:Q:5:PHE:CE2 | 2.48 | 0.66 |
| 9:P:71:ALA:CA | 10:Q:59:GLU:OE1 | 2.42 | 0.66 |
| 4:D:272:ILE:HG12 | 4:D:313:SER:HA | 1.76 | 0.66 |
| 4:D:305:ILE:CG2 | 4:D:328:LEU:HB3 | 2.25 | 0.66 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 4:D:373:GLN:HE22 | 13:G:155:ASP:CB | 1.72 | 0.66 |
| 5:E:79:GLY:CA | 5:E:113:ALA:HB3 | 2.24 | 0.66 |
| 6:F:51:ILE:HG23 | 6:F:125:TYR:CD2 | 2.30 | 0.66 |
| 7:H:11:PHE:O | 7:H:15:LYS:N | 2.16 | 0.66 |
| 8:O:567:ASN:OD1 | 11:R:23:GLU:HG2 | 1.96 | 0.66 |
| 9:P:13:THR:O | 10:Q:17:GLU:N | 2.19 | 0.66 |
| 9:P:71:ALA:CA | 10:Q:59:GLU:HG2 | 2.25 | 0.66 |
| 12:V:81:PRO:CD | 12:V:153:LEU:HD22 | 2.25 | 0.66 |
| 13:G:142:GLN:O | 13:G:154:VAL:HA | 1.95 | 0.66 |
| 1:A:134:ILE:HD13 | 1:A:137:LYS:HD2 | 1.77 | 0.66 |
| 1:A:195:GLU:HG3 | 1:A:199:ARG:HH21 | 1.61 | 0.66 |
| 1:A:211:CYS:HB2 | 1:A:213:ASP:OD2 | 1.96 | 0.66 |
| 1:A:236:ASN:HA | 1:A:239:LEU:HD12 | 1.77 | 0.66 |
| 1:A:467:GLN:NE2 | 2:B:422:THR:N | 2.38 | 0.66 |
| 2:B:27:GLU:HG2 | 2:B:64:LYS:CG | 2.25 | 0.66 |
| 3:C:265:GLN:O | 3:C:269:THR:HG23 | 1.96 | 0.66 |
| 5:E:127:VAL:HB | 6:F:57:ARG:NH2 | 2.11 | 0.66 |
| 5:E:331:ILE:CG2 | 13:G:177:TRP:O | 2.43 | 0.66 |
| 9:P:11:LYS:HE2 | 10:Q:12:ASP:O | 1.95 | 0.66 |
| 9:P:31:VAL:O | 9:P:35:LEU:N | 2.21 | 0.66 |
| 13:G:44:GLY:HA3 | 13:G:162:ILE:CD1 | 2.22 | 0.66 |
| 1:A:394:LEU:HD21 | 1:A:398:VAL:HG23 | 1.78 | 0.66 |
| 4:D:268:TYR:CD2 | 4:D:269:LEU:HG | 2.30 | 0.66 |
| 6:F:252:PHE:HZ | 13:G:165:LYS:HA | 1.59 | 0.66 |
| 7:H:117:ALA:O | 7:H:121:VAL:HG23 | 1.94 | 0.66 |
| 8:O:559:LEU:CB | 11:R:30:VAL:HG22 | 2.25 | 0.66 |
| 8:O:728:LYS:HD3 | 8:O:730:TYR:HE2 | 1.59 | 0.66 |
| 9:P:37:ARG:HD3 | 9:P:38:PRO:HD2 | 1.78 | 0.66 |
| 1:A:97:ILE:HA | 1:A:100:LEU:HD12 | 1.77 | 0.66 |
| 2:B:18:LEU:CB | 8:O:648:ARG:CD | 2.71 | 0.66 |
| 2:B:18:LEU:O | 2:B:20:TYR:CD2 | 2.49 | 0.66 |
| 2:B:225:LYS:HB2 | 2:B:230:HIS:CE1 | 2.30 | 0.66 |
| 3:C:35:LEU:HB2 | 3:C:39:LEU:CD2 | 2.26 | 0.66 |
| 4:D:323:GLU:OE2 | 13:G:125:LEU:HD23 | 1.94 | 0.66 |
| 5:E:80:LEU:HB2 | 5:E:114:TYR:CD1 | 2.31 | 0.66 |
| 5:E:240:LEU:HD13 | 6:F:163:LEU:HA | 1.78 | 0.66 |
| 5:E:242:TRP:O | 6:F:229:LYS:CE | 2.42 | 0.66 |
| 5:E:332:ASN:CG | 13:G:176:GLU:O | 2.34 | 0.66 |
| 8:O:282:CYS:SG | 8:O:311:MET:HA | 2.35 | 0.66 |
| 8:O:568:TYR:HH | 11:R:22:PHE:CD1 | 1.52 | 0.66 |
| 11:R:79:PHE:CE2 | 11:R:99:ARG:HB2 | 2.30 | 0.66 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 13:G:31:ILE:HG13 | 13:G:63:TYR:CD1 | 2.31 | 0.66 |
| 13:G:44:GLY:CA | 13:G:162:ILE:HD13 | 2.25 | 0.66 |
| 4:D:127:LEU:HB3 | 4:D:151:ILE:HD13 | 1.78 | 0.66 |
| 4:D:219:GLU:HG3 | 4:D:223:LEU:HD13 | 1.76 | 0.66 |
| 5:E:66:VAL:CG1 | 6:F:195:ALA:HB3 | 2.26 | 0.66 |
| 5:E:81:MET:HG3 | 5:E:136:TRP:C | 2.16 | 0.66 |
| 5:E:280:LEU:CA | 5:E:298:ASP:OD2 | 2.44 | 0.66 |
| 7:H:129:ILE:HG22 | 7:H:132:ASP:H | 1.61 | 0.66 |
| 8:O:504:GLY:N | 8:O:532:GLU:OE1 | 2.28 | 0.66 |
| 11:R:45:CYS:CB | 11:R:53:CYS:HB2 | 2.25 | 0.66 |
| 13:G:66:LEU:HD13 | 13:G:85:LEU:HD13 | 1.76 | 0.66 |
| 13:G:92:GLN:O | 13:G:95:LYS:HB2 | 1.95 | 0.66 |
| 2:B:192:THR:HG23 | 8:O:474:HIS:NE2 | 2.11 | 0.66 |
| 2:B:265:TYR:OH | 2:B:272:ARG:N | 2.18 | 0.66 |
| 2:B:278:LYS:HE3 | 2:B:311:MET:HB2 | 1.77 | 0.66 |
| 3:C:319:LEU:HB3 | 3:C:334:ALA:CB | 2.26 | 0.66 |
| 4:D:142:ASP:HA | 4:D:178:SER:OG | 1.96 | 0.66 |
| 5:E:56:LYS:O | 5:E:91:ILE:HA | 1.96 | 0.66 |
| 8:O:149:LYS:HG2 | 8:O:152:VAL:HB | 1.77 | 0.66 |
| 9:P:12:THR:CG2 | 10:Q:15:GLU:OE1 | 2.44 | 0.66 |
| 12:V:74:VAL:HG22 | 12:V:147:ILE:HG22 | 1.78 | 0.66 |
| 13:G:140:ILE:HA | 13:G:158:ILE:HB | 1.76 | 0.66 |
| 5:E:251:SER:O | 6:F:223:ALA:CA | 2.44 | 0.66 |
| 5:E:327:LEU:HA | 5:E:331:ILE:HG12 | 1.78 | 0.66 |
| 6:F:54:HIS:HB2 | 6:F:88:GLU:HA | 1.77 | 0.66 |
| 8:O:575:ALA:H | 11:R:19:LYS:HE3 | 1.61 | 0.66 |
| 8:O:626:ASP:HB2 | 8:O:636:SER:CA | 2.26 | 0.66 |
| 12:V:81:PRO:HA | 12:V:103:PRO:HB3 | 1.77 | 0.66 |
| 13:G:72:TYR:HE2 | 13:G:164:LYS:HB3 | 1.58 | 0.66 |
| 1:A:441:THR:HA | 1:A:444:ILE:HD12 | 1.77 | 0.65 |
| 2:B:7:ASP:OD2 | 2:B:42:LEU:HD22 | 1.95 | 0.65 |
| 2:B:225:LYS:HB2 | 2:B:230:HIS:HE1 | 1.61 | 0.65 |
| 2:B:297:GLN:CD | 11:R:70:VAL:CB | 2.61 | 0.65 |
| 6:F:41:VAL:HG22 | 6:F:42:ALA:H | 1.60 | 0.65 |
| 7:H:133:PHE:HA | 7:H:136:PHE:CG | 2.31 | 0.65 |
| 2:B:14:GLU:O | 2:B:18:LEU:HD12 | 1.96 | 0.65 |
| 2:B:23:ASP:N | 8:O:652:LYS:NZ | 2.45 | 0.65 |
| 2:B:205:TYR:CE1 | 2:B:213:LYS:HB2 | 2.30 | 0.65 |
| 2:B:295:ASP:O | 11:R:70:VAL:C | 2.34 | 0.65 |
| 2:B:305:ASP:HB3 | 2:B:308:ILE:CG1 | 2.26 | 0.65 |
| 3:C:94:ARG:CB | 3:C:97:THR:HG22 | 2.26 | 0.65 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:D:328:LEU:HB2 | 4:D:330:ILE:HG12 | 1.78 | 0.65 |
| 5:E:35:GLN:OE1 | 5:E:36:GLN:NE2 | 2.29 | 0.65 |
| 6:F:69:ILE:HG23 | 6:F:124:TRP:CE3 | 2.31 | 0.65 |
| 7:H:70:GLU:HB3 | 7:H:102:VAL:HG21 | 1.77 | 0.65 |
| 8:O:81:GLU:HA | 8:O:84:LEU:HD13 | 1.77 | 0.65 |
| 8:O:458:ILE:HA | 8:O:461:LEU:CG | 2.26 | 0.65 |
| 9:P:6:MET:HA | 9:P:14:ILE:O | 1.96 | 0.65 |
| 2:B:5:GLU:HB2 | 2:B:9:MET:HG2 | 0.76 | 0.65 |
| 2:B:146:ARG:HG2 | 2:B:229:PRO:CG | 2.27 | 0.65 |
| 3:C:159:LEU:HD21 | 3:C:195:LEU:HD11 | 1.77 | 0.65 |
| 4:D:22:LEU:HA | 4:D:25:LYS:HD2 | 1.78 | 0.65 |
| 4:D:100:GLU:HB3 | 4:D:137:LYS:CG | 2.26 | 0.65 |
| 4:D:235:LEU:CA | 4:D:300:LEU:HD22 | 2.23 | 0.65 |
| 5:E:39:ILE:HA | 5:E:42:ALA:HB2 | 1.79 | 0.65 |
| 5:E:77:VAL:HG21 | 5:E:97:ALA:CB | 2.26 | 0.65 |
| 6:F:35:VAL:CG2 | 6:F:171:VAL:HG22 | 2.24 | 0.65 |
| 8:O:50:PRO:CB | 8:O:53:LEU:HB2 | 2.27 | 0.65 |
| 8:O:437:ARG:HA | 8:O:518:PRO:HB2 | 1.76 | 0.65 |
| 8:O:568:TYR:CZ | 11:R:22:PHE:CG | 2.84 | 0.65 |
| 8:O:573:TYR:CB | 8:O:650:LYS:HE2 | 2.27 | 0.65 |
| 9:P:1:MET:HB3 | 9:P:20:GLU:HB3 | 1.77 | 0.65 |
| 9:P:99:LEU:HD13 | 10:Q:84:THR:OG1 | 1.96 | 0.65 |
| 12:V:78:ASN:ND2 | 12:V:101:LEU:O | 2.28 | 0.65 |
| 2:B:431:LEU:HD21 | 6:F:296:THR:CA | 2.26 | 0.65 |
| 3:C:221:LEU:O | 3:C:225:LYS:HG3 | 1.96 | 0.65 |
| 4:D:263:ILE:HD13 | 4:D:266:LYS:CE | 2.27 | 0.65 |
| 4:D:384:LEU:HD12 | 4:D:387:LYS:HD2 | 1.15 | 0.65 |
| 5:E:149:GLY:H | 5:E:210:LYS:HD2 | 1.61 | 0.65 |
| 5:E:242:TRP:CD2 | 6:F:219:GLU:CD | 2.67 | 0.65 |
| 5:E:270:SER:O | 5:E:274:GLU:N | 2.26 | 0.65 |
| 5:E:294:ARG:CA | 5:E:295:LYS:CE | 2.50 | 0.65 |
| 8:O:283:HIS:HB2 | 8:O:314:GLU:HB3 | 1.78 | 0.65 |
| 8:O:391:LEU:HD12 | 8:O:394:TYR:HB3 | 1.78 | 0.65 |
| 8:O:457:MET:O | 8:O:461:LEU:HG | 1.96 | 0.65 |
| 9:P:4:PHE:CE2 | 10:Q:66:LYS:HG2 | 2.30 | 0.65 |
| 9:P:6:MET:HE3 | 9:P:8:ARG:HD2 | 1.79 | 0.65 |
| 9:P:64:SER:O | 9:P:68:ARG:HA | 1.97 | 0.65 |
| 11:R:79:PHE:HD2 | 11:R:84:ILE:HB | 1.61 | 0.65 |
| 2:B:136:LEU:HD21 | 2:B:151:THR:HB | 1.78 | 0.65 |
| 2:B:315:VAL:HA | 2:B:318:TYR:CD2 | 2.32 | 0.65 |
| 2:B:368:ARG:HG3 | 4:D:353:ASP:CG | 2.17 | 0.65 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 2:B:420:ARG:CG | 5:E:263:THR:HB | 2.26 | 0.65 |
| 3:C:249:VAL:O | 3:C:254:LYS:N | 2.18 | 0.65 |
| 4:D:207:ARG:O | 4:D:211:LEU:HG | 1.97 | 0.65 |
| 6:F:257:LEU:O | 6:F:261:TYR:CB | 2.45 | 0.65 |
| 6:F:310:ASN:HA | 6:F:314:ASP:CB | 2.26 | 0.65 |
| 7:H:93:ILE:HG23 | 7:H:106:MET:HE3 | 1.78 | 0.65 |
| 7:H:163:LEU:HB3 | 7:H:165:ARG:CZ | 2.26 | 0.65 |
| 8:O:700:ILE:O | 8:O:704:ILE:HG13 | 1.97 | 0.65 |
| 9:P:44:LEU:HA | 9:P:76:GLY:O | 1.97 | 0.65 |
| 13:G:112:PRO:HB2 | 13:G:115:VAL:HG23 | 1.79 | 0.65 |
| 13:G:165:LYS:CG | 13:G:167:ILE:HD13 | 2.26 | 0.65 |
| 1:A:95:MET:HB3 | 1:A:319:LEU:CD1 | 2.26 | 0.65 |
| 1:A:225:ARG:HG3 | 1:A:237:MET:HE2 | 1.79 | 0.65 |
| 2:B:21:SER:OG | 8:O:652:LYS:NZ | 2.29 | 0.65 |
| 2:B:234:MET:O | 2:B:237:ILE:HG12 | 1.97 | 0.65 |
| 2:B:306:PRO:HA | 2:B:309:LEU:HG | 1.78 | 0.65 |
| 2:B:443:ALA:HB1 | 3:C:244:TYR:HB3 | 1.77 | 0.65 |
| 3:C:232:LEU:HD21 | 3:C:238:VAL:HG22 | 1.79 | 0.65 |
| 5:E:251:SER:C | 5:E:253:SER:HB2 | 2.15 | 0.65 |
| 5:E:310:THR:O | 5:E:313:GLU:HG2 | 1.97 | 0.65 |
| 6:F:189:THR:HG22 | 6:F:230:MET:HE1 | 1.78 | 0.65 |
| 8:O:104:LEU:HD23 | 10:Q:36:PRO:HB3 | 1.77 | 0.65 |
| 8:O:243:LEU:HB3 | 8:O:267:GLN:NE2 | 2.12 | 0.65 |
| 8:O:333:GLU:HG3 | 8:O:335:MET:H | 1.62 | 0.65 |
| 8:O:496:ASN:OD1 | 8:O:496:ASN:N | 2.25 | 0.65 |
| 8:O:559:LEU:CB | 11:R:30:VAL:CG2 | 2.72 | 0.65 |
| 8:O:610:LEU:HD11 | 8:O:638:PHE:CE1 | 2.32 | 0.65 |
| 11:R:41:ASN:N | 11:R:49:ILE:HB | 2.11 | 0.65 |
| 1:A:118:ALA:O | 1:A:122:VAL:HG23 | 1.96 | 0.65 |
| 2:B:427:TRP:CH2 | 6:F:293:GLY:CA | 2.67 | 0.65 |
| 4:D:211:LEU:O | 4:D:222:ARG:HG2 | 1.96 | 0.65 |
| 4:D:212:SER:O | 4:D:254:ARG:NH1 | 2.29 | 0.65 |
| 4:D:406:GLN:HB3 | 6:F:236:LYS:CG | 2.25 | 0.65 |
| 5:E:264:GLY:O | 5:E:268:ASP:N | 2.23 | 0.65 |
| 5:E:280:LEU:CB | 5:E:298:ASP:OD2 | 2.44 | 0.65 |
| 5:E:332:ASN:N | 13:G:180:GLY:HA3 | 2.05 | 0.65 |
| 6:F:73:ILE:HG12 | 6:F:85:ASN:HB3 | 1.79 | 0.65 |
| 6:F:150:LEU:HD21 | 6:F:167:VAL:HG13 | 1.78 | 0.65 |
| 6:F:254:HIS:HE2 | 13:G:44:GLY:CA | 2.08 | 0.65 |
| 8:O:38:ARG:CB | 8:O:104:LEU:HD22 | 2.27 | 0.65 |
| 8:O:52:PRO:HA | 8:O:55:GLU:HG2 | 1.78 | 0.65 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:101:MET:O | 8:O:105:TYR:N | 2.30 | 0.65 |
| 8:O:301:LEU:O | 8:O:308:LEU:N | 2.30 | 0.65 |
| 8:O:688:MET:CG | 8:O:731:ILE:HD12 | 2.26 | 0.65 |
| 9:P:27:LEU:HD22 | 9:P:44:LEU:O | 1.94 | 0.65 |
| 1:A:286:LYS:HE3 | 1:A:308:LEU:HB3 | 1.78 | 0.65 |
| 2:B:14:GLU:CA | 2:B:18:LEU:CD1 | 2.74 | 0.65 |
| 2:B:139:LEU:HD13 | 2:B:148:TRP:HA | 1.79 | 0.65 |
| 4:D:208:TYR:HB3 | 4:D:225:ALA:O | 1.97 | 0.65 |
| 5:E:150:ILE:HD12 | 5:E:210:LYS:HE3 | 1.78 | 0.65 |
| 7:H:17:LEU:CA | 7:H:43:LEU:HD13 | 2.27 | 0.65 |
| 8:O:541:GLU:OE2 | 8:O:553:LEU:N | 2.27 | 0.65 |
| 8:O:711:PHE:O | 8:O:713:PRO:HD3 | 1.96 | 0.65 |
| 9:P:19:LYS:H | 9:P:26:GLU:HG2 | 1.61 | 0.65 |
| 9:P:64:SER:OG | 10:Q:66:LYS:CE | 2.45 | 0.65 |
| 2:B:72:LEU:HB2 | 2:B:95:LEU:HD21 | 1.78 | 0.65 |
| 2:B:159:TYR:CD1 | 2:B:162:ARG:HB3 | 2.32 | 0.65 |
| 2:B:240:CYS:O | 2:B:244:MET:N | 2.29 | 0.65 |
| 2:B:417:GLY:HA2 | 2:B:420:ARG:CZ | 2.27 | 0.65 |
| 2:B:427:TRP:CD1 | 5:E:270:SER:N | 2.65 | 0.65 |
| 3:C:104:CYS:HA | 3:C:107:LEU:CD1 | 2.24 | 0.65 |
| 3:C:319:LEU:HB3 | 3:C:334:ALA:HB3 | 1.79 | 0.65 |
| 4:D:82:LYS:HA | 4:D:113:ILE:HD13 | 1.79 | 0.65 |
| 4:D:103:VAL:O | 4:D:106:ILE:HB | 1.97 | 0.65 |
| 4:D:191:TYR:HE2 | 4:D:207:ARG:HG3 | 1.62 | 0.65 |
| 4:D:315:LEU:HD21 | 13:G:137:TYR:CG | 2.31 | 0.65 |
| 5:E:246:TRP:CZ3 | 6:F:229:LYS:CA | 2.76 | 0.65 |
| 5:E:246:TRP:HA | 6:F:219:GLU:OE1 | 1.96 | 0.65 |
| 8:O:160:ILE:HD13 | 8:O:163:LEU:HD12 | 1.77 | 0.65 |
| 13:G:69:LEU:CD1 | 13:G:73:GLY:HA3 | 2.13 | 0.65 |
| 13:G:129:GLU:O | 13:G:132:ILE:HG13 | 1.96 | 0.65 |
| 1:A:172:LYS:O | 1:A:176:LEU:HG | 1.98 | 0.65 |
| 1:A:339:ARG:NH1 | 1:A:370:TYR:HA | 2.07 | 0.65 |
| 2:B:371:ILE:HB | 2:B:407:GLN:O | 1.97 | 0.65 |
| 4:D:12:LEU:O | 4:D:22:LEU:HD11 | 1.97 | 0.65 |
| 4:D:185:ILE:O | 4:D:189:VAL:HG23 | 1.96 | 0.65 |
| 5:E:33:LYS:HD2 | 5:E:130:LEU:CB | 2.26 | 0.65 |
| 5:E:84:LYS:HG3 | 5:E:91:ILE:HD12 | 1.79 | 0.65 |
| 5:E:142:GLY:HA2 | 5:E:173:THR:OG1 | 1.96 | 0.65 |
| 5:E:243:ASN:N | 6:F:229:LYS:HZ1 | 1.93 | 0.65 |
| 5:E:315:ILE:HD11 | 7:H:203:TYR:HB3 | 1.77 | 0.65 |
| 8:O:508:GLN:HE22 | 8:O:559:LEU:C | 2.00 | 0.65 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:O:729:GLN:N | 11:R:55:GLU:HG3 | 2.11 | 0.65 |
| 12:V:78:ASN:HA | 12:V:151:ILE:CG1 | 2.27 | 0.65 |
| 13:G:15:PHE:HD1 | 13:G:30:LEU:HD11 | 1.61 | 0.65 |
| 13:G:124:ASN:HD21 | 13:G:126:ARG:NE | 1.95 | 0.65 |
| 1:A:440:LEU:HA | 1:A:443:LEU:HD12 | 1.77 | 0.64 |
| 2:B:119:ILE:HB | 2:B:128:LEU:HD13 | 1.79 | 0.64 |
| 2:B:200:LEU:O | 2:B:203:GLN:HB3 | 1.97 | 0.64 |
| 3:C:184:TYR:O | 3:C:187:TYR:HB2 | 1.97 | 0.64 |
| 4:D:133:GLU:HA | 4:D:138:GLN:HG2 | 1.79 | 0.64 |
| 4:D:180:ASN:HB3 | 4:D:183:LEU:HB3 | 1.78 | 0.64 |
| 4:D:234:ILE:O | 4:D:242:ARG:NE | 2.26 | 0.64 |
| 4:D:334:LYS:O | 4:D:338:ILE:HG12 | 1.97 | 0.64 |
| 4:D:352:ILE:HG12 | 4:D:360:HIS:H | 1.61 | 0.64 |
| 5:E:182:ASN:ND2 | 5:E:202:GLU:OE2 | 2.30 | 0.64 |
| 6:F:261:TYR:HD1 | 13:G:170:ILE:HD13 | 1.47 | 0.64 |
| 7:H:196:GLN:HA | 7:H:199:ARG:NE | 2.12 | 0.64 |
| 8:O:222:GLU:HG2 | 8:O:242:ARG:CD | 2.26 | 0.64 |
| 8:O:490:PHE:CD1 | 8:O:539:MET:HB3 | 2.31 | 0.64 |
| 8:O:492:ASN:OD1 | 8:O:492:ASN:N | 2.22 | 0.64 |
| 9:P:93:PHE:CG | 10:Q:55:GLU:HB2 | 2.30 | 0.64 |
| 13:G:41:TYR:HB2 | 13:G:161:ASP:CG | 2.18 | 0.64 |
| 1:A:194:LYS:HB2 | 1:A:229:THR:HG23 | 1.78 | 0.64 |
| 1:A:398:VAL:HG22 | 1:A:402:TYR:CZ | 2.32 | 0.64 |
| 2:B:125:MET:CG | 2:B:158:LEU:HD13 | 2.27 | 0.64 |
| 2:B:136:LEU:HA | 2:B:139:LEU:HB2 | 1.78 | 0.64 |
| 2:B:144:ASN:OD1 | 2:B:147:LEU:HD11 | 1.96 | 0.64 |
| 2:B:259:PHE:CE2 | 2:B:263:LYS:HD2 | 2.33 | 0.64 |
| 3:C:138:LEU:HD21 | 3:C:180:HIS:HB3 | 1.79 | 0.64 |
| 4:D:6:ARG:NH2 | 4:D:43:GLU:O | 2.30 | 0.64 |
| 4:D:165:GLU:O | 4:D:168:ILE:HG22 | 1.97 | 0.64 |
| 4:D:173:LEU:HD11 | 11:R:76:ASN:ND2 | 2.12 | 0.64 |
| 4:D:385:LEU:HD22 | 6:F:234:ARG:HA | 1.80 | 0.64 |
| 5:E:128:GLY:HA3 | 6:F:61:GLN:NE2 | 2.12 | 0.64 |
| 7:H:50:MET:HE1 | 7:H:78:GLY:O | 1.97 | 0.64 |
| 7:H:90:TYR:CZ | 7:H:137:VAL:HA | 2.32 | 0.64 |
| 7:H:153:TRP:HA | 7:H:165:ARG:CG | 2.26 | 0.64 |
| 8:O:327:THR:HA | 8:O:342:SER:CB | 2.22 | 0.64 |
| 8:O:440:ALA:HB1 | 8:O:519:LEU:CG | 2.27 | 0.64 |
| 8:O:556:LEU:HD12 | 8:O:559:LEU:HD23 | 1.79 | 0.64 |
| 8:O:695:ARG:HA | 8:O:740:GLU:CA | 2.23 | 0.64 |
| 8:O:700:ILE:CB | 8:O:718:ILE:HG13 | 2.24 | 0.64 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 8:O:727:ASP:N | 11:R:45:CYS:HA | 1.72 | 0.64 |
| 11:R:84:ILE:CG2 | 11:R:101:TRP:HA | 2.27 | 0.64 |
| 13:G:18:LEU:HB2 | 13:G:30:LEU:HD13 | 1.80 | 0.64 |
| 13:G:87:GLU:HG2 | 13:G:88:LEU:N | 2.13 | 0.64 |
| 1:A:242:ILE:O | 1:A:246:VAL:HG23 | 1.98 | 0.64 |
| 2:B:251:PHE:CA | 2:B:254:ALA:HB3 | 2.24 | 0.64 |
| 3:C:128:ILE:O | 3:C:132:GLN:N | 2.27 | 0.64 |
| 3:C:228:ILE:HB | 3:C:260:TYR:CD2 | 2.33 | 0.64 |
| 4:D:93:GLN:HB3 | 4:D:94:PRO:HD3 | 1.79 | 0.64 |
| 4:D:378:CYS:HA | 6:F:231:LEU:HD22 | 1.80 | 0.64 |
| 5:E:45:TRP:CH2 | 5:E:164:PRO:HD3 | 2.31 | 0.64 |
| 8:O:73:HIS:CE1 | 8:O:154:PRO:HG3 | 2.33 | 0.64 |
| 8:O:243:LEU:CD2 | 8:O:267:GLN:HG2 | 2.24 | 0.64 |
| 8:O:293:ASP:O | 8:O:297:MET:HB2 | 1.97 | 0.64 |
| 8:O:527:PHE:CD2 | 8:O:529:ILE:HD12 | 2.32 | 0.64 |
| 12:V:117:TRP:HB2 | 12:V:136:PHE:HB3 | 1.79 | 0.64 |
| 13:G:179:ASP:CA | 13:G:182:GLU:HG2 | 2.26 | 0.64 |
| 1:A:193:ILE:HG22 | 1:A:196:SER:H | 1.62 | 0.64 |
| 2:B:72:LEU:O | 2:B:76:ILE:HG12 | 1.97 | 0.64 |
| 3:C:77:LEU:O | 3:C:81:VAL:N | 2.23 | 0.64 |
| 4:D:241:GLN:OE1 | 11:R:92:GLN:HG3 | 1.98 | 0.64 |
| 5:E:258:ASN:HB2 | 5:E:261:TYR:HB3 | 1.77 | 0.64 |
| 6:F:51:ILE:HG12 | 6:F:125:TYR:CD1 | 2.33 | 0.64 |
| 7:H:37:TYR:CB | 7:H:71:LEU:HD22 | 2.26 | 0.64 |
| 8:O:693:VAL:HG13 | 8:O:695:ARG:H | 1.62 | 0.64 |
| 9:P:29:ARG:CB | 9:P:33:GLY:H | 2.09 | 0.64 |
| 12:V:84:VAL:HB | 12:V:101:LEU:CB | 2.26 | 0.64 |
| 13:G:165:LYS:HG3 | 13:G:167:ILE:CD1 | 2.26 | 0.64 |
| 1:A:104:ALA:HB1 | 1:A:115:LEU:HG | 1.80 | 0.64 |
| 1:A:175:LEU:HA | 1:A:178:LEU:HD12 | 1.78 | 0.64 |
| 1:A:280:ALA:O | 1:A:283:THR:OG1 | 2.09 | 0.64 |
| 2:B:77:LYS:HA | 2:B:80:PHE:CE1 | 2.33 | 0.64 |
| 2:B:201:GLU:HB3 | 2:B:214:LEU:HD21 | 1.79 | 0.64 |
| 2:B:273:ARG:NH1 | 2:B:277:LEU:HB3 | 2.13 | 0.64 |
| 3:C:69:PRO:HB2 | 3:C:110:ALA:HB2 | 1.79 | 0.64 |
| 3:C:303:TYR:HD1 | 3:C:326:VAL:HG12 | 1.62 | 0.64 |
| 4:D:315:LEU:HD22 | 13:G:134:GLU:HA | 1.79 | 0.64 |
| 4:D:323:GLU:CD | 13:G:125:LEU:CD2 | 2.65 | 0.64 |
| 8:O:40:SER:O | 8:O:43:TYR:HB3 | 1.98 | 0.64 |
| 8:O:279:HIS:HB3 | 8:O:310:HIS:CG | 2.33 | 0.64 |
| 8:O:644:PHE:CD1 | 8:O:650:LYS:HG3 | 2.32 | 0.64 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 9:P:55:LYS:HA | 9:P:59:GLU:OE1 | 1.98 | 0.64 |
| 1:A:170:THR:HA | 1:A:173:LYS:HE3 | 1.79 | 0.64 |
| 2:B:192:THR:CG2 | 8:O:459:ASN:ND2 | 2.60 | 0.64 |
| 2:B:292:ASN:HA | 11:R:72:TRP:HZ3 | 1.63 | 0.64 |
| 2:B:365:PRO:CB | 4:D:344:THR:HG22 | 2.27 | 0.64 |
| 3:C:50:ASP:OD1 | 3:C:52:GLN:HB3 | 1.97 | 0.64 |
| 3:C:156:LYS:HA | 3:C:159:LEU:CD1 | 2.27 | 0.64 |
| 4:D:302:ARG:HA | 4:D:305:ILE:HD12 | 1.80 | 0.64 |
| 4:D:358:ILE:HG22 | 4:D:359:VAL:O | 1.98 | 0.64 |
| 5:E:63:LEU:HG | 6:F:46:LEU:HB3 | 1.80 | 0.64 |
| 5:E:84:LYS:HE3 | 5:E:91:ILE:HD13 | 1.79 | 0.64 |
| 5:E:241:LEU:CD1 | 6:F:190:LEU:HB2 | 2.20 | 0.64 |
| 5:E:255:LEU:HD23 | 5:E:317:GLY:HA3 | 1.79 | 0.64 |
| 5:E:294:ARG:NH1 | 5:E:297:GLU:O | 2.29 | 0.64 |
| 5:E:325:ASP:OD1 | 5:E:329:ASN:ND2 | 2.29 | 0.64 |
| 6:F:258:ARG:HB2 | 13:G:161:ASP:O | 1.98 | 0.64 |
| 8:O:52:PRO:HD2 | 8:O:53:LEU:HD12 | 1.79 | 0.64 |
| 8:O:108:LEU:HG | 8:O:112:PHE:CE1 | 2.33 | 0.64 |
| 8:O:394:TYR:O | 8:O:397:ASN:HB2 | 1.98 | 0.64 |
| 8:O:399:LEU:HB2 | 8:O:442:ARG:HH22 | 1.63 | 0.64 |
| 3:C:307:ILE:O | 3:C:311:THR:HG23 | 1.97 | 0.64 |
| 3:C:319:LEU:HB3 | 3:C:331:PRO:HA | 1.80 | 0.64 |
| 4:D:27:ARG:HA | 4:D:30:LEU:HD23 | 1.80 | 0.64 |
| 4:D:219:GLU:HA | 4:D:222:ARG:HB2 | 1.80 | 0.64 |
| 5:E:148:SER:HB2 | 5:E:210:LYS:CG | 2.28 | 0.64 |
| 6:F:289:MET:HA | 6:F:292:LEU:HD12 | 1.80 | 0.64 |
| 7:H:45:LEU:HD13 | 7:H:81:ILE:HD12 | 1.79 | 0.64 |
| 8:O:594:VAL:HG13 | 8:O:598:GLU:CB | 2.22 | 0.64 |
| 2:B:382:VAL:HA | 2:B:385:VAL:HB | 1.80 | 0.64 |
| 3:C:26:GLU:HB3 | 3:C:96:ALA:CB | 2.28 | 0.64 |
| 5:E:285:PHE:HB3 | 12:V:62:VAL:HG11 | 1.77 | 0.64 |
| 7:H:48:ASN:OD1 | 7:H:84:ARG:NH2 | 2.31 | 0.64 |
| 8:O:17:LEU:HG | 8:O:21:ILE:HD12 | 1.78 | 0.64 |
| 8:O:490:PHE:CD1 | 8:O:539:MET:CB | 2.79 | 0.64 |
| 1:A:125:THR:HG22 | 1:A:209:LEU:CD2 | 2.28 | 0.64 |
| 1:A:349:SER:HB3 | 1:A:356:LEU:HD11 | 1.80 | 0.64 |
| 2:B:77:LYS:HG3 | 2:B:80:PHE:CE2 | 2.33 | 0.64 |
| 2:B:149:PHE:CZ | 2:B:196:GLU:HB3 | 2.33 | 0.64 |
| 2:B:165:TYR:CD1 | 2:B:168:LEU:HD23 | 2.33 | 0.64 |
| 2:B:260:GLU:CD | 11:R:66:GLU:CG | 2.61 | 0.64 |
| 3:C:38:ASN:O | 3:C:42:LEU:N | 2.20 | 0.64 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:D:59:LEU:HD22 | 4:D:95:ARG:CZ | 2.28 | 0.64 |
| 4:D:133:GLU:OE2 | 4:D:139:TYR:N | 2.30 | 0.64 |
| 5:E:150:ILE:CD1 | 5:E:210:LYS:HE3 | 2.28 | 0.64 |
| 5:E:246:TRP:CH2 | 6:F:229:LYS:CA | 2.67 | 0.64 |
| 5:E:254:SER:HB3 | 5:E:317:GLY:HA2 | 1.79 | 0.64 |
| 5:E:279:GLN:CG | 5:E:295:LYS:HE3 | 2.28 | 0.64 |
| 8:O:400:LYS:CB | 8:O:447:LEU:HB3 | 2.28 | 0.64 |
| 8:O:588:PHE:HZ | 8:O:599:LEU:HD22 | 1.62 | 0.64 |
| 8:O:685:VAL:CG2 | 8:O:725:LEU:CD2 | 2.76 | 0.64 |
| 9:P:93:PHE:CA | 10:Q:16:TYR:OH | 2.45 | 0.64 |
| 13:G:23:SER:H | 13:G:26:ALA:HB3 | 1.63 | 0.64 |
| 13:G:71:ALA:O | 13:G:163:ARG:HG2 | 1.97 | 0.64 |
| 1:A:341:GLU:O | 1:A:345:ASN:HB2 | 1.98 | 0.64 |
| 2:B:18:LEU:CD2 | 2:B:27:GLU:CA | 2.71 | 0.64 |
| 2:B:296:SER:CB | 11:R:67:GLU:CD | 2.66 | 0.64 |
| 3:C:320:GLN:OE1 | 3:C:330:GLY:HA2 | 1.98 | 0.64 |
| 4:D:203:GLU:O | 4:D:207:ARG:HG2 | 1.98 | 0.64 |
| 8:O:236:MET:CE | 8:O:300:LEU:HD12 | 2.28 | 0.64 |
| 8:O:398:LEU:HD13 | 8:O:415:LEU:HD23 | 1.79 | 0.64 |
| 8:O:400:LYS:CG | 8:O:403:ALA:HB2 | 2.27 | 0.64 |
| 8:O:689:LYS:HA | 8:O:743:TYR:CZ | 2.32 | 0.64 |
| 9:P:4:PHE:N | 9:P:67:ALA:O | 2.31 | 0.64 |
| 2:B:73:LYS:HA | 2:B:76:ILE:CG1 | 2.27 | 0.63 |
| 4:D:124:ALA:HB1 | 4:D:155:TYR:CE2 | 2.34 | 0.63 |
| 4:D:253:GLU:HA | 4:D:256:GLN:CG | 2.29 | 0.63 |
| 5:E:68:HIS:HA | 5:E:71:SER:OG | 1.98 | 0.63 |
| 5:E:252:SER:H | 6:F:221:LEU:HA | 1.63 | 0.63 |
| 5:E:323:ILE:CB | 6:F:221:LEU:HD21 | 2.25 | 0.63 |
| 6:F:142:VAL:HG12 | 6:F:149:PRO:CB | 2.27 | 0.63 |
| 8:O:379:ARG:NE | 8:O:384:VAL:HA | 2.13 | 0.63 |
| 8:O:505:ILE:C | 11:R:28:ASN:CA | 2.62 | 0.63 |
| 9:P:7:ILE:HD13 | 9:P:27:LEU:O | 1.99 | 0.63 |
| 11:R:67:GLU:HG3 | 11:R:70:VAL:CG1 | 2.28 | 0.63 |
| 12:V:84:VAL:O | 12:V:100:THR:HA | 1.98 | 0.63 |
| 1:A:278:THR:O | 1:A:313:HIS:N | 2.31 | 0.63 |
| 2:B:70:LYS:HG3 | 2:B:107:TYR:OH | 1.98 | 0.63 |
| 2:B:259:PHE:CE2 | 11:R:67:GLU:N | 2.67 | 0.63 |
| 2:B:438:VAL:HG22 | 6:F:303:ASN:HB2 | 1.80 | 0.63 |
| 3:C:23:GLN:HA | 3:C:26:GLU:CG | 2.29 | 0.63 |
| 3:C:367:TYR:HD1 | 3:C:372:MET:HB3 | 1.62 | 0.63 |
| 4:D:12:LEU:HA | 4:D:15:SER:HB3 | 1.80 | 0.63 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:D:54:ASN:HD21 | 4:D:56:ASN:HD22 | 1.43 | 0.63 |
| 5:E:136:TRP:CZ2 | 5:E:167:ALA:HA | 2.33 | 0.63 |
| 7:H:13:PHE:CE1 | 7:H:46:LEU:HD22 | 2.32 | 0.63 |
| 8:O:103:CYS:HB3 | 10:Q:35:GLY:O | 1.97 | 0.63 |
| 8:O:216:GLY:HA3 | 8:O:269:ARG:NH2 | 2.13 | 0.63 |
| 8:O:263:ILE:O | 8:O:267:GLN:HG3 | 1.98 | 0.63 |
| 9:P:43:ARG:HG3 | 9:P:45:TYR:CE2 | 2.33 | 0.63 |
| 11:R:72:TRP:NE1 | 11:R:100:GLU:OE2 | 2.31 | 0.63 |
| 11:R:87:TRP:HB2 | 11:R:95:PRO:HB3 | 1.80 | 0.63 |
| 1:A:303:ALA:HA | 1:A:306:LEU:HD12 | 1.81 | 0.63 |
| 1:A:403:THR:HG22 | 1:A:407:ASN:HD21 | 1.62 | 0.63 |
| 2:B:19:GLU:C | 8:O:652:LYS:HG3 | 2.19 | 0.63 |
| 2:B:159:TYR:CE2 | 2:B:164:GLU:HB3 | 2.33 | 0.63 |
| 2:B:167:LYS:HE3 | 2:B:168:LEU:HB2 | 1.80 | 0.63 |
| 3:C:5:LEU:HB3 | 3:C:42:LEU:CG | 2.27 | 0.63 |
| 3:C:179:LYS:HA | 3:C:182:LEU:HD12 | 1.80 | 0.63 |
| 3:C:248:ILE:O | 3:C:252:PHE:N | 2.22 | 0.63 |
| 4:D:58:SER:O | 4:D:62:SER:N | 2.21 | 0.63 |
| 4:D:156:LEU:HD22 | 4:D:197:TYR:CE2 | 2.33 | 0.63 |
| 5:E:253:SER:N | 5:E:320:SER:HB2 | 2.11 | 0.63 |
| 7:H:196:GLN:HG3 | 7:H:199:ARG:CZ | 2.28 | 0.63 |
| 8:O:391:LEU:HD21 | 8:O:418:PHE:HB3 | 1.80 | 0.63 |
| 8:O:442:ARG:O | 8:O:446:GLY:N | 2.32 | 0.63 |
| 8:O:567:ASN:OD1 | 11:R:23:GLU:CG | 2.47 | 0.63 |
| 9:P:5:LEU:HD23 | 9:P:73:ALA:HB3 | 1.80 | 0.63 |
| 9:P:27:LEU:HD21 | 9:P:44:LEU:HB3 | 1.78 | 0.63 |
| 13:G:41:TYR:CE2 | 13:G:160:ARG:HD2 | 2.34 | 0.63 |
| 1:A:177:LYS:HA | 1:A:180:LYS:HD2 | 1.81 | 0.63 |
| 1:A:271:ARG:HB2 | 1:A:274:ARG:HA | 1.79 | 0.63 |
| 1:A:291:LEU:HD12 | 1:A:294:LEU:HB3 | 1.81 | 0.63 |
| 2:B:76:ILE:HG22 | 2:B:80:PHE:HE1 | 1.63 | 0.63 |
| 2:B:443:ALA:HB1 | 3:C:244:TYR:CB | 2.29 | 0.63 |
| 3:C:135:THR:HB | 3:C:166:MET:HA | 1.79 | 0.63 |
| 3:C:186:TYR:HA | 3:C:205:TYR:CE1 | 2.34 | 0.63 |
| 4:D:92:ILE:HD11 | 4:D:106:ILE:HD13 | 1.80 | 0.63 |
| 4:D:293:THR:HG22 | 4:D:299:ILE:HG12 | 1.80 | 0.63 |
| 5:E:67:MET:SD | 6:F:42:ALA:HB1 | 2.39 | 0.63 |
| 5:E:187:ARG:CD | 5:E:224:LEU:HD11 | 2.29 | 0.63 |
| 6:F:252:PHE:CE2 | 6:F:257:LEU:HD11 | 2.32 | 0.63 |
| 6:F:267:LEU:HD22 | 13:G:177:TRP:HE1 | 1.60 | 0.63 |
| 8:O:88:HIS:HB2 | 8:O:184:VAL:HG22 | 1.79 | 0.63 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:174:GLU:HG3 | 8:O:175:ASP:O | 1.99 | 0.63 |
| 8:O:400:LYS:HB2 | 8:O:447:LEU:HB3 | 1.81 | 0.63 |
| 9:P:102:VAL:HG21 | 12:V:170:VAL:HG22 | 1.79 | 0.63 |
| 11:R:19:LYS:HD3 | 11:R:25:LYS:NZ | 2.13 | 0.63 |
| 12:V:72:SER:OG | 12:V:140:LEU:N | 2.31 | 0.63 |
| 1:A:385:LYS:HA | 1:A:388:LEU:HB2 | 1.81 | 0.63 |
| 1:A:452:ARG:O | 1:A:460:LEU:HD12 | 1.98 | 0.63 |
| 1:A:469:SER:O | 1:A:473:GLU:HG3 | 1.98 | 0.63 |
| 2:B:14:GLU:OE2 | 2:B:67:TRP:N | 2.32 | 0.63 |
| 2:B:194:LEU:HB3 | 2:B:224:ILE:HG21 | 1.80 | 0.63 |
| 2:B:431:LEU:HD23 | 2:B:434:LEU:HD23 | 1.81 | 0.63 |
| 3:C:323:ALA:CA | 3:C:328:LEU:HB2 | 2.28 | 0.63 |
| 4:D:23:ALA:HB2 | 4:D:61:ILE:HD12 | 1.81 | 0.63 |
| 4:D:169:ASN:HB2 | 11:R:75:CYS:HB2 | 1.80 | 0.63 |
| 5:E:59:ALA:O | 5:E:63:LEU:HG | 1.99 | 0.63 |
| 5:E:246:TRP:CA | 6:F:229:LYS:HB2 | 2.29 | 0.63 |
| 8:O:168:LYS:NZ | 8:O:214:GLU:OE2 | 2.21 | 0.63 |
| 8:O:389:GLU:O | 8:O:393:LYS:HG3 | 1.99 | 0.63 |
| 8:O:489:LYS:O | 8:O:492:ASN:N | 2.31 | 0.63 |
| 8:O:584:VAL:CG1 | 8:O:610:LEU:HD13 | 2.29 | 0.63 |
| 8:O:688:MET:HG2 | 8:O:731:ILE:HD12 | 1.81 | 0.63 |
| 8:O:695:ARG:HD3 | 8:O:740:GLU:HG3 | 1.81 | 0.63 |
| 9:P:27:LEU:HD21 | 9:P:44:LEU:C | 2.15 | 0.63 |
| 2:B:128:LEU:HA | 2:B:131:PHE:HD2 | 1.63 | 0.63 |
| 3:C:129:ASP:OD1 | 3:C:132:GLN:NE2 | 2.31 | 0.63 |
| 4:D:219:GLU:HB2 | 4:D:222:ARG:NH2 | 2.13 | 0.63 |
| 4:D:310:LEU:HG | 4:D:316:TYR:CE1 | 2.34 | 0.63 |
| 6:F:254:HIS:HE2 | 13:G:44:GLY:HA3 | 1.59 | 0.63 |
| 8:O:181:ILE:HD12 | 8:O:253:TYR:HD1 | 1.64 | 0.63 |
| 8:O:326:ALA:HA | 8:O:330:LEU:HD12 | 1.79 | 0.63 |
| 8:O:724:VAL:O | 11:R:54:ILE:CD1 | 2.47 | 0.63 |
| 10:Q:91:LEU:CG | 12:V:184:LEU:CG | 2.77 | 0.63 |
| 1:A:95:MET:CB | 1:A:319:LEU:HD21 | 2.28 | 0.63 |
| 1:A:268:ALA:HB2 | 1:A:282:LEU:HD12 | 1.80 | 0.63 |
| 1:A:394:LEU:HD11 | 1:A:398:VAL:HA | 1.81 | 0.63 |
| 2:B:294:PHE:O | 2:B:300:LYS:HD3 | 1.98 | 0.63 |
| 3:C:68:MET:HB3 | 3:C:71:VAL:HG21 | 1.79 | 0.63 |
| 3:C:233:ILE:HD13 | 3:C:297:GLN:HB2 | 1.81 | 0.63 |
| 3:C:385:GLU:OE2 | 3:C:389:ARG:NH1 | 2.25 | 0.63 |
| 5:E:31:TYR:CZ | 5:E:131:GLU:HG3 | 2.34 | 0.63 |
| 5:E:250:LEU:O | 5:E:328:PHE:CZ | 2.51 | 0.63 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 5:E:322:VAL:HA | 6:F:279:PHE:CZ | 2.34 | 0.63 |
| 7:H:98:TRP:CD1 | 7:H:101:THR:HB | 2.33 | 0.63 |
| 8:O:70:ARG:O | 8:O:74:LYS:HG3 | 1.99 | 0.63 |
| 8:O:110:THR:CG2 | 10:Q:28:THR:HA | 2.25 | 0.63 |
| 8:O:400:LYS:HA | 8:O:447:LEU:O | 1.99 | 0.63 |
| 8:O:505:ILE:HB | 8:O:533:LEU:CD2 | 2.28 | 0.63 |
| 8:O:692:LYS:CG | 8:O:743:TYR:HB3 | 2.28 | 0.63 |
| 12:V:128:LEU:O | 12:V:134:GLU:HA | 1.99 | 0.63 |
| 1:A:170:THR:HA | 1:A:173:LYS:CE | 2.29 | 0.63 |
| 2:B:392:CYS:HA | 2:B:395:ASP:OD2 | 1.99 | 0.63 |
| 3:C:81:VAL:O | 3:C:85:ILE:HG12 | 1.99 | 0.63 |
| 3:C:206:GLU:HB2 | 3:C:227:TYR:CE1 | 2.33 | 0.63 |
| 3:C:228:ILE:HD12 | 3:C:260:TYR:HD2 | 1.64 | 0.63 |
| 3:C:300:SER:O | 3:C:304:LYS:HG3 | 1.97 | 0.63 |
| 4:D:87:PHE:HA | 4:D:90:GLU:OE1 | 1.97 | 0.63 |
| 4:D:89:LEU:HD23 | 4:D:92:ILE:CD1 | 2.27 | 0.63 |
| 4:D:285:LEU:HA | 4:D:289:GLN:OE1 | 1.99 | 0.63 |
| 5:E:242:TRP:CZ2 | 6:F:219:GLU:OE2 | 2.45 | 0.63 |
| 5:E:249:THR:HB | 6:F:225:HIS:ND1 | 2.09 | 0.63 |
| 8:O:36:ASN:OD1 | 10:Q:39:GLU:HB3 | 1.98 | 0.63 |
| 8:O:105:TYR:HA | 8:O:108:LEU:HB3 | 1.80 | 0.63 |
| 8:O:149:LYS:HA | 8:O:152:VAL:H | 1.64 | 0.63 |
| 8:O:562:GLY:HA3 | 8:O:577:VAL:HG22 | 1.81 | 0.63 |
| 8:O:629:LYS:NZ | 8:O:633:ASP:OD2 | 2.30 | 0.63 |
| 9:P:16:THR:CA | 10:Q:19:SER:H | 1.99 | 0.63 |
| 1:A:472:PHE:CE1 | 6:F:288:LEU:HD22 | 2.34 | 0.63 |
| 2:B:19:GLU:HB3 | 8:O:652:LYS:H | 0.71 | 0.63 |
| 2:B:73:LYS:O | 2:B:76:ILE:HB | 1.99 | 0.63 |
| 2:B:201:GLU:OE1 | 2:B:217:LEU:HD13 | 1.99 | 0.63 |
| 2:B:243:LYS:O | 2:B:246:LEU:HB3 | 1.99 | 0.63 |
| 2:B:427:TRP:O | 2:B:430:GLN:HB2 | 1.98 | 0.63 |
| 4:D:273:ILE:HG23 | 4:D:277:GLN:HB2 | 1.80 | 0.63 |
| 4:D:369:THR:HA | 4:D:372:LYS:CD | 2.29 | 0.63 |
| 5:E:33:LYS:HE3 | 5:E:37:GLN:HE22 | 1.63 | 0.63 |
| 8:O:32:ARG:HH11 | 10:Q:38:ARG:N | 1.97 | 0.63 |
| 8:O:249:ARG:HA | 8:O:252:LYS:CG | 2.29 | 0.63 |
| 8:O:340:VAL:O | 8:O:344:LEU:HG | 1.98 | 0.63 |
| 8:O:417:SER:O | 8:O:420:THR:HB | 1.99 | 0.63 |
| 8:O:505:ILE:HA | 11:R:27:TRP:H | 1.63 | 0.63 |
| 9:P:4:PHE:CG | 10:Q:62:ASN:ND2 | 2.67 | 0.63 |
| 9:P:15:PHE:CE1 | 10:Q:58:VAL:HG21 | 2.30 | 0.63 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 10:Q:84:THR:HG23 | 12:V:169:LEU:HD13 | 1.81 | 0.63 |
| 1:A:208:TYR:CB | 1:A:213:ASP:HB2 | 2.29 | 0.62 |
| 1:A:258:VAL:HG13 | 1:A:285:LEU:HB3 | 1.80 | 0.62 |
| 1:A:306:LEU:HD13 | 1:A:329:GLY:N | 2.14 | 0.62 |
| 2:B:73:LYS:HZ2 | 2:B:111:SER:HA | 1.63 | 0.62 |
| 2:B:192:THR:CB | 8:O:459:ASN:ND2 | 2.62 | 0.62 |
| 3:C:387:ASP:OD1 | 6:F:298:THR:HA | 1.99 | 0.62 |
| 4:D:219:GLU:CG | 4:D:223:LEU:HD13 | 2.29 | 0.62 |
| 5:E:189:TYR:OH | 5:E:222:TYR:HB3 | 1.99 | 0.62 |
| 5:E:246:TRP:CH2 | 6:F:228:ILE:O | 2.51 | 0.62 |
| 8:O:440:ALA:O | 8:O:443:LEU:HB3 | 1.99 | 0.62 |
| 8:O:483:SER:HB3 | 8:O:509:ILE:CG2 | 2.28 | 0.62 |
| 8:O:511:VAL:O | 8:O:551:ARG:CB | 2.44 | 0.62 |
| 8:O:723:GLU:O | 11:R:46:ARG:CA | 2.38 | 0.62 |
| 8:O:729:GLN:HG3 | 11:R:55:GLU:CB | 2.29 | 0.62 |
| 1:A:268:ALA:HA | 1:A:273:GLU:HG2 | 1.81 | 0.62 |
| 1:A:414:PHE:CZ | 1:A:462:ALA:HB2 | 2.34 | 0.62 |
| 1:A:466:ASP:HB3 | 1:A:470:THR:OG1 | 1.99 | 0.62 |
| 1:A:469:SER:OG | 3:C:366:LYS:HG3 | 1.99 | 0.62 |
| 4:D:60:VAL:HA | 4:D:63:ARG:CG | 2.28 | 0.62 |
| 4:D:120:TRP:CB | 4:D:158:ASP:HB2 | 2.29 | 0.62 |
| 4:D:272:ILE:CG1 | 4:D:313:SER:HA | 2.29 | 0.62 |
| 5:E:120:TYR:CA | 6:F:111:GLN:HB3 | 2.29 | 0.62 |
| 5:E:248:ASN:C | 6:F:222:ILE:HD12 | 2.19 | 0.62 |
| 5:E:279:GLN:OE1 | 5:E:299:LYS:HG3 | 1.98 | 0.62 |
| 5:E:332:ASN:HD22 | 13:G:179:ASP:HB2 | 1.47 | 0.62 |
| 6:F:240:GLU:HA | 6:F:243:LYS:HE3 | 1.80 | 0.62 |
| 8:O:544:TYR:CE1 | 11:R:33:TRP:CE3 | 2.87 | 0.62 |
| 8:O:644:PHE:CZ | 8:O:646:SER:HB2 | 2.34 | 0.62 |
| 8:O:725:LEU:CD2 | 11:R:46:ARG:CZ | 2.72 | 0.62 |
| 13:G:111:ILE:HG21 | 13:G:116:LEU:CD2 | 2.30 | 0.62 |
| 13:G:124:ASN:HD21 | 13:G:126:ARG:HE | 1.47 | 0.62 |
| 1:A:205:GLY:HA2 | 1:A:208:TYR:HD2 | 1.64 | 0.62 |
| 1:A:254:VAL:HA | 1:A:257:TYR:CD2 | 2.34 | 0.62 |
| 2:B:20:TYR:H | 8:O:652:LYS:HG3 | 1.64 | 0.62 |
| 2:B:27:GLU:N | 2:B:28:PRO:CD | 2.60 | 0.62 |
| 2:B:224:ILE:HG21 | 2:B:228:ILE:HD12 | 1.80 | 0.62 |
| 2:B:367:THR:CA | 2:B:411:LEU:HB2 | 2.27 | 0.62 |
| 3:C:72:PRO:O | 3:C:76:THR:HG23 | 2.00 | 0.62 |
| 4:D:5:VAL:HG22 | 4:D:28:GLN:HG2 | 1.79 | 0.62 |
| 4:D:104:ALA:O | 4:D:108:GLN:N | 2.23 | 0.62 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:D:191:TYR:O | 4:D:195:LEU:HG | 2.00 | 0.62 |
| 4:D:269:LEU:O | 4:D:314:LYS:NZ | 2.25 | 0.62 |
| 5:E:29:TYR:CZ | 5:E:230:LYS:HA | 2.34 | 0.62 |
| 6:F:32:ALA:HB1 | 6:F:182:LEU:HA | 1.80 | 0.62 |
| 6:F:168:PHE:HE1 | 6:F:185:GLU:HB2 | 1.64 | 0.62 |
| 8:O:109:ASN:OD1 | 8:O:138:GLU:HG2 | 1.98 | 0.62 |
| 8:O:361:ASP:OD2 | 8:O:363:HIS:HB2 | 1.99 | 0.62 |
| 8:O:385:CYS:CA | 8:O:427:ASP:HB3 | 2.27 | 0.62 |
| 8:O:528:ALA:C | 8:O:529:ILE:O | 2.37 | 0.62 |
| 8:O:543:PHE:O | 8:O:546:GLN:HB2 | 1.99 | 0.62 |
| 8:O:573:TYR:HA | 8:O:649:THR:HG22 | 1.81 | 0.62 |
| 9:P:32:GLU:HA | 9:P:36:LYS:H | 1.65 | 0.62 |
| 12:V:73:GLN:CD | 12:V:143:ASP:O | 2.38 | 0.62 |
| 13:G:37:ALA:HB3 | 13:G:40:VAL:HB | 1.81 | 0.62 |
| 13:G:71:ALA:HA | 13:G:163:ARG:HA | 1.81 | 0.62 |
| 1:A:206:ASP:O | 1:A:209:LEU:HB3 | 2.00 | 0.62 |
| 1:A:394:LEU:O | 1:A:398:VAL:N | 2.33 | 0.62 |
| 2:B:153:THR:O | 2:B:157:LYS:HG2 | 2.00 | 0.62 |
| 2:B:205:TYR:CE1 | 2:B:213:LYS:HE3 | 2.34 | 0.62 |
| 2:B:259:PHE:CE1 | 2:B:296:SER:HB2 | 2.35 | 0.62 |
| 4:D:59:LEU:O | 4:D:63:ARG:HG3 | 1.99 | 0.62 |
| 4:D:124:ALA:O | 4:D:128:VAL:HG23 | 1.99 | 0.62 |
| 5:E:63:LEU:HD21 | 6:F:46:LEU:N | 2.15 | 0.62 |
| 5:E:248:ASN:O | 6:F:221:LEU:O | 2.02 | 0.62 |
| 5:E:250:LEU:H | 6:F:228:ILE:HD12 | 1.63 | 0.62 |
| 6:F:66:VAL:O | 6:F:127:THR:OG1 | 2.16 | 0.62 |
| 6:F:146:ILE:HD11 | 6:F:149:PRO:HB3 | 1.81 | 0.62 |
| 7:H:34:PRO:HG3 | 7:H:64:ILE:HG22 | 1.80 | 0.62 |
| 8:O:508:GLN:NE2 | 8:O:559:LEU:CD1 | 2.63 | 0.62 |
| 8:O:554:THR:CB | 11:R:32:LEU:HD13 | 1.92 | 0.62 |
| 8:O:571:LYS:HG3 | 8:O:642:MET:CE | 2.29 | 0.62 |
| 8:O:688:MET:HG2 | 8:O:731:ILE:HB | 1.81 | 0.62 |
| 9:P:93:PHE:HE1 | 10:Q:16:TYR:CD2 | 2.11 | 0.62 |
| 2:B:14:GLU:CA | 2:B:18:LEU:HG | 2.30 | 0.62 |
| 3:C:22:THR:CA | 3:C:95:TYR:HB3 | 2.24 | 0.62 |
| 4:D:1:MET:N | 4:D:32:LYS:HE2 | 2.14 | 0.62 |
| 4:D:92:ILE:HG21 | 4:D:103:VAL:CG1 | 2.29 | 0.62 |
| 4:D:201:PHE:CA | 4:D:232:CYS:HB3 | 2.29 | 0.62 |
| 4:D:314:LYS:CG | 13:G:137:TYR:CE1 | 2.82 | 0.62 |
| 5:E:108:ASN:HA | 5:E:154:THR:CG2 | 2.29 | 0.62 |
| 5:E:174:ARG:O | 5:E:178:ALA:CB | 2.48 | 0.62 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:E:246:TRP:N | 6:F:219:GLU:OE1 | 2.31 | 0.62 |
| 5:E:279:GLN:HG3 | 5:E:295:LYS:CE | 2.30 | 0.62 |
| 6:F:57:ARG:NH2 | 6:F:89:LEU:O | 2.32 | 0.62 |
| 8:O:30:VAL:HG23 | 8:O:30:VAL:O | 2.00 | 0.62 |
| 8:O:32:ARG:NE | 10:Q:38:ARG:O | 2.33 | 0.62 |
| 8:O:62:LYS:HA | 8:O:142:LEU:HD21 | 1.81 | 0.62 |
| 8:O:118:LEU:HD22 | 8:O:131:ASP:OD2 | 2.00 | 0.62 |
| 8:O:340:VAL:O | 8:O:343:VAL:HB | 2.00 | 0.62 |
| 13:G:62:ALA:HA | 13:G:65:GLN:NE2 | 2.12 | 0.62 |
| 13:G:87:GLU:HG2 | 13:G:88:LEU:H | 1.64 | 0.62 |
| 1:A:95:MET:HB3 | 1:A:319:LEU:HD21 | 1.82 | 0.62 |
| 1:A:422:MET:HB2 | 1:A:458:LYS:O | 1.99 | 0.62 |
| 2:B:22:GLU:C | 8:O:647:LYS:CE | 2.57 | 0.62 |
| 2:B:260:GLU:CG | 11:R:66:GLU:OE1 | 2.48 | 0.62 |
| 2:B:273:ARG:HG3 | 2:B:277:LEU:HD23 | 1.82 | 0.62 |
| 2:B:393:ILE:HG22 | 2:B:398:ILE:HB | 1.82 | 0.62 |
| 3:C:186:TYR:HA | 3:C:205:TYR:HE1 | 1.65 | 0.62 |
| 4:D:264:LEU:O | 4:D:267:MET:HB2 | 1.99 | 0.62 |
| 4:D:286:MET:O | 4:D:290:LYS:HG3 | 2.00 | 0.62 |
| 5:E:324:LYS:HA | 6:F:221:LEU:HD13 | 1.79 | 0.62 |
| 7:H:120:LEU:O | 7:H:124:ALA:HB3 | 2.00 | 0.62 |
| 8:O:101:MET:HE2 | 8:O:139:ILE:HD11 | 1.80 | 0.62 |
| 8:O:232:CYS:HA | 8:O:235:TYR:CB | 2.29 | 0.62 |
| 8:O:293:ASP:O | 8:O:297:MET:HB3 | 1.99 | 0.62 |
| 8:O:379:ARG:NE | 8:O:381:PRO:HG2 | 2.14 | 0.62 |
| 11:R:35:TRP:HB3 | 11:R:36:ASP:N | 2.14 | 0.62 |
| 1:A:188:TYR:HA | 1:A:191:ASN:ND2 | 2.15 | 0.62 |
| 1:A:251:TRP:CH2 | 1:A:291:LEU:HD23 | 2.35 | 0.62 |
| 3:C:150:LEU:O | 3:C:153:LYS:NZ | 2.25 | 0.62 |
| 4:D:373:GLN:HE22 | 13:G:155:ASP:HB3 | 0.80 | 0.62 |
| 6:F:291:TYR:CE2 | 6:F:295:ILE:HD11 | 2.34 | 0.62 |
| 8:O:322:GLU:HB3 | 8:O:350:PHE:HZ | 1.64 | 0.62 |
| 8:O:344:LEU:HD22 | 8:O:414:ARG:NH1 | 2.14 | 0.62 |
| 8:O:394:TYR:O | 8:O:398:LEU:HG | 1.99 | 0.62 |
| 8:O:577:VAL:HB | 8:O:581:GLN:HB3 | 1.82 | 0.62 |
| 8:O:610:LEU:HD21 | 8:O:638:PHE:CZ | 2.35 | 0.62 |
| 8:O:644:PHE:CE1 | 8:O:650:LYS:HA | 2.35 | 0.62 |
| 8:O:728:LYS:HD3 | 8:O:730:TYR:CE2 | 2.34 | 0.62 |
| 13:G:69:LEU:HD11 | 13:G:77:ASP:HB2 | 1.81 | 0.62 |
| 13:G:188:ILE:O | 13:G:192:VAL:HG23 | 1.99 | 0.62 |
| 2:B:85:PHE:CZ | 2:B:123:LYS:HE2 | 2.32 | 0.62 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:169:GLN:O | 2:B:173:ARG:NE | 2.33 | 0.62 |
| 2:B:299:ALA:HA | 2:B:302:TYR:HB2 | 1.80 | 0.62 |
| 2:B:317:ALA:HB3 | 2:B:325:GLU:OE2 | 1.99 | 0.62 |
| 3:C:5:LEU:HD12 | 3:C:38:ASN:CB | 2.29 | 0.62 |
| 3:C:15:LEU:CB | 3:C:24:LEU:HD22 | 2.30 | 0.62 |
| 3:C:331:PRO:O | 3:C:335:GLU:N | 2.33 | 0.62 |
| 3:C:337:TYR:HA | 3:C:340:HIS:HD2 | 1.65 | 0.62 |
| 4:D:189:VAL:O | 4:D:193:ARG:HG3 | 2.00 | 0.62 |
| 4:D:240:GLN:O | 4:D:243:SER:OG | 2.17 | 0.62 |
| 4:D:375:GLN:HE21 | 6:F:224:GLN:HA | 1.64 | 0.62 |
| 4:D:384:LEU:C | 4:D:387:LYS:HB2 | 2.20 | 0.62 |
| 4:D:388:ILE:CG2 | 4:D:393:PRO:O | 2.48 | 0.62 |
| 5:E:116:TYR:CD2 | 5:E:117:MET:HG3 | 2.35 | 0.62 |
| 6:F:248:GLY:O | 6:F:250:VAL:CA | 2.48 | 0.62 |
| 8:O:110:THR:HG1 | 10:Q:28:THR:HG23 | 1.57 | 0.62 |
| 8:O:168:LYS:HD2 | 8:O:214:GLU:HG2 | 1.82 | 0.62 |
| 8:O:255:HIS:HB3 | 8:O:258:SER:OG | 2.00 | 0.62 |
| 8:O:389:GLU:HA | 8:O:392:ALA:HB3 | 1.82 | 0.62 |
| 8:O:544:TYR:CE2 | 8:O:552:LYS:HG2 | 2.32 | 0.62 |
| 1:A:201:HIS:HB2 | 1:A:224:ALA:HB2 | 1.81 | 0.62 |
| 2:B:14:GLU:CA | 2:B:18:LEU:HD12 | 2.30 | 0.62 |
| 4:D:105:SER:O | 4:D:108:GLN:HB2 | 2.00 | 0.62 |
| 4:D:145:LEU:HB2 | 4:D:174:LEU:HD12 | 1.81 | 0.62 |
| 4:D:234:ILE:HA | 4:D:267:MET:CE | 2.29 | 0.62 |
| 4:D:315:LEU:HB3 | 13:G:134:GLU:OE2 | 1.98 | 0.62 |
| 5:E:80:LEU:HD21 | 5:E:133:ALA:HB2 | 1.82 | 0.62 |
| 5:E:269:LEU:O | 5:E:273:LEU:N | 2.26 | 0.62 |
| 7:H:154:GLN:CG | 7:H:163:LEU:HD12 | 2.29 | 0.62 |
| 7:H:196:GLN:HA | 7:H:199:ARG:HE | 1.64 | 0.62 |
| 8:O:395:CYS:HA | 8:O:398:LEU:HD12 | 1.80 | 0.62 |
| 8:O:722:ILE:HG21 | 8:O:741:TYR:CD2 | 2.34 | 0.62 |
| 11:R:44:ILE:CD1 | 11:R:83:CYS:HA | 2.30 | 0.62 |
| 12:V:129:LEU:O | 12:V:152:THR:OG1 | 2.10 | 0.62 |
| 1:A:130:MET:O | 1:A:134:ILE:HG12 | 2.00 | 0.62 |
| 1:A:238:CYS:CB | 1:A:261:ALA:HB2 | 2.30 | 0.62 |
| 2:B:295:ASP:HA | 2:B:300:LYS:HD2 | 1.82 | 0.62 |
| 4:D:31:GLU:O | 4:D:35:GLN:HG2 | 2.00 | 0.62 |
| 5:E:43:LYS:HE3 | 5:E:46:THR:HG21 | 1.82 | 0.62 |
| 5:E:82:LEU:HB2 | 5:E:94:ASP:CB | 2.30 | 0.62 |
| 5:E:119:ALA:CB | 6:F:111:GLN:HG2 | 2.29 | 0.62 |
| 5:E:136:TRP:CH2 | 5:E:147:LEU:HG | 2.35 | 0.62 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 5:E:323:ILE:HG23 | 13:G:188:ILE:CD1 | 2.21 | 0.62 |
| 6:F:307:ASN:HA | 6:F:310:ASN:HD22 | 1.63 | 0.62 |
| 8:O:451:MET:SD | 8:O:451:MET:N | 2.71 | 0.62 |
| 8:O:676:ARG:HH21 | 8:O:710:ARG:CD | 2.12 | 0.62 |
| 9:P:20:GLU:HA | 9:P:57:LEU:HB2 | 1.81 | 0.62 |
| 1:A:91:TYR:O | 1:A:96:ARG:NE | 2.24 | 0.61 |
| 1:A:299:TYR:HA | 1:A:302:ALA:HB3 | 1.82 | 0.61 |
| 1:A:326:ALA:HB1 | 1:A:359:GLU:HG2 | 1.81 | 0.61 |
| 1:A:353:LYS:HA | 1:A:356:LEU:HB2 | 1.81 | 0.61 |
| 2:B:259:PHE:CD2 | 11:R:66:GLU:HB2 | 2.35 | 0.61 |
| 2:B:314:LEU:HD22 | 2:B:326:PHE:CA | 2.27 | 0.61 |
| 2:B:323:ILE:HG12 | 2:B:354:ILE:HD13 | 1.82 | 0.61 |
| 2:B:421:TYR:CD1 | 6:F:289:MET:CE | 2.83 | 0.61 |
| 2:B:427:TRP:CG | 5:E:270:SER:HB2 | 2.34 | 0.61 |
| 2:B:441:LYS:HD2 | 6:F:306:VAL:HB | 1.81 | 0.61 |
| 3:C:70:SER:CB | 3:C:114:ARG:HD2 | 2.30 | 0.61 |
| 3:C:311:THR:HA | 3:C:360:PHE:CE1 | 2.35 | 0.61 |
| 4:D:5:VAL:HG22 | 4:D:32:LYS:HD3 | 1.81 | 0.61 |
| 4:D:125:GLN:HA | 4:D:128:VAL:HG23 | 1.81 | 0.61 |
| 5:E:102:GLY:O | 5:E:106:ARG:HG3 | 2.00 | 0.61 |
| 5:E:129:ARG:HG3 | 6:F:57:ARG:NH1 | 2.15 | 0.61 |
| 5:E:142:GLY:H | 5:E:172:PRO:HG2 | 1.65 | 0.61 |
| 5:E:294:ARG:CA | 5:E:295:LYS:NZ | 2.40 | 0.61 |
| 5:E:298:ASP:OD1 | 5:E:299:LYS:N | 2.33 | 0.61 |
| 6:F:39:VAL:HG13 | 6:F:122:LEU:HD22 | 1.82 | 0.61 |
| 6:F:46:LEU:HD12 | 6:F:49:LEU:HD12 | 1.82 | 0.61 |
| 6:F:108:LYS:HG3 | 6:F:112:PHE:HE1 | 1.63 | 0.61 |
| 7:H:85:ASP:O | 7:H:89:ILE:HG13 | 2.00 | 0.61 |
| 7:H:103:GLN:HA | 7:H:106:MET:CG | 2.30 | 0.61 |
| 8:O:1:MET:HB3 | 8:O:6:ARG:HD3 | 1.82 | 0.61 |
| 8:O:65:LEU:HD13 | 8:O:142:LEU:HG | 1.81 | 0.61 |
| 8:O:344:LEU:HD21 | 8:O:418:PHE:HE1 | 1.65 | 0.61 |
| 8:O:576:MET:O | 8:O:654:THR:HG22 | 2.00 | 0.61 |
| 8:O:718:ILE:HG23 | 8:O:719:LYS:N | 2.14 | 0.61 |
| 12:V:126:ASP:O | 12:V:128:LEU:HG | 2.00 | 0.61 |
| 13:G:23:SER:HB2 | 13:G:55:LEU:HD21 | 1.82 | 0.61 |
| 1:A:299:TYR:O | 1:A:332:CYS:HB3 | 2.00 | 0.61 |
| 1:A:444:ILE:HG21 | 3:C:313:THR:HA | 1.81 | 0.61 |
| 1:A:454:ASP:HA | 3:C:315:LEU:HB3 | 1.82 | 0.61 |
| 2:B:239:GLU:OE2 | 2:B:272:ARG:NH1 | 2.33 | 0.61 |
| 3:C:202:LEU:HD22 | 3:C:235:LEU:HD11 | 1.82 | 0.61 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:D:115:GLU:O | 4:D:118:GLU:HG3 | 2.00 | 0.61 |
| 5:E:279:GLN:HB2 | 5:E:299:LYS:HD2 | 1.82 | 0.61 |
| 6:F:101:ASP:HB3 | 6:F:104:TYR:HB3 | 1.81 | 0.61 |
| 8:O:243:LEU:HD13 | 8:O:267:GLN:HG2 | 1.83 | 0.61 |
| 8:O:644:PHE:CD1 | 8:O:650:LYS:HA | 2.35 | 0.61 |
| 13:G:96:LEU:HA | 13:G:99:LEU:HG | 1.83 | 0.61 |
| 1:A:342:LEU:HA | 1:A:346:VAL:HB | 1.81 | 0.61 |
| 2:B:18:LEU:CD2 | 2:B:27:GLU:HB3 | 2.15 | 0.61 |
| 2:B:38:ASN:O | 2:B:42:LEU:HB2 | 2.00 | 0.61 |
| 2:B:193:GLN:OE1 | 2:B:228:ILE:HA | 2.01 | 0.61 |
| 2:B:393:ILE:HG22 | 2:B:398:ILE:CB | 2.30 | 0.61 |
| 2:B:427:TRP:HA | 5:E:270:SER:HB2 | 1.78 | 0.61 |
| 3:C:135:THR:OG1 | 3:C:167:MET:N | 2.27 | 0.61 |
| 4:D:241:GLN:HB2 | 4:D:347:ARG:NH2 | 2.14 | 0.61 |
| 5:E:28:ILE:CG2 | 5:E:229:PHE:HB2 | 2.29 | 0.61 |
| 5:E:57:ILE:HD11 | 5:E:92:ILE:HD12 | 1.82 | 0.61 |
| 5:E:246:TRP:HA | 6:F:219:GLU:CG | 2.30 | 0.61 |
| 5:E:272:LYS:HE2 | 5:E:309:LYS:NZ | 2.15 | 0.61 |
| 6:F:46:LEU:HA | 6:F:49:LEU:CG | 2.30 | 0.61 |
| 6:F:168:PHE:HA | 6:F:184:ALA:O | 1.99 | 0.61 |
| 6:F:245:SER:HB3 | 6:F:253:ASN:HB3 | 1.81 | 0.61 |
| 7:H:43:LEU:HD23 | 7:H:46:LEU:CD1 | 2.30 | 0.61 |
| 7:H:162:VAL:O | 7:H:164:PRO:HD3 | 2.00 | 0.61 |
| 8:O:230:SER:O | 8:O:234:GLN:HB2 | 2.00 | 0.61 |
| 8:O:237:GLU:OE2 | 8:O:292:ASN:ND2 | 2.26 | 0.61 |
| 11:R:49:ILE:O | 11:R:52:LEU:HD23 | 2.00 | 0.61 |
| 11:R:80:HIS:HB2 | 11:R:83:CYS:SG | 2.40 | 0.61 |
| 12:V:65:SER:HB2 | 12:V:91:PHE:CD1 | 2.34 | 0.61 |
| 1:A:235:ILE:O | 1:A:239:LEU:HG | 2.00 | 0.61 |
| 1:A:277:GLN:HE21 | 1:A:281:ILE:HB | 1.65 | 0.61 |
| 1:A:379:LYS:O | 1:A:383:GLU:HG3 | 2.00 | 0.61 |
| 2:B:132:TYR:CE1 | 2:B:154:LYS:HB2 | 2.36 | 0.61 |
| 2:B:368:ARG:HB2 | 2:B:410:GLU:HA | 1.81 | 0.61 |
| 3:C:22:THR:HG22 | 3:C:95:TYR:HA | 1.82 | 0.61 |
| 3:C:275:LEU:O | 3:C:279:VAL:HG23 | 2.00 | 0.61 |
| 4:D:165:GLU:HG2 | 11:R:75:CYS:HB3 | 1.81 | 0.61 |
| 4:D:208:TYR:HD1 | 4:D:225:ALA:HA | 1.66 | 0.61 |
| 4:D:247:ALA:O | 4:D:251:LYS:HG3 | 1.98 | 0.61 |
| 4:D:261:TYR:CD1 | 4:D:264:LEU:HD23 | 2.36 | 0.61 |
| 4:D:310:LEU:HG | 4:D:316:TYR:HE1 | 1.66 | 0.61 |
| 5:E:32:ASP:OD1 | 5:E:34:LYS:HB3 | 1.99 | 0.61 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:E:63:LEU:HD22 | 6:F:44:HIS:HD2 | 1.65 | 0.61 |
| 6:F:279:PHE:O | 6:F:282:GLN:HB3 | 1.99 | 0.61 |
| 7:H:86:PHE:HB2 | 7:H:87:PRO:HD3 | 1.82 | 0.61 |
| 7:H:194:GLU:HB2 | 7:H:197:LEU:CB | 2.29 | 0.61 |
| 8:O:220:LYS:HD2 | 8:O:270:MET:HA | 1.83 | 0.61 |
| 8:O:512:LEU:O | 8:O:551:ARG:HG2 | 1.99 | 0.61 |
| 8:O:696:HIS:HA | 8:O:722:ILE:HD11 | 1.82 | 0.61 |
| 12:V:76:PHE:HA | 12:V:149:ALA:HB3 | 1.82 | 0.61 |
| 1:A:418:VAL:O | 1:A:462:ALA:N | 2.32 | 0.61 |
| 3:C:344:ASP:HB2 | 3:C:346:GLU:CG | 2.30 | 0.61 |
| 4:D:99:PHE:O | 4:D:103:VAL:HG23 | 2.00 | 0.61 |
| 4:D:301:ASP:O | 4:D:305:ILE:HG13 | 2.00 | 0.61 |
| 4:D:305:ILE:HG22 | 4:D:328:LEU:HB3 | 1.81 | 0.61 |
| 5:E:51:TYR:CZ | 5:E:88:GLU:HG2 | 2.34 | 0.61 |
| 5:E:121:ILE:HG21 | 5:E:132:ASN:HA | 1.81 | 0.61 |
| 6:F:81:ILE:O | 6:F:188:TYR:HA | 2.01 | 0.61 |
| 6:F:100:ILE:N | 6:F:141:GLN:OE1 | 2.29 | 0.61 |
| 8:O:52:PRO:HB2 | 8:O:56:ARG:NH2 | 2.14 | 0.61 |
| 8:O:294:MET:HG3 | 8:O:357:VAL:HG11 | 1.83 | 0.61 |
| 8:O:511:VAL:HG13 | 11:R:33:TRP:CE2 | 2.35 | 0.61 |
| 13:G:100:THR:HG22 | 13:G:120:LEU:HD21 | 1.83 | 0.61 |
| 13:G:167:ILE:O | 13:G:171:VAL:HG12 | 2.00 | 0.61 |
| 1:A:96:ARG:O | 1:A:100:LEU:HG | 2.01 | 0.61 |
| 1:A:194:LYS:HB3 | 1:A:227:TYR:O | 2.00 | 0.61 |
| 2:B:56:LYS:HG3 | 2:B:59:GLU:OE1 | 2.00 | 0.61 |
| 2:B:125:MET:CG | 2:B:129:GLN:HB2 | 2.31 | 0.61 |
| 3:C:13:ARG:HA | 3:C:49:LEU:HD11 | 1.82 | 0.61 |
| 3:C:80:GLN:HA | 3:C:83:LEU:CD1 | 2.30 | 0.61 |
| 3:C:247:GLN:O | 3:C:251:ARG:HG2 | 1.99 | 0.61 |
| 4:D:77:PRO:HB2 | 4:D:80:THR:CB | 2.28 | 0.61 |
| 4:D:88:THR:O | 4:D:92:ILE:HG13 | 2.00 | 0.61 |
| 4:D:319:ILE:CD1 | 4:D:323:GLU:HG3 | 2.31 | 0.61 |
| 4:D:342:MET:C | 4:D:348:MET:HB3 | 2.21 | 0.61 |
| 5:E:68:HIS:CG | 5:E:97:ALA:HB3 | 2.36 | 0.61 |
| 5:E:123:ASN:HD22 | 6:F:107:THR:HG21 | 1.65 | 0.61 |
| 7:H:42:ALA:O | 7:H:46:LEU:HG | 2.00 | 0.61 |
| 7:H:57:TRP:CZ3 | 7:H:65:LYS:HD3 | 2.36 | 0.61 |
| 8:O:117:LYS:HD3 | 8:O:136:LEU:HB3 | 1.82 | 0.61 |
| 8:O:117:LYS:H | 8:O:120:GLU:HG2 | 1.65 | 0.61 |
| 8:O:569:LEU:HD22 | 8:O:571:LYS:HZ3 | 1.66 | 0.61 |
| 8:O:727:ASP:O | 11:R:55:GLU:CA | 2.41 | 0.61 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:128:VAL:HG13 | 1:A:131:TYR:CD2 | 2.35 | 0.61 |
| 2:B:13:GLU:HB3 | 2:B:66:GLU:HB2 | 1.82 | 0.61 |
| 2:B:431:LEU:HD21 | 6:F:296:THR:CB | 2.30 | 0.61 |
| 3:C:395:GLN:O | 3:C:399:VAL:HG23 | 1.99 | 0.61 |
| 4:D:2:ALA:O | 4:D:6:ARG:HG3 | 2.01 | 0.61 |
| 4:D:5:VAL:HG13 | 4:D:28:GLN:HG2 | 1.83 | 0.61 |
| 4:D:120:TRP:CZ3 | 4:D:154:LEU:HD23 | 2.35 | 0.61 |
| 4:D:195:LEU:O | 4:D:199:ARG:N | 2.33 | 0.61 |
| 4:D:253:GLU:HA | 4:D:256:GLN:HG3 | 1.83 | 0.61 |
| 4:D:293:THR:OG1 | 4:D:295:ASP:OD1 | 2.09 | 0.61 |
| 5:E:51:TYR:CE2 | 5:E:88:GLU:HA | 2.36 | 0.61 |
| 5:E:115:GLU:HA | 5:E:118:ALA:CB | 2.30 | 0.61 |
| 5:E:253:SER:HA | 5:E:324:LYS:HZ3 | 1.66 | 0.61 |
| 6:F:124:TRP:HZ2 | 6:F:135:ASP:HA | 1.65 | 0.61 |
| 8:O:59:THR:OG1 | 8:O:134:GLU:HA | 2.00 | 0.61 |
| 8:O:113:ILE:HB | 8:O:119:THR:CG2 | 2.30 | 0.61 |
| 8:O:176:PRO:HD2 | 8:O:181:ILE:CG2 | 2.30 | 0.61 |
| 8:O:395:CYS:HA | 8:O:398:LEU:CB | 2.24 | 0.61 |
| 8:O:490:PHE:CE2 | 8:O:494:ILE:HG12 | 2.30 | 0.61 |
| 8:O:526:THR:OG1 | 8:O:604:GLN:NE2 | 2.34 | 0.61 |
| 1:A:185:LEU:HD13 | 1:A:204:LEU:HD22 | 1.82 | 0.61 |
| 1:A:202:ASP:HA | 1:A:221:TYR:CE1 | 2.35 | 0.61 |
| 1:A:418:VAL:HA | 1:A:462:ALA:HB3 | 1.83 | 0.61 |
| 1:A:418:VAL:N | 2:B:401:ARG:HB3 | 2.16 | 0.61 |
| 2:B:100:ARG:HH21 | 2:B:144:ASN:HD21 | 1.47 | 0.61 |
| 2:B:167:LYS:O | 2:B:170:LYS:HG3 | 2.01 | 0.61 |
| 3:C:139:THR:HG22 | 3:C:142:HIS:CE1 | 2.35 | 0.61 |
| 3:C:248:ILE:HB | 3:C:252:PHE:HD2 | 1.66 | 0.61 |
| 3:C:260:TYR:HA | 3:C:263:LEU:CB | 2.31 | 0.61 |
| 4:D:28:GLN:HG3 | 4:D:32:LYS:HB3 | 1.83 | 0.61 |
| 4:D:140:ASN:O | 4:D:144:LYS:N | 2.18 | 0.61 |
| 5:E:115:GLU:HA | 5:E:118:ALA:HB3 | 1.83 | 0.61 |
| 5:E:242:TRP:CD2 | 6:F:219:GLU:OE1 | 2.54 | 0.61 |
| 5:E:280:LEU:CD2 | 5:E:298:ASP:OD2 | 2.48 | 0.61 |
| 6:F:118:GLU:O | 6:F:119:LEU:HD23 | 2.01 | 0.61 |
| 8:O:150:LEU:O | 8:O:155:LEU:HD23 | 1.99 | 0.61 |
| 8:O:476:MET:HB2 | 8:O:517:TRP:HZ3 | 1.64 | 0.61 |
| 8:O:556:LEU:O | 11:R:30:VAL:HG21 | 2.01 | 0.61 |
| 8:O:569:LEU:HD11 | 11:R:19:LYS:HB2 | 1.83 | 0.61 |
| 8:O:593:THR:HA | 8:O:638:PHE:O | 2.01 | 0.61 |
| 8:O:728:LYS:HB3 | 8:O:730:TYR:CE2 | 2.36 | 0.61 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 9:P:43:ARG:N | 9:P:78:ALA:O | 2.24 | 0.61 |
| 9:P:97:PRO:HD2 | 10:Q:53:ILE:HD11 | 1.82 | 0.61 |
| 10:Q:91:LEU:CD2 | 12:V:184:LEU:HD22 | 2.30 | 0.61 |
| 12:V:117:TRP:CB | 12:V:136:PHE:HB3 | 2.30 | 0.61 |
| 1:A:142:THR:O | 1:A:146:GLN:N | 2.23 | 0.61 |
| 1:A:293:GLU:HB3 | 1:A:298:LYS:HB2 | 1.83 | 0.61 |
| 2:B:63:GLU:HA | 2:B:69:PHE:HE2 | 1.65 | 0.61 |
| 3:C:233:ILE:HD13 | 3:C:297:GLN:CB | 2.31 | 0.61 |
| 4:D:317:ASN:O | 4:D:361:PHE:N | 2.32 | 0.61 |
| 5:E:54:TYR:O | 5:E:224:LEU:HD23 | 2.01 | 0.61 |
| 5:E:65:MET:N | 5:E:96:PHE:HA | 2.16 | 0.61 |
| 5:E:80:LEU:CD1 | 5:E:133:ALA:HB1 | 2.30 | 0.61 |
| 6:F:203:VAL:HA | 6:F:206:MET:HG3 | 1.81 | 0.61 |
| 7:H:103:GLN:HE21 | 7:H:107:GLU:HG3 | 1.64 | 0.61 |
| 8:O:392:ALA:HB1 | 8:O:435:TYR:CD1 | 2.36 | 0.61 |
| 8:O:482:VAL:HG12 | 8:O:486:LEU:HG | 1.82 | 0.61 |
| 8:O:554:THR:HG22 | 8:O:555:TRP:H | 1.65 | 0.61 |
| 8:O:567:ASN:H | 11:R:19:LYS:N | 1.99 | 0.61 |
| 8:O:594:VAL:O | 8:O:637:SER:HA | 2.01 | 0.61 |
| 1:A:177:LYS:O | 1:A:181:LEU:HG | 2.01 | 0.61 |
| 1:A:353:LYS:HD3 | 1:A:356:LEU:HB2 | 1.83 | 0.61 |
| 1:A:433:VAL:CG2 | 1:A:436:LEU:HD23 | 2.25 | 0.61 |
| 1:A:504:SER:HA | 3:C:215:ALA:CB | 2.31 | 0.61 |
| 2:B:303:LYS:O | 2:B:309:LEU:HB3 | 2.00 | 0.61 |
| 4:D:262:GLY:HA2 | 4:D:265:GLU:HB3 | 1.83 | 0.61 |
| 5:E:63:LEU:CG | 6:F:46:LEU:HB3 | 2.31 | 0.61 |
| 5:E:250:LEU:HD21 | 5:E:323:ILE:CG2 | 2.30 | 0.61 |
| 5:E:250:LEU:C | 6:F:228:ILE:HD12 | 2.14 | 0.61 |
| 5:E:285:PHE:CD2 | 12:V:62:VAL:CG2 | 2.82 | 0.61 |
| 6:F:195:ALA:HA | 6:F:198:ILE:HD12 | 1.83 | 0.61 |
| 8:O:278:LEU:HD22 | 8:O:301:LEU:CD1 | 2.31 | 0.61 |
| 8:O:419:ILE:HA | 8:O:422:PHE:HB3 | 1.82 | 0.61 |
| 9:P:69:PRO:HA | 10:Q:62:ASN:HD22 | 0.79 | 0.61 |
| 12:V:72:SER:C | 12:V:140:LEU:HB2 | 2.21 | 0.61 |
| 13:G:19:ALA:CB | 13:G:52:VAL:HG13 | 2.31 | 0.61 |
| 13:G:99:LEU:HD22 | 13:G:160:ARG:NE | 2.15 | 0.61 |
| 13:G:162:ILE:HG22 | 13:G:163:ARG:O | 2.01 | 0.61 |
| 13:G:179:ASP:O | 13:G:182:GLU:HG2 | 2.00 | 0.61 |
| 1:A:255:LEU:CD1 | 1:A:289:ALA:HA | 2.31 | 0.60 |
| 1:A:385:LYS:HA | 1:A:388:LEU:HD12 | 1.82 | 0.60 |
| 1:A:411:ILE:O | 1:A:415:SER:OG | 2.11 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 3:C:16:SER:HB3 | 3:C:49:LEU:HD13 | 1.83 | 0.60 |
| 4:D:6:ARG:CZ | 4:D:47:ALA:HB2 | 2.31 | 0.60 |
| 4:D:23:ALA:HB2 | 4:D:61:ILE:CD1 | 2.30 | 0.60 |
| 4:D:36:LEU:HD22 | 4:D:40:GLU:HG3 | 1.83 | 0.60 |
| 4:D:133:GLU:OE2 | 4:D:144:LYS:HD3 | 2.01 | 0.60 |
| 5:E:188:THR:HA | 5:E:221:TYR:CA | 2.31 | 0.60 |
| 5:E:188:THR:HA | 5:E:221:TYR:CB | 2.30 | 0.60 |
| 5:E:189:TYR:CE1 | 5:E:196:PRO:HD2 | 2.36 | 0.60 |
| 5:E:294:ARG:HD2 | 5:E:294:ARG:O | 2.01 | 0.60 |
| 6:F:69:ILE:HG21 | 6:F:100:ILE:HD11 | 1.82 | 0.60 |
| 6:F:121:PHE:CE2 | 6:F:142:VAL:HG13 | 2.36 | 0.60 |
| 7:H:107:GLU:O | 7:H:110:ARG:HG2 | 2.01 | 0.60 |
| 7:H:121:VAL:HG22 | 7:H:128:ILE:CD1 | 2.31 | 0.60 |
| 8:O:177:ASN:HB2 | 8:O:180:VAL:CG2 | 2.31 | 0.60 |
| 8:O:535:LYS:HA | 8:O:538:GLN:HG2 | 1.82 | 0.60 |
| 9:P:45:TYR:CE2 | 9:P:50:LEU:HA | 2.36 | 0.60 |
| 10:Q:91:LEU:HD22 | 12:V:180:ILE:CG2 | 2.30 | 0.60 |
| 12:V:74:VAL:HG23 | 12:V:140:LEU:CB | 2.31 | 0.60 |
| 12:V:130:VAL:CG1 | 12:V:136:PHE:HB2 | 2.31 | 0.60 |
| 1:A:94:LEU:CB | 1:A:247:TYR:HB3 | 2.31 | 0.60 |
| 1:A:131:TYR:CE2 | 1:A:164:THR:HG22 | 2.36 | 0.60 |
| 2:B:175:LEU:CD1 | 2:B:197:ILE:HD11 | 2.31 | 0.60 |
| 2:B:370:HIS:CB | 2:B:373:PHE:HB2 | 2.31 | 0.60 |
| 2:B:424:LEU:HD13 | 6:F:289:MET:HE2 | 1.72 | 0.60 |
| 3:C:46:LEU:HB3 | 3:C:58:VAL:CG2 | 2.28 | 0.60 |
| 3:C:102:GLY:O | 3:C:106:GLN:HG2 | 2.01 | 0.60 |
| 4:D:262:GLY:O | 4:D:266:LYS:N | 2.22 | 0.60 |
| 5:E:68:HIS:HB3 | 5:E:97:ALA:HB3 | 1.81 | 0.60 |
| 5:E:146:TRP:CZ2 | 5:E:206:ILE:HD12 | 2.36 | 0.60 |
| 6:F:31:MET:CE | 6:F:136:ILE:HG12 | 2.30 | 0.60 |
| 6:F:254:HIS:HB3 | 13:G:162:ILE:HG12 | 1.84 | 0.60 |
| 7:H:60:ILE:O | 7:H:65:LYS:HE3 | 2.01 | 0.60 |
| 8:O:373:THR:HA | 8:O:376:VAL:HB | 1.82 | 0.60 |
| 8:O:492:ASN:HA | 8:O:495:LYS:HD3 | 1.82 | 0.60 |
| 8:O:564:VAL:H | 11:R:25:LYS:NZ | 1.98 | 0.60 |
| 8:O:566:MET:CA | 11:R:18:LYS:CA | 2.69 | 0.60 |
| 8:O:627:SER:HB2 | 8:O:629:LYS:HG3 | 1.83 | 0.60 |
| 8:O:721:CYS:O | 11:R:46:ARG:HD2 | 2.01 | 0.60 |
| 12:V:111:SER:HB3 | 12:V:138:PRO:HB3 | 1.83 | 0.60 |
| 2:B:18:LEU:CD2 | 2:B:27:GLU:CB | 2.59 | 0.60 |
| 2:B:37:TYR:HB3 | 2:B:53:SER:HB3 | 1.83 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:385:VAL:O | 2:B:389:LEU:HG | 2.01 | 0.60 |
| 3:C:315:LEU:O | 3:C:359:SER:HA | 2.01 | 0.60 |
| 4:D:27:ARG:CA | 4:D:30:LEU:HB3 | 2.29 | 0.60 |
| 4:D:86:HIS:O | 4:D:90:GLU:HG3 | 2.02 | 0.60 |
| 4:D:341:GLN:O | 4:D:345:GLU:N | 2.34 | 0.60 |
| 5:E:105:THR:HG22 | 5:E:210:LYS:NZ | 2.16 | 0.60 |
| 5:E:200:PRO:HD2 | 5:E:222:TYR:HB2 | 1.83 | 0.60 |
| 5:E:250:LEU:HD21 | 5:E:323:ILE:HG22 | 1.80 | 0.60 |
| 6:F:54:HIS:HB2 | 6:F:88:GLU:HG2 | 1.83 | 0.60 |
| 8:O:145:ASP:OD1 | 8:O:148:ARG:NH1 | 2.33 | 0.60 |
| 8:O:505:ILE:CD1 | 8:O:533:LEU:HD21 | 2.26 | 0.60 |
| 8:O:552:LYS:HE2 | 11:R:35:TRP:HE1 | 1.65 | 0.60 |
| 8:O:608:LYS:H | 8:O:608:LYS:HD2 | 1.65 | 0.60 |
| 9:P:99:LEU:CA | 9:P:103:MET:CG | 2.77 | 0.60 |
| 9:P:100:PRO:CD | 10:Q:85:GLU:HA | 2.25 | 0.60 |
| 1:A:224:ALA:HA | 1:A:227:TYR:CD2 | 2.37 | 0.60 |
| 1:A:243:LYS:HE3 | 1:A:247:TYR:HE2 | 1.66 | 0.60 |
| 1:A:255:LEU:HD21 | 1:A:289:ALA:N | 2.15 | 0.60 |
| 2:B:107:TYR:O | 2:B:110:LYS:HG3 | 2.02 | 0.60 |
| 2:B:165:TYR:CZ | 2:B:204:MET:HB2 | 2.36 | 0.60 |
| 2:B:212:LYS:HG2 | 2:B:215:LYS:CE | 2.31 | 0.60 |
| 2:B:365:PRO:HG3 | 4:D:344:THR:HG21 | 1.83 | 0.60 |
| 3:C:33:GLU:O | 3:C:64:VAL:HG13 | 2.02 | 0.60 |
| 3:C:163:ASP:OD1 | 3:C:192:TYR:OH | 2.11 | 0.60 |
| 3:C:339:LEU:HG | 3:C:343:GLU:OE1 | 2.02 | 0.60 |
| 3:C:340:HIS:CA | 3:C:343:GLU:HB3 | 2.31 | 0.60 |
| 4:D:183:LEU:HA | 4:D:186:HIS:HD2 | 1.65 | 0.60 |
| 4:D:260:ALA:HB1 | 4:D:263:ILE:HB | 1.82 | 0.60 |
| 8:O:32:ARG:HA | 8:O:35:TRP:CD2 | 2.36 | 0.60 |
| 8:O:483:SER:HB3 | 8:O:509:ILE:HG23 | 1.83 | 0.60 |
| 8:O:535:LYS:HG3 | 8:O:538:GLN:HE21 | 1.66 | 0.60 |
| 8:O:681:GLN:OE1 | 8:O:724:VAL:HG11 | 2.00 | 0.60 |
| 9:P:27:LEU:HD11 | 9:P:75:VAL:CG1 | 2.31 | 0.60 |
| 2:B:165:TYR:OH | 2:B:200:LEU:O | 2.14 | 0.60 |
| 2:B:302:TYR:HE1 | 11:R:35:TRP:CH2 | 2.20 | 0.60 |
| 3:C:13:ARG:HG2 | 3:C:49:LEU:HD12 | 1.82 | 0.60 |
| 4:D:208:TYR:CB | 4:D:229:ALA:HB2 | 2.29 | 0.60 |
| 4:D:320:THR:O | 4:D:324:LEU:N | 2.20 | 0.60 |
| 5:E:170:ILE:HD11 | 5:E:183:LEU:CG | 2.31 | 0.60 |
| 6:F:129:GLY:O | 6:F:153:LYS:HD3 | 2.02 | 0.60 |
| 6:F:189:THR:CG2 | 6:F:230:MET:CE | 2.79 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:F:254:HIS:CE1 | 13:G:44:GLY:CA | 2.85 | 0.60 |
| 7:H:86:PHE:HA | 7:H:89:ILE:HD12 | 1.83 | 0.60 |
| 13:G:11:LEU:HB3 | 13:G:15:PHE:CE2 | 2.37 | 0.60 |
| 13:G:101:ILE:HG22 | 13:G:116:LEU:HD12 | 1.82 | 0.60 |
| 1:A:299:TYR:HB2 | 1:A:336:THR:HG21 | 1.82 | 0.60 |
| 2:B:256:THR:HB | 11:R:65:SER:N | 2.14 | 0.60 |
| 2:B:441:LYS:NZ | 6:F:303:ASN:ND2 | 2.50 | 0.60 |
| 3:C:105:HIS:NE2 | 3:C:140:SER:HB2 | 2.16 | 0.60 |
| 4:D:9:LEU:CD2 | 4:D:26:TYR:HA | 2.26 | 0.60 |
| 4:D:317:ASN:ND2 | 4:D:363:THR:HA | 2.16 | 0.60 |
| 5:E:312:ILE:HG13 | 7:H:207:LEU:CD1 | 2.31 | 0.60 |
| 5:E:315:ILE:HD13 | 7:H:204:VAL:CG2 | 2.31 | 0.60 |
| 6:F:193:GLU:HB3 | 6:F:196:GLU:CB | 2.31 | 0.60 |
| 7:H:32:ALA:HB3 | 7:H:37:TYR:HE1 | 1.66 | 0.60 |
| 8:O:9:ASP:OD1 | 8:O:44:ALA:HB1 | 2.01 | 0.60 |
| 8:O:32:ARG:HG3 | 10:Q:38:ARG:CB | 2.24 | 0.60 |
| 8:O:62:LYS:HE2 | 8:O:131:ASP:O | 2.01 | 0.60 |
| 8:O:227:LEU:HD22 | 8:O:274:HIS:CE1 | 2.37 | 0.60 |
| 8:O:278:LEU:HD22 | 8:O:301:LEU:HD21 | 1.83 | 0.60 |
| 8:O:281:GLU:HA | 8:O:284:ASN:ND2 | 2.16 | 0.60 |
| 8:O:302:ARG:HA | 8:O:308:LEU:CG | 2.31 | 0.60 |
| 8:O:373:THR:O | 8:O:376:VAL:HB | 2.01 | 0.60 |
| 8:O:612:LYS:HE2 | 8:O:657:MET:N | 2.15 | 0.60 |
| 9:P:2:ASP:HB3 | 10:Q:66:LYS:NZ | 2.16 | 0.60 |
| 9:P:3:VAL:HB | 9:P:67:ALA:CB | 2.31 | 0.60 |
| 12:V:60:ARG:HD2 | 12:V:65:SER:H | 1.67 | 0.60 |
| 13:G:141:ILE:CG2 | 13:G:154:VAL:HG22 | 2.30 | 0.60 |
| 13:G:146:ASP:HB3 | 13:G:151:LEU:HB2 | 1.84 | 0.60 |
| 13:G:167:ILE:H | 13:G:167:ILE:CD1 | 2.10 | 0.60 |
| 3:C:83:LEU:O | 3:C:87:THR:N | 2.22 | 0.60 |
| 3:C:207:GLN:O | 3:C:211:THR:OG1 | 2.13 | 0.60 |
| 4:D:224:GLU:OE2 | 4:D:227:LYS:HD3 | 2.00 | 0.60 |
| 4:D:227:LYS:HE2 | 4:D:231:HIS:CE1 | 2.37 | 0.60 |
| 4:D:298:SER:O | 4:D:302:ARG:NH1 | 2.35 | 0.60 |
| 5:E:80:LEU:CD2 | 5:E:117:MET:HB2 | 2.29 | 0.60 |
| 5:E:209:ASN:HB2 | 5:E:210:LYS:NZ | 2.17 | 0.60 |
| 5:E:280:LEU:CD1 | 5:E:300:LEU:HB2 | 2.30 | 0.60 |
| 6:F:98:ILE:CG2 | 6:F:138:VAL:HG21 | 2.32 | 0.60 |
| 6:F:257:LEU:HD12 | 13:G:162:ILE:HG23 | 1.84 | 0.60 |
| 8:O:110:THR:CB | 10:Q:28:THR:OG1 | 2.49 | 0.60 |
| 8:O:389:GLU:O | 8:O:392:ALA:HB3 | 2.01 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:564:VAL:H | 11:R:25:LYS:CE | 2.13 | 0.60 |
| 9:P:9:ARG:HG3 | 9:P:77:LEU:CD2 | 2.32 | 0.60 |
| 12:V:113:ARG:CG | 12:V:138:PRO:HG2 | 2.32 | 0.60 |
| 13:G:64:LEU:O | 13:G:67:LEU:HB3 | 2.01 | 0.60 |
| 13:G:75:TYR:N | 13:G:96:LEU:HD22 | 2.16 | 0.60 |
| 2:B:25:ASN:O | 2:B:28:PRO:HD2 | 2.00 | 0.60 |
| 2:B:294:PHE:O | 2:B:299:ALA:HB3 | 2.02 | 0.60 |
| 2:B:439:VAL:CA | 3:C:243:LYS:HZ3 | 2.14 | 0.60 |
| 3:C:110:ALA:O | 3:C:113:GLU:HB3 | 2.02 | 0.60 |
| 3:C:272:PRO:O | 3:C:275:LEU:HB3 | 2.01 | 0.60 |
| 4:D:209:ASN:O | 4:D:212:SER:OG | 2.13 | 0.60 |
| 4:D:210:GLU:O | 4:D:214:LYS:HG3 | 2.02 | 0.60 |
| 4:D:293:THR:HG23 | 4:D:297:SER:O | 2.02 | 0.60 |
| 4:D:393:PRO:HA | 4:D:396:THR:OG1 | 2.02 | 0.60 |
| 5:E:234:ASP:HA | 6:F:49:LEU:HD22 | 1.84 | 0.60 |
| 5:E:279:GLN:O | 5:E:297:GLU:O | 2.20 | 0.60 |
| 6:F:62:GLU:HB3 | 6:F:64:ARG:NH1 | 2.16 | 0.60 |
| 6:F:90:LEU:HD23 | 6:F:101:ASP:CB | 2.32 | 0.60 |
| 8:O:73:HIS:HB2 | 8:O:150:LEU:CD1 | 2.32 | 0.60 |
| 8:O:91:TRP:CE2 | 8:O:95:SER:HB2 | 2.36 | 0.60 |
| 8:O:326:ALA:HA | 8:O:330:LEU:CD1 | 2.32 | 0.60 |
| 8:O:512:LEU:HB2 | 8:O:551:ARG:CA | 2.32 | 0.60 |
| 8:O:578:THR:N | 8:O:581:GLN:OE1 | 2.24 | 0.60 |
| 9:P:13:THR:HG21 | 10:Q:16:TYR:CD1 | 1.57 | 0.60 |
| 11:R:67:GLU:HG3 | 11:R:70:VAL:HG11 | 1.83 | 0.60 |
| 12:V:161:ARG:NH1 | 12:V:165:VAL:HB | 2.17 | 0.60 |
| 13:G:129:GLU:HG3 | 13:G:145:LEU:CD2 | 2.32 | 0.60 |
| 1:A:494:ALA:HA | 1:A:497:ARG:HG2 | 1.84 | 0.60 |
| 2:B:73:LYS:NZ | 2:B:114:SER:OG | 2.21 | 0.60 |
| 2:B:292:ASN:HA | 11:R:72:TRP:CZ3 | 2.37 | 0.60 |
| 2:B:435:ASN:O | 2:B:439:VAL:HG23 | 2.01 | 0.60 |
| 4:D:321:PHE:CD2 | 4:D:357:GLY:HA2 | 2.37 | 0.60 |
| 4:D:368:PRO:O | 4:D:372:LYS:HG3 | 2.01 | 0.60 |
| 4:D:385:LEU:HD21 | 6:F:237:LEU:HD13 | 1.82 | 0.60 |
| 6:F:124:TRP:CZ2 | 6:F:135:ASP:HA | 2.36 | 0.60 |
| 6:F:189:THR:CG2 | 6:F:230:MET:HE1 | 2.32 | 0.60 |
| 6:F:267:LEU:HA | 6:F:269:VAL:N | 2.16 | 0.60 |
| 8:O:51:GLU:OE2 | 12:V:182:ARG:HG3 | 2.02 | 0.60 |
| 8:O:337:THR:HA | 8:O:394:TYR:CE1 | 2.37 | 0.60 |
| 8:O:688:MET:HE1 | 8:O:730:TYR:HB2 | 1.84 | 0.60 |
| 10:Q:81:GLU:HA | 12:V:161:ARG:HH21 | 1.66 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 11:R:82:HIS:HA | 11:R:85:SER:HB2 | 1.83 | 0.60 |
| 11:R:84:ILE:HA | 11:R:95:PRO:CG | 2.31 | 0.60 |
| 13:G:140:ILE:CG2 | 13:G:141:ILE:HG13 | 2.16 | 0.60 |
| 1:A:251:TRP:CZ3 | 1:A:288:ALA:HA | 2.35 | 0.60 |
| 1:A:451:ALA:HA | 1:A:463:ARG:N | 2.17 | 0.60 |
| 2:B:197:ILE:O | 2:B:201:GLU:HG3 | 2.02 | 0.60 |
| 2:B:241:GLY:O | 2:B:245:HIS:ND1 | 2.35 | 0.60 |
| 2:B:381:ASP:HB3 | 2:B:384:ASP:HB2 | 1.84 | 0.60 |
| 2:B:390:VAL:HA | 2:B:393:ILE:HG12 | 1.82 | 0.60 |
| 2:B:428:THR:HG23 | 2:B:431:LEU:HD12 | 1.83 | 0.60 |
| 3:C:352:ASN:HB3 | 3:C:357:MET:HB2 | 1.83 | 0.60 |
| 4:D:277:GLN:O | 4:D:280:GLU:HB3 | 2.01 | 0.60 |
| 5:E:45:TRP:HA | 5:E:48:ASP:O | 2.02 | 0.60 |
| 5:E:243:ASN:HA | 6:F:229:LYS:HE2 | 1.38 | 0.60 |
| 6:F:54:HIS:CB | 6:F:88:GLU:HG2 | 2.32 | 0.60 |
| 6:F:234:ARG:O | 6:F:238:ILE:HG13 | 2.01 | 0.60 |
| 6:F:249:GLU:HA | 6:F:250:VAL:CA | 2.28 | 0.60 |
| 7:H:21:GLU:O | 7:H:25:LEU:HG | 2.02 | 0.60 |
| 7:H:139:LEU:HB3 | 7:H:143:GLU:HG2 | 1.82 | 0.60 |
| 8:O:278:LEU:HB2 | 8:O:310:HIS:ND1 | 2.16 | 0.60 |
| 8:O:531:GLN:O | 8:O:534:GLU:HB3 | 2.01 | 0.60 |
| 8:O:552:LYS:HA | 11:R:33:TRP:CB | 2.31 | 0.60 |
| 9:P:4:PHE:CZ | 10:Q:66:LYS:HG2 | 2.37 | 0.60 |
| 13:G:24:GLY:O | 13:G:27:LEU:HB3 | 2.02 | 0.60 |
| 1:A:139:SER:HA | 1:A:160:PRO:CB | 2.32 | 0.59 |
| 1:A:451:ALA:CB | 1:A:462:ALA:HA | 2.32 | 0.59 |
| 2:B:241:GLY:O | 2:B:244:MET:HB3 | 2.02 | 0.59 |
| 2:B:264:ASN:HA | 2:B:267:GLU:OE1 | 2.02 | 0.59 |
| 2:B:399:HIS:HB3 | 2:B:412:ASP:CB | 2.30 | 0.59 |
| 3:C:348:PHE:CD2 | 3:C:362:ASP:HA | 2.37 | 0.59 |
| 5:E:147:LEU:HD12 | 5:E:155:GLN:OE1 | 2.02 | 0.59 |
| 5:E:148:SER:H | 5:E:151:ASP:HB2 | 1.67 | 0.59 |
| 5:E:212:GLU:O | 5:E:216:VAL:HG23 | 2.01 | 0.59 |
| 5:E:241:LEU:HB2 | 6:F:190:LEU:HD12 | 1.82 | 0.59 |
| 5:E:279:GLN:CD | 5:E:295:LYS:HE3 | 2.21 | 0.59 |
| 6:F:51:ILE:CG2 | 6:F:154:LEU:HD13 | 2.32 | 0.59 |
| 6:F:71:ALA:O | 6:F:86:SER:HA | 2.02 | 0.59 |
| 6:F:81:ILE:HG13 | 6:F:186:LEU:HD23 | 1.84 | 0.59 |
| 6:F:112:PHE:HB2 | 6:F:116:PHE:CD2 | 2.36 | 0.59 |
| 6:F:231:LEU:HD12 | 6:F:234:ARG:CB | 2.32 | 0.59 |
| 6:F:302:MET:O | 6:F:306:VAL:HG23 | 2.02 | 0.59 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:H:194:GLU:N | 13:G:191:GLN:HG3 | 2.11 | 0.59 |
| 8:O:81:GLU:OE2 | 8:O:162:MET:HB3 | 2.01 | 0.59 |
| 8:O:237:GLU:HG2 | 8:O:296:ASN:HD21 | 1.66 | 0.59 |
| 8:O:392:ALA:HA | 8:O:395:CYS:HB2 | 1.84 | 0.59 |
| 8:O:728:LYS:HB2 | 8:O:730:TYR:CD2 | 2.37 | 0.59 |
| 12:V:101:LEU:HD23 | 12:V:107:ARG:NH1 | 2.17 | 0.59 |
| 13:G:93:GLN:HG2 | 13:G:97:LYS:HE3 | 1.83 | 0.59 |
| 13:G:149:ASN:HB3 | 13:G:151:LEU:CD1 | 2.32 | 0.59 |
| 13:G:202:HIS:O | 13:G:205:THR:HG22 | 2.01 | 0.59 |
| 1:A:174:ALA:O | 1:A:178:LEU:HG | 2.02 | 0.59 |
| 1:A:244:VAL:HG12 | 1:A:248:LEU:HD11 | 1.82 | 0.59 |
| 1:A:454:ASP:OD1 | 3:C:316:THR:HB | 2.02 | 0.59 |
| 2:B:24:SER:CA | 8:O:652:LYS:HZ1 | 2.14 | 0.59 |
| 2:B:92:TYR:O | 2:B:96:LEU:HG | 2.03 | 0.59 |
| 2:B:175:LEU:HD12 | 2:B:197:ILE:HD11 | 1.83 | 0.59 |
| 2:B:193:GLN:N | 2:B:229:PRO:HD2 | 2.17 | 0.59 |
| 2:B:322:ASP:OD1 | 2:B:324:THR:OG1 | 2.12 | 0.59 |
| 2:B:370:HIS:HA | 2:B:408:LEU:CD2 | 2.32 | 0.59 |
| 2:B:419:ALA:O | 2:B:422:THR:OG1 | 2.14 | 0.59 |
| 7:H:34:PRO:CB | 7:H:68:ASN:HB2 | 2.32 | 0.59 |
| 7:H:117:ALA:HA | 7:H:120:LEU:HB3 | 1.84 | 0.59 |
| 8:O:208:GLU:O | 8:O:212:LEU:HG | 2.01 | 0.59 |
| 8:O:407:THR:N | 8:O:410:GLU:OE1 | 2.35 | 0.59 |
| 8:O:500:VAL:O | 8:O:500:VAL:HG12 | 2.02 | 0.59 |
| 8:O:537:VAL:HG23 | 8:O:553:LEU:CB | 2.30 | 0.59 |
| 8:O:567:ASN:HB2 | 11:R:20:LYS:HA | 1.80 | 0.59 |
| 8:O:583:ALA:O | 8:O:586:LEU:HB3 | 2.02 | 0.59 |
| 9:P:64:SER:OG | 10:Q:66:LYS:HE2 | 2.02 | 0.59 |
| 1:A:282:LEU:HA | 1:A:285:LEU:HD12 | 1.83 | 0.59 |
| 2:B:34:ASN:OD1 | 2:B:57:VAL:HA | 2.02 | 0.59 |
| 2:B:71:ALA:HA | 2:B:74:GLN:CG | 2.32 | 0.59 |
| 2:B:246:LEU:HB2 | 2:B:279:TYR:OH | 2.02 | 0.59 |
| 3:C:94:ARG:HD2 | 3:C:131:MET:CG | 2.30 | 0.59 |
| 3:C:114:ARG:CB | 3:C:115:LYS:HG3 | 2.31 | 0.59 |
| 4:D:67:THR:O | 4:D:71:THR:HG23 | 2.02 | 0.59 |
| 4:D:231:HIS:HA | 4:D:281:PHE:CZ | 2.36 | 0.59 |
| 4:D:266:LYS:O | 4:D:271:ARG:N | 2.24 | 0.59 |
| 5:E:250:LEU:CA | 6:F:228:ILE:HD11 | 2.12 | 0.59 |
| 6:F:47:VAL:HG13 | 6:F:87:PHE:HB3 | 1.83 | 0.59 |
| 8:O:354:ILE:HD12 | 8:O:368:LEU:HD22 | 1.84 | 0.59 |
| 8:O:544:TYR:CZ | 11:R:33:TRP:CE3 | 2.88 | 0.59 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 9:P:71:ALA:N | 10:Q:59:GLU:OE1 | 2.34 | 0.59 |
| 13:G:43:PHE:O | 13:G:46:LEU:HB2 | 2.02 | 0.59 |
| 1:A:486:ALA:O | 1:A:490:MET:HG2 | 2.02 | 0.59 |
| 3:C:94:ARG:HD2 | 3:C:131:MET:HE2 | 1.84 | 0.59 |
| 3:C:189:GLY:HA3 | 3:C:205:TYR:CZ | 2.38 | 0.59 |
| 4:D:231:HIS:HA | 4:D:281:PHE:CE1 | 2.38 | 0.59 |
| 5:E:59:ALA:CB | 6:F:46:LEU:HB2 | 2.31 | 0.59 |
| 5:E:63:LEU:HD22 | 6:F:44:HIS:CD2 | 2.37 | 0.59 |
| 5:E:269:LEU:HA | 5:E:272:LYS:CG | 2.32 | 0.59 |
| 5:E:333:ILE:O | 13:G:177:TRP:CA | 2.49 | 0.59 |
| 6:F:81:ILE:HD12 | 6:F:186:LEU:HB3 | 1.83 | 0.59 |
| 6:F:261:TYR:CB | 13:G:170:ILE:HD12 | 2.28 | 0.59 |
| 8:O:544:TYR:CE2 | 8:O:552:LYS:HA | 2.36 | 0.59 |
| 1:A:230:SER:CB | 1:A:232:LYS:HG2 | 2.32 | 0.59 |
| 1:A:339:ARG:HA | 1:A:342:LEU:CD1 | 2.30 | 0.59 |
| 1:A:343:GLN:CA | 1:A:347:ILE:HB | 2.23 | 0.59 |
| 1:A:444:ILE:HG21 | 3:C:313:THR:HG22 | 1.84 | 0.59 |
| 1:A:492:ARG:HD2 | 1:A:495:VAL:CG2 | 2.32 | 0.59 |
| 2:B:14:GLU:C | 2:B:18:LEU:CG | 2.69 | 0.59 |
| 2:B:217:LEU:O | 2:B:220:GLN:HB3 | 2.03 | 0.59 |
| 3:C:142:HIS:HB3 | 3:C:184:TYR:CE1 | 2.37 | 0.59 |
| 4:D:195:LEU:CB | 4:D:204:ALA:HB2 | 2.32 | 0.59 |
| 4:D:240:GLN:O | 4:D:244:ARG:HG3 | 2.02 | 0.59 |
| 4:D:319:ILE:C | 4:D:358:ILE:HG23 | 2.23 | 0.59 |
| 5:E:64:LYS:HB3 | 5:E:96:PHE:CB | 2.32 | 0.59 |
| 5:E:159:GLN:HE22 | 5:E:188:THR:H | 1.51 | 0.59 |
| 5:E:272:LYS:HB3 | 5:E:306:ASP:OD2 | 2.02 | 0.59 |
| 6:F:105:TYR:OH | 6:F:121:PHE:HB2 | 2.01 | 0.59 |
| 8:O:87:TYR:CE2 | 8:O:151:MET:HG2 | 2.37 | 0.59 |
| 8:O:177:ASN:HB2 | 8:O:180:VAL:HG23 | 1.83 | 0.59 |
| 8:O:219:TYR:OH | 8:O:263:ILE:HD12 | 2.02 | 0.59 |
| 9:P:49:GLN:O | 9:P:51:LEU:HG | 2.02 | 0.59 |
| 9:P:65:GLN:O | 9:P:68:ARG:HB3 | 2.02 | 0.59 |
| 12:V:89:LEU:HD13 | 12:V:202:THR:OG1 | 2.03 | 0.59 |
| 12:V:170:VAL:HG11 | 12:V:178:LEU:HD23 | 1.83 | 0.59 |
| 12:V:174:ASN:O | 12:V:178:LEU:N | 2.36 | 0.59 |
| 1:A:294:LEU:HD21 | 1:A:393:TYR:O | 2.03 | 0.59 |
| 2:B:151:THR:HA | 2:B:154:LYS:NZ | 2.18 | 0.59 |
| 3:C:397:ILE:CG2 | 6:F:308:LYS:HB3 | 2.33 | 0.59 |
| 4:D:256:GLN:HA | 4:D:261:TYR:CG | 2.37 | 0.59 |
| 4:D:384:LEU:HD11 | 4:D:387:LYS:HE2 | 1.81 | 0.59 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:E:272:LYS:HD3 | 5:E:306:ASP:HB3 | 1.84 | 0.59 |
| 6:F:67:GLN:HG2 | 6:F:98:ILE:HD11 | 1.85 | 0.59 |
| 7:H:45:LEU:HD22 | 7:H:81:ILE:HD12 | 1.85 | 0.59 |
| 8:O:32:ARG:NH1 | 10:Q:37:PHE:O | 2.36 | 0.59 |
| 8:O:333:GLU:CG | 8:O:338:LEU:HD12 | 2.33 | 0.59 |
| 8:O:700:ILE:O | 8:O:700:ILE:HG12 | 2.02 | 0.59 |
| 13:G:116:LEU:HA | 13:G:119:ASP:HB3 | 1.85 | 0.59 |
| 13:G:140:ILE:O | 13:G:157:CYS:HA | 2.03 | 0.59 |
| 13:G:182:GLU:HG3 | 13:G:183:ALA:N | 2.16 | 0.59 |
| 1:A:454:ASP:CA | 3:C:315:LEU:HB3 | 2.33 | 0.59 |
| 1:A:492:ARG:HD3 | 3:C:244:TYR:CE2 | 2.37 | 0.59 |
| 3:C:202:LEU:HB2 | 3:C:230:VAL:CG1 | 2.29 | 0.59 |
| 4:D:101:GLU:HG3 | 4:D:137:LYS:CB | 2.21 | 0.59 |
| 4:D:121:ARG:O | 4:D:125:GLN:HG3 | 2.03 | 0.59 |
| 4:D:211:LEU:HA | 4:D:214:LYS:HD2 | 1.83 | 0.59 |
| 4:D:341:GLN:O | 4:D:344:THR:OG1 | 2.10 | 0.59 |
| 5:E:268:ASP:O | 5:E:272:LYS:HG3 | 2.03 | 0.59 |
| 7:H:126:THR:O | 7:H:164:PRO:HD2 | 2.02 | 0.59 |
| 8:O:53:LEU:O | 8:O:57:LEU:HB2 | 2.02 | 0.59 |
| 8:O:322:GLU:HB2 | 8:O:325:ARG:HH11 | 1.68 | 0.59 |
| 8:O:354:ILE:HA | 8:O:358:LEU:CB | 2.31 | 0.59 |
| 8:O:727:ASP:C | 11:R:55:GLU:N | 2.54 | 0.59 |
| 8:O:733:ARG:CZ | 11:R:96:LEU:HD21 | 2.32 | 0.59 |
| 9:P:99:LEU:O | 9:P:100:PRO:C | 2.41 | 0.59 |
| 13:G:135:ALA:O | 13:G:140:ILE:HG22 | 2.01 | 0.59 |
| 1:A:101:GLN:HG3 | 1:A:115:LEU:CD2 | 2.33 | 0.59 |
| 1:A:194:LYS:HD2 | 1:A:229:THR:HG23 | 1.83 | 0.59 |
| 1:A:417:TYR:CD1 | 2:B:402:ILE:CB | 2.84 | 0.59 |
| 4:D:314:LYS:HB2 | 13:G:137:TYR:CZ | 2.37 | 0.59 |
| 4:D:321:PHE:N | 4:D:357:GLY:O | 2.25 | 0.59 |
| 5:E:31:TYR:HD1 | 5:E:84:LYS:HD3 | 1.68 | 0.59 |
| 5:E:60:LEU:HA | 5:E:63:LEU:CG | 2.33 | 0.59 |
| 5:E:269:LEU:HA | 5:E:272:LYS:CD | 2.33 | 0.59 |
| 5:E:279:GLN:OE1 | 5:E:298:ASP:HB2 | 2.03 | 0.59 |
| 6:F:54:HIS:HA | 6:F:88:GLU:HG2 | 1.84 | 0.59 |
| 6:F:66:VAL:O | 6:F:68:VAL:HG13 | 2.02 | 0.59 |
| 7:H:46:LEU:HD11 | 7:H:105:ILE:HB | 1.82 | 0.59 |
| 7:H:90:TYR:HA | 7:H:93:ILE:HD12 | 1.85 | 0.59 |
| 8:O:220:LYS:CD | 8:O:270:MET:HA | 2.32 | 0.59 |
| 8:O:326:ALA:HB3 | 8:O:346:VAL:HG22 | 1.85 | 0.59 |
| 8:O:485:ASP:O | 8:O:489:LYS:HG3 | 2.03 | 0.59 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 8:O:505:ILE:CG2 | 11:R:27:TRP:HB3 | 2.33 | 0.59 |
| 8:O:600:GLN:HA | 8:O:603:THR:CG2 | 2.33 | 0.59 |
| 8:O:633:ASP:HB2 | 8:O:636:SER:CB | 2.32 | 0.59 |
| 9:P:8:ARG:NH1 | 9:P:13:THR:OG1 | 2.36 | 0.59 |
| 11:R:87:TRP:CG | 11:R:95:PRO:HA | 2.37 | 0.59 |
| 13:G:78:TYR:CE1 | 13:G:82:LYS:HA | 2.37 | 0.59 |
| 2:B:21:SER:CA | 8:O:652:LYS:CE | 2.73 | 0.59 |
| 2:B:206:THR:O | 2:B:209:LYS:HE3 | 2.03 | 0.59 |
| 2:B:255:HIS:HB2 | 2:B:280:LEU:HD11 | 1.83 | 0.59 |
| 3:C:51:VAL:HB | 3:C:87:THR:OG1 | 2.02 | 0.59 |
| 3:C:146:CYS:HA | 3:C:149:CYS:SG | 2.43 | 0.59 |
| 3:C:221:LEU:O | 3:C:224:TYR:HB3 | 2.03 | 0.59 |
| 3:C:355:ASP:HB2 | 3:C:357:MET:HG2 | 1.85 | 0.59 |
| 6:F:69:ILE:HG21 | 6:F:100:ILE:CD1 | 2.33 | 0.59 |
| 6:F:108:LYS:HG3 | 6:F:112:PHE:CE1 | 2.38 | 0.59 |
| 6:F:250:VAL:HG12 | 6:F:251:PRO:O | 2.03 | 0.59 |
| 8:O:106:ARG:HH21 | 10:Q:31:ALA:HB2 | 1.64 | 0.59 |
| 8:O:152:VAL:HA | 8:O:156:GLN:CD | 2.23 | 0.59 |
| 8:O:162:MET:SD | 8:O:165:ARG:NH1 | 2.75 | 0.59 |
| 8:O:312:ILE:HG23 | 8:O:367:ALA:HB2 | 1.85 | 0.59 |
| 8:O:508:GLN:HG2 | 8:O:559:LEU:CD1 | 2.09 | 0.59 |
| 8:O:569:LEU:HG | 11:R:19:LYS:C | 2.12 | 0.59 |
| 9:P:3:VAL:CG2 | 9:P:18:ALA:HB3 | 2.33 | 0.59 |
| 9:P:52:ASP:H | 9:P:55:LYS:HD3 | 1.67 | 0.59 |
| 9:P:63:THR:N | 9:P:66:THR:HB | 2.18 | 0.59 |
| 12:V:83:VAL:CG1 | 12:V:100:THR:HB | 2.32 | 0.59 |
| 12:V:163:LEU:O | 12:V:167:ARG:HG3 | 2.02 | 0.59 |
| 1:A:357:GLU:HA | 1:A:363:ARG:NH1 | 2.18 | 0.59 |
| 1:A:424:ARG:NH1 | 1:A:428:ALA:HB2 | 2.17 | 0.59 |
| 3:C:121:ILE:CG1 | 3:C:145:LEU:HD11 | 2.32 | 0.59 |
| 4:D:201:PHE:HA | 4:D:232:CYS:HB3 | 1.85 | 0.59 |
| 4:D:307:HIS:ND1 | 4:D:310:LEU:HD23 | 2.18 | 0.59 |
| 4:D:393:PRO:O | 4:D:396:THR:HB | 2.03 | 0.59 |
| 5:E:43:LYS:HG2 | 5:E:45:TRP:CZ2 | 2.37 | 0.59 |
| 5:E:241:LEU:HD23 | 6:F:200:VAL:HG11 | 1.85 | 0.59 |
| 6:F:98:ILE:H | 6:F:134:SER:HB2 | 1.67 | 0.59 |
| 6:F:125:TYR:HB3 | 6:F:152:LEU:HD22 | 1.85 | 0.59 |
| 7:H:81:ILE:HG22 | 7:H:84:ARG:HH21 | 1.68 | 0.59 |
| 8:O:110:THR:CG2 | 10:Q:28:THR:OG1 | 2.51 | 0.59 |
| 8:O:564:VAL:HB | 11:R:19:LYS:HZ2 | 1.68 | 0.59 |
| 8:O:569:LEU:HD11 | 11:R:19:LYS:N | 2.13 | 0.59 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:575:ALA:CB | 8:O:650:LYS:HE3 | 2.32 | 0.59 |
| 8:O:578:THR:HG21 | 8:O:656:SER:HB3 | 1.84 | 0.59 |
| 9:P:8:ARG:HA | 9:P:12:THR:O | 2.02 | 0.59 |
| 9:P:56:THR:H | 9:P:59:GLU:HB2 | 1.67 | 0.59 |
| 13:G:99:LEU:O | 13:G:102:VAL:HG22 | 2.02 | 0.59 |
| 1:A:281:ILE:H | 1:A:281:ILE:HD12 | 1.68 | 0.58 |
| 1:A:306:LEU:HD23 | 1:A:325:VAL:HG13 | 1.85 | 0.58 |
| 2:B:18:LEU:CD2 | 8:O:648:ARG:NH1 | 2.61 | 0.58 |
| 2:B:31:ASP:O | 2:B:35:GLN:HG3 | 2.03 | 0.58 |
| 2:B:282:LEU:HD21 | 2:B:346:HIS:CG | 2.38 | 0.58 |
| 2:B:317:ALA:HA | 2:B:320:ASN:CB | 2.30 | 0.58 |
| 2:B:338:MET:CE | 2:B:344:ARG:HA | 2.33 | 0.58 |
| 2:B:403:ASP:OD2 | 2:B:406:ASN:ND2 | 2.36 | 0.58 |
| 3:C:61:VAL:HA | 3:C:64:VAL:HG23 | 1.83 | 0.58 |
| 3:C:122:GLY:HA2 | 3:C:125:LYS:HE2 | 1.85 | 0.58 |
| 3:C:222:GLU:HA | 3:C:225:LYS:CG | 2.33 | 0.58 |
| 3:C:226:LYS:O | 3:C:230:VAL:HG23 | 2.03 | 0.58 |
| 4:D:395:TRP:HA | 4:D:398:GLN:CG | 2.33 | 0.58 |
| 5:E:241:LEU:HD13 | 6:F:190:LEU:CB | 2.21 | 0.58 |
| 5:E:242:TRP:CZ3 | 6:F:219:GLU:OE1 | 2.56 | 0.58 |
| 7:H:34:PRO:O | 7:H:68:ASN:ND2 | 2.36 | 0.58 |
| 8:O:32:ARG:CZ | 8:O:35:TRP:CZ3 | 2.60 | 0.58 |
| 8:O:106:ARG:O | 8:O:109:ASN:HB2 | 2.03 | 0.58 |
| 8:O:285:ILE:HD11 | 8:O:290:LYS:HE2 | 1.85 | 0.58 |
| 8:O:311:MET:O | 8:O:315:LEU:HD23 | 2.03 | 0.58 |
| 8:O:402:SER:HB2 | 8:O:447:LEU:HD21 | 1.84 | 0.58 |
| 8:O:511:VAL:HG11 | 8:O:551:ARG:HH22 | 1.59 | 0.58 |
| 9:P:6:MET:CE | 9:P:8:ARG:HD2 | 2.33 | 0.58 |
| 9:P:45:TYR:OH | 9:P:50:LEU:HD12 | 2.02 | 0.58 |
| 12:V:207:ALA:C | 12:V:208:ALA:CA | 2.69 | 0.58 |
| 1:A:379:LYS:NZ | 1:A:383:GLU:OE2 | 2.24 | 0.58 |
| 1:A:451:ALA:CA | 1:A:462:ALA:HA | 2.32 | 0.58 |
| 1:A:467:GLN:HG3 | 2:B:418:GLY:HA3 | 1.72 | 0.58 |
| 2:B:370:HIS:N | 4:D:354:GLN:OE1 | 2.33 | 0.58 |
| 3:C:125:LYS:HD2 | 3:C:161:TYR:CE2 | 2.37 | 0.58 |
| 3:C:138:LEU:HB3 | 3:C:169:ILE:HG23 | 1.84 | 0.58 |
| 3:C:232:LEU:HD22 | 3:C:267:TYR:CD2 | 2.38 | 0.58 |
| 3:C:286:PHE:CE1 | 3:C:294:LEU:HB2 | 2.38 | 0.58 |
| 4:D:120:TRP:HB3 | 4:D:158:ASP:HB2 | 1.85 | 0.58 |
| 5:E:269:LEU:O | 5:E:273:LEU:HG | 2.04 | 0.58 |
| 5:E:330:GLN:HG2 | 6:F:268:PRO:CG | 2.33 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 8:O:166:GLU:HB3 | 8:O:175:ASP:HA | 1.84 | 0.58 |
| 8:O:208:GLU:HA | 8:O:211:PHE:HB3 | 1.85 | 0.58 |
| 8:O:243:LEU:HD13 | 8:O:267:GLN:CG | 2.33 | 0.58 |
| 8:O:247:GLU:O | 8:O:251:ARG:NE | 2.36 | 0.58 |
| 8:O:554:THR:C | 11:R:32:LEU:HD12 | 2.23 | 0.58 |
| 8:O:700:ILE:HG21 | 8:O:718:ILE:CD1 | 2.33 | 0.58 |
| 12:V:66:VAL:HG21 | 12:V:115:HIS:HA | 1.86 | 0.58 |
| 1:A:480:LYS:HE2 | 1:A:480:LYS:HA | 1.85 | 0.58 |
| 3:C:15:LEU:CA | 3:C:18:GLN:HB2 | 2.32 | 0.58 |
| 3:C:101:ALA:HB2 | 3:C:175:ALA:HB1 | 1.83 | 0.58 |
| 3:C:347:ILE:HD13 | 3:C:358:VAL:CG1 | 2.32 | 0.58 |
| 3:C:365:GLU:HG3 | 3:C:372:MET:HG3 | 1.84 | 0.58 |
| 4:D:21:ASP:OD2 | 4:D:25:LYS:HE3 | 2.03 | 0.58 |
| 4:D:381:VAL:HG21 | 6:F:263:LEU:HD13 | 1.85 | 0.58 |
| 5:E:63:LEU:HB3 | 6:F:44:HIS:CD2 | 2.37 | 0.58 |
| 5:E:63:LEU:HD23 | 6:F:44:HIS:HB2 | 1.84 | 0.58 |
| 5:E:104:GLU:O | 5:E:210:LYS:HE2 | 2.04 | 0.58 |
| 5:E:244:LYS:CE | 6:F:229:LYS:O | 2.51 | 0.58 |
| 5:E:296:SER:C | 5:E:298:ASP:N | 2.57 | 0.58 |
| 5:E:331:ILE:HG22 | 13:G:177:TRP:O | 2.02 | 0.58 |
| 6:F:267:LEU:CD2 | 13:G:177:TRP:NE1 | 2.59 | 0.58 |
| 8:O:31:GLU:HA | 8:O:31:GLU:OE1 | 2.03 | 0.58 |
| 8:O:192:GLU:OE1 | 8:O:201:LYS:HB3 | 2.03 | 0.58 |
| 8:O:312:ILE:HG12 | 8:O:363:HIS:HB3 | 1.85 | 0.58 |
| 8:O:512:LEU:N | 11:R:32:LEU:HB3 | 2.18 | 0.58 |
| 8:O:597:LYS:HE2 | 8:O:634:ALA:HB2 | 1.83 | 0.58 |
| 8:O:693:VAL:HG11 | 8:O:702:GLU:OE2 | 2.04 | 0.58 |
| 9:P:9:ARG:CA | 9:P:77:LEU:HD22 | 2.33 | 0.58 |
| 9:P:12:THR:CB | 10:Q:15:GLU:OE1 | 2.51 | 0.58 |
| 12:V:60:ARG:HD2 | 12:V:64:ARG:HA | 1.85 | 0.58 |
| 1:A:95:MET:SD | 1:A:99:ARG:HG3 | 2.42 | 0.58 |
| 2:B:192:THR:HG21 | 8:O:459:ASN:HD21 | 1.68 | 0.58 |
| 2:B:359:LEU:CD1 | 2:B:378:LEU:HD11 | 2.32 | 0.58 |
| 2:B:439:VAL:C | 3:C:243:LYS:HZ3 | 2.06 | 0.58 |
| 3:C:13:ARG:NE | 3:C:48:ALA:O | 2.24 | 0.58 |
| 3:C:27:LEU:HB3 | 3:C:30:LYS:CG | 2.31 | 0.58 |
| 3:C:380:MET:HG2 | 3:C:384:ILE:CD1 | 2.33 | 0.58 |
| 3:C:389:ARG:HH21 | 3:C:392:ALA:HB2 | 1.67 | 0.58 |
| 3:C:391:LYS:CG | 6:F:301:THR:HG21 | 2.33 | 0.58 |
| 4:D:31:GLU:CA | 4:D:34:ILE:HD12 | 2.34 | 0.58 |
| 4:D:42:LEU:CG | 4:D:46:LYS:HE3 | 2.33 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 4:D:131:PRO:HB2 | 4:D:134:THR:OG1 | 2.02 | 0.58 |
| 4:D:381:VAL:CG1 | 6:F:231:LEU:HD11 | 2.32 | 0.58 |
| 4:D:386:GLU:C | 4:D:387:LYS:N | 2.55 | 0.58 |
| 5:E:59:ALA:HB3 | 6:F:46:LEU:HD13 | 1.86 | 0.58 |
| 5:E:98:LEU:HB2 | 5:E:100:VAL:HG22 | 1.85 | 0.58 |
| 5:E:146:TRP:CZ3 | 5:E:148:SER:HA | 2.38 | 0.58 |
| 5:E:320:SER:O | 5:E:324:LYS:HG3 | 2.03 | 0.58 |
| 5:E:329:ASN:HB3 | 6:F:276:LYS:CE | 2.33 | 0.58 |
| 6:F:221:LEU:O | 6:F:225:HIS:N | 2.35 | 0.58 |
| 7:H:31:ILE:HG23 | 7:H:64:ILE:CD1 | 2.34 | 0.58 |
| 7:H:41:LEU:HD21 | 7:H:75:TRP:HA | 1.84 | 0.58 |
| 7:H:201:THR:HG21 | 13:G:191:GLN:O | 2.03 | 0.58 |
| 8:O:170:ASP:HA | 8:O:249:ARG:HH11 | 1.68 | 0.58 |
| 8:O:396:ASP:HA | 8:O:442:ARG:NH2 | 2.18 | 0.58 |
| 8:O:399:LEU:HB3 | 8:O:454:GLU:OE2 | 2.03 | 0.58 |
| 8:O:569:LEU:HD12 | 11:R:18:LYS:C | 2.20 | 0.58 |
| 8:O:620:VAL:HG12 | 8:O:622:MET:HG3 | 1.84 | 0.58 |
| 8:O:693:VAL:C | 8:O:699:LEU:CG | 2.72 | 0.58 |
| 12:V:178:LEU:HB3 | 12:V:180:ILE:HG12 | 1.83 | 0.58 |
| 12:V:184:LEU:HA | 12:V:187:ASP:HB2 | 1.84 | 0.58 |
| 1:A:92:SER:HA | 1:A:96:ARG:NE | 2.19 | 0.58 |
| 1:A:225:ARG:CA | 1:A:237:MET:HG3 | 2.33 | 0.58 |
| 1:A:495:VAL:HB | 3:C:211:THR:HG23 | 1.85 | 0.58 |
| 2:B:28:PRO:CD | 2:B:29:ASN:H | 2.17 | 0.58 |
| 2:B:214:LEU:HD23 | 2:B:217:LEU:HD12 | 1.85 | 0.58 |
| 2:B:301:PRO:HA | 2:B:304:ASN:OD1 | 2.02 | 0.58 |
| 2:B:420:ARG:HG3 | 5:E:263:THR:HB | 1.84 | 0.58 |
| 3:C:82:GLN:HB2 | 3:C:123:ILE:CG2 | 2.34 | 0.58 |
| 3:C:103:LEU:O | 3:C:107:LEU:HD12 | 2.04 | 0.58 |
| 3:C:248:ILE:HA | 3:C:251:ARG:CB | 2.33 | 0.58 |
| 3:C:286:PHE:HB3 | 3:C:292:MET:SD | 2.43 | 0.58 |
| 3:C:308:GLN:O | 3:C:311:THR:OG1 | 2.15 | 0.58 |
| 3:C:323:ALA:HB1 | 3:C:330:GLY:H | 1.68 | 0.58 |
| 4:D:60:VAL:O | 4:D:63:ARG:HB2 | 2.04 | 0.58 |
| 4:D:140:ASN:HB3 | 4:D:143:TYR:HB3 | 1.85 | 0.58 |
| 4:D:191:TYR:CE2 | 4:D:195:LEU:HD11 | 2.38 | 0.58 |
| 4:D:293:THR:HG22 | 4:D:299:ILE:CG1 | 2.34 | 0.58 |
| 5:E:312:ILE:HG22 | 5:E:316:HIS:CE1 | 2.39 | 0.58 |
| 5:E:321:GLN:HB2 | 6:F:282:GLN:NE2 | 2.18 | 0.58 |
| 6:F:41:VAL:HG11 | 6:F:73:ILE:HB | 1.84 | 0.58 |
| 6:F:70:GLY:HA2 | 6:F:89:LEU:HG | 1.85 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 6:F:73:ILE:CD1 | 6:F:119:LEU:HD22 | 2.33 | 0.58 |
| 6:F:127:THR:HA | 6:F:154:LEU:O | 2.02 | 0.58 |
| 8:O:110:THR:HB | 10:Q:28:THR:OG1 | 2.03 | 0.58 |
| 8:O:160:ILE:HD12 | 8:O:207:PHE:HD1 | 1.68 | 0.58 |
| 8:O:166:GLU:HA | 8:O:169:ASN:ND2 | 2.18 | 0.58 |
| 8:O:227:LEU:HD12 | 8:O:232:CYS:SG | 2.43 | 0.58 |
| 8:O:660:ASP:HB3 | 8:O:663:GLN:HB3 | 1.84 | 0.58 |
| 9:P:24:VAL:HG21 | 9:P:51:LEU:HB3 | 1.84 | 0.58 |
| 9:P:69:PRO:C | 10:Q:62:ASN:HD22 | 2.05 | 0.58 |
| 13:G:12:LEU:HD22 | 13:G:13:GLU:H | 1.68 | 0.58 |
| 13:G:71:ALA:HB1 | 13:G:164:LYS:N | 2.11 | 0.58 |
| 1:A:416:PRO:HG2 | 1:A:417:TYR:CD2 | 2.37 | 0.58 |
| 2:B:25:ASN:O | 2:B:28:PRO:CG | 2.51 | 0.58 |
| 2:B:213:LYS:O | 2:B:217:LEU:HG | 2.03 | 0.58 |
| 3:C:122:GLY:HA2 | 3:C:125:LYS:CG | 2.32 | 0.58 |
| 3:C:262:GLU:CD | 3:C:278:LEU:HD13 | 2.22 | 0.58 |
| 5:E:233:LEU:HD23 | 6:F:52:SER:CB | 2.34 | 0.58 |
| 5:E:272:LYS:HE2 | 5:E:309:LYS:HZ3 | 1.68 | 0.58 |
| 7:H:86:PHE:HB2 | 7:H:135:ALA:HB1 | 1.85 | 0.58 |
| 8:O:30:VAL:HG23 | 8:O:35:TRP:HZ2 | 1.69 | 0.58 |
| 8:O:112:PHE:O | 8:O:117:LYS:NZ | 2.21 | 0.58 |
| 8:O:281:GLU:HG3 | 8:O:285:ILE:CD1 | 2.34 | 0.58 |
| 8:O:389:GLU:HA | 8:O:392:ALA:CB | 2.34 | 0.58 |
| 8:O:512:LEU:O | 8:O:551:ARG:CG | 2.52 | 0.58 |
| 8:O:512:LEU:CB | 8:O:551:ARG:HB3 | 2.26 | 0.58 |
| 8:O:657:MET:HA | 8:O:657:MET:CE | 2.33 | 0.58 |
| 8:O:695:ARG:HD3 | 8:O:740:GLU:HA | 1.85 | 0.58 |
| 8:O:718:ILE:HG23 | 8:O:719:LYS:H | 1.67 | 0.58 |
| 9:P:40:ASP:O | 9:P:80:ARG:NE | 2.36 | 0.58 |
| 9:P:76:GLY:HA2 | 9:P:89:CYS:O | 2.04 | 0.58 |
| 10:Q:91:LEU:HD11 | 12:V:184:LEU:CD2 | 2.25 | 0.58 |
| 12:V:178:LEU:HB2 | 12:V:185:TYR:CE1 | 2.38 | 0.58 |
| 2:B:252:GLU:HA | 2:B:255:HIS:CD2 | 2.39 | 0.58 |
| 2:B:420:ARG:O | 2:B:423:ALA:HB3 | 2.04 | 0.58 |
| 2:B:421:TYR:CE1 | 6:F:289:MET:HE3 | 2.39 | 0.58 |
| 3:C:365:GLU:CG | 3:C:372:MET:HG3 | 2.34 | 0.58 |
| 4:D:222:ARG:O | 4:D:225:ALA:HB3 | 2.04 | 0.58 |
| 4:D:235:LEU:HD11 | 4:D:285:LEU:HD21 | 1.85 | 0.58 |
| 4:D:255:CYS:O | 4:D:261:TYR:HB2 | 2.04 | 0.58 |
| 4:D:315:LEU:CD2 | 13:G:137:TYR:HD2 | 2.13 | 0.58 |
| 5:E:201:SER:OG | 5:E:219:LYS:HD2 | 2.03 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:E:240:LEU:HD13 | 6:F:163:LEU:CA | 2.34 | 0.58 |
| 6:F:46:LEU:HD12 | 6:F:49:LEU:CD1 | 2.33 | 0.58 |
| 6:F:217:VAL:CG1 | 13:G:192:VAL:HG22 | 2.00 | 0.58 |
| 6:F:253:ASN:O | 6:F:257:LEU:HG | 2.03 | 0.58 |
| 7:H:133:PHE:CE2 | 7:H:139:LEU:HD12 | 2.33 | 0.58 |
| 8:O:17:LEU:HD21 | 8:O:61:THR:OG1 | 2.03 | 0.58 |
| 8:O:25:VAL:HB | 8:O:68:HIS:CD2 | 2.39 | 0.58 |
| 8:O:168:LYS:HB3 | 8:O:171:ARG:HH22 | 1.69 | 0.58 |
| 8:O:617:LEU:CB | 8:O:623:ILE:HB | 2.33 | 0.58 |
| 9:P:99:LEU:CB | 9:P:103:MET:HG2 | 2.22 | 0.58 |
| 11:R:79:PHE:CD2 | 11:R:84:ILE:HB | 2.39 | 0.58 |
| 13:G:64:LEU:HD12 | 13:G:67:LEU:HD23 | 1.85 | 0.58 |
| 13:G:70:PHE:HD1 | 13:G:99:LEU:HD13 | 1.69 | 0.58 |
| 1:A:426:ALA:O | 1:A:430:ASN:N | 2.20 | 0.58 |
| 2:B:5:GLU:CB | 2:B:8:PHE:HB2 | 2.33 | 0.58 |
| 2:B:35:GLN:HG2 | 2:B:67:TRP:CE2 | 2.38 | 0.58 |
| 3:C:39:LEU:HD12 | 3:C:65:LYS:HE2 | 1.84 | 0.58 |
| 3:C:82:GLN:OE1 | 3:C:123:ILE:HG23 | 2.04 | 0.58 |
| 3:C:230:VAL:O | 3:C:235:LEU:HG | 2.03 | 0.58 |
| 3:C:278:LEU:O | 3:C:281:LYS:HB3 | 2.03 | 0.58 |
| 3:C:384:ILE:O | 3:C:388:GLU:HG2 | 2.02 | 0.58 |
| 4:D:58:SER:HB3 | 4:D:61:ILE:CG1 | 2.34 | 0.58 |
| 4:D:293:THR:HA | 4:D:299:ILE:CG1 | 2.33 | 0.58 |
| 4:D:319:ILE:HG21 | 4:D:324:LEU:HD13 | 1.84 | 0.58 |
| 4:D:353:ASP:H | 4:D:360:HIS:HD2 | 1.51 | 0.58 |
| 5:E:250:LEU:HB3 | 6:F:228:ILE:HD11 | 1.80 | 0.58 |
| 5:E:322:VAL:O | 5:E:326:LYS:HG2 | 2.03 | 0.58 |
| 6:F:125:TYR:CB | 6:F:152:LEU:HD22 | 2.34 | 0.58 |
| 7:H:19:GLN:O | 7:H:23:GLN:HG3 | 2.04 | 0.58 |
| 7:H:33:THR:HB | 7:H:36:VAL:CG2 | 2.33 | 0.58 |
| 8:O:192:GLU:O | 8:O:196:LYS:HD3 | 2.03 | 0.58 |
| 8:O:399:LEU:HD12 | 8:O:435:TYR:OH | 2.04 | 0.58 |
| 8:O:712:ASN:HD22 | 8:O:712:ASN:H | 1.51 | 0.58 |
| 11:R:44:ILE:HG13 | 11:R:83:CYS:HA | 1.85 | 0.58 |
| 12:V:78:ASN:HA | 12:V:151:ILE:HG13 | 1.86 | 0.58 |
| 2:B:164:GLU:HG3 | 2:B:167:LYS:HG3 | 1.84 | 0.58 |
| 2:B:356:THR:O | 2:B:360:ILE:HG13 | 2.03 | 0.58 |
| 2:B:381:ASP:O | 2:B:385:VAL:HG23 | 2.04 | 0.58 |
| 4:D:30:LEU:O | 4:D:34:ILE:N | 2.31 | 0.58 |
| 4:D:41:GLN:O | 4:D:45:LEU:HG | 2.04 | 0.58 |
| 4:D:324:LEU:HD23 | 4:D:336:GLU:OE1 | 2.04 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 6:F:217:VAL:CB | 13:G:192:VAL:CG2 | 2.81 | 0.58 |
| 7:H:41:LEU:HD23 | 7:H:74:ILE:HG22 | 1.86 | 0.58 |
| 7:H:84:ARG:CA | 7:H:89:ILE:HD11 | 2.23 | 0.58 |
| 7:H:159:THR:O | 7:H:161:MET:HE3 | 2.04 | 0.58 |
| 8:O:58:TYR:HB2 | 8:O:112:PHE:CE2 | 2.38 | 0.58 |
| 8:O:475:ARG:O | 8:O:479:ASP:HB2 | 2.03 | 0.58 |
| 8:O:485:ASP:O | 8:O:488:ASN:HB2 | 2.04 | 0.58 |
| 8:O:564:VAL:HG23 | 11:R:19:LYS:NZ | 2.19 | 0.58 |
| 9:P:68:ARG:HD2 | 9:P:71:ALA:H | 1.68 | 0.58 |
| 10:Q:91:LEU:HG | 12:V:184:LEU:CD1 | 2.34 | 0.58 |
| 12:V:146:PRO:HA | 12:V:147:ILE:CB | 2.26 | 0.58 |
| 2:B:367:THR:HG21 | 2:B:413:HIS:CD2 | 2.37 | 0.58 |
| 3:C:153:LYS:O | 7:H:55:TYR:HB3 | 2.03 | 0.58 |
| 3:C:366:LYS:HB2 | 3:C:368:ASN:HB3 | 1.85 | 0.58 |
| 4:D:173:LEU:HD23 | 11:R:77:HIS:NE2 | 2.18 | 0.58 |
| 4:D:184:GLN:O | 4:D:187:TYR:HB3 | 2.03 | 0.58 |
| 4:D:319:ILE:CG2 | 4:D:324:LEU:HD13 | 2.34 | 0.58 |
| 4:D:365:GLU:HA | 4:D:369:THR:OG1 | 2.03 | 0.58 |
| 5:E:248:ASN:HB2 | 6:F:222:ILE:HD12 | 1.84 | 0.58 |
| 5:E:272:LYS:HA | 5:E:275:GLN:HG3 | 1.85 | 0.58 |
| 6:F:170:SER:HB3 | 6:F:183:PHE:CE1 | 2.39 | 0.58 |
| 7:H:34:PRO:HB2 | 7:H:35:PRO:HD3 | 1.85 | 0.58 |
| 7:H:117:ALA:O | 7:H:120:LEU:HB3 | 2.04 | 0.58 |
| 7:H:129:ILE:HG23 | 7:H:160:ARG:CD | 2.30 | 0.58 |
| 8:O:30:VAL:HG23 | 8:O:35:TRP:CZ2 | 2.37 | 0.58 |
| 8:O:240:LEU:HD11 | 8:O:244:LYS:HE3 | 1.84 | 0.58 |
| 8:O:508:GLN:O | 11:R:30:VAL:HA | 2.04 | 0.58 |
| 9:P:3:VAL:CG2 | 9:P:57:LEU:HD13 | 2.33 | 0.58 |
| 9:P:32:GLU:OE2 | 9:P:38:PRO:HA | 2.04 | 0.58 |
| 11:R:50:MET:CE | 11:R:52:LEU:HD21 | 2.32 | 0.58 |
| 11:R:81:PHE:HA | 11:R:102:GLU:CA | 2.33 | 0.58 |
| 11:R:94:CYS:SG | 11:R:95:PRO:HD2 | 2.43 | 0.58 |
| 12:V:146:PRO:HG3 | 12:V:148:PHE:CD2 | 2.39 | 0.58 |
| 12:V:162:CYS:HB3 | 12:V:188:LEU:HD21 | 1.86 | 0.58 |
| 13:G:140:ILE:HA | 13:G:158:ILE:CG1 | 2.34 | 0.58 |
| 1:A:435:ALA:O | 1:A:439:GLU:HG3 | 2.04 | 0.57 |
| 1:A:470:THR:HA | 1:A:473:GLU:CD | 2.24 | 0.57 |
| 1:A:479:GLY:O | 1:A:483:GLN:HG3 | 2.04 | 0.57 |
| 2:B:171:ILE:O | 2:B:175:LEU:HG | 2.02 | 0.57 |
| 2:B:172:LEU:HD22 | 2:B:197:ILE:HG12 | 1.86 | 0.57 |
| 2:B:282:LEU:HA | 2:B:285:MET:HE3 | 1.86 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 2:B:295:ASP:HA | 2:B:300:LYS:CD | 2.34 | 0.57 |
| 3:C:53:GLU:HG3 | 3:C:95:TYR:HE2 | 1.68 | 0.57 |
| 3:C:202:LEU:CD2 | 3:C:235:LEU:HD11 | 2.33 | 0.57 |
| 4:D:369:THR:HA | 4:D:372:LYS:CG | 2.34 | 0.57 |
| 5:E:60:LEU:HG | 5:E:94:ASP:OD1 | 2.04 | 0.57 |
| 8:O:83:VAL:HA | 8:O:86:MET:CB | 2.32 | 0.57 |
| 8:O:240:LEU:CD1 | 8:O:244:LYS:HE3 | 2.34 | 0.57 |
| 8:O:266:CYS:HA | 8:O:269:ARG:HD3 | 1.86 | 0.57 |
| 8:O:337:THR:O | 8:O:341:GLU:HG2 | 2.02 | 0.57 |
| 8:O:397:ASN:CA | 8:O:400:LYS:HE3 | 2.34 | 0.57 |
| 8:O:414:ARG:HG3 | 8:O:418:PHE:CZ | 2.39 | 0.57 |
| 8:O:633:ASP:HB2 | 8:O:636:SER:OG | 2.04 | 0.57 |
| 8:O:660:ASP:O | 8:O:662:PRO:HD2 | 2.04 | 0.57 |
| 8:O:699:LEU:O | 8:O:699:LEU:HD22 | 2.03 | 0.57 |
| 9:P:77:LEU:O | 9:P:88:LEU:HA | 2.03 | 0.57 |
| 13:G:96:LEU:HA | 13:G:99:LEU:CG | 2.34 | 0.57 |
| 1:A:108:PRO:O | 1:A:109:THR:OG1 | 2.20 | 0.57 |
| 1:A:306:LEU:HD13 | 1:A:328:TYR:C | 2.24 | 0.57 |
| 1:A:454:ASP:HB3 | 1:A:457:SER:OG | 2.04 | 0.57 |
| 2:B:258:PHE:CD2 | 2:B:280:LEU:HD13 | 2.39 | 0.57 |
| 2:B:359:LEU:O | 2:B:363:ILE:HG12 | 2.04 | 0.57 |
| 2:B:420:ARG:NE | 5:E:260:ASP:OD1 | 2.37 | 0.57 |
| 3:C:52:GLN:HA | 3:C:88:CYS:CB | 2.27 | 0.57 |
| 4:D:2:ALA:HB1 | 4:D:43:GLU:HB3 | 1.85 | 0.57 |
| 4:D:41:GLN:HE22 | 4:D:76:LEU:HD22 | 1.68 | 0.57 |
| 4:D:145:LEU:HA | 4:D:148:TYR:CD2 | 2.39 | 0.57 |
| 4:D:388:ILE:N | 4:D:390:GLN:N | 2.52 | 0.57 |
| 5:E:147:LEU:HD12 | 5:E:155:GLN:HB2 | 1.85 | 0.57 |
| 5:E:247:VAL:O | 6:F:228:ILE:CD1 | 2.52 | 0.57 |
| 8:O:59:THR:CA | 8:O:135:PRO:HD2 | 2.34 | 0.57 |
| 8:O:117:LYS:CD | 8:O:136:LEU:HD13 | 2.32 | 0.57 |
| 8:O:520:THR:O | 8:O:556:LEU:CD1 | 2.51 | 0.57 |
| 12:V:180:ILE:CD1 | 12:V:188:LEU:HD12 | 2.33 | 0.57 |
| 13:G:97:LYS:HB3 | 13:G:120:LEU:CD1 | 2.32 | 0.57 |
| 1:A:334:LEU:HD22 | 1:A:366:ILE:HG13 | 1.86 | 0.57 |
| 1:A:443:LEU:O | 1:A:447:GLY:N | 2.38 | 0.57 |
| 1:A:492:ARG:HA | 1:A:495:VAL:HG22 | 1.86 | 0.57 |
| 2:B:14:GLU:HA | 2:B:18:LEU:HG | 1.86 | 0.57 |
| 2:B:354:ILE:HD12 | 2:B:355:ARG:N | 2.19 | 0.57 |
| 3:C:31:SER:O | 3:C:35:LEU:HD21 | 2.05 | 0.57 |
| 3:C:150:LEU:HA | 3:C:155:PHE:CZ | 2.38 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 3:C:317:LEU:HD23 | 3:C:322:MET:HB2 | 1.85 | 0.57 |
| 3:C:390:LEU:HD13 | 6:F:302:MET:HB2 | 1.86 | 0.57 |
| 4:D:306:GLU:HG2 | 4:D:328:LEU:HD13 | 1.87 | 0.57 |
| 5:E:116:TYR:CE2 | 5:E:117:MET:HG3 | 2.38 | 0.57 |
| 5:E:250:LEU:H | 6:F:225:HIS:CB | 2.16 | 0.57 |
| 5:E:324:LYS:HG3 | 6:F:221:LEU:HD22 | 1.87 | 0.57 |
| 6:F:252:PHE:CZ | 13:G:165:LYS:HG3 | 2.39 | 0.57 |
| 7:H:27:ALA:CB | 7:H:32:ALA:HA | 2.35 | 0.57 |
| 8:O:521:GLN:HE22 | 8:O:555:TRP:N | 1.81 | 0.57 |
| 8:O:726:ILE:HA | 8:O:731:ILE:O | 2.03 | 0.57 |
| 13:G:145:LEU:N | 13:G:145:LEU:HD12 | 2.18 | 0.57 |
| 1:A:119:LEU:HD12 | 1:A:131:TYR:HE1 | 1.68 | 0.57 |
| 1:A:240:ASN:O | 1:A:244:VAL:HG23 | 2.03 | 0.57 |
| 1:A:468:ARG:HG2 | 1:A:472:PHE:CE2 | 2.40 | 0.57 |
| 1:A:487:LYS:NZ | 3:C:165:ASP:HB2 | 2.18 | 0.57 |
| 2:B:169:GLN:OE1 | 2:B:172:LEU:HD12 | 2.04 | 0.57 |
| 2:B:314:LEU:HD11 | 2:B:329:ILE:CG2 | 2.34 | 0.57 |
| 2:B:426:LYS:HA | 2:B:429:ASN:CB | 2.34 | 0.57 |
| 3:C:80:GLN:HA | 3:C:83:LEU:HD12 | 1.85 | 0.57 |
| 4:D:129:GLY:O | 4:D:131:PRO:HD3 | 2.04 | 0.57 |
| 4:D:149:LEU:HD13 | 4:D:186:HIS:CB | 2.34 | 0.57 |
| 4:D:202:ILE:O | 4:D:206:GLN:HG3 | 2.05 | 0.57 |
| 4:D:293:THR:HG22 | 4:D:299:ILE:HA | 1.84 | 0.57 |
| 4:D:322:GLU:HA | 4:D:332:ALA:CB | 2.34 | 0.57 |
| 5:E:68:HIS:CB | 5:E:97:ALA:HB3 | 2.34 | 0.57 |
| 5:E:183:LEU:CD2 | 5:E:226:VAL:HG21 | 2.33 | 0.57 |
| 5:E:245:TYR:CE1 | 6:F:222:ILE:HG13 | 2.37 | 0.57 |
| 6:F:171:VAL:CB | 6:F:182:LEU:HD12 | 2.31 | 0.57 |
| 7:H:194:GLU:HG3 | 13:G:188:ILE:CG2 | 2.26 | 0.57 |
| 8:O:81:GLU:CG | 8:O:84:LEU:HD22 | 2.31 | 0.57 |
| 8:O:154:PRO:HG2 | 8:O:155:LEU:CD2 | 2.35 | 0.57 |
| 8:O:226:LEU:O | 8:O:230:SER:HB2 | 2.04 | 0.57 |
| 8:O:312:ILE:HD11 | 8:O:363:HIS:HB3 | 1.86 | 0.57 |
| 8:O:373:THR:HG23 | 8:O:424:TYR:HB3 | 1.87 | 0.57 |
| 8:O:429:ASP:O | 8:O:432:GLN:HB2 | 2.04 | 0.57 |
| 11:R:44:ILE:HD11 | 11:R:83:CYS:HA | 1.87 | 0.57 |
| 11:R:64:THR:HB | 11:R:68:CYS:CB | 2.33 | 0.57 |
| 1:A:104:ALA:CA | 1:A:111:ARG:HA | 2.35 | 0.57 |
| 1:A:283:THR:HA | 1:A:286:LYS:HE2 | 1.87 | 0.57 |
| 1:A:409:ALA:O | 1:A:412:GLN:HB3 | 2.04 | 0.57 |
| 1:A:478:MET:HE2 | 2:B:428:THR:HG23 | 1.86 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 2:B:21:SER:OG | 8:O:652:LYS:HE2 | 2.03 | 0.57 |
| 2:B:401:ARG:N | 2:B:410:GLU:OE2 | 2.34 | 0.57 |
| 3:C:13:ARG:CG | 3:C:48:ALA:HB1 | 2.33 | 0.57 |
| 3:C:53:GLU:HA | 3:C:84:PHE:HE1 | 1.69 | 0.57 |
| 4:D:48:PHE:CE2 | 4:D:66:LEU:HD23 | 2.40 | 0.57 |
| 4:D:341:GLN:O | 4:D:345:GLU:HG3 | 2.04 | 0.57 |
| 4:D:350:GLY:HA3 | 4:D:361:PHE:CE1 | 2.38 | 0.57 |
| 7:H:13:PHE:HD1 | 7:H:46:LEU:HD13 | 1.69 | 0.57 |
| 7:H:103:GLN:HA | 7:H:106:MET:HB2 | 1.87 | 0.57 |
| 7:H:117:ALA:HB1 | 7:H:136:PHE:CD2 | 2.40 | 0.57 |
| 7:H:120:LEU:HD12 | 7:H:124:ALA:CB | 2.34 | 0.57 |
| 8:O:178:GLN:HB2 | 8:O:252:LYS:HD3 | 1.86 | 0.57 |
| 8:O:398:LEU:HD13 | 8:O:415:LEU:CD2 | 2.33 | 0.57 |
| 8:O:460:LYS:O | 8:O:463:GLN:HB2 | 2.04 | 0.57 |
| 8:O:461:LEU:O | 8:O:464:ALA:N | 2.32 | 0.57 |
| 8:O:484:ALA:N | 8:O:507:PHE:HE2 | 2.01 | 0.57 |
| 8:O:567:ASN:CG | 11:R:23:GLU:HG2 | 2.23 | 0.57 |
| 13:G:98:HIS:O | 13:G:101:ILE:HG12 | 2.04 | 0.57 |
| 13:G:108:MET:HG3 | 13:G:110:CYS:N | 2.19 | 0.57 |
| 1:A:268:ALA:O | 1:A:273:GLU:N | 2.37 | 0.57 |
| 1:A:294:LEU:CD1 | 1:A:393:TYR:HB3 | 2.35 | 0.57 |
| 2:B:18:LEU:CD2 | 8:O:648:ARG:CZ | 2.83 | 0.57 |
| 3:C:182:LEU:HB3 | 3:C:219:ILE:CG2 | 2.34 | 0.57 |
| 4:D:6:ARG:HG2 | 4:D:47:ALA:HB2 | 1.85 | 0.57 |
| 4:D:52:MET:HB2 | 4:D:66:LEU:HD21 | 1.86 | 0.57 |
| 4:D:236:ALA:C | 4:D:242:ARG:HD2 | 2.25 | 0.57 |
| 5:E:32:ASP:HB3 | 5:E:35:GLN:HB3 | 1.87 | 0.57 |
| 5:E:315:ILE:HG21 | 7:H:204:VAL:CG2 | 2.33 | 0.57 |
| 6:F:155:ASN:O | 6:F:158:THR:HG22 | 2.05 | 0.57 |
| 8:O:567:ASN:CA | 11:R:23:GLU:CD | 2.73 | 0.57 |
| 9:P:11:LYS:NZ | 9:P:91:GLU:OE2 | 2.30 | 0.57 |
| 9:P:48:ASP:OD1 | 9:P:88:LEU:HD13 | 2.04 | 0.57 |
| 12:V:73:GLN:N | 12:V:140:LEU:C | 2.57 | 0.57 |
| 12:V:180:ILE:HB | 12:V:184:LEU:CB | 2.34 | 0.57 |
| 1:A:291:LEU:HD12 | 1:A:294:LEU:CB | 2.34 | 0.57 |
| 1:A:456:HIS:O | 1:A:458:LYS:NZ | 2.21 | 0.57 |
| 2:B:75:MET:O | 2:B:79:ASN:ND2 | 2.37 | 0.57 |
| 2:B:80:PHE:HB3 | 2:B:85:PHE:HE1 | 1.68 | 0.57 |
| 2:B:359:LEU:HD21 | 2:B:378:LEU:HD22 | 1.86 | 0.57 |
| 2:B:367:THR:O | 2:B:411:LEU:N | 2.35 | 0.57 |
| 3:C:112:VAL:HG21 | 3:C:147:GLN:NE2 | 2.19 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 3:C:214:MET:HA | 3:C:248:ILE:CG2 | 2.33 | 0.57 |
| 3:C:214:MET:CA | 3:C:248:ILE:HG12 | 2.34 | 0.57 |
| 4:D:72:HIS:O | 4:D:76:LEU:HG | 2.05 | 0.57 |
| 4:D:212:SER:HA | 4:D:222:ARG:CB | 2.35 | 0.57 |
| 4:D:306:GLU:HA | 4:D:328:LEU:CD1 | 2.35 | 0.57 |
| 5:E:35:GLN:HE21 | 5:E:39:ILE:HD12 | 1.69 | 0.57 |
| 5:E:86:ASP:HB2 | 5:E:91:ILE:HD11 | 1.86 | 0.57 |
| 6:F:131:PRO:N | 6:F:153:LYS:HE3 | 2.20 | 0.57 |
| 8:O:55:GLU:HB3 | 8:O:136:LEU:HD11 | 1.85 | 0.57 |
| 8:O:58:TYR:OH | 8:O:142:LEU:HB2 | 2.05 | 0.57 |
| 8:O:594:VAL:HA | 8:O:598:GLU:OE1 | 2.04 | 0.57 |
| 8:O:697:ASN:HA | 8:O:718:ILE:HD11 | 1.87 | 0.57 |
| 9:P:100:PRO:HD3 | 10:Q:85:GLU:CA | 2.25 | 0.57 |
| 12:V:86:PRO:O | 12:V:98:TYR:N | 2.38 | 0.57 |
| 13:G:36:GLU:HA | 13:G:95:LYS:NZ | 2.20 | 0.57 |
| 13:G:75:TYR:HE2 | 13:G:120:LEU:O | 1.87 | 0.57 |
| 13:G:125:LEU:HD12 | 13:G:129:GLU:OE1 | 2.04 | 0.57 |
| 1:A:199:ARG:HA | 1:A:202:ASP:OD2 | 2.05 | 0.57 |
| 1:A:444:ILE:CG2 | 3:C:313:THR:HG22 | 2.34 | 0.57 |
| 2:B:23:ASP:N | 8:O:652:LYS:HZ2 | 2.02 | 0.57 |
| 2:B:218:TYR:HA | 2:B:221:SER:HB3 | 1.87 | 0.57 |
| 2:B:221:SER:HA | 2:B:224:ILE:CD1 | 2.35 | 0.57 |
| 2:B:274:THR:O | 2:B:277:LEU:HG | 2.04 | 0.57 |
| 2:B:365:PRO:CG | 4:D:344:THR:HG22 | 2.34 | 0.57 |
| 3:C:43:ASP:OD1 | 3:C:62:LEU:HD11 | 2.04 | 0.57 |
| 3:C:91:GLU:OE2 | 3:C:94:ARG:NH2 | 2.26 | 0.57 |
| 3:C:341:MET:CA | 3:C:346:GLU:HB2 | 2.33 | 0.57 |
| 4:D:89:LEU:HD12 | 4:D:110:LEU:CD2 | 2.34 | 0.57 |
| 4:D:192:ALA:HB1 | 4:D:208:TYR:CZ | 2.40 | 0.57 |
| 5:E:60:LEU:CD1 | 5:E:63:LEU:HD12 | 2.35 | 0.57 |
| 5:E:272:LYS:O | 5:E:303:ALA:HB2 | 2.05 | 0.57 |
| 6:F:309:PHE:CD2 | 6:F:314:ASP:HB2 | 2.39 | 0.57 |
| 7:H:54:ARG:O | 7:H:58:LYS:HG2 | 2.04 | 0.57 |
| 8:O:563:GLU:CG | 11:R:27:TRP:CB | 2.47 | 0.57 |
| 8:O:618:LEU:HB3 | 8:O:628:GLU:OE2 | 2.05 | 0.57 |
| 9:P:11:LYS:HG2 | 9:P:91:GLU:OE2 | 2.05 | 0.57 |
| 11:R:41:ASN:HA | 11:R:49:ILE:HB | 1.87 | 0.57 |
| 13:G:99:LEU:HD22 | 13:G:160:ARG:CD | 2.35 | 0.57 |
| 1:A:142:THR:HG21 | 1:A:160:PRO:HD3 | 1.86 | 0.57 |
| 1:A:272:GLY:C | 1:A:277:GLN:HB2 | 2.24 | 0.57 |
| 2:B:285:MET:HG3 | 2:B:350:LEU:HD11 | 1.87 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 2:B:368:ARG:CD | 4:D:353:ASP:CG | 2.72 | 0.57 |
| 2:B:427:TRP:CD1 | 5:E:270:SER:CB | 2.88 | 0.57 |
| 3:C:97:THR:C | 3:C:175:ALA:HB2 | 2.25 | 0.57 |
| 4:D:41:GLN:NE2 | 4:D:76:LEU:HD22 | 2.20 | 0.57 |
| 4:D:169:ASN:O | 4:D:173:LEU:HG | 2.05 | 0.57 |
| 4:D:265:GLU:O | 4:D:271:ARG:NH2 | 2.33 | 0.57 |
| 4:D:320:THR:CA | 4:D:358:ILE:HG12 | 2.35 | 0.57 |
| 5:E:75:LEU:HD22 | 5:E:101:GLU:CG | 2.29 | 0.57 |
| 5:E:77:VAL:CB | 5:E:98:LEU:H | 2.17 | 0.57 |
| 5:E:172:PRO:O | 5:E:176:ILE:HG13 | 2.05 | 0.57 |
| 5:E:233:LEU:HD23 | 6:F:52:SER:HB2 | 1.85 | 0.57 |
| 6:F:69:ILE:HG23 | 6:F:124:TRP:HB2 | 1.86 | 0.57 |
| 8:O:17:LEU:HD22 | 8:O:57:LEU:CD1 | 2.35 | 0.57 |
| 8:O:54:GLY:C | 8:O:136:LEU:HD21 | 2.25 | 0.57 |
| 8:O:308:LEU:O | 8:O:312:ILE:HD12 | 2.05 | 0.57 |
| 8:O:318:HIS:HE1 | 8:O:349:LYS:HE2 | 1.69 | 0.57 |
| 8:O:394:TYR:O | 8:O:398:LEU:N | 2.33 | 0.57 |
| 8:O:693:VAL:HG12 | 8:O:699:LEU:CA | 2.33 | 0.57 |
| 8:O:696:HIS:HB3 | 8:O:739:ASP:OD1 | 2.05 | 0.57 |
| 8:O:700:ILE:HD12 | 8:O:718:ILE:CA | 2.35 | 0.57 |
| 13:G:49:LEU:O | 13:G:52:VAL:HG22 | 2.05 | 0.57 |
| 13:G:75:TYR:CA | 13:G:96:LEU:HD22 | 2.34 | 0.57 |
| 1:A:301:GLN:O | 1:A:304:LYS:HB3 | 2.05 | 0.57 |
| 2:B:46:ASP:CB | 2:B:48:LYS:HE2 | 2.33 | 0.57 |
| 2:B:101:SER:O | 2:B:103:VAL:HG23 | 2.05 | 0.57 |
| 2:B:372:PRO:HD3 | 2:B:407:GLN:O | 2.04 | 0.57 |
| 2:B:427:TRP:CD1 | 5:E:270:SER:HB2 | 2.40 | 0.57 |
| 3:C:134:ASN:HB2 | 3:C:137:GLN:NE2 | 2.20 | 0.57 |
| 3:C:198:PHE:HB3 | 3:C:230:VAL:HG22 | 1.87 | 0.57 |
| 3:C:210:THR:HB | 3:C:244:TYR:CD2 | 2.40 | 0.57 |
| 3:C:233:ILE:HG23 | 3:C:297:GLN:O | 2.04 | 0.57 |
| 3:C:320:GLN:O | 3:C:323:ALA:HB3 | 2.04 | 0.57 |
| 3:C:348:PHE:HB2 | 3:C:362:ASP:H | 1.70 | 0.57 |
| 4:D:223:LEU:HA | 4:D:226:LEU:HB3 | 1.85 | 0.57 |
| 5:E:54:TYR:HB2 | 5:E:89:THR:OG1 | 2.05 | 0.57 |
| 5:E:60:LEU:HB3 | 5:E:93:MET:O | 2.04 | 0.57 |
| 5:E:63:LEU:HA | 6:F:44:HIS:HB2 | 1.87 | 0.57 |
| 5:E:251:SER:O | 6:F:223:ALA:CB | 2.53 | 0.57 |
| 6:F:109:GLU:HA | 6:F:112:PHE:CZ | 2.40 | 0.57 |
| 8:O:211:PHE:HZ | 8:O:259:TYR:HB3 | 1.70 | 0.57 |
| 12:V:146:PRO:CA | 12:V:147:ILE:HG13 | 2.35 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:A:433:VAL:HG13 | 1:A:436:LEU:HG | 1.86 | 0.56 |
| 2:B:5:GLU:O | 2:B:9:MET:CB | 2.53 | 0.56 |
| 2:B:86:PRO:HA | 2:B:89:MET:CB | 2.34 | 0.56 |
| 3:C:225:LYS:O | 3:C:229:LEU:HG | 2.05 | 0.56 |
| 3:C:232:LEU:HD21 | 3:C:238:VAL:CG2 | 2.34 | 0.56 |
| 3:C:279:VAL:HG21 | 3:C:295:VAL:CG2 | 2.35 | 0.56 |
| 3:C:332:GLN:HA | 3:C:335:GLU:CG | 2.31 | 0.56 |
| 4:D:337:LYS:HG2 | 4:D:338:ILE:HD13 | 1.85 | 0.56 |
| 5:E:248:ASN:HB2 | 6:F:222:ILE:CD1 | 2.35 | 0.56 |
| 8:O:441:LYS:O | 8:O:445:HIS:N | 2.35 | 0.56 |
| 8:O:505:ILE:C | 11:R:28:ASN:N | 2.55 | 0.56 |
| 8:O:660:ASP:CA | 8:O:663:GLN:HB3 | 2.34 | 0.56 |
| 13:G:141:ILE:HG22 | 13:G:142:GLN:N | 2.20 | 0.56 |
| 13:G:144:LYS:HG3 | 13:G:145:LEU:H | 1.69 | 0.56 |
| 1:A:215:SER:HA | 1:A:218:LEU:HB3 | 1.87 | 0.56 |
| 1:A:246:VAL:HG12 | 1:A:319:LEU:CD2 | 2.25 | 0.56 |
| 1:A:399:ARG:HA | 1:A:402:TYR:CD2 | 2.39 | 0.56 |
| 1:A:421:ASP:HB3 | 1:A:424:ARG:HB3 | 1.87 | 0.56 |
| 2:B:241:GLY:HA2 | 2:B:244:MET:HB3 | 1.88 | 0.56 |
| 2:B:306:PRO:O | 2:B:309:LEU:HG | 2.05 | 0.56 |
| 2:B:329:ILE:HG22 | 2:B:333:ASN:HD21 | 1.70 | 0.56 |
| 3:C:77:LEU:HA | 3:C:80:GLN:CB | 2.33 | 0.56 |
| 3:C:323:ALA:HA | 3:C:328:LEU:CB | 2.31 | 0.56 |
| 4:D:148:TYR:HB3 | 4:D:170:ARG:NH1 | 2.20 | 0.56 |
| 4:D:235:LEU:HD11 | 4:D:285:LEU:CD2 | 2.35 | 0.56 |
| 4:D:338:ILE:O | 4:D:341:GLN:HB2 | 2.05 | 0.56 |
| 5:E:89:THR:HG22 | 5:E:90:MET:O | 2.05 | 0.56 |
| 6:F:290:ALA:O | 6:F:294:THR:HG23 | 2.06 | 0.56 |
| 8:O:81:GLU:HA | 8:O:84:LEU:CB | 2.32 | 0.56 |
| 8:O:385:CYS:O | 8:O:388:PRO:HD2 | 2.05 | 0.56 |
| 8:O:621:LYS:CB | 8:O:643:ASN:HB3 | 2.35 | 0.56 |
| 8:O:688:MET:CG | 8:O:731:ILE:HB | 2.35 | 0.56 |
| 9:P:37:ARG:HB3 | 9:P:42:GLN:NE2 | 2.19 | 0.56 |
| 9:P:68:ARG:HB2 | 9:P:69:PRO:HD2 | 1.88 | 0.56 |
| 12:V:60:ARG:CZ | 12:V:64:ARG:HB2 | 2.35 | 0.56 |
| 12:V:171:LYS:O | 12:V:175:TYR:N | 2.37 | 0.56 |
| 1:A:108:PRO:HA | 1:A:111:ARG:HB3 | 1.86 | 0.56 |
| 1:A:126:PHE:HB2 | 1:A:210:ASP:O | 2.05 | 0.56 |
| 1:A:389:LEU:O | 1:A:395:ALA:HB2 | 2.04 | 0.56 |
| 1:A:486:ALA:HB1 | 3:C:386:LEU:CD1 | 2.34 | 0.56 |
| 2:B:21:SER:OG | 8:O:652:LYS:CE | 2.54 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:21:SER:CB | 8:O:652:LYS:HE2 | 2.35 | 0.56 |
| 2:B:28:PRO:CD | 2:B:29:ASN:N | 2.66 | 0.56 |
| 2:B:105:ARG:NH2 | 8:O:451:MET:HE1 | 2.14 | 0.56 |
| 2:B:115:ILE:HG22 | 2:B:119:ILE:HD12 | 1.88 | 0.56 |
| 2:B:130:GLU:HA | 2:B:133:GLU:HG3 | 1.86 | 0.56 |
| 2:B:292:ASN:HA | 2:B:295:ASP:OD2 | 2.06 | 0.56 |
| 2:B:305:ASP:OD1 | 2:B:306:PRO:HD2 | 2.05 | 0.56 |
| 2:B:346:HIS:ND1 | 2:B:349:GLU:OE1 | 2.30 | 0.56 |
| 3:C:75:GLU:C | 3:C:78:PHE:HB3 | 2.26 | 0.56 |
| 3:C:137:GLN:HB3 | 3:C:169:ILE:HA | 1.88 | 0.56 |
| 3:C:392:ALA:O | 3:C:395:GLN:HB3 | 2.06 | 0.56 |
| 4:D:52:MET:SD | 4:D:62:SER:HA | 2.45 | 0.56 |
| 4:D:114:TYR:CE2 | 4:D:126:VAL:HG21 | 2.39 | 0.56 |
| 4:D:260:ALA:O | 4:D:264:LEU:N | 2.31 | 0.56 |
| 4:D:260:ALA:HB2 | 4:D:284:MET:HE1 | 1.87 | 0.56 |
| 4:D:275:GLY:O | 4:D:278:LEU:HB3 | 2.05 | 0.56 |
| 5:E:25:ILE:CD1 | 5:E:232:SER:HB3 | 2.34 | 0.56 |
| 5:E:76:GLU:CB | 5:E:103:THR:HB | 2.32 | 0.56 |
| 5:E:82:LEU:HG | 5:E:117:MET:SD | 2.45 | 0.56 |
| 5:E:123:ASN:HB2 | 6:F:111:GLN:NE2 | 2.20 | 0.56 |
| 5:E:129:ARG:NH2 | 6:F:88:GLU:HB2 | 2.19 | 0.56 |
| 5:E:200:PRO:HD2 | 5:E:222:TYR:CB | 2.36 | 0.56 |
| 5:E:248:ASN:HA | 6:F:222:ILE:O | 2.05 | 0.56 |
| 5:E:250:LEU:N | 6:F:225:HIS:CG | 2.74 | 0.56 |
| 5:E:299:LYS:HG2 | 5:E:302:LYS:CD | 2.33 | 0.56 |
| 5:E:327:LEU:HA | 5:E:331:ILE:CG1 | 2.36 | 0.56 |
| 6:F:203:VAL:HA | 6:F:206:MET:CG | 2.35 | 0.56 |
| 6:F:248:GLY:O | 6:F:250:VAL:C | 2.43 | 0.56 |
| 7:H:68:ASN:OD1 | 7:H:70:GLU:HB2 | 2.04 | 0.56 |
| 7:H:130:ALA:CB | 7:H:141:VAL:HG13 | 2.35 | 0.56 |
| 8:O:213:THR:O | 8:O:217:GLU:HG2 | 2.05 | 0.56 |
| 8:O:324:LEU:HD12 | 8:O:375:VAL:HG22 | 1.87 | 0.56 |
| 8:O:387:ALA:HB3 | 8:O:388:PRO:HD3 | 1.85 | 0.56 |
| 8:O:401:LYS:HG2 | 8:O:449:MET:HA | 1.86 | 0.56 |
| 8:O:409:ASN:HA | 8:O:412:GLU:CB | 2.31 | 0.56 |
| 8:O:505:ILE:HG22 | 11:R:27:TRP:CG | 2.40 | 0.56 |
| 8:O:512:LEU:CA | 11:R:32:LEU:HB3 | 2.35 | 0.56 |
| 8:O:517:TRP:HE3 | 8:O:518:PRO:HD2 | 1.70 | 0.56 |
| 8:O:588:PHE:CZ | 8:O:599:LEU:HD22 | 2.39 | 0.56 |
| 8:O:657:MET:O | 8:O:658:GLN:C | 2.44 | 0.56 |
| 8:O:688:MET:HE3 | 8:O:730:TYR:HB3 | 1.88 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 8:O:732:GLU:HG3 | 8:O:733:ARG:N | 2.18 | 0.56 |
| 9:P:8:ARG:HH22 | 10:Q:14:LYS:CB | 2.16 | 0.56 |
| 9:P:32:GLU:HG3 | 9:P:36:LYS:HA | 1.86 | 0.56 |
| 9:P:99:LEU:HD12 | 10:Q:84:THR:OG1 | 2.04 | 0.56 |
| 13:G:69:LEU:HD22 | 13:G:85:LEU:CD1 | 2.33 | 0.56 |
| 1:A:277:GLN:CG | 1:A:280:ALA:HA | 2.31 | 0.56 |
| 1:A:316:PHE:CD2 | 1:A:320:LEU:HB3 | 2.40 | 0.56 |
| 1:A:339:ARG:HG2 | 1:A:343:GLN:NE2 | 2.16 | 0.56 |
| 2:B:145:ASP:HB3 | 2:B:146:ARG:HH11 | 1.70 | 0.56 |
| 3:C:101:ALA:HB1 | 3:C:140:SER:CB | 2.34 | 0.56 |
| 3:C:317:LEU:CD2 | 3:C:322:MET:HB2 | 2.36 | 0.56 |
| 4:D:45:LEU:HD22 | 4:D:69:PHE:HE1 | 1.71 | 0.56 |
| 4:D:224:GLU:OE2 | 4:D:228:HIS:NE2 | 2.39 | 0.56 |
| 4:D:273:ILE:HG23 | 4:D:277:GLN:CB | 2.35 | 0.56 |
| 4:D:286:MET:N | 4:D:289:GLN:HB2 | 2.21 | 0.56 |
| 5:E:56:LYS:NZ | 5:E:86:ASP:OD2 | 2.37 | 0.56 |
| 5:E:252:SER:OG | 6:F:220:HIS:O | 2.22 | 0.56 |
| 6:F:41:VAL:O | 6:F:75:LYS:HD3 | 2.06 | 0.56 |
| 6:F:124:TRP:CZ3 | 6:F:126:THR:HB | 2.41 | 0.56 |
| 7:H:34:PRO:HG3 | 7:H:64:ILE:CG2 | 2.35 | 0.56 |
| 7:H:107:GLU:HA | 7:H:110:ARG:HE | 1.68 | 0.56 |
| 8:O:73:HIS:HB2 | 8:O:150:LEU:HD11 | 1.87 | 0.56 |
| 8:O:232:CYS:CA | 8:O:235:TYR:HB3 | 2.34 | 0.56 |
| 8:O:386:LYS:CA | 8:O:389:GLU:HB2 | 2.33 | 0.56 |
| 8:O:567:ASN:O | 11:R:21:ARG:CA | 2.46 | 0.56 |
| 8:O:720:LYS:HA | 8:O:723:GLU:CG | 2.34 | 0.56 |
| 9:P:4:PHE:CG | 10:Q:62:ASN:CG | 2.77 | 0.56 |
| 9:P:20:GLU:HA | 9:P:57:LEU:CB | 2.35 | 0.56 |
| 9:P:69:PRO:HB3 | 10:Q:66:LYS:HG3 | 1.87 | 0.56 |
| 12:V:117:TRP:HB2 | 12:V:136:PHE:O | 2.06 | 0.56 |
| 12:V:184:LEU:HD23 | 12:V:187:ASP:OD2 | 2.06 | 0.56 |
| 13:G:112:PRO:HA | 13:G:150:GLN:O | 2.06 | 0.56 |
| 1:A:202:ASP:HA | 1:A:221:TYR:CZ | 2.41 | 0.56 |
| 1:A:214:LEU:HD23 | 1:A:214:LEU:H | 1.70 | 0.56 |
| 1:A:340:GLN:HA | 1:A:343:GLN:OE1 | 2.05 | 0.56 |
| 1:A:454:ASP:HB2 | 3:C:315:LEU:HD23 | 1.86 | 0.56 |
| 2:B:277:LEU:O | 2:B:281:VAL:HG23 | 2.05 | 0.56 |
| 2:B:280:LEU:HG | 2:B:284:ASN:HD21 | 1.71 | 0.56 |
| 2:B:322:ASP:HB3 | 2:B:325:GLU:HG2 | 1.86 | 0.56 |
| 3:C:28:ILE:HG12 | 3:C:31:SER:HB2 | 1.87 | 0.56 |
| 3:C:283:SER:HA | 3:C:286:PHE:HB2 | 1.86 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:E:81:MET:HE3 | 5:E:136:TRP:H | 1.70 | 0.56 |
| 5:E:269:LEU:CD1 | 5:E:272:LYS:HD2 | 2.35 | 0.56 |
| 7:H:117:ALA:CB | 7:H:136:PHE:HB3 | 2.35 | 0.56 |
| 7:H:128:ILE:HG12 | 7:H:129:ILE:O | 2.06 | 0.56 |
| 8:O:84:LEU:HG | 8:O:159:LEU:HD12 | 1.87 | 0.56 |
| 8:O:131:ASP:HB2 | 8:O:135:PRO:CB | 2.34 | 0.56 |
| 8:O:168:LYS:HB3 | 8:O:171:ARG:HH12 | 1.70 | 0.56 |
| 8:O:485:ASP:HA | 8:O:488:ASN:ND2 | 2.20 | 0.56 |
| 8:O:528:ALA:C | 8:O:529:ILE:C | 2.64 | 0.56 |
| 8:O:727:ASP:N | 11:R:45:CYS:CA | 2.55 | 0.56 |
| 9:P:33:GLY:O | 9:P:36:LYS:NZ | 2.24 | 0.56 |
| 13:G:138:THR:O | 13:G:139:ASP:HB2 | 2.06 | 0.56 |
| 1:A:294:LEU:O | 1:A:299:TYR:OH | 2.23 | 0.56 |
| 1:A:360:PRO:O | 1:A:363:ARG:HB3 | 2.06 | 0.56 |
| 2:B:20:TYR:C | 8:O:652:LYS:HG2 | 2.22 | 0.56 |
| 2:B:172:LEU:HD22 | 2:B:197:ILE:CD1 | 2.35 | 0.56 |
| 2:B:274:THR:HA | 2:B:277:LEU:HD21 | 1.86 | 0.56 |
| 2:B:333:ASN:HB3 | 2:B:337:ILE:CB | 2.34 | 0.56 |
| 4:D:105:SER:HA | 4:D:108:GLN:HB2 | 1.86 | 0.56 |
| 5:E:224:LEU:O | 5:E:226:VAL:HG23 | 2.05 | 0.56 |
| 5:E:255:LEU:HG | 5:E:317:GLY:O | 2.06 | 0.56 |
| 6:F:181:MET:O | 6:F:182:LEU:HD23 | 2.05 | 0.56 |
| 7:H:37:TYR:HE2 | 7:H:64:ILE:HB | 1.71 | 0.56 |
| 7:H:43:LEU:O | 7:H:47:HIS:ND1 | 2.34 | 0.56 |
| 7:H:80:ARG:HB3 | 7:H:89:ILE:CG1 | 2.25 | 0.56 |
| 7:H:201:THR:HG23 | 13:G:195:ALA:HB1 | 1.77 | 0.56 |
| 8:O:113:ILE:CA | 8:O:117:LYS:HD2 | 2.31 | 0.56 |
| 8:O:117:LYS:HD3 | 8:O:136:LEU:CD1 | 2.33 | 0.56 |
| 8:O:692:LYS:CB | 8:O:743:TYR:HB2 | 2.35 | 0.56 |
| 12:V:89:LEU:HB2 | 12:V:198:LEU:HD22 | 1.88 | 0.56 |
| 1:A:100:LEU:HD13 | 1:A:118:ALA:N | 2.19 | 0.56 |
| 1:A:164:THR:HA | 1:A:167:VAL:HB | 1.86 | 0.56 |
| 1:A:225:ARG:HG3 | 1:A:237:MET:CE | 2.35 | 0.56 |
| 1:A:281:ILE:O | 1:A:285:LEU:HG | 2.05 | 0.56 |
| 2:B:25:ASN:O | 2:B:28:PRO:HD3 | 1.94 | 0.56 |
| 2:B:172:LEU:O | 2:B:176:HIS:ND1 | 2.38 | 0.56 |
| 2:B:373:PHE:CD2 | 4:D:354:GLN:NE2 | 2.74 | 0.56 |
| 2:B:431:LEU:O | 2:B:434:LEU:HB3 | 2.06 | 0.56 |
| 3:C:171:LYS:HB2 | 3:C:176:TYR:CD2 | 2.41 | 0.56 |
| 3:C:342:ILE:CD1 | 3:C:351:ILE:HG13 | 2.36 | 0.56 |
| 4:D:217:VAL:HG13 | 4:D:221:GLU:OE1 | 2.05 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:E:80:LEU:HD21 | 5:E:133:ALA:CB | 2.36 | 0.56 |
| 5:E:82:LEU:N | 5:E:94:ASP:HB3 | 2.18 | 0.56 |
| 5:E:125:LYS:HB3 | 5:E:130:LEU:HD23 | 1.85 | 0.56 |
| 5:E:194:LYS:HG3 | 5:E:195:PRO:HD2 | 1.88 | 0.56 |
| 5:E:279:GLN:CD | 5:E:298:ASP:CB | 2.58 | 0.56 |
| 6:F:307:ASN:O | 6:F:311:VAL:HG23 | 2.06 | 0.56 |
| 8:O:71:HIS:O | 8:O:74:LYS:HB2 | 2.06 | 0.56 |
| 8:O:178:GLN:HB2 | 8:O:252:LYS:HB3 | 1.87 | 0.56 |
| 8:O:508:GLN:CB | 11:R:30:VAL:HG22 | 2.35 | 0.56 |
| 8:O:577:VAL:HG12 | 8:O:653:ILE:CD1 | 2.35 | 0.56 |
| 8:O:620:VAL:CG1 | 8:O:644:PHE:HA | 2.36 | 0.56 |
| 8:O:626:ASP:HB2 | 8:O:636:SER:CB | 2.35 | 0.56 |
| 12:V:78:ASN:HB2 | 12:V:101:LEU:HD13 | 1.87 | 0.56 |
| 12:V:193:ASN:H | 12:V:196:LYS:HD2 | 1.71 | 0.56 |
| 1:A:97:ILE:HG13 | 1:A:121:PHE:HD2 | 1.70 | 0.56 |
| 1:A:371:GLU:HB3 | 1:A:373:LYS:HG3 | 1.88 | 0.56 |
| 1:A:483:GLN:CG | 3:C:382:LYS:HD2 | 2.35 | 0.56 |
| 1:A:488:ALA:HB2 | 3:C:203:TYR:HE1 | 1.70 | 0.56 |
| 1:A:492:ARG:NH1 | 3:C:212:PRO:HD3 | 2.20 | 0.56 |
| 2:B:24:SER:OG | 8:O:652:LYS:NZ | 2.38 | 0.56 |
| 2:B:157:LYS:HD2 | 2:B:160:LEU:HD11 | 1.86 | 0.56 |
| 2:B:315:VAL:O | 2:B:318:TYR:HB2 | 2.06 | 0.56 |
| 2:B:359:LEU:HD11 | 2:B:378:LEU:HD21 | 1.88 | 0.56 |
| 3:C:39:LEU:HD21 | 3:C:64:VAL:HG11 | 1.88 | 0.56 |
| 3:C:301:SER:HA | 3:C:304:LYS:CD | 2.34 | 0.56 |
| 4:D:211:LEU:HD23 | 4:D:214:LYS:HZ3 | 1.70 | 0.56 |
| 4:D:388:ILE:HG22 | 4:D:393:PRO:O | 2.05 | 0.56 |
| 5:E:35:GLN:HA | 5:E:38:GLU:OE1 | 2.05 | 0.56 |
| 5:E:124:ALA:O | 5:E:129:ARG:HB2 | 2.06 | 0.56 |
| 5:E:242:TRP:CH2 | 6:F:219:GLU:N | 2.65 | 0.56 |
| 5:E:250:LEU:HD22 | 13:G:185:LEU:HD21 | 1.85 | 0.56 |
| 6:F:43:LEU:HD22 | 6:F:84:MET:CB | 2.35 | 0.56 |
| 6:F:168:PHE:CE1 | 6:F:185:GLU:HB2 | 2.40 | 0.56 |
| 6:F:255:GLU:O | 6:F:259:GLU:HB2 | 2.06 | 0.56 |
| 7:H:194:GLU:O | 7:H:198:ALA:N | 2.38 | 0.56 |
| 8:O:103:CYS:O | 10:Q:36:PRO:HD2 | 2.02 | 0.56 |
| 8:O:522:ALA:H | 8:O:558:TYR:H | 1.52 | 0.56 |
| 8:O:608:LYS:HG3 | 8:O:630:GLU:OE1 | 2.06 | 0.56 |
| 8:O:622:MET:O | 8:O:641:ASN:N | 2.39 | 0.56 |
| 8:O:695:ARG:HD3 | 8:O:740:GLU:CG | 2.35 | 0.56 |
| 12:V:73:GLN:HB3 | 12:V:141:ASN:N | 2.21 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 13:G:138:THR:HG23 | 13:G:140:ILE:H | 1.71 | 0.56 |
| 1:A:82:LEU:HD13 | 1:A:387:ASN:OD1 | 2.06 | 0.56 |
| 1:A:268:ALA:N | 1:A:273:GLU:OE2 | 2.36 | 0.56 |
| 1:A:271:ARG:O | 1:A:275:ASP:N | 2.37 | 0.56 |
| 1:A:459:ILE:HB | 1:A:461:TYR:OH | 2.05 | 0.56 |
| 2:B:157:LYS:NZ | 2:B:196:GLU:OE2 | 2.39 | 0.56 |
| 2:B:194:LEU:CA | 2:B:197:ILE:HD12 | 2.35 | 0.56 |
| 4:D:395:TRP:HA | 4:D:398:GLN:HG2 | 1.88 | 0.56 |
| 4:D:406:GLN:O | 6:F:236:LYS:HG2 | 2.06 | 0.56 |
| 5:E:146:TRP:CH2 | 5:E:206:ILE:HD12 | 2.40 | 0.56 |
| 5:E:271:GLU:O | 5:E:275:GLN:N | 2.38 | 0.56 |
| 6:F:41:VAL:HG11 | 6:F:73:ILE:CG1 | 2.36 | 0.56 |
| 8:O:245:ASP:HA | 8:O:248:ILE:HD12 | 1.88 | 0.56 |
| 8:O:325:ARG:O | 8:O:330:LEU:HG | 2.05 | 0.56 |
| 8:O:400:LYS:HB2 | 8:O:447:LEU:HD22 | 1.88 | 0.56 |
| 8:O:437:ARG:HH22 | 8:O:519:LEU:HD23 | 1.70 | 0.56 |
| 8:O:566:MET:CA | 11:R:18:LYS:HB2 | 2.30 | 0.56 |
| 8:O:694:LEU:HD21 | 8:O:699:LEU:HD21 | 1.88 | 0.56 |
| 11:R:79:PHE:CE2 | 11:R:95:PRO:HG2 | 2.41 | 0.56 |
| 12:V:182:ARG:HA | 12:V:185:TYR:CD2 | 2.41 | 0.56 |
| 13:G:140:ILE:HD13 | 13:G:158:ILE:N | 2.21 | 0.56 |
| 2:B:37:TYR:HE2 | 2:B:60:LEU:HD12 | 1.71 | 0.56 |
| 2:B:156:GLY:HA2 | 2:B:159:TYR:HB2 | 1.88 | 0.56 |
| 2:B:212:LYS:O | 2:B:215:LYS:HB3 | 2.05 | 0.56 |
| 3:C:78:PHE:CZ | 3:C:120:GLY:HA2 | 2.41 | 0.56 |
| 3:C:94:ARG:NH1 | 3:C:131:MET:HA | 2.21 | 0.56 |
| 3:C:400:ASN:OD1 | 6:F:313:TYR:OH | 2.24 | 0.56 |
| 4:D:73:LEU:HA | 4:D:76:LEU:HD12 | 1.87 | 0.56 |
| 4:D:82:LYS:CB | 4:D:113:ILE:HG21 | 2.36 | 0.56 |
| 4:D:174:LEU:HA | 4:D:177:GLU:HB2 | 1.87 | 0.56 |
| 4:D:263:ILE:O | 4:D:267:MET:HG2 | 2.06 | 0.56 |
| 4:D:306:GLU:HA | 4:D:328:LEU:HD13 | 1.86 | 0.56 |
| 4:D:332:ALA:O | 4:D:336:GLU:HG2 | 2.04 | 0.56 |
| 5:E:245:TYR:HH | 6:F:222:ILE:CG1 | 1.84 | 0.56 |
| 6:F:90:LEU:HD23 | 6:F:101:ASP:HB3 | 1.88 | 0.56 |
| 8:O:24:VAL:HG13 | 8:O:101:MET:HG3 | 1.87 | 0.56 |
| 8:O:352:GLN:HA | 8:O:355:ASN:OD1 | 2.06 | 0.56 |
| 8:O:459:ASN:O | 8:O:463:GLN:HG3 | 2.05 | 0.56 |
| 8:O:700:ILE:HD12 | 8:O:718:ILE:HA | 1.88 | 0.56 |
| 8:O:724:VAL:HG12 | 11:R:46:ARG:NH2 | 2.21 | 0.56 |
| 12:V:89:LEU:CB | 12:V:116:LEU:HD22 | 2.35 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 13:G:70:PHE:HD1 | 13:G:99:LEU:CD1 | 2.17 | 0.56 |
| 13:G:133:ILE:HA | 13:G:136:VAL:HG22 | 1.88 | 0.56 |
| 1:A:294:LEU:HD13 | 1:A:393:TYR:HB3 | 1.88 | 0.55 |
| 2:B:17:ASP:HB3 | 2:B:64:LYS:HD3 | 1.77 | 0.55 |
| 2:B:55:GLN:O | 2:B:59:GLU:HG3 | 2.05 | 0.55 |
| 2:B:237:ILE:HG13 | 2:B:238:ARG:HD2 | 1.88 | 0.55 |
| 3:C:12:VAL:HG21 | 3:C:54:HIS:CD2 | 2.40 | 0.55 |
| 3:C:153:LYS:C | 7:H:59:ARG:HD3 | 2.27 | 0.55 |
| 3:C:230:VAL:O | 3:C:234:LEU:HB3 | 2.06 | 0.55 |
| 3:C:321:ASP:O | 3:C:325:ARG:HD3 | 2.06 | 0.55 |
| 4:D:208:TYR:HB3 | 4:D:225:ALA:C | 2.25 | 0.55 |
| 4:D:370:TRP:NE1 | 4:D:374:ILE:HD11 | 2.20 | 0.55 |
| 4:D:377:LEU:HD21 | 6:F:263:LEU:CD1 | 2.35 | 0.55 |
| 5:E:144:GLY:N | 5:E:172:PRO:HD2 | 2.21 | 0.55 |
| 5:E:312:ILE:O | 5:E:316:HIS:ND1 | 2.28 | 0.55 |
| 8:O:32:ARG:O | 8:O:35:TRP:HB2 | 2.06 | 0.55 |
| 8:O:65:LEU:HD13 | 8:O:142:LEU:CG | 2.36 | 0.55 |
| 8:O:148:ARG:O | 8:O:151:MET:HB2 | 2.05 | 0.55 |
| 8:O:377:ASN:HA | 8:O:384:VAL:HG11 | 1.88 | 0.55 |
| 8:O:563:GLU:N | 8:O:582:MET:SD | 2.73 | 0.55 |
| 8:O:614:ILE:CB | 8:O:628:GLU:HA | 2.36 | 0.55 |
| 11:R:41:ASN:CA | 11:R:49:ILE:HB | 2.36 | 0.55 |
| 12:V:60:ARG:HB3 | 12:V:91:PHE:CB | 2.35 | 0.55 |
| 12:V:113:ARG:HG3 | 12:V:139:SER:CB | 2.36 | 0.55 |
| 13:G:43:PHE:HB3 | 13:G:47:LEU:HB2 | 1.88 | 0.55 |
| 13:G:149:ASN:HB3 | 13:G:151:LEU:CG | 2.36 | 0.55 |
| 1:A:95:MET:CE | 1:A:249:GLN:HG2 | 2.36 | 0.55 |
| 1:A:104:ALA:CB | 1:A:115:LEU:HG | 2.35 | 0.55 |
| 1:A:326:ALA:HA | 1:A:352:PHE:CZ | 2.40 | 0.55 |
| 1:A:384:MET:O | 1:A:388:LEU:HG | 2.06 | 0.55 |
| 1:A:454:ASP:HB3 | 1:A:457:SER:CB | 2.36 | 0.55 |
| 2:B:80:PHE:HB2 | 2:B:118:TYR:CE2 | 2.41 | 0.55 |
| 2:B:143:LYS:HE3 | 8:O:408:GLU:CG | 2.36 | 0.55 |
| 2:B:192:THR:CB | 8:O:459:ASN:HD22 | 2.19 | 0.55 |
| 2:B:294:PHE:CE2 | 2:B:300:LYS:HG3 | 2.42 | 0.55 |
| 2:B:430:GLN:HG3 | 5:E:270:SER:OG | 2.05 | 0.55 |
| 4:D:338:ILE:HG23 | 4:D:341:GLN:OE1 | 2.07 | 0.55 |
| 5:E:65:MET:SD | 5:E:170:ILE:HD12 | 2.45 | 0.55 |
| 5:E:246:TRP:CE2 | 6:F:232:HIS:CD2 | 2.89 | 0.55 |
| 5:E:269:LEU:HD12 | 5:E:272:LYS:HD2 | 1.87 | 0.55 |
| 6:F:72:LEU:HD11 | 6:F:152:LEU:N | 2.20 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 6:F:81:ILE:CD1 | 6:F:186:LEU:HD23 | 2.36 | 0.55 |
| 6:F:307:ASN:HA | 6:F:310:ASN:ND2 | 2.21 | 0.55 |
| 7:H:86:PHE:HB3 | 7:H:135:ALA:O | 2.06 | 0.55 |
| 8:O:49:TYR:OH | 10:Q:92:LEU:CG | 2.52 | 0.55 |
| 8:O:49:TYR:O | 12:V:182:ARG:NH2 | 2.33 | 0.55 |
| 8:O:87:TYR:CZ | 8:O:150:LEU:HD22 | 2.42 | 0.55 |
| 8:O:93:GLU:HA | 8:O:96:LYS:HE3 | 1.88 | 0.55 |
| 8:O:105:TYR:HE2 | 8:O:138:GLU:HA | 1.70 | 0.55 |
| 8:O:384:VAL:O | 8:O:387:ALA:HB3 | 2.06 | 0.55 |
| 9:P:49:GLN:NE2 | 9:P:59:GLU:O | 2.39 | 0.55 |
| 9:P:51:LEU:HD23 | 9:P:55:LYS:HZ3 | 1.71 | 0.55 |
| 13:G:76:PRO:HG3 | 13:G:119:ASP:CG | 2.26 | 0.55 |
| 1:A:130:MET:HA | 1:A:133:GLU:HB3 | 1.88 | 0.55 |
| 1:A:247:TYR:CD1 | 1:A:319:LEU:HD22 | 2.41 | 0.55 |
| 1:A:336:THR:O | 1:A:408:ARG:NH2 | 2.40 | 0.55 |
| 1:A:385:LYS:HG3 | 1:A:402:TYR:HH | 1.71 | 0.55 |
| 1:A:472:PHE:HB3 | 3:C:367:TYR:HE2 | 1.71 | 0.55 |
| 2:B:76:ILE:HG23 | 2:B:88:MET:CG | 2.36 | 0.55 |
| 2:B:324:THR:HB | 2:B:328:LYS:NZ | 2.22 | 0.55 |
| 3:C:121:ILE:HG22 | 3:C:125:LYS:HD3 | 1.88 | 0.55 |
| 3:C:233:ILE:HA | 3:C:301:SER:CB | 2.31 | 0.55 |
| 4:D:148:TYR:HA | 4:D:170:ARG:NH2 | 2.21 | 0.55 |
| 5:E:249:THR:CB | 6:F:225:HIS:CD2 | 2.89 | 0.55 |
| 6:F:43:LEU:HD23 | 6:F:191:ALA:N | 2.18 | 0.55 |
| 6:F:271:SER:HA | 6:F:276:LYS:HE3 | 1.87 | 0.55 |
| 8:O:56:ARG:O | 8:O:59:THR:HB | 2.06 | 0.55 |
| 8:O:93:GLU:HA | 8:O:96:LYS:CE | 2.36 | 0.55 |
| 8:O:215:THR:HG23 | 8:O:263:ILE:HD13 | 1.86 | 0.55 |
| 8:O:535:LYS:HG3 | 8:O:538:GLN:NE2 | 2.22 | 0.55 |
| 8:O:610:LEU:HD12 | 8:O:613:THR:CB | 2.34 | 0.55 |
| 9:P:57:LEU:HA | 9:P:60:CYS:CB | 2.35 | 0.55 |
| 1:A:82:LEU:HB2 | 1:A:390:LEU:HD13 | 1.88 | 0.55 |
| 1:A:195:GLU:OE2 | 1:A:199:ARG:NH2 | 2.39 | 0.55 |
| 1:A:304:LYS:O | 1:A:308:LEU:HG | 2.07 | 0.55 |
| 1:A:439:GLU:O | 1:A:443:LEU:HG | 2.06 | 0.55 |
| 2:B:14:GLU:C | 2:B:18:LEU:CD1 | 2.72 | 0.55 |
| 2:B:155:LEU:O | 2:B:158:LEU:HB2 | 2.05 | 0.55 |
| 2:B:159:TYR:O | 2:B:163:GLU:N | 2.39 | 0.55 |
| 2:B:274:THR:HA | 2:B:277:LEU:CD2 | 2.36 | 0.55 |
| 3:C:294:LEU:HD23 | 3:C:297:GLN:NE2 | 2.21 | 0.55 |
| 4:D:34:ILE:HD13 | 4:D:72:HIS:CD2 | 2.42 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 4:D:180:ASN:O | 4:D:184:GLN:HG3 | 2.06 | 0.55 |
| 4:D:318:ASN:HA | 4:D:359:VAL:HG13 | 1.88 | 0.55 |
| 5:E:253:SER:OG | 5:E:256:LEU:HD21 | 2.06 | 0.55 |
| 5:E:331:ILE:O | 13:G:180:GLY:HA2 | 2.06 | 0.55 |
| 5:E:332:ASN:HB2 | 13:G:180:GLY:H | 1.70 | 0.55 |
| 6:F:43:LEU:HD23 | 6:F:191:ALA:HB2 | 1.89 | 0.55 |
| 6:F:43:LEU:CG | 6:F:84:MET:HB3 | 2.37 | 0.55 |
| 6:F:135:ASP:OD2 | 6:F:153:LYS:NZ | 2.36 | 0.55 |
| 6:F:291:TYR:HA | 6:F:294:THR:OG1 | 2.07 | 0.55 |
| 7:H:17:LEU:HD11 | 7:H:44:TYR:CE1 | 2.42 | 0.55 |
| 7:H:33:THR:CG2 | 7:H:35:PRO:HD2 | 2.25 | 0.55 |
| 8:O:319:ILE:HA | 8:O:350:PHE:CZ | 2.41 | 0.55 |
| 8:O:491:ASN:O | 8:O:495:LYS:CD | 2.51 | 0.55 |
| 9:P:100:PRO:HG3 | 10:Q:88:LEU:CD2 | 2.36 | 0.55 |
| 11:R:84:ILE:HD13 | 11:R:101:TRP:N | 2.21 | 0.55 |
| 12:V:89:LEU:CD2 | 12:V:93:GLY:HA2 | 2.36 | 0.55 |
| 13:G:102:VAL:HG21 | 13:G:160:ARG:CZ | 2.36 | 0.55 |
| 13:G:129:GLU:HG3 | 13:G:145:LEU:HD22 | 1.87 | 0.55 |
| 1:A:80:PRO:HA | 1:A:110:LEU:CD1 | 2.36 | 0.55 |
| 2:B:211:ASN:OD1 | 2:B:214:LEU:HD12 | 2.06 | 0.55 |
| 2:B:323:ILE:HA | 2:B:326:PHE:CE1 | 2.42 | 0.55 |
| 3:C:306:ASN:CB | 3:C:326:VAL:HA | 2.34 | 0.55 |
| 3:C:341:MET:HB3 | 3:C:347:ILE:CG2 | 2.36 | 0.55 |
| 3:C:391:LYS:HZ1 | 7:H:209:ASN:HD22 | 1.54 | 0.55 |
| 4:D:33:ALA:HA | 4:D:36:LEU:CG | 2.36 | 0.55 |
| 4:D:122:ASN:HA | 4:D:125:GLN:OE1 | 2.07 | 0.55 |
| 4:D:270:ASP:HB2 | 4:D:314:LYS:CE | 2.33 | 0.55 |
| 4:D:315:LEU:CD2 | 13:G:137:TYR:CG | 2.87 | 0.55 |
| 4:D:373:GLN:HE21 | 13:G:155:ASP:CB | 1.99 | 0.55 |
| 4:D:388:ILE:HG21 | 4:D:396:THR:CG2 | 2.35 | 0.55 |
| 5:E:246:TRP:HZ2 | 6:F:229:LYS:O | 1.80 | 0.55 |
| 5:E:333:ILE:HG13 | 6:F:267:LEU:O | 2.05 | 0.55 |
| 6:F:278:ASP:HA | 6:F:281:ASP:OD2 | 2.07 | 0.55 |
| 7:H:17:LEU:HD13 | 7:H:43:LEU:CB | 2.35 | 0.55 |
| 8:O:42:ILE:HD12 | 8:O:108:LEU:CD1 | 2.32 | 0.55 |
| 8:O:159:LEU:HD13 | 8:O:188:PHE:HZ | 1.70 | 0.55 |
| 8:O:308:LEU:HB3 | 8:O:312:ILE:CD1 | 2.37 | 0.55 |
| 8:O:460:LYS:HA | 8:O:463:GLN:CD | 2.27 | 0.55 |
| 8:O:512:LEU:O | 8:O:551:ARG:HD2 | 2.05 | 0.55 |
| 11:R:19:LYS:HG2 | 11:R:23:GLU:OE2 | 2.07 | 0.55 |
| 12:V:80:SER:CB | 12:V:153:LEU:HB2 | 2.36 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 12:V:81:PRO:CG | 12:V:153:LEU:HD22 | 2.37 | 0.55 |
| 1:A:83:ASP:OD1 | 1:A:85:GLU:HB2 | 2.07 | 0.55 |
| 1:A:138:LEU:HG | 1:A:160:PRO:CA | 2.35 | 0.55 |
| 1:A:230:SER:HB3 | 1:A:232:LYS:HE2 | 1.89 | 0.55 |
| 1:A:353:LYS:HA | 1:A:356:LEU:CG | 2.36 | 0.55 |
| 1:A:387:ASN:CA | 1:A:390:LEU:HB2 | 2.35 | 0.55 |
| 1:A:441:THR:O | 1:A:445:LEU:HG | 2.06 | 0.55 |
| 2:B:305:ASP:HB3 | 2:B:308:ILE:HG13 | 1.88 | 0.55 |
| 2:B:314:LEU:HD22 | 2:B:326:PHE:CB | 2.37 | 0.55 |
| 2:B:409:LEU:HG | 2:B:410:GLU:O | 2.06 | 0.55 |
| 3:C:222:GLU:HA | 3:C:225:LYS:HD2 | 1.89 | 0.55 |
| 3:C:309:ARG:HA | 3:C:312:LYS:NZ | 2.21 | 0.55 |
| 3:C:328:LEU:HD13 | 3:C:334:ALA:HB1 | 1.88 | 0.55 |
| 3:C:352:ASN:HD22 | 3:C:357:MET:HB2 | 1.71 | 0.55 |
| 3:C:378:GLN:HA | 3:C:381:LEU:HD12 | 1.88 | 0.55 |
| 4:D:127:LEU:HA | 4:D:130:ILE:CD1 | 2.36 | 0.55 |
| 4:D:306:GLU:OE2 | 4:D:338:ILE:HB | 2.06 | 0.55 |
| 5:E:246:TRP:CH2 | 6:F:232:HIS:N | 2.50 | 0.55 |
| 5:E:321:GLN:HB2 | 6:F:282:GLN:HE22 | 1.72 | 0.55 |
| 8:O:105:TYR:CE2 | 8:O:138:GLU:HA | 2.41 | 0.55 |
| 8:O:344:LEU:HD21 | 8:O:418:PHE:CE1 | 2.41 | 0.55 |
| 8:O:505:ILE:HG21 | 8:O:533:LEU:HD21 | 1.88 | 0.55 |
| 8:O:527:PHE:CG | 8:O:529:ILE:HD12 | 2.41 | 0.55 |
| 8:O:643:ASN:OD1 | 8:O:644:PHE:N | 2.39 | 0.55 |
| 8:O:688:MET:CE | 8:O:725:LEU:CG | 2.83 | 0.55 |
| 8:O:696:HIS:HB3 | 8:O:739:ASP:CG | 2.27 | 0.55 |
| 9:P:78:ALA:HB1 | 9:P:86:GLU:HB3 | 1.88 | 0.55 |
| 12:V:145:GLN:HB2 | 12:V:146:PRO:HD2 | 1.89 | 0.55 |
| 13:G:129:GLU:CA | 13:G:132:ILE:HG13 | 2.36 | 0.55 |
| 1:A:125:THR:HG22 | 1:A:209:LEU:HD21 | 1.88 | 0.55 |
| 2:B:10:CYS:N | 2:B:70:LYS:HE2 | 2.21 | 0.55 |
| 2:B:150:LYS:HD3 | 2:B:154:LYS:HZ2 | 1.71 | 0.55 |
| 2:B:297:GLN:CD | 11:R:70:VAL:CG1 | 2.42 | 0.55 |
| 2:B:325:GLU:O | 2:B:329:ILE:HD12 | 2.07 | 0.55 |
| 2:B:399:HIS:H | 2:B:411:LEU:HD12 | 1.72 | 0.55 |
| 3:C:138:LEU:HB3 | 3:C:169:ILE:CG2 | 2.36 | 0.55 |
| 3:C:186:TYR:O | 3:C:190:MET:HG3 | 2.07 | 0.55 |
| 4:D:262:GLY:O | 4:D:265:GLU:HB3 | 2.06 | 0.55 |
| 4:D:285:LEU:HB3 | 4:D:289:GLN:O | 2.07 | 0.55 |
| 5:E:147:LEU:CD2 | 5:E:151:ASP:HB3 | 2.36 | 0.55 |
| 5:E:246:TRP:HA | 6:F:219:GLU:HB3 | 1.89 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 6:F:306:VAL:O | 6:F:309:PHE:HB3 | 2.07 | 0.55 |
| 8:O:130:VAL:HA | 8:O:137:MET:SD | 2.47 | 0.55 |
| 8:O:169:ASN:HB3 | 8:O:173:GLY:HA3 | 1.88 | 0.55 |
| 8:O:189:VAL:O | 8:O:192:GLU:HG2 | 2.07 | 0.55 |
| 8:O:286:ILE:HD11 | 8:O:315:LEU:HD22 | 1.89 | 0.55 |
| 8:O:568:TYR:O | 11:R:20:LYS:CB | 2.50 | 0.55 |
| 9:P:15:PHE:CZ | 10:Q:55:GLU:HA | 2.42 | 0.55 |
| 12:V:82:ARG:HG2 | 12:V:123:GLY:HA3 | 1.88 | 0.55 |
| 12:V:205:ARG:CZ | 12:V:206:ILE:HD11 | 2.36 | 0.55 |
| 13:G:34:VAL:CG1 | 13:G:43:PHE:HZ | 2.15 | 0.55 |
| 1:A:138:LEU:CD2 | 1:A:162:LEU:HB2 | 2.37 | 0.55 |
| 1:A:387:ASN:HA | 1:A:390:LEU:CB | 2.34 | 0.55 |
| 1:A:421:ASP:CA | 1:A:459:ILE:HG23 | 2.32 | 0.55 |
| 1:A:466:ASP:OD2 | 1:A:469:SER:HB2 | 2.07 | 0.55 |
| 2:B:18:LEU:HD22 | 8:O:648:ARG:NE | 2.21 | 0.55 |
| 2:B:63:GLU:HA | 2:B:69:PHE:CE2 | 2.41 | 0.55 |
| 2:B:116:LEU:HD23 | 2:B:128:LEU:CD1 | 2.27 | 0.55 |
| 2:B:295:ASP:OD1 | 2:B:300:LYS:HD2 | 2.07 | 0.55 |
| 3:C:74:PHE:HB2 | 3:C:111:LEU:CD2 | 2.37 | 0.55 |
| 3:C:286:PHE:HB3 | 3:C:292:MET:CE | 2.37 | 0.55 |
| 4:D:252:ASP:OD1 | 4:D:253:GLU:N | 2.39 | 0.55 |
| 4:D:385:LEU:HD21 | 6:F:237:LEU:CD1 | 2.37 | 0.55 |
| 5:E:119:ALA:O | 5:E:122:GLU:HB3 | 2.07 | 0.55 |
| 5:E:332:ASN:ND2 | 13:G:180:GLY:H | 1.99 | 0.55 |
| 6:F:54:HIS:CD2 | 6:F:58:MET:HG2 | 2.42 | 0.55 |
| 6:F:55:TRP:HD1 | 6:F:127:THR:HG1 | 1.55 | 0.55 |
| 6:F:135:ASP:HB3 | 6:F:151:PHE:CZ | 2.42 | 0.55 |
| 7:H:68:ASN:HB3 | 7:H:71:LEU:HB3 | 1.89 | 0.55 |
| 7:H:122:SER:HB3 | 7:H:153:TRP:CZ2 | 2.42 | 0.55 |
| 8:O:81:GLU:CA | 8:O:84:LEU:HB2 | 2.33 | 0.55 |
| 8:O:354:ILE:CD1 | 8:O:368:LEU:HD22 | 2.37 | 0.55 |
| 8:O:401:LYS:CG | 8:O:449:MET:HA | 2.37 | 0.55 |
| 8:O:569:LEU:O | 11:R:18:LYS:CG | 2.52 | 0.55 |
| 9:P:43:ARG:HE | 9:P:88:LEU:HB2 | 1.71 | 0.55 |
| 1:A:79:ASN:HB3 | 1:A:390:LEU:CD2 | 2.36 | 0.55 |
| 1:A:327:ILE:HG13 | 1:A:359:GLU:OE2 | 2.06 | 0.55 |
| 1:A:433:VAL:HG13 | 1:A:436:LEU:CG | 2.36 | 0.55 |
| 1:A:435:ALA:HA | 1:A:438:ASP:OD2 | 2.07 | 0.55 |
| 2:B:297:GLN:HG2 | 11:R:70:VAL:HG11 | 1.87 | 0.55 |
| 2:B:306:PRO:HA | 2:B:309:LEU:CD2 | 2.36 | 0.55 |
| 3:C:252:PHE:O | 3:C:256:LEU:HG | 2.06 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 3:C:293:GLY:O | 3:C:297:GLN:HG3 | 2.06 | 0.55 |
| 4:D:45:LEU:HD22 | 4:D:69:PHE:CE1 | 2.41 | 0.55 |
| 4:D:233:THR:HG22 | 4:D:246:LEU:CG | 2.37 | 0.55 |
| 4:D:246:LEU:HD11 | 4:D:267:MET:HE3 | 1.88 | 0.55 |
| 5:E:31:TYR:CE1 | 5:E:131:GLU:HG3 | 2.41 | 0.55 |
| 5:E:62:LEU:HD21 | 6:F:199:GLY:HA3 | 1.89 | 0.55 |
| 5:E:149:GLY:HA2 | 5:E:213:ASP:OD2 | 2.07 | 0.55 |
| 5:E:271:GLU:HA | 5:E:274:GLU:HB3 | 1.89 | 0.55 |
| 5:E:282:ARG:HA | 5:E:282:ARG:NH1 | 2.13 | 0.55 |
| 6:F:73:ILE:HG22 | 6:F:120:GLU:O | 2.07 | 0.55 |
| 7:H:73:GLY:O | 7:H:77:VAL:HG23 | 2.07 | 0.55 |
| 7:H:137:VAL:HG23 | 7:H:139:LEU:HG | 1.88 | 0.55 |
| 7:H:148:ILE:HB | 7:H:153:TRP:O | 2.07 | 0.55 |
| 8:O:4:LYS:HZ2 | 8:O:47:VAL:HG11 | 1.72 | 0.55 |
| 8:O:87:TYR:HA | 8:O:90:TYR:CD2 | 2.42 | 0.55 |
| 8:O:106:ARG:NH2 | 10:Q:27:PRO:O | 2.39 | 0.55 |
| 8:O:226:LEU:HB2 | 8:O:235:TYR:HD1 | 1.72 | 0.55 |
| 8:O:266:CYS:SG | 8:O:269:ARG:HD3 | 2.47 | 0.55 |
| 8:O:701:GLN:O | 8:O:704:ILE:HB | 2.07 | 0.55 |
| 9:P:5:LEU:CD2 | 9:P:73:ALA:HB3 | 2.37 | 0.55 |
| 9:P:17:ASP:CG | 10:Q:65:LEU:CD2 | 2.70 | 0.55 |
| 13:G:69:LEU:HD21 | 13:G:96:LEU:HD11 | 1.86 | 0.55 |
| 13:G:145:LEU:HD12 | 13:G:145:LEU:H | 1.71 | 0.55 |
| 1:A:245:SER:HB3 | 1:A:254:VAL:HG21 | 1.88 | 0.55 |
| 1:A:442:GLN:OE1 | 1:A:446:GLU:HB2 | 2.07 | 0.55 |
| 2:B:76:ILE:HG22 | 2:B:80:PHE:CE1 | 2.41 | 0.55 |
| 2:B:210:ASN:CB | 2:B:213:LYS:HE2 | 2.25 | 0.55 |
| 2:B:369:ILE:HB | 2:B:374:ILE:HD11 | 1.89 | 0.55 |
| 2:B:414:GLN:HA | 2:B:416:ARG:CZ | 2.37 | 0.55 |
| 3:C:306:ASN:O | 3:C:309:ARG:HB3 | 2.06 | 0.55 |
| 3:C:337:TYR:HA | 3:C:340:HIS:CD2 | 2.42 | 0.55 |
| 4:D:181:GLU:HA | 4:D:184:GLN:CD | 2.27 | 0.55 |
| 4:D:247:ALA:HA | 4:D:268:TYR:CD1 | 2.42 | 0.55 |
| 5:E:32:ASP:O | 5:E:36:GLN:HG2 | 2.06 | 0.55 |
| 5:E:166:VAL:HG13 | 5:E:168:VAL:HG23 | 1.88 | 0.55 |
| 6:F:69:ILE:HD13 | 6:F:100:ILE:HG12 | 1.88 | 0.55 |
| 8:O:164:LEU:HD11 | 8:O:210:PRO:CB | 2.30 | 0.55 |
| 8:O:283:HIS:NE2 | 8:O:318:HIS:HB2 | 2.21 | 0.55 |
| 8:O:527:PHE:HE2 | 11:R:27:TRP:CH2 | 2.25 | 0.55 |
| 12:V:146:PRO:HA | 12:V:147:ILE:CG1 | 2.35 | 0.55 |
| 13:G:64:LEU:CD1 | 13:G:67:LEU:HD23 | 2.36 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 13:G:112:PRO:HA | 13:G:151:LEU:CD2 | 2.36 | 0.55 |
| 13:G:124:ASN:ND2 | 13:G:126:ARG:HG3 | 2.22 | 0.55 |
| 1:A:355:PHE:HA | 1:A:358:LEU:HB2 | 1.88 | 0.54 |
| 2:B:52:SER:O | 2:B:56:LYS:HD3 | 2.06 | 0.54 |
| 3:C:54:HIS:O | 3:C:57:GLY:N | 2.38 | 0.54 |
| 4:D:12:LEU:HD22 | 4:D:25:LYS:HD3 | 1.89 | 0.54 |
| 4:D:149:LEU:HD12 | 4:D:183:LEU:CD1 | 2.38 | 0.54 |
| 4:D:235:LEU:HD23 | 4:D:300:LEU:HD22 | 1.88 | 0.54 |
| 4:D:260:ALA:HB2 | 4:D:284:MET:CE | 2.38 | 0.54 |
| 4:D:362:GLU:HG2 | 4:D:364:ARG:H | 1.72 | 0.54 |
| 4:D:395:TRP:CE2 | 6:F:250:VAL:HG23 | 2.42 | 0.54 |
| 5:E:37:GLN:HG2 | 5:E:40:LEU:HD12 | 1.90 | 0.54 |
| 5:E:332:ASN:HD22 | 13:G:180:GLY:H | 1.51 | 0.54 |
| 6:F:58:MET:HG3 | 6:F:68:VAL:HG12 | 1.89 | 0.54 |
| 6:F:137:HIS:O | 6:F:141:GLN:HG3 | 2.07 | 0.54 |
| 7:H:61:PRO:O | 7:H:65:LYS:HG3 | 2.07 | 0.54 |
| 8:O:28:GLU:HA | 8:O:28:GLU:OE2 | 2.06 | 0.54 |
| 8:O:148:ARG:NH1 | 8:O:193:GLN:OE1 | 2.40 | 0.54 |
| 8:O:216:GLY:HA2 | 8:O:266:CYS:HB3 | 1.89 | 0.54 |
| 8:O:535:LYS:HA | 8:O:538:GLN:HE21 | 1.72 | 0.54 |
| 8:O:621:LYS:HB3 | 8:O:643:ASN:HB3 | 1.88 | 0.54 |
| 8:O:732:GLU:CG | 8:O:733:ARG:H | 2.20 | 0.54 |
| 8:O:733:ARG:HH22 | 11:R:96:LEU:HD22 | 1.70 | 0.54 |
| 11:R:100:GLU:CG | 11:R:102:GLU:HB3 | 2.34 | 0.54 |
| 12:V:129:LEU:HD22 | 12:V:133:THR:HA | 1.89 | 0.54 |
| 12:V:166:VAL:HG21 | 12:V:188:LEU:HD13 | 1.87 | 0.54 |
| 13:G:31:ILE:HG23 | 13:G:32:SER:N | 2.22 | 0.54 |
| 13:G:69:LEU:HA | 13:G:73:GLY:CA | 2.37 | 0.54 |
| 1:A:84:LEU:HA | 1:A:87:TYR:HB2 | 1.89 | 0.54 |
| 1:A:104:ALA:CB | 1:A:114:ALA:HB3 | 2.32 | 0.54 |
| 1:A:442:GLN:HA | 1:A:445:LEU:HD12 | 1.89 | 0.54 |
| 2:B:323:ILE:HG12 | 2:B:354:ILE:CD1 | 2.37 | 0.54 |
| 3:C:85:ILE:HG13 | 3:C:124:LEU:HG | 1.88 | 0.54 |
| 3:C:361:HIS:HB3 | 3:C:363:ASN:OD1 | 2.07 | 0.54 |
| 3:C:375:ASN:O | 3:C:379:GLU:HG2 | 2.07 | 0.54 |
| 4:D:22:LEU:O | 4:D:25:LYS:HB2 | 2.07 | 0.54 |
| 4:D:181:GLU:O | 4:D:185:ILE:HG13 | 2.07 | 0.54 |
| 5:E:64:LYS:HG2 | 5:E:68:HIS:HB2 | 1.89 | 0.54 |
| 5:E:238:LEU:HD22 | 6:F:200:VAL:HG22 | 1.89 | 0.54 |
| 5:E:255:LEU:HB2 | 5:E:321:GLN:HG3 | 1.89 | 0.54 |
| 5:E:323:ILE:HG22 | 13:G:185:LEU:CD2 | 2.38 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:H:62:PRO:HA | 7:H:65:LYS:CD | 2.35 | 0.54 |
| 7:H:77:VAL:HG22 | 7:H:92:THR:OG1 | 2.07 | 0.54 |
| 7:H:93:ILE:HG23 | 7:H:106:MET:CE | 2.36 | 0.54 |
| 7:H:133:PHE:HA | 7:H:136:PHE:CD2 | 2.42 | 0.54 |
| 8:O:562:GLY:CA | 8:O:577:VAL:HG22 | 2.36 | 0.54 |
| 8:O:563:GLU:CG | 11:R:27:TRP:HA | 2.37 | 0.54 |
| 8:O:620:VAL:HG13 | 8:O:644:PHE:HA | 1.89 | 0.54 |
| 8:O:681:GLN:HE22 | 11:R:46:ARG:HH21 | 1.55 | 0.54 |
| 8:O:696:HIS:HB3 | 8:O:739:ASP:CB | 2.36 | 0.54 |
| 10:Q:91:LEU:HD22 | 12:V:180:ILE:CB | 2.37 | 0.54 |
| 13:G:19:ALA:HB3 | 13:G:49:LEU:HD22 | 1.88 | 0.54 |
| 13:G:75:TYR:HE1 | 13:G:93:GLN:HG3 | 1.71 | 0.54 |
| 1:A:168:GLU:OE2 | 1:A:171:ARG:NH2 | 2.41 | 0.54 |
| 1:A:339:ARG:CD | 2:B:394:LEU:HD11 | 2.37 | 0.54 |
| 1:A:394:LEU:HD11 | 1:A:401:LEU:HD12 | 1.89 | 0.54 |
| 1:A:411:ILE:CG1 | 1:A:448:LEU:HD22 | 2.35 | 0.54 |
| 2:B:146:ARG:HE | 2:B:229:PRO:HD3 | 1.73 | 0.54 |
| 2:B:399:HIS:O | 2:B:411:LEU:HD13 | 2.08 | 0.54 |
| 3:C:28:ILE:HG22 | 3:C:61:VAL:HG22 | 1.90 | 0.54 |
| 3:C:253:ILE:HA | 3:C:256:LEU:HD12 | 1.89 | 0.54 |
| 3:C:274:GLU:HA | 3:C:277:ASN:ND2 | 2.21 | 0.54 |
| 3:C:317:LEU:HD21 | 3:C:325:ARG:NH1 | 2.22 | 0.54 |
| 3:C:397:ILE:HG21 | 6:F:308:LYS:C | 2.28 | 0.54 |
| 4:D:127:LEU:HB3 | 4:D:151:ILE:CD1 | 2.37 | 0.54 |
| 5:E:237:LEU:HD23 | 6:F:163:LEU:HD11 | 1.89 | 0.54 |
| 6:F:55:TRP:CZ2 | 6:F:59:ARG:HD2 | 2.42 | 0.54 |
| 7:H:20:CYS:HA | 7:H:23:GLN:CD | 2.28 | 0.54 |
| 7:H:122:SER:HB3 | 7:H:153:TRP:CH2 | 2.42 | 0.54 |
| 8:O:107:TYR:CD1 | 10:Q:32:MET:HG3 | 2.42 | 0.54 |
| 8:O:159:LEU:O | 8:O:163:LEU:HG | 2.06 | 0.54 |
| 8:O:220:LYS:HD2 | 8:O:223:ALA:HB3 | 1.89 | 0.54 |
| 8:O:393:LYS:HA | 8:O:396:ASP:OD2 | 2.06 | 0.54 |
| 8:O:622:MET:HG2 | 8:O:650:LYS:HD2 | 1.90 | 0.54 |
| 12:V:146:PRO:C | 12:V:147:ILE:CA | 2.62 | 0.54 |
| 13:G:121:GLU:HG3 | 13:G:123:ARG:HH22 | 1.73 | 0.54 |
| 13:G:167:ILE:HD12 | 13:G:167:ILE:N | 2.15 | 0.54 |
| 1:A:110:LEU:O | 1:A:114:ALA:N | 2.22 | 0.54 |
| 1:A:280:ALA:HB3 | 1:A:283:THR:OG1 | 2.07 | 0.54 |
| 1:A:300:LYS:HG3 | 1:A:337:PHE:CE1 | 2.42 | 0.54 |
| 1:A:325:VAL:HA | 1:A:328:TYR:CD2 | 2.42 | 0.54 |
| 2:B:130:GLU:HA | 2:B:133:GLU:CG | 2.37 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 2:B:277:LEU:HD12 | 2:B:278:LYS:HG2 | 1.88 | 0.54 |
| 2:B:426:LYS:HA | 2:B:429:ASN:HB2 | 1.88 | 0.54 |
| 3:C:82:GLN:HB2 | 3:C:123:ILE:HG23 | 1.89 | 0.54 |
| 3:C:299:LEU:HD12 | 3:C:302:LEU:HD23 | 1.88 | 0.54 |
| 3:C:365:GLU:OE1 | 3:C:368:ASN:N | 2.40 | 0.54 |
| 4:D:169:ASN:HA | 4:D:172:SER:OG | 2.07 | 0.54 |
| 4:D:170:ARG:HB3 | 11:R:76:ASN:HD22 | 1.72 | 0.54 |
| 4:D:245:MET:HE3 | 4:D:249:LEU:HD21 | 1.89 | 0.54 |
| 5:E:250:LEU:HB2 | 6:F:228:ILE:CG1 | 2.17 | 0.54 |
| 6:F:125:TYR:HA | 6:F:152:LEU:O | 2.08 | 0.54 |
| 7:H:98:TRP:HB3 | 7:H:102:VAL:CB | 2.35 | 0.54 |
| 8:O:312:ILE:CD1 | 8:O:363:HIS:HB3 | 2.36 | 0.54 |
| 8:O:322:GLU:HB3 | 8:O:350:PHE:CZ | 2.43 | 0.54 |
| 8:O:322:GLU:HA | 8:O:325:ARG:HE | 1.72 | 0.54 |
| 8:O:510:TYR:O | 11:R:32:LEU:HA | 2.06 | 0.54 |
| 8:O:626:ASP:CB | 8:O:636:SER:HA | 2.38 | 0.54 |
| 8:O:695:ARG:HD3 | 8:O:740:GLU:CA | 2.38 | 0.54 |
| 8:O:699:LEU:HD13 | 8:O:699:LEU:C | 2.27 | 0.54 |
| 9:P:12:THR:HA | 10:Q:15:GLU:OE1 | 2.07 | 0.54 |
| 12:V:134:GLU:HG3 | 12:V:200:ARG:CD | 2.37 | 0.54 |
| 1:A:101:GLN:NE2 | 1:A:130:MET:HB3 | 2.19 | 0.54 |
| 1:A:104:ALA:HB2 | 1:A:114:ALA:CB | 2.33 | 0.54 |
| 1:A:194:LYS:HD2 | 1:A:229:THR:CG2 | 2.38 | 0.54 |
| 1:A:254:VAL:O | 1:A:257:TYR:HB2 | 2.08 | 0.54 |
| 1:A:417:TYR:CD1 | 2:B:402:ILE:CG2 | 2.90 | 0.54 |
| 2:B:5:GLU:O | 2:B:9:MET:N | 2.35 | 0.54 |
| 2:B:195:LEU:HD23 | 2:B:228:ILE:CD1 | 2.37 | 0.54 |
| 2:B:292:ASN:HB3 | 2:B:295:ASP:HB2 | 1.89 | 0.54 |
| 2:B:392:CYS:O | 2:B:395:ASP:HB2 | 2.08 | 0.54 |
| 2:B:393:ILE:HA | 2:B:398:ILE:HD13 | 1.88 | 0.54 |
| 3:C:82:GLN:OE1 | 3:C:123:ILE:HD12 | 2.07 | 0.54 |
| 3:C:342:ILE:HG21 | 7:H:124:ALA:CA | 2.36 | 0.54 |
| 3:C:350:SER:OG | 7:H:124:ALA:O | 2.25 | 0.54 |
| 4:D:55:GLU:OE1 | 4:D:55:GLU:N | 2.39 | 0.54 |
| 4:D:87:PHE:O | 4:D:90:GLU:HB2 | 2.07 | 0.54 |
| 5:E:77:VAL:CB | 5:E:98:LEU:HB2 | 2.36 | 0.54 |
| 6:F:240:GLU:HA | 6:F:243:LYS:CE | 2.37 | 0.54 |
| 8:O:58:TYR:HB3 | 8:O:135:PRO:O | 2.07 | 0.54 |
| 8:O:523:PRO:HG2 | 8:O:580:TYR:CE2 | 2.42 | 0.54 |
| 9:P:30:ILE:CD1 | 10:Q:5:PHE:HE2 | 2.03 | 0.54 |
| 10:Q:63:TYR:CE2 | 12:V:155:VAL:HG22 | 2.42 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 12:V:118:LEU:HD23 | 12:V:118:LEU:H | 1.72 | 0.54 |
| 12:V:140:LEU:HD22 | 12:V:144:GLY:O | 2.06 | 0.54 |
| 12:V:180:ILE:HD12 | 12:V:184:LEU:O | 2.08 | 0.54 |
| 1:A:128:VAL:CA | 1:A:131:TYR:HB3 | 2.34 | 0.54 |
| 1:A:195:GLU:CG | 1:A:199:ARG:HH21 | 2.21 | 0.54 |
| 1:A:218:LEU:HD23 | 1:A:219:LYS:NZ | 2.23 | 0.54 |
| 1:A:366:ILE:O | 1:A:369:PHE:HB3 | 2.08 | 0.54 |
| 1:A:491:LEU:HD21 | 3:C:167:MET:HG2 | 1.89 | 0.54 |
| 2:B:128:LEU:HA | 2:B:131:PHE:CD2 | 2.42 | 0.54 |
| 3:C:85:ILE:HG23 | 3:C:127:ALA:H | 1.73 | 0.54 |
| 3:C:192:TYR:HD1 | 3:C:197:ASN:HB3 | 1.72 | 0.54 |
| 3:C:259:ALA:HA | 3:C:282:HIS:NE2 | 2.23 | 0.54 |
| 3:C:348:PHE:HZ | 3:C:364:PRO:HB3 | 1.73 | 0.54 |
| 3:C:353:GLN:OE1 | 7:H:128:ILE:HA | 2.07 | 0.54 |
| 4:D:365:GLU:OE2 | 13:G:153:GLU:CD | 2.46 | 0.54 |
| 5:E:68:HIS:HA | 5:E:71:SER:HG | 1.70 | 0.54 |
| 5:E:78:MET:CE | 5:E:112:ALA:HB3 | 2.38 | 0.54 |
| 5:E:79:GLY:HA3 | 5:E:113:ALA:HB3 | 1.87 | 0.54 |
| 5:E:139:SER:O | 5:E:141:PRO:HD3 | 2.08 | 0.54 |
| 5:E:253:SER:CB | 6:F:223:ALA:HB3 | 2.37 | 0.54 |
| 6:F:83:VAL:CG1 | 6:F:152:LEU:HD12 | 2.37 | 0.54 |
| 8:O:218:TYR:OH | 8:O:242:ARG:NH2 | 2.34 | 0.54 |
| 8:O:324:LEU:O | 8:O:329:ASN:N | 2.32 | 0.54 |
| 8:O:437:ARG:NH2 | 8:O:519:LEU:HD23 | 2.23 | 0.54 |
| 9:P:78:ALA:CA | 9:P:86:GLU:HB3 | 2.38 | 0.54 |
| 9:P:100:PRO:HG2 | 10:Q:84:THR:C | 2.28 | 0.54 |
| 13:G:75:TYR:HE1 | 13:G:93:GLN:CG | 2.21 | 0.54 |
| 1:A:94:LEU:H | 1:A:247:TYR:HB3 | 1.73 | 0.54 |
| 1:A:97:ILE:HG23 | 1:A:118:ALA:CB | 2.35 | 0.54 |
| 1:A:101:GLN:HA | 1:A:115:LEU:CD2 | 2.37 | 0.54 |
| 1:A:299:TYR:HA | 1:A:302:ALA:CB | 2.38 | 0.54 |
| 1:A:353:LYS:HA | 1:A:356:LEU:CD1 | 2.38 | 0.54 |
| 1:A:433:VAL:O | 1:A:437:GLU:HB3 | 2.06 | 0.54 |
| 2:B:431:LEU:HA | 2:B:434:LEU:HB3 | 1.90 | 0.54 |
| 3:C:22:THR:O | 3:C:26:GLU:HG2 | 2.08 | 0.54 |
| 3:C:278:LEU:CD1 | 3:C:281:LYS:HD3 | 2.32 | 0.54 |
| 3:C:310:LEU:HD12 | 3:C:326:VAL:HG23 | 1.88 | 0.54 |
| 3:C:364:PRO:O | 3:C:365:GLU:HG2 | 2.06 | 0.54 |
| 4:D:70:CYS:HA | 4:D:73:LEU:CG | 2.37 | 0.54 |
| 4:D:85:TYR:CD1 | 4:D:106:ILE:HG23 | 2.39 | 0.54 |
| 4:D:256:GLN:HG2 | 4:D:261:TYR:CZ | 2.42 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:D:389:SER:CB | 4:D:394:GLU:CD | 2.74 | 0.54 |
| 6:F:81:ILE:CG1 | 6:F:186:LEU:HD23 | 2.38 | 0.54 |
| 6:F:100:ILE:HG12 | 6:F:138:VAL:HG13 | 1.90 | 0.54 |
| 7:H:70:GLU:O | 7:H:74:ILE:HG13 | 2.08 | 0.54 |
| 7:H:148:ILE:CD1 | 7:H:155:ALA:HB2 | 2.38 | 0.54 |
| 8:O:281:GLU:OE1 | 8:O:284:ASN:ND2 | 2.40 | 0.54 |
| 8:O:387:ALA:O | 8:O:390:LEU:HB2 | 2.08 | 0.54 |
| 8:O:438:MET:HA | 8:O:441:LYS:CE | 2.36 | 0.54 |
| 8:O:540:PHE:CD2 | 8:O:553:LEU:HB2 | 2.42 | 0.54 |
| 8:O:612:LYS:HE2 | 8:O:657:MET:SD | 2.48 | 0.54 |
| 8:O:681:GLN:CD | 8:O:728:LYS:HZ2 | 2.10 | 0.54 |
| 8:O:693:VAL:HG22 | 8:O:694:LEU:HA | 1.88 | 0.54 |
| 9:P:16:THR:N | 10:Q:17:GLU:O | 2.17 | 0.54 |
| 9:P:30:ILE:CG1 | 10:Q:5:PHE:HE2 | 2.21 | 0.54 |
| 11:R:43:ALA:HB1 | 11:R:96:LEU:CD1 | 2.37 | 0.54 |
| 11:R:84:ILE:HA | 11:R:95:PRO:CD | 2.38 | 0.54 |
| 1:A:251:TRP:HZ3 | 1:A:288:ALA:HA | 1.72 | 0.54 |
| 1:A:258:VAL:CG1 | 1:A:285:LEU:HB3 | 2.36 | 0.54 |
| 3:C:69:PRO:HB2 | 3:C:110:ALA:CB | 2.38 | 0.54 |
| 3:C:78:PHE:CZ | 3:C:119:ARG:HG2 | 2.43 | 0.54 |
| 3:C:82:GLN:CD | 3:C:123:ILE:HG23 | 2.28 | 0.54 |
| 3:C:94:ARG:CZ | 3:C:131:MET:HA | 2.38 | 0.54 |
| 3:C:332:GLN:O | 3:C:335:GLU:HB2 | 2.08 | 0.54 |
| 3:C:395:GLN:O | 3:C:399:VAL:N | 2.38 | 0.54 |
| 4:D:351:PHE:O | 4:D:352:ILE:HG13 | 2.07 | 0.54 |
| 4:D:388:ILE:CG2 | 4:D:393:PRO:HB2 | 2.20 | 0.54 |
| 5:E:64:LYS:CG | 5:E:68:HIS:HB2 | 2.38 | 0.54 |
| 5:E:102:GLY:C | 5:E:106:ARG:HG3 | 2.28 | 0.54 |
| 5:E:127:VAL:HG12 | 6:F:90:LEU:HD13 | 1.90 | 0.54 |
| 5:E:332:ASN:HD21 | 13:G:179:ASP:CB | 2.13 | 0.54 |
| 7:H:98:TRP:HB3 | 7:H:102:VAL:CG2 | 2.38 | 0.54 |
| 8:O:26:MET:HA | 8:O:94:TYR:HA | 1.90 | 0.54 |
| 8:O:222:GLU:HG2 | 8:O:242:ARG:NE | 2.23 | 0.54 |
| 8:O:249:ARG:HG2 | 8:O:253:TYR:HE1 | 1.73 | 0.54 |
| 8:O:395:CYS:CA | 8:O:398:LEU:HD12 | 2.38 | 0.54 |
| 8:O:513:GLN:HE21 | 8:O:554:THR:HG21 | 1.72 | 0.54 |
| 8:O:561:THR:HB | 8:O:576:MET:SD | 2.48 | 0.54 |
| 8:O:568:TYR:HE1 | 11:R:22:PHE:HB2 | 1.73 | 0.54 |
| 8:O:656:SER:O | 8:O:657:MET:O | 2.25 | 0.54 |
| 8:O:657:MET:CE | 8:O:657:MET:CA | 2.86 | 0.54 |
| 9:P:97:PRO:CD | 10:Q:52:HIS:NE2 | 2.42 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 12:V:87:VAL:O | 12:V:118:LEU:HD23 | 2.07 | 0.54 |
| 12:V:126:ASP:OD1 | 12:V:167:ARG:NH1 | 2.40 | 0.54 |
| 13:G:122:MET:HE1 | 13:G:131:LEU:HD12 | 1.87 | 0.54 |
| 13:G:198:TYR:HA | 13:G:201:ASN:ND2 | 2.23 | 0.54 |
| 1:A:116:LYS:O | 1:A:119:LEU:HB3 | 2.07 | 0.54 |
| 1:A:291:LEU:HD21 | 1:A:393:TYR:CE2 | 2.42 | 0.54 |
| 1:A:403:THR:HG22 | 1:A:407:ASN:ND2 | 2.22 | 0.54 |
| 1:A:421:ASP:OD1 | 1:A:459:ILE:HG12 | 2.08 | 0.54 |
| 1:A:429:PHE:CB | 1:A:431:THR:HG22 | 2.37 | 0.54 |
| 1:A:502:VAL:HB | 3:C:213:ALA:HB1 | 1.89 | 0.54 |
| 2:B:323:ILE:HA | 2:B:326:PHE:CZ | 2.43 | 0.54 |
| 2:B:371:ILE:HD11 | 2:B:409:LEU:CB | 2.37 | 0.54 |
| 3:C:63:PHE:HZ | 3:C:107:LEU:HG | 1.72 | 0.54 |
| 3:C:232:LEU:HD12 | 3:C:263:LEU:CD2 | 2.38 | 0.54 |
| 4:D:52:MET:HB3 | 4:D:66:LEU:HD11 | 1.88 | 0.54 |
| 4:D:82:LYS:HB2 | 4:D:113:ILE:HG21 | 1.90 | 0.54 |
| 5:E:189:TYR:OH | 5:E:198:GLU:O | 2.26 | 0.54 |
| 5:E:240:LEU:CB | 6:F:163:LEU:HD13 | 2.35 | 0.54 |
| 6:F:131:PRO:CA | 6:F:153:LYS:HE3 | 2.38 | 0.54 |
| 7:H:70:GLU:HB3 | 7:H:102:VAL:CG2 | 2.38 | 0.54 |
| 7:H:74:ILE:HD11 | 7:H:102:VAL:HG22 | 1.88 | 0.54 |
| 7:H:134:ALA:HA | 7:H:139:LEU:O | 2.07 | 0.54 |
| 8:O:12:GLU:HA | 8:O:15:ASN:HD22 | 1.73 | 0.54 |
| 8:O:32:ARG:NE | 8:O:35:TRP:HE3 | 1.68 | 0.54 |
| 8:O:163:LEU:CD1 | 8:O:185:ILE:HD11 | 2.36 | 0.54 |
| 8:O:207:PHE:CD2 | 8:O:211:PHE:HB2 | 2.42 | 0.54 |
| 8:O:223:ALA:HB2 | 8:O:270:MET:HB3 | 1.89 | 0.54 |
| 8:O:488:ASN:O | 8:O:492:ASN:OD1 | 2.20 | 0.54 |
| 8:O:511:VAL:HG12 | 8:O:511:VAL:O | 2.08 | 0.54 |
| 8:O:563:GLU:HA | 8:O:565:LYS:NZ | 2.15 | 0.54 |
| 8:O:607:GLU:HB3 | 8:O:630:GLU:HB3 | 1.89 | 0.54 |
| 12:V:118:LEU:HD13 | 12:V:197:ASP:HB2 | 1.88 | 0.54 |
| 12:V:172:PRO:HA | 12:V:175:TYR:CD2 | 2.43 | 0.54 |
| 12:V:180:ILE:HB | 12:V:184:LEU:HB2 | 1.89 | 0.54 |
| 1:A:453:VAL:O | 3:C:315:LEU:N | 2.40 | 0.54 |
| 2:B:73:LYS:HA | 2:B:76:ILE:HG13 | 1.88 | 0.54 |
| 2:B:359:LEU:CD1 | 2:B:362:LEU:HD23 | 2.38 | 0.54 |
| 3:C:311:THR:HA | 3:C:360:PHE:CZ | 2.43 | 0.54 |
| 4:D:58:SER:HB3 | 4:D:61:ILE:CB | 2.38 | 0.54 |
| 4:D:140:ASN:HB3 | 4:D:143:TYR:CB | 2.38 | 0.54 |
| 4:D:170:ARG:N | 11:R:76:ASN:HB3 | 2.23 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 4:D:198:ARG:O | 4:D:200:LYS:HE3 | 2.08 | 0.54 |
| 4:D:208:TYR:CD1 | 4:D:225:ALA:HA | 2.42 | 0.54 |
| 4:D:305:ILE:HA | 4:D:309:LEU:CD1 | 2.31 | 0.54 |
| 4:D:337:LYS:O | 4:D:341:GLN:HG3 | 2.07 | 0.54 |
| 6:F:43:LEU:HD13 | 6:F:84:MET:HB3 | 1.90 | 0.54 |
| 6:F:106:TYR:HA | 6:F:109:GLU:CD | 2.28 | 0.54 |
| 6:F:245:SER:O | 6:F:252:PHE:HA | 2.08 | 0.54 |
| 8:O:148:ARG:HD3 | 8:O:202:PHE:HZ | 1.73 | 0.54 |
| 8:O:306:THR:C | 8:O:309:PRO:HD2 | 2.28 | 0.54 |
| 8:O:614:ILE:CG2 | 8:O:628:GLU:HA | 2.38 | 0.54 |
| 8:O:644:PHE:CZ | 8:O:650:LYS:HA | 2.42 | 0.54 |
| 8:O:660:ASP:HA | 8:O:663:GLN:CB | 2.38 | 0.54 |
| 12:V:119:PHE:HE2 | 12:V:149:ALA:HB1 | 1.72 | 0.54 |
| 13:G:41:TYR:HB2 | 13:G:161:ASP:OD2 | 2.07 | 0.54 |
| 13:G:49:LEU:H | 13:G:49:LEU:HD12 | 1.72 | 0.54 |
| 1:A:374:TYR:CE1 | 1:A:409:ALA:HB1 | 2.44 | 0.53 |
| 2:B:292:ASN:CA | 2:B:295:ASP:HB2 | 2.38 | 0.53 |
| 2:B:310:ALA:O | 2:B:314:LEU:HG | 2.08 | 0.53 |
| 2:B:311:MET:SD | 2:B:333:ASN:ND2 | 2.81 | 0.53 |
| 2:B:367:THR:C | 2:B:411:LEU:HB2 | 2.29 | 0.53 |
| 3:C:257:SER:OG | 3:C:261:HIS:NE2 | 2.42 | 0.53 |
| 5:E:55:CYS:CB | 5:E:226:VAL:HG22 | 2.33 | 0.53 |
| 5:E:234:ASP:CB | 6:F:49:LEU:HD22 | 2.38 | 0.53 |
| 6:F:30:VAL:O | 6:F:136:ILE:HD13 | 2.07 | 0.53 |
| 6:F:48:ILE:HD11 | 6:F:190:LEU:HD22 | 1.90 | 0.53 |
| 6:F:69:ILE:HG12 | 6:F:124:TRP:CE3 | 2.43 | 0.53 |
| 6:F:72:LEU:HD23 | 6:F:86:SER:HB3 | 1.90 | 0.53 |
| 8:O:58:TYR:HB2 | 8:O:112:PHE:CZ | 2.43 | 0.53 |
| 8:O:212:LEU:HA | 8:O:262:VAL:HG21 | 1.90 | 0.53 |
| 8:O:274:HIS:HB3 | 8:O:277:PHE:HD2 | 1.72 | 0.53 |
| 9:P:13:THR:CG2 | 10:Q:16:TYR:CD1 | 2.50 | 0.53 |
| 9:P:24:VAL:CG2 | 9:P:51:LEU:HB3 | 2.38 | 0.53 |
| 12:V:78:ASN:HA | 12:V:151:ILE:HG12 | 1.89 | 0.53 |
| 13:G:168:ASN:O | 13:G:171:VAL:HG12 | 2.07 | 0.53 |
| 1:A:128:VAL:HA | 1:A:131:TYR:CB | 2.35 | 0.53 |
| 1:A:178:LEU:HD21 | 1:A:211:CYS:SG | 2.48 | 0.53 |
| 1:A:244:VAL:HG12 | 1:A:248:LEU:CD1 | 2.38 | 0.53 |
| 1:A:252:SER:O | 1:A:255:LEU:HB2 | 2.09 | 0.53 |
| 2:B:47:PRO:HB2 | 2:B:51:LEU:CG | 2.39 | 0.53 |
| 2:B:391:GLN:O | 2:B:394:LEU:HB3 | 2.08 | 0.53 |
| 3:C:80:GLN:HA | 3:C:83:LEU:HG | 1.91 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:C:189:GLY:HA3 | 3:C:205:TYR:CE2 | 2.42 | 0.53 |
| 3:C:370:PRO:O | 3:C:373:LEU:HB3 | 2.08 | 0.53 |
| 3:C:387:ASP:HB3 | 7:H:206:PHE:HE1 | 1.73 | 0.53 |
| 4:D:73:LEU:HA | 4:D:76:LEU:CD1 | 2.37 | 0.53 |
| 4:D:169:ASN:HB2 | 11:R:75:CYS:CB | 2.38 | 0.53 |
| 5:E:28:ILE:HD13 | 5:E:229:PHE:HB3 | 1.90 | 0.53 |
| 5:E:31:TYR:CZ | 5:E:131:GLU:HA | 2.43 | 0.53 |
| 5:E:74:ASN:CA | 5:E:141:PRO:HB2 | 2.38 | 0.53 |
| 5:E:78:MET:HG3 | 5:E:98:LEU:CD1 | 2.38 | 0.53 |
| 6:F:69:ILE:O | 6:F:89:LEU:HB2 | 2.08 | 0.53 |
| 6:F:72:LEU:HD21 | 6:F:152:LEU:HB3 | 1.89 | 0.53 |
| 8:O:13:THR:HA | 8:O:16:LYS:NZ | 2.23 | 0.53 |
| 8:O:87:TYR:CE1 | 8:O:150:LEU:HD22 | 2.43 | 0.53 |
| 8:O:108:LEU:HG | 8:O:112:PHE:CD1 | 2.42 | 0.53 |
| 8:O:236:MET:HB3 | 8:O:296:ASN:HB3 | 1.89 | 0.53 |
| 8:O:535:LYS:HA | 8:O:538:GLN:NE2 | 2.22 | 0.53 |
| 8:O:567:ASN:OD1 | 11:R:23:GLU:CD | 2.46 | 0.53 |
| 8:O:712:ASN:H | 8:O:712:ASN:ND2 | 2.06 | 0.53 |
| 8:O:728:LYS:HA | 11:R:54:ILE:O | 2.08 | 0.53 |
| 9:P:26:GLU:OE2 | 9:P:30:ILE:HD11 | 2.09 | 0.53 |
| 12:V:100:THR:O | 12:V:102:PRO:HD3 | 2.08 | 0.53 |
| 13:G:9:SER:HA | 13:G:12:LEU:HD11 | 1.90 | 0.53 |
| 13:G:140:ILE:HA | 13:G:158:ILE:CB | 2.39 | 0.53 |
| 13:G:162:ILE:O | 13:G:163:ARG:HB2 | 2.08 | 0.53 |
| 1:A:78:GLU:CB | 1:A:108:PRO:HD2 | 2.34 | 0.53 |
| 1:A:84:LEU:HD23 | 1:A:87:TYR:CD2 | 2.38 | 0.53 |
| 1:A:360:PRO:HA | 1:A:363:ARG:CZ | 2.38 | 0.53 |
| 1:A:394:LEU:CD2 | 1:A:398:VAL:HG23 | 2.38 | 0.53 |
| 2:B:79:ASN:HD21 | 2:B:87:GLU:HG3 | 1.73 | 0.53 |
| 2:B:128:LEU:HD23 | 2:B:158:LEU:HD21 | 1.89 | 0.53 |
| 2:B:156:GLY:HA3 | 2:B:200:LEU:CD1 | 2.39 | 0.53 |
| 2:B:157:LYS:HA | 2:B:160:LEU:CG | 2.36 | 0.53 |
| 2:B:175:LEU:O | 2:B:178:SER:OG | 2.20 | 0.53 |
| 2:B:431:LEU:CD2 | 6:F:296:THR:HA | 2.39 | 0.53 |
| 2:B:435:ASN:OD1 | 2:B:436:GLN:HG3 | 2.08 | 0.53 |
| 3:C:250:GLY:HA2 | 3:C:254:LYS:CB | 2.37 | 0.53 |
| 3:C:398:THR:OG1 | 6:F:308:LYS:NZ | 2.27 | 0.53 |
| 4:D:80:THR:O | 4:D:84:ILE:HG13 | 2.09 | 0.53 |
| 4:D:240:GLN:H | 4:D:347:ARG:HD2 | 1.73 | 0.53 |
| 4:D:353:ASP:H | 4:D:360:HIS:CD2 | 2.27 | 0.53 |
| 5:E:124:ALA:HB1 | 5:E:129:ARG:HB2 | 1.90 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 5:E:148:SER:N | 5:E:151:ASP:HB2 | 2.23 | 0.53 |
| 5:E:250:LEU:CG | 6:F:228:ILE:HD13 | 2.22 | 0.53 |
| 5:E:279:GLN:NE2 | 5:E:295:LYS:CD | 2.69 | 0.53 |
| 5:E:322:VAL:HA | 6:F:279:PHE:HZ | 1.73 | 0.53 |
| 6:F:69:ILE:HA | 6:F:124:TRP:HE3 | 1.72 | 0.53 |
| 6:F:72:LEU:CA | 6:F:86:SER:HB3 | 2.31 | 0.53 |
| 7:H:129:ILE:HA | 7:H:160:ARG:O | 2.08 | 0.53 |
| 8:O:17:LEU:HD22 | 8:O:57:LEU:HD11 | 1.90 | 0.53 |
| 8:O:32:ARG:HH11 | 10:Q:37:PHE:C | 2.12 | 0.53 |
| 8:O:106:ARG:NH2 | 10:Q:31:ALA:CB | 2.65 | 0.53 |
| 8:O:319:ILE:HD13 | 8:O:368:LEU:CA | 2.35 | 0.53 |
| 8:O:505:ILE:CB | 8:O:533:LEU:CD2 | 2.86 | 0.53 |
| 8:O:568:TYR:OH | 11:R:22:PHE:CG | 2.45 | 0.53 |
| 8:O:569:LEU:HD13 | 8:O:571:LYS:HE2 | 1.89 | 0.53 |
| 8:O:571:LYS:HG3 | 8:O:642:MET:HE3 | 1.90 | 0.53 |
| 8:O:692:LYS:CG | 8:O:743:TYR:CB | 2.87 | 0.53 |
| 9:P:51:LEU:CD2 | 9:P:60:CYS:HA | 2.38 | 0.53 |
| 9:P:72:PRO:HD3 | 10:Q:59:GLU:CB | 2.36 | 0.53 |
| 12:V:86:PRO:HA | 12:V:119:PHE:HD1 | 1.73 | 0.53 |
| 12:V:118:LEU:CD1 | 12:V:197:ASP:HB2 | 2.38 | 0.53 |
| 1:A:218:LEU:HD23 | 1:A:219:LYS:HZ2 | 1.73 | 0.53 |
| 1:A:306:LEU:CD2 | 1:A:325:VAL:HG13 | 2.39 | 0.53 |
| 1:A:352:PHE:O | 1:A:356:LEU:HG | 2.08 | 0.53 |
| 2:B:209:LYS:HE2 | 2:B:209:LYS:HA | 1.90 | 0.53 |
| 2:B:306:PRO:HA | 2:B:309:LEU:CG | 2.38 | 0.53 |
| 2:B:371:ILE:HB | 2:B:372:PRO:HD3 | 1.90 | 0.53 |
| 3:C:70:SER:HB2 | 3:C:110:ALA:HB1 | 1.90 | 0.53 |
| 3:C:252:PHE:O | 3:C:255:PRO:HG2 | 2.09 | 0.53 |
| 4:D:148:TYR:HB3 | 4:D:171:ALA:CB | 2.36 | 0.53 |
| 4:D:293:THR:HG21 | 4:D:302:ARG:NE | 2.24 | 0.53 |
| 4:D:385:LEU:HD22 | 6:F:234:ARG:CA | 2.39 | 0.53 |
| 5:E:113:ALA:HB1 | 5:E:137:TYR:OH | 2.09 | 0.53 |
| 5:E:298:ASP:OD1 | 5:E:299:LYS:CB | 2.55 | 0.53 |
| 6:F:31:MET:HE1 | 6:F:136:ILE:HG12 | 1.89 | 0.53 |
| 6:F:43:LEU:CD1 | 6:F:85:ASN:HB2 | 2.38 | 0.53 |
| 6:F:202:HIS:CE1 | 6:F:206:MET:HA | 2.43 | 0.53 |
| 8:O:42:ILE:HD12 | 8:O:108:LEU:HB2 | 1.90 | 0.53 |
| 8:O:70:ARG:NH1 | 8:O:150:LEU:HD12 | 2.23 | 0.53 |
| 8:O:82:GLN:O | 8:O:86:MET:HG2 | 2.08 | 0.53 |
| 8:O:98:ALA:HA | 8:O:101:MET:SD | 2.48 | 0.53 |
| 8:O:103:CYS:CB | 10:Q:35:GLY:C | 2.45 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:130:VAL:HG11 | 8:O:142:LEU:HD13 | 1.90 | 0.53 |
| 8:O:254:LEU:HB2 | 8:O:259:TYR:CE1 | 2.43 | 0.53 |
| 8:O:279:HIS:O | 8:O:314:GLU:HG3 | 2.08 | 0.53 |
| 8:O:312:ILE:CG2 | 8:O:367:ALA:HB2 | 2.39 | 0.53 |
| 8:O:557:HIS:HB3 | 8:O:579:THR:CG2 | 2.37 | 0.53 |
| 9:P:1:MET:HG3 | 9:P:64:SER:CB | 2.39 | 0.53 |
| 11:R:64:THR:HB | 11:R:68:CYS:SG | 2.48 | 0.53 |
| 12:V:84:VAL:HG21 | 12:V:101:LEU:HD12 | 1.90 | 0.53 |
| 12:V:164:GLN:HA | 12:V:167:ARG:HD2 | 1.90 | 0.53 |
| 13:G:36:GLU:HA | 13:G:95:LYS:HZ1 | 1.73 | 0.53 |
| 1:A:503:LYS:O | 3:C:215:ALA:HB2 | 2.09 | 0.53 |
| 2:B:7:ASP:OD1 | 2:B:38:ASN:ND2 | 2.42 | 0.53 |
| 2:B:37:TYR:HB2 | 2:B:57:VAL:CG2 | 2.39 | 0.53 |
| 2:B:37:TYR:CD1 | 2:B:53:SER:HA | 2.43 | 0.53 |
| 2:B:149:PHE:CZ | 2:B:193:GLN:HA | 2.43 | 0.53 |
| 3:C:144:ASP:O | 3:C:148:LEU:HG | 2.07 | 0.53 |
| 3:C:214:MET:CA | 3:C:248:ILE:HG21 | 2.34 | 0.53 |
| 4:D:46:LYS:HA | 4:D:87:PHE:CE2 | 2.44 | 0.53 |
| 4:D:145:LEU:O | 4:D:148:TYR:HB2 | 2.09 | 0.53 |
| 4:D:358:ILE:HB | 4:D:360:HIS:CE1 | 2.43 | 0.53 |
| 4:D:366:ALA:CB | 4:D:368:PRO:HD2 | 2.36 | 0.53 |
| 5:E:77:VAL:HG12 | 5:E:100:VAL:CG2 | 2.34 | 0.53 |
| 5:E:86:ASP:CB | 5:E:91:ILE:HD11 | 2.38 | 0.53 |
| 6:F:297:LYS:HD3 | 7:H:206:PHE:CE2 | 2.43 | 0.53 |
| 7:H:49:ASP:OD2 | 7:H:52:ASN:HB2 | 2.08 | 0.53 |
| 8:O:45:LEU:HD13 | 8:O:57:LEU:HD21 | 1.89 | 0.53 |
| 8:O:176:PRO:HD2 | 8:O:181:ILE:HG23 | 1.90 | 0.53 |
| 8:O:397:ASN:N | 8:O:400:LYS:HE3 | 2.24 | 0.53 |
| 8:O:443:LEU:HD22 | 8:O:476:MET:CE | 2.39 | 0.53 |
| 8:O:497:GLN:O | 8:O:497:GLN:HG3 | 2.09 | 0.53 |
| 8:O:505:ILE:CG1 | 8:O:533:LEU:CD2 | 2.87 | 0.53 |
| 8:O:562:GLY:HA3 | 8:O:577:VAL:N | 2.22 | 0.53 |
| 8:O:563:GLU:OE1 | 11:R:25:LYS:HG3 | 2.09 | 0.53 |
| 8:O:568:TYR:OH | 11:R:22:PHE:CE2 | 2.47 | 0.53 |
| 8:O:617:LEU:HB3 | 8:O:623:ILE:CB | 2.34 | 0.53 |
| 8:O:723:GLU:O | 11:R:46:ARG:N | 2.42 | 0.53 |
| 9:P:30:ILE:O | 9:P:34:ILE:N | 2.41 | 0.53 |
| 9:P:93:PHE:O | 10:Q:51:SER:CB | 2.54 | 0.53 |
| 9:P:100:PRO:HG2 | 10:Q:84:THR:O | 2.08 | 0.53 |
| 12:V:80:SER:HB3 | 12:V:81:PRO:HD2 | 1.90 | 0.53 |
| 13:G:50:ALA:HA | 13:G:53:GLN:HG2 | 1.91 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 13:G:114:SER:HA | 13:G:117:LEU:HB2 | 1.90 | 0.53 |
| 13:G:132:ILE:HD13 | 13:G:145:LEU:CD1 | 2.38 | 0.53 |
| 1:A:94:LEU:O | 1:A:98:GLU:HG3 | 2.08 | 0.53 |
| 1:A:108:PRO:HD3 | 1:A:111:ARG:NH2 | 2.24 | 0.53 |
| 1:A:291:LEU:CD1 | 1:A:294:LEU:HD13 | 2.39 | 0.53 |
| 1:A:502:VAL:O | 3:C:215:ALA:N | 2.41 | 0.53 |
| 2:B:175:LEU:HD13 | 2:B:193:GLN:HB3 | 1.91 | 0.53 |
| 2:B:253:LYS:HE2 | 2:B:253:LYS:HA | 1.91 | 0.53 |
| 2:B:292:ASN:CB | 2:B:295:ASP:HB2 | 2.37 | 0.53 |
| 3:C:127:ALA:HA | 3:C:130:LYS:CG | 2.39 | 0.53 |
| 3:C:229:LEU:HD22 | 3:C:233:ILE:HD12 | 1.90 | 0.53 |
| 3:C:262:GLU:OE1 | 3:C:281:LYS:NZ | 2.21 | 0.53 |
| 4:D:309:LEU:HD22 | 4:D:313:SER:OG | 2.08 | 0.53 |
| 5:E:324:LYS:HB3 | 5:E:328:PHE:HD2 | 1.73 | 0.53 |
| 6:F:45:PRO:HD3 | 6:F:196:GLU:CG | 2.33 | 0.53 |
| 6:F:69:ILE:HG12 | 6:F:124:TRP:CZ3 | 2.44 | 0.53 |
| 6:F:254:HIS:CE1 | 13:G:162:ILE:CD1 | 2.84 | 0.53 |
| 7:H:73:GLY:O | 7:H:76:SER:OG | 2.22 | 0.53 |
| 7:H:139:LEU:HB3 | 7:H:143:GLU:CG | 2.38 | 0.53 |
| 8:O:105:TYR:CD1 | 8:O:108:LEU:HD23 | 2.44 | 0.53 |
| 8:O:166:GLU:OE1 | 8:O:176:PRO:HD3 | 2.09 | 0.53 |
| 8:O:175:ASP:OD2 | 8:O:249:ARG:HD3 | 2.09 | 0.53 |
| 1:A:142:THR:HG21 | 1:A:160:PRO:CG | 2.38 | 0.53 |
| 2:B:76:ILE:HG23 | 2:B:88:MET:HG2 | 1.89 | 0.53 |
| 2:B:150:LYS:HD3 | 2:B:154:LYS:NZ | 2.23 | 0.53 |
| 2:B:153:THR:HG23 | 2:B:196:GLU:CD | 2.29 | 0.53 |
| 2:B:194:LEU:HD23 | 2:B:224:ILE:CG1 | 2.39 | 0.53 |
| 2:B:212:LYS:HE2 | 2:B:215:LYS:NZ | 2.22 | 0.53 |
| 2:B:295:ASP:O | 11:R:71:ALA:CA | 2.54 | 0.53 |
| 2:B:373:PHE:HD2 | 4:D:354:GLN:NE2 | 2.06 | 0.53 |
| 2:B:436:GLN:HA | 2:B:439:VAL:CG2 | 2.39 | 0.53 |
| 3:C:60:ALA:HB2 | 3:C:103:LEU:HD22 | 1.89 | 0.53 |
| 3:C:70:SER:OG | 3:C:111:LEU:HD23 | 2.09 | 0.53 |
| 3:C:198:PHE:CD2 | 3:C:234:LEU:HD13 | 2.42 | 0.53 |
| 3:C:342:ILE:HD12 | 3:C:351:ILE:HG13 | 1.91 | 0.53 |
| 4:D:60:VAL:HG22 | 4:D:63:ARG:CZ | 2.39 | 0.53 |
| 4:D:367:LEU:HA | 4:D:370:TRP:CB | 2.38 | 0.53 |
| 5:E:209:ASN:CG | 5:E:210:LYS:HG2 | 2.29 | 0.53 |
| 5:E:250:LEU:H | 6:F:225:HIS:HB2 | 1.67 | 0.53 |
| 8:O:68:HIS:O | 8:O:72:LEU:HG | 2.09 | 0.53 |
| 8:O:158:ILE:O | 8:O:162:MET:HG2 | 2.09 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:399:LEU:HD13 | 8:O:454:GLU:HG2 | 1.90 | 0.53 |
| 8:O:568:TYR:CD2 | 11:R:20:LYS:C | 2.78 | 0.53 |
| 8:O:611:THR:OG1 | 8:O:615:LYS:HE2 | 2.09 | 0.53 |
| 9:P:11:LYS:HB3 | 10:Q:14:LYS:HA | 1.89 | 0.53 |
| 9:P:26:GLU:O | 9:P:28:LYS:CA | 2.53 | 0.53 |
| 9:P:51:LEU:HA | 9:P:55:LYS:HD3 | 1.90 | 0.53 |
| 13:G:11:LEU:HB3 | 13:G:15:PHE:HE2 | 1.73 | 0.53 |
| 1:A:93:GLY:HA3 | 1:A:247:TYR:CD1 | 2.44 | 0.53 |
| 1:A:414:PHE:CE2 | 1:A:462:ALA:HB2 | 2.43 | 0.53 |
| 1:A:437:GLU:HA | 1:A:440:LEU:CD1 | 2.35 | 0.53 |
| 1:A:491:LEU:HD12 | 3:C:203:TYR:OH | 2.08 | 0.53 |
| 2:B:21:SER:O | 8:O:652:LYS:CG | 2.56 | 0.53 |
| 2:B:90:ASN:O | 2:B:94:GLN:HG3 | 2.08 | 0.53 |
| 3:C:125:LYS:HD2 | 3:C:161:TYR:OH | 2.08 | 0.53 |
| 3:C:205:TYR:CB | 3:C:227:TYR:HB2 | 2.35 | 0.53 |
| 4:D:48:PHE:HE2 | 4:D:66:LEU:HD23 | 1.73 | 0.53 |
| 4:D:141:VAL:O | 4:D:174:LEU:HD13 | 2.08 | 0.53 |
| 4:D:181:GLU:O | 4:D:184:GLN:HB2 | 2.08 | 0.53 |
| 4:D:328:LEU:O | 4:D:330:ILE:HG23 | 2.09 | 0.53 |
| 5:E:36:GLN:CD | 5:E:84:LYS:HD2 | 2.29 | 0.53 |
| 5:E:173:THR:HA | 5:E:176:ILE:CD1 | 2.35 | 0.53 |
| 6:F:32:ALA:HB1 | 6:F:181:MET:O | 2.09 | 0.53 |
| 7:H:33:THR:O | 7:H:36:VAL:HB | 2.09 | 0.53 |
| 7:H:45:LEU:HD22 | 7:H:81:ILE:CD1 | 2.39 | 0.53 |
| 7:H:52:ASN:HA | 7:H:55:TYR:CD2 | 2.30 | 0.53 |
| 8:O:198:PHE:CD2 | 8:O:201:LYS:HB2 | 2.41 | 0.53 |
| 8:O:569:LEU:CA | 11:R:18:LYS:HD3 | 2.38 | 0.53 |
| 8:O:692:LYS:HB3 | 8:O:743:TYR:HB2 | 1.90 | 0.53 |
| 8:O:728:LYS:CB | 8:O:730:TYR:CD2 | 2.92 | 0.53 |
| 9:P:18:ALA:C | 9:P:19:LYS:HD2 | 2.29 | 0.53 |
| 9:P:49:GLN:HG2 | 9:P:55:LYS:HZ3 | 1.73 | 0.53 |
| 12:V:146:PRO:HA | 12:V:147:ILE:HG13 | 1.90 | 0.53 |
| 13:G:17:LEU:HA | 13:G:20:LYS:HD2 | 1.90 | 0.53 |
| 1:A:203:ASP:HA | 1:A:206:ASP:OD2 | 2.08 | 0.53 |
| 2:B:47:PRO:HB2 | 2:B:51:LEU:CD2 | 2.39 | 0.53 |
| 2:B:436:GLN:O | 2:B:439:VAL:HB | 2.08 | 0.53 |
| 3:C:140:SER:HA | 3:C:180:HIS:ND1 | 2.24 | 0.53 |
| 3:C:144:ASP:O | 3:C:147:GLN:HB3 | 2.09 | 0.53 |
| 3:C:192:TYR:CD1 | 3:C:197:ASN:HB3 | 2.42 | 0.53 |
| 4:D:165:GLU:CG | 11:R:75:CYS:HB3 | 2.39 | 0.53 |
| 4:D:226:LEU:HD11 | 4:D:255:CYS:SG | 2.49 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 4:D:270:ASP:O | 4:D:312:ALA:HA | 2.09 | 0.53 |
| 4:D:375:GLN:CG | 6:F:224:GLN:HG3 | 2.36 | 0.53 |
| 4:D:406:GLN:HG3 | 6:F:240:GLU:CG | 2.38 | 0.53 |
| 5:E:77:VAL:HB | 5:E:98:LEU:H | 1.73 | 0.53 |
| 5:E:80:LEU:HG | 5:E:117:MET:CE | 2.39 | 0.53 |
| 5:E:246:TRP:CZ3 | 6:F:228:ILE:HG22 | 2.44 | 0.53 |
| 5:E:248:ASN:HB3 | 6:F:222:ILE:HG13 | 1.91 | 0.53 |
| 5:E:281:GLY:HA3 | 5:E:282:ARG:NH2 | 2.18 | 0.53 |
| 6:F:68:VAL:O | 6:F:126:THR:HA | 2.09 | 0.53 |
| 6:F:72:LEU:O | 6:F:122:LEU:N | 2.41 | 0.53 |
| 7:H:154:GLN:HB3 | 7:H:163:LEU:CB | 2.31 | 0.53 |
| 8:O:42:ILE:HA | 8:O:45:LEU:HB2 | 1.91 | 0.53 |
| 8:O:89:ARG:HA | 8:O:92:GLU:HB3 | 1.89 | 0.53 |
| 8:O:102:ASP:HA | 8:O:105:TYR:CB | 2.25 | 0.53 |
| 8:O:336:PRO:HG2 | 8:O:393:LYS:HB2 | 1.91 | 0.53 |
| 8:O:336:PRO:CB | 8:O:394:TYR:HB2 | 2.39 | 0.53 |
| 8:O:508:GLN:HE22 | 8:O:559:LEU:CA | 2.21 | 0.53 |
| 8:O:521:GLN:NE2 | 8:O:555:TRP:N | 2.44 | 0.53 |
| 8:O:688:MET:SD | 8:O:725:LEU:HB2 | 2.49 | 0.53 |
| 12:V:74:VAL:O | 12:V:108:ARG:HG3 | 2.09 | 0.53 |
| 13:G:132:ILE:HD11 | 13:G:145:LEU:HD21 | 1.91 | 0.53 |
| 1:A:176:LEU:O | 1:A:180:LYS:HG3 | 2.09 | 0.53 |
| 1:A:298:LYS:HB3 | 1:A:301:GLN:HB3 | 1.90 | 0.53 |
| 1:A:349:SER:O | 1:A:353:LYS:HE2 | 2.09 | 0.53 |
| 1:A:472:PHE:HB3 | 3:C:367:TYR:CE2 | 2.44 | 0.53 |
| 1:A:485:ARG:HA | 1:A:488:ALA:HB3 | 1.90 | 0.53 |
| 2:B:87:GLU:O | 2:B:91:ARG:HG2 | 2.08 | 0.53 |
| 2:B:165:TYR:CE2 | 2:B:204:MET:HB2 | 2.44 | 0.53 |
| 2:B:390:VAL:HA | 2:B:393:ILE:CD1 | 2.39 | 0.53 |
| 4:D:270:ASP:HB3 | 4:D:312:ALA:HA | 1.91 | 0.53 |
| 4:D:377:LEU:O | 4:D:381:VAL:HG23 | 2.09 | 0.53 |
| 4:D:385:LEU:HD13 | 6:F:238:ILE:CG1 | 2.39 | 0.53 |
| 5:E:64:LYS:HD2 | 6:F:116:PHE:CE1 | 2.44 | 0.53 |
| 5:E:158:ASN:CA | 5:E:161:PHE:HB2 | 2.31 | 0.53 |
| 5:E:262:THR:O | 5:E:265:GLN:HB2 | 2.08 | 0.53 |
| 5:E:262:THR:CA | 5:E:265:GLN:HB2 | 2.36 | 0.53 |
| 6:F:269:VAL:O | 6:F:270:LEU:HB2 | 2.09 | 0.53 |
| 8:O:39:PHE:CZ | 10:Q:36:PRO:O | 2.61 | 0.53 |
| 8:O:100:TYR:O | 8:O:104:LEU:HG | 2.08 | 0.53 |
| 8:O:420:THR:HA | 8:O:423:LYS:CE | 2.35 | 0.53 |
| 8:O:442:ARG:HB3 | 8:O:447:LEU:C | 2.29 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:O:491:ASN:HA | 8:O:494:ILE:HB | 1.91 | 0.53 |
| 8:O:584:VAL:HG12 | 8:O:610:LEU:HD13 | 1.90 | 0.53 |
| 8:O:687:ILE:CG1 | 8:O:706:GLN:HE22 | 2.16 | 0.53 |
| 9:P:45:TYR:OH | 9:P:80:ARG:NH1 | 2.40 | 0.53 |
| 12:V:113:ARG:HG2 | 12:V:138:PRO:O | 2.08 | 0.53 |
| 1:A:413:TYR:O | 1:A:416:PRO:HD2 | 2.10 | 0.52 |
| 2:B:20:TYR:H | 8:O:652:LYS:CG | 2.20 | 0.52 |
| 2:B:431:LEU:HD23 | 2:B:434:LEU:CD2 | 2.38 | 0.52 |
| 2:B:442:LEU:HA | 6:F:314:ASP:OD2 | 2.09 | 0.52 |
| 3:C:68:MET:HB3 | 3:C:71:VAL:CG2 | 2.39 | 0.52 |
| 3:C:132:GLN:C | 3:C:133:MET:HE2 | 2.30 | 0.52 |
| 3:C:191:ILE:HG22 | 3:C:195:LEU:CD1 | 2.38 | 0.52 |
| 3:C:279:VAL:HA | 3:C:286:PHE:CE2 | 2.44 | 0.52 |
| 3:C:355:ASP:HB3 | 3:C:357:MET:CE | 2.37 | 0.52 |
| 3:C:396:GLU:HA | 3:C:399:VAL:CG2 | 2.39 | 0.52 |
| 4:D:104:ALA:HA | 4:D:107:ARG:HD2 | 1.89 | 0.52 |
| 4:D:109:HIS:HA | 4:D:112:SER:HB2 | 1.90 | 0.52 |
| 4:D:180:ASN:HB3 | 4:D:183:LEU:CB | 2.39 | 0.52 |
| 4:D:233:THR:HG23 | 4:D:245:MET:HB3 | 1.91 | 0.52 |
| 4:D:240:GLN:HG3 | 4:D:244:ARG:HH12 | 1.73 | 0.52 |
| 4:D:304:VAL:HA | 4:D:308:ASN:CB | 2.24 | 0.52 |
| 4:D:384:LEU:HD21 | 6:F:259:GLU:HB3 | 1.89 | 0.52 |
| 5:E:70:ARG:HG2 | 6:F:193:GLU:OE2 | 2.09 | 0.52 |
| 5:E:242:TRP:CD1 | 6:F:229:LYS:NZ | 2.76 | 0.52 |
| 5:E:254:SER:CB | 5:E:317:GLY:HA2 | 2.39 | 0.52 |
| 5:E:279:GLN:OE1 | 5:E:299:LYS:N | 2.42 | 0.52 |
| 5:E:308:CYS:O | 7:H:207:LEU:HD13 | 2.09 | 0.52 |
| 5:E:312:ILE:HG22 | 5:E:316:HIS:HE1 | 1.74 | 0.52 |
| 6:F:107:THR:O | 6:F:111:GLN:HG3 | 2.09 | 0.52 |
| 7:H:125:TYR:CD2 | 7:H:128:ILE:HD12 | 2.44 | 0.52 |
| 8:O:181:ILE:HD12 | 8:O:253:TYR:CD1 | 2.43 | 0.52 |
| 8:O:259:TYR:O | 8:O:263:ILE:HB | 2.09 | 0.52 |
| 8:O:368:LEU:O | 8:O:372:LEU:HD23 | 2.08 | 0.52 |
| 8:O:437:ARG:HA | 8:O:518:PRO:CB | 2.39 | 0.52 |
| 8:O:443:LEU:HD11 | 8:O:480:MET:CE | 2.39 | 0.52 |
| 8:O:512:LEU:HG | 11:R:32:LEU:HB3 | 1.91 | 0.52 |
| 11:R:78:ALA:CB | 11:R:100:GLU:HB3 | 2.39 | 0.52 |
| 13:G:111:ILE:HG21 | 13:G:116:LEU:HD23 | 1.91 | 0.52 |
| 1:A:146:GLN:OE1 | 1:A:149:PRO:HB2 | 2.08 | 0.52 |
| 2:B:32:LEU:CG | 8:O:649:THR:OG1 | 2.57 | 0.52 |
| 2:B:165:TYR:HA | 2:B:168:LEU:CB | 2.29 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 2:B:390:VAL:HA | 2:B:393:ILE:CG1 | 2.40 | 0.52 |
| 2:B:393:ILE:CA | 2:B:398:ILE:HD13 | 2.39 | 0.52 |
| 3:C:152:ALA:O | 3:C:154:CYS:N | 2.41 | 0.52 |
| 4:D:30:LEU:HG | 4:D:34:ILE:CD1 | 2.40 | 0.52 |
| 4:D:83:GLU:HA | 4:D:86:HIS:HD2 | 1.73 | 0.52 |
| 4:D:92:ILE:CD1 | 4:D:103:VAL:HG13 | 2.33 | 0.52 |
| 5:E:31:TYR:CD1 | 5:E:36:GLN:HG3 | 2.45 | 0.52 |
| 7:H:114:ARG:O | 7:H:118:PHE:CB | 2.55 | 0.52 |
| 7:H:130:ALA:HB3 | 7:H:160:ARG:NH1 | 2.24 | 0.52 |
| 8:O:53:LEU:HG | 8:O:56:ARG:NH1 | 2.23 | 0.52 |
| 8:O:116:ASN:HA | 8:O:120:GLU:CD | 2.30 | 0.52 |
| 8:O:413:ASP:O | 8:O:416:THR:HB | 2.08 | 0.52 |
| 8:O:469:PHE:O | 8:O:472:LYS:HB2 | 2.09 | 0.52 |
| 8:O:615:LYS:HG2 | 8:O:628:GLU:OE1 | 2.10 | 0.52 |
| 12:V:108:ARG:O | 12:V:109:ILE:HD13 | 2.09 | 0.52 |
| 12:V:116:LEU:HA | 12:V:135:LEU:CD1 | 2.39 | 0.52 |
| 1:A:119:LEU:HD12 | 1:A:131:TYR:CE1 | 2.44 | 0.52 |
| 2:B:32:LEU:CD2 | 8:O:649:THR:HG1 | 2.00 | 0.52 |
| 2:B:92:TYR:HA | 2:B:95:LEU:HD12 | 1.90 | 0.52 |
| 2:B:326:PHE:HZ | 2:B:354:ILE:HD13 | 1.75 | 0.52 |
| 2:B:333:ASN:OD1 | 2:B:337:ILE:HG13 | 2.09 | 0.52 |
| 3:C:395:GLN:O | 3:C:398:THR:HB | 2.09 | 0.52 |
| 3:C:402:GLN:HE22 | 6:F:312:LEU:HD21 | 1.74 | 0.52 |
| 4:D:100:GLU:HB3 | 4:D:137:LYS:CB | 2.39 | 0.52 |
| 4:D:297:SER:H | 4:D:302:ARG:HH22 | 1.56 | 0.52 |
| 4:D:324:LEU:CD2 | 4:D:359:VAL:HB | 2.39 | 0.52 |
| 4:D:388:ILE:HG12 | 4:D:396:THR:CB | 2.39 | 0.52 |
| 5:E:51:TYR:CE1 | 5:E:88:GLU:HG2 | 2.44 | 0.52 |
| 5:E:124:ALA:HB1 | 5:E:129:ARG:CB | 2.39 | 0.52 |
| 5:E:151:ASP:O | 5:E:154:THR:HB | 2.10 | 0.52 |
| 5:E:237:LEU:HD23 | 6:F:163:LEU:CD1 | 2.39 | 0.52 |
| 5:E:327:LEU:HD23 | 13:G:181:CYS:C | 2.26 | 0.52 |
| 6:F:31:MET:SD | 6:F:183:PHE:HB2 | 2.49 | 0.52 |
| 6:F:82:GLU:HG2 | 6:F:84:MET:SD | 2.49 | 0.52 |
| 7:H:13:PHE:CD1 | 7:H:46:LEU:HD13 | 2.44 | 0.52 |
| 7:H:100:GLU:H | 7:H:104:PRO:HG3 | 1.75 | 0.52 |
| 8:O:73:HIS:ND1 | 8:O:150:LEU:HG | 2.23 | 0.52 |
| 8:O:429:ASP:HA | 8:O:432:GLN:HG3 | 1.91 | 0.52 |
| 8:O:456:ALA:HA | 8:O:459:ASN:OD1 | 2.09 | 0.52 |
| 8:O:565:LYS:HG2 | 8:O:574:VAL:CG1 | 2.30 | 0.52 |
| 8:O:575:ALA:HB1 | 8:O:653:ILE:CG1 | 2.26 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 8:O:584:VAL:HG11 | 8:O:610:LEU:HD13 | 1.90 | 0.52 |
| 9:P:37:ARG:HD3 | 9:P:38:PRO:CD | 2.40 | 0.52 |
| 11:R:52:LEU:HD11 | 11:R:69:THR:HB | 1.91 | 0.52 |
| 12:V:78:ASN:HB3 | 12:V:105:THR:H | 1.75 | 0.52 |
| 12:V:80:SER:OG | 12:V:153:LEU:N | 2.42 | 0.52 |
| 12:V:197:ASP:O | 12:V:201:LEU:HG | 2.08 | 0.52 |
| 2:B:324:THR:O | 2:B:328:LYS:HG3 | 2.10 | 0.52 |
| 3:C:40:SER:O | 3:C:43:ASP:HB3 | 2.09 | 0.52 |
| 3:C:237:LYS:HA | 3:C:267:TYR:CE2 | 2.44 | 0.52 |
| 3:C:248:ILE:HA | 3:C:251:ARG:CG | 2.40 | 0.52 |
| 4:D:100:GLU:HB3 | 4:D:137:LYS:HD3 | 1.89 | 0.52 |
| 5:E:205:THR:HG23 | 5:E:302:LYS:CG | 2.33 | 0.52 |
| 5:E:311:THR:O | 5:E:315:ILE:HG13 | 2.09 | 0.52 |
| 5:E:312:ILE:HG13 | 7:H:207:LEU:HD13 | 1.89 | 0.52 |
| 6:F:35:VAL:HG13 | 6:F:171:VAL:HG22 | 1.91 | 0.52 |
| 6:F:271:SER:HA | 6:F:276:LYS:CE | 2.40 | 0.52 |
| 8:O:148:ARG:HG3 | 8:O:149:LYS:N | 2.25 | 0.52 |
| 8:O:333:GLU:OE2 | 8:O:338:LEU:HG | 2.10 | 0.52 |
| 8:O:335:MET:SD | 8:O:336:PRO:HD2 | 2.50 | 0.52 |
| 8:O:409:ASN:HB3 | 8:O:413:ASP:OD2 | 2.09 | 0.52 |
| 8:O:415:LEU:HA | 8:O:418:PHE:CD2 | 2.45 | 0.52 |
| 8:O:586:LEU:HA | 8:O:589:ASN:ND2 | 2.25 | 0.52 |
| 9:P:2:ASP:HB3 | 10:Q:66:LYS:HZ2 | 1.75 | 0.52 |
| 9:P:7:ILE:HG23 | 9:P:44:LEU:HD22 | 1.92 | 0.52 |
| 11:R:78:ALA:CA | 11:R:100:GLU:HB3 | 2.39 | 0.52 |
| 12:V:74:VAL:HG22 | 12:V:140:LEU:N | 2.23 | 0.52 |
| 13:G:49:LEU:HD12 | 13:G:49:LEU:N | 2.24 | 0.52 |
| 1:A:305:CYS:O | 1:A:308:LEU:HB2 | 2.08 | 0.52 |
| 1:A:394:LEU:CD1 | 1:A:401:LEU:HD12 | 2.39 | 0.52 |
| 1:A:396:PRO:HG2 | 1:A:397:HIS:CD2 | 2.44 | 0.52 |
| 1:A:436:LEU:HD12 | 1:A:439:GLU:OE1 | 2.09 | 0.52 |
| 1:A:469:SER:HA | 1:A:472:PHE:CD2 | 2.44 | 0.52 |
| 1:A:472:PHE:HE1 | 6:F:288:LEU:HD22 | 1.74 | 0.52 |
| 1:A:492:ARG:NH1 | 3:C:210:THR:O | 2.43 | 0.52 |
| 2:B:303:LYS:HD2 | 2:B:312:THR:HG21 | 1.90 | 0.52 |
| 3:C:117:PRO:HB3 | 3:C:151:LEU:HD12 | 1.92 | 0.52 |
| 4:D:214:LYS:O | 4:D:217:VAL:HB | 2.09 | 0.52 |
| 4:D:309:LEU:O | 4:D:313:SER:HB2 | 2.09 | 0.52 |
| 4:D:315:LEU:HA | 13:G:134:GLU:OE1 | 2.10 | 0.52 |
| 4:D:362:GLU:HG2 | 4:D:364:ARG:N | 2.24 | 0.52 |
| 4:D:384:LEU:HD11 | 6:F:259:GLU:OE1 | 2.09 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 5:E:84:LYS:HG3 | 5:E:91:ILE:CD1 | 2.40 | 0.52 |
| 5:E:103:THR:O | 5:E:104:GLU:HB3 | 2.09 | 0.52 |
| 5:E:324:LYS:HB3 | 5:E:328:PHE:CD2 | 2.45 | 0.52 |
| 7:H:13:PHE:CE1 | 7:H:108:ALA:HB1 | 2.45 | 0.52 |
| 8:O:24:VAL:CA | 8:O:27:LEU:O | 2.53 | 0.52 |
| 8:O:32:ARG:HH12 | 10:Q:41:LYS:CE | 2.22 | 0.52 |
| 8:O:278:LEU:O | 8:O:282:CYS:HB2 | 2.10 | 0.52 |
| 8:O:620:VAL:CG1 | 8:O:622:MET:HG3 | 2.40 | 0.52 |
| 8:O:693:VAL:HG12 | 8:O:699:LEU:HB2 | 1.90 | 0.52 |
| 9:P:3:VAL:HA | 9:P:64:SER:HA | 1.92 | 0.52 |
| 11:R:44:ILE:CG1 | 11:R:83:CYS:HA | 2.40 | 0.52 |
| 11:R:84:ILE:HG21 | 11:R:100:GLU:O | 2.10 | 0.52 |
| 1:A:81:SER:HG | 1:A:387:ASN:H | 1.57 | 0.52 |
| 1:A:94:LEU:CD1 | 1:A:248:LEU:HD23 | 2.39 | 0.52 |
| 1:A:119:LEU:HD13 | 1:A:162:LEU:CD1 | 2.40 | 0.52 |
| 1:A:292:ALA:O | 1:A:295:ALA:HB3 | 2.09 | 0.52 |
| 1:A:411:ILE:HA | 1:A:448:LEU:CD1 | 2.39 | 0.52 |
| 1:A:491:LEU:O | 1:A:495:VAL:HG13 | 2.09 | 0.52 |
| 1:A:492:ARG:CZ | 1:A:496:LEU:HD21 | 2.40 | 0.52 |
| 2:B:28:PRO:C | 2:B:31:ASP:CG | 2.66 | 0.52 |
| 2:B:438:VAL:HG13 | 6:F:306:VAL:HG21 | 1.92 | 0.52 |
| 2:B:438:VAL:O | 2:B:441:LYS:HG2 | 2.10 | 0.52 |
| 3:C:377:ASP:O | 3:C:380:MET:HB3 | 2.10 | 0.52 |
| 4:D:6:ARG:NH1 | 4:D:47:ALA:HB2 | 2.24 | 0.52 |
| 4:D:12:LEU:O | 4:D:15:SER:HB3 | 2.10 | 0.52 |
| 4:D:155:TYR:CB | 4:D:164:ALA:HB2 | 2.40 | 0.52 |
| 4:D:211:LEU:HB2 | 4:D:225:ALA:CB | 2.40 | 0.52 |
| 4:D:388:ILE:CG1 | 4:D:396:THR:CB | 2.86 | 0.52 |
| 5:E:244:LYS:HE3 | 6:F:230:MET:O | 2.09 | 0.52 |
| 8:O:83:VAL:CA | 8:O:86:MET:HB2 | 2.37 | 0.52 |
| 8:O:312:ILE:CG1 | 8:O:363:HIS:HB3 | 2.39 | 0.52 |
| 8:O:538:GLN:HG3 | 8:O:539:MET:HE3 | 1.92 | 0.52 |
| 8:O:618:LEU:HD22 | 8:O:625:HIS:CE1 | 2.45 | 0.52 |
| 11:R:45:CYS:CB | 11:R:54:ILE:H | 2.18 | 0.52 |
| 13:G:27:LEU:CD2 | 13:G:31:ILE:HB | 2.39 | 0.52 |
| 1:A:368:LYS:HA | 1:A:371:GLU:HB2 | 1.91 | 0.52 |
| 1:A:378:LEU:CD1 | 1:A:406:ARG:HH11 | 2.22 | 0.52 |
| 1:A:422:MET:HG3 | 1:A:459:ILE:HA | 1.91 | 0.52 |
| 2:B:9:MET:O | 2:B:13:GLU:HG2 | 2.10 | 0.52 |
| 2:B:80:PHE:HB3 | 2:B:85:PHE:CE1 | 2.43 | 0.52 |
| 2:B:89:MET:O | 2:B:93:LYS:HG3 | 2.09 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:114:SER:HA | 2:B:117:ASP:OD2 | 2.09 | 0.52 |
| 2:B:340:ASP:HB3 | 2:B:343:ILE:CB | 2.34 | 0.52 |
| 3:C:23:GLN:HE21 | 3:C:27:LEU:HD23 | 1.75 | 0.52 |
| 4:D:178:SER:OG | 4:D:183:LEU:HD23 | 2.10 | 0.52 |
| 4:D:371:ASP:HA | 4:D:374:ILE:HB | 1.92 | 0.52 |
| 5:E:43:LYS:HA | 5:E:45:TRP:CH2 | 2.45 | 0.52 |
| 6:F:152:LEU:CG | 6:F:165:VAL:HG13 | 2.36 | 0.52 |
| 7:H:23:GLN:OE1 | 7:H:36:VAL:HG13 | 2.10 | 0.52 |
| 8:O:218:TYR:OH | 8:O:242:ARG:HD3 | 2.09 | 0.52 |
| 8:O:249:ARG:HG2 | 8:O:253:TYR:CE1 | 2.45 | 0.52 |
| 8:O:302:ARG:HA | 8:O:308:LEU:CD2 | 2.40 | 0.52 |
| 8:O:385:CYS:HA | 8:O:427:ASP:CB | 2.36 | 0.52 |
| 8:O:505:ILE:CB | 8:O:533:LEU:HD21 | 2.38 | 0.52 |
| 8:O:622:MET:HE2 | 8:O:653:ILE:HB | 1.91 | 0.52 |
| 9:P:12:THR:OG1 | 10:Q:15:GLU:OE1 | 2.28 | 0.52 |
| 9:P:27:LEU:HD11 | 9:P:75:VAL:HG13 | 1.92 | 0.52 |
| 9:P:28:LYS:HD3 | 9:P:31:VAL:HB | 1.92 | 0.52 |
| 11:R:87:TRP:NE1 | 11:R:91:ARG:HB3 | 2.24 | 0.52 |
| 12:V:138:PRO:HA | 12:V:147:ILE:HG21 | 1.92 | 0.52 |
| 13:G:76:PRO:HG3 | 13:G:119:ASP:OD1 | 2.09 | 0.52 |
| 13:G:109:LYS:N | 13:G:109:LYS:HD2 | 2.24 | 0.52 |
| 13:G:111:ILE:HG22 | 13:G:112:PRO:O | 2.09 | 0.52 |
| 13:G:194:ARG:O | 13:G:198:TYR:HD1 | 1.93 | 0.52 |
| 2:B:192:THR:HB | 2:B:230:HIS:CG | 2.45 | 0.52 |
| 2:B:258:PHE:CG | 2:B:280:LEU:HD13 | 2.44 | 0.52 |
| 2:B:438:VAL:HA | 2:B:441:LYS:HE3 | 1.91 | 0.52 |
| 3:C:140:SER:HB3 | 3:C:175:ALA:O | 2.10 | 0.52 |
| 3:C:380:MET:HG2 | 3:C:384:ILE:HD11 | 1.91 | 0.52 |
| 4:D:60:VAL:HA | 4:D:63:ARG:CD | 2.40 | 0.52 |
| 4:D:263:ILE:HD12 | 4:D:273:ILE:HD12 | 1.90 | 0.52 |
| 4:D:362:GLU:O | 4:D:364:ARG:HG3 | 2.10 | 0.52 |
| 4:D:400:MET:HA | 6:F:237:LEU:HD21 | 1.90 | 0.52 |
| 5:E:80:LEU:HG | 5:E:117:MET:HE3 | 1.92 | 0.52 |
| 6:F:73:ILE:HD13 | 6:F:119:LEU:HB3 | 1.91 | 0.52 |
| 7:H:28:PRO:CG | 7:H:31:ILE:H | 2.23 | 0.52 |
| 8:O:224:SER:O | 8:O:228:GLN:HG3 | 2.09 | 0.52 |
| 8:O:236:MET:HE3 | 8:O:300:LEU:HD12 | 1.92 | 0.52 |
| 8:O:379:ARG:CD | 8:O:381:PRO:HG2 | 2.39 | 0.52 |
| 8:O:489:LYS:O | 8:O:493:PHE:N | 2.38 | 0.52 |
| 8:O:720:LYS:O | 11:R:46:ARG:HD2 | 2.10 | 0.52 |
| 11:R:88:LEU:HD12 | 11:R:92:GLN:CA | 2.39 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 12:V:75:ILE:HA | 12:V:108:ARG:HA | 1.92 | 0.52 |
| 12:V:146:PRO:CB | 12:V:148:PHE:HB2 | 2.31 | 0.52 |
| 1:A:138:LEU:HD23 | 1:A:162:LEU:HB2 | 1.92 | 0.52 |
| 2:B:125:MET:HA | 2:B:128:LEU:HB3 | 1.91 | 0.52 |
| 2:B:144:ASN:HB3 | 2:B:148:TRP:HB2 | 1.91 | 0.52 |
| 2:B:354:ILE:O | 2:B:358:VAL:HG23 | 2.10 | 0.52 |
| 3:C:78:PHE:CE1 | 3:C:120:GLY:HA2 | 2.44 | 0.52 |
| 4:D:1:MET:HA | 4:D:36:LEU:HD21 | 1.92 | 0.52 |
| 4:D:95:ARG:HB3 | 4:D:98:SER:HB2 | 1.92 | 0.52 |
| 4:D:211:LEU:HD23 | 4:D:214:LYS:HD2 | 1.92 | 0.52 |
| 4:D:275:GLY:C | 4:D:278:LEU:HB3 | 2.30 | 0.52 |
| 4:D:324:LEU:O | 4:D:327:LEU:HB3 | 2.09 | 0.52 |
| 5:E:76:GLU:OE2 | 5:E:143:TYR:OH | 2.26 | 0.52 |
| 5:E:114:TYR:O | 5:E:118:ALA:N | 2.42 | 0.52 |
| 6:F:113:LYS:NZ | 6:F:119:LEU:O | 2.42 | 0.52 |
| 8:O:34:THR:HA | 8:O:37:ASP:CB | 2.40 | 0.52 |
| 8:O:38:ARG:NH1 | 8:O:42:ILE:HD11 | 2.13 | 0.52 |
| 8:O:44:ALA:O | 8:O:48:ALA:CB | 2.50 | 0.52 |
| 8:O:200:LEU:HB3 | 8:O:204:GLN:HG3 | 1.91 | 0.52 |
| 8:O:336:PRO:HB3 | 8:O:394:TYR:HB2 | 1.92 | 0.52 |
| 9:P:98:GLU:O | 10:Q:85:GLU:CB | 2.57 | 0.52 |
| 13:G:97:LYS:O | 13:G:101:ILE:HG23 | 2.10 | 0.52 |
| 1:A:354:LEU:O | 1:A:358:LEU:HG | 2.09 | 0.52 |
| 1:A:421:ASP:HA | 1:A:459:ILE:HG12 | 1.92 | 0.52 |
| 2:B:163:GLU:HG2 | 2:B:203:GLN:HG3 | 1.91 | 0.52 |
| 2:B:385:VAL:O | 2:B:388:LEU:HD23 | 2.10 | 0.52 |
| 3:C:141:ILE:HA | 3:C:144:ASP:OD2 | 2.10 | 0.52 |
| 3:C:233:ILE:HG12 | 3:C:298:CYS:HA | 1.92 | 0.52 |
| 3:C:397:ILE:HD13 | 6:F:309:PHE:N | 2.25 | 0.52 |
| 4:D:242:ARG:NH2 | 4:D:267:MET:HE1 | 2.25 | 0.52 |
| 4:D:275:GLY:O | 4:D:279:GLN:HG3 | 2.10 | 0.52 |
| 4:D:286:MET:HB2 | 4:D:288:HIS:CE1 | 2.45 | 0.52 |
| 5:E:79:GLY:HA2 | 5:E:113:ALA:HB3 | 1.91 | 0.52 |
| 5:E:188:THR:HG22 | 5:E:221:TYR:CB | 2.36 | 0.52 |
| 7:H:61:PRO:CG | 7:H:64:ILE:HD12 | 2.40 | 0.52 |
| 8:O:25:VAL:O | 8:O:27:LEU:CD2 | 2.54 | 0.52 |
| 8:O:379:ARG:HG2 | 8:O:384:VAL:CG2 | 2.32 | 0.52 |
| 8:O:414:ARG:HH11 | 8:O:417:SER:HB2 | 1.75 | 0.52 |
| 8:O:462:LYS:HD2 | 8:O:470:THR:OG1 | 2.10 | 0.52 |
| 8:O:490:PHE:CD1 | 8:O:543:PHE:HE2 | 2.28 | 0.52 |
| 8:O:495:LYS:NZ | 8:O:495:LYS:CB | 2.73 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:512:LEU:HB2 | 11:R:33:TRP:C | 2.30 | 0.52 |
| 8:O:567:ASN:H | 11:R:19:LYS:C | 2.13 | 0.52 |
| 8:O:612:LYS:NZ | 8:O:656:SER:HA | 2.25 | 0.52 |
| 9:P:98:GLU:O | 10:Q:85:GLU:CA | 2.58 | 0.52 |
| 12:V:113:ARG:HA | 12:V:137:VAL:HG13 | 1.92 | 0.52 |
| 1:A:267:ILE:HB | 1:A:282:LEU:HD21 | 1.90 | 0.51 |
| 2:B:77:LYS:HA | 2:B:80:PHE:CZ | 2.44 | 0.51 |
| 2:B:235:GLY:HA3 | 2:B:261:ALA:HB1 | 1.93 | 0.51 |
| 2:B:236:VAL:O | 2:B:239:GLU:CB | 2.42 | 0.51 |
| 2:B:420:ARG:NH2 | 5:E:260:ASP:OD1 | 2.43 | 0.51 |
| 3:C:39:LEU:HD22 | 3:C:64:VAL:HB | 1.92 | 0.51 |
| 3:C:62:LEU:HD13 | 3:C:77:LEU:HD22 | 1.92 | 0.51 |
| 3:C:90:GLY:O | 3:C:130:LYS:HB3 | 2.10 | 0.51 |
| 4:D:59:LEU:HA | 4:D:95:ARG:HH22 | 1.75 | 0.51 |
| 4:D:107:ARG:CD | 4:D:130:ILE:HG12 | 2.40 | 0.51 |
| 4:D:170:ARG:CB | 11:R:76:ASN:HD22 | 2.22 | 0.51 |
| 5:E:69:ALA:CB | 5:E:172:PRO:HB3 | 2.41 | 0.51 |
| 5:E:174:ARG:O | 5:E:178:ALA:HB3 | 2.10 | 0.51 |
| 5:E:176:ILE:HA | 6:F:194:GLU:CG | 2.37 | 0.51 |
| 5:E:250:LEU:N | 6:F:225:HIS:ND1 | 2.50 | 0.51 |
| 6:F:41:VAL:HG11 | 6:F:73:ILE:CB | 2.40 | 0.51 |
| 6:F:248:GLY:O | 6:F:250:VAL:O | 2.28 | 0.51 |
| 6:F:263:LEU:O | 6:F:267:LEU:HG | 2.10 | 0.51 |
| 7:H:41:LEU:CG | 7:H:74:ILE:HG22 | 2.40 | 0.51 |
| 7:H:129:ILE:CG2 | 7:H:131:ASP:HB2 | 2.40 | 0.51 |
| 8:O:30:VAL:O | 8:O:35:TRP:CE2 | 2.64 | 0.51 |
| 8:O:51:GLU:CB | 8:O:52:PRO:HD3 | 2.38 | 0.51 |
| 8:O:65:LEU:CD2 | 8:O:142:LEU:HG | 2.35 | 0.51 |
| 8:O:530:PRO:HD2 | 8:O:533:LEU:HD11 | 1.92 | 0.51 |
| 8:O:569:LEU:CD1 | 11:R:19:LYS:CA | 2.86 | 0.51 |
| 8:O:569:LEU:CB | 11:R:18:LYS:HB3 | 2.32 | 0.51 |
| 8:O:614:ILE:HG21 | 8:O:627:SER:O | 2.10 | 0.51 |
| 9:P:11:LYS:HA | 9:P:91:GLU:OE1 | 2.10 | 0.51 |
| 12:V:60:ARG:HD2 | 12:V:64:ARG:CA | 2.40 | 0.51 |
| 1:A:130:MET:HA | 1:A:133:GLU:CB | 2.40 | 0.51 |
| 2:B:302:TYR:CZ | 11:R:35:TRP:CZ3 | 2.98 | 0.51 |
| 2:B:437:ALA:O | 2:B:441:LYS:HE3 | 2.10 | 0.51 |
| 3:C:84:PHE:O | 3:C:89:ASN:N | 2.44 | 0.51 |
| 3:C:331:PRO:O | 3:C:335:GLU:HG2 | 2.09 | 0.51 |
| 3:C:341:MET:HA | 3:C:346:GLU:CB | 2.35 | 0.51 |
| 4:D:152:ALA:O | 4:D:156:LEU:HG | 2.11 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:D:187:TYR:CD2 | 4:D:188:LYS:HD2 | 2.40 | 0.51 |
| 4:D:385:LEU:HD11 | 6:F:237:LEU:HB3 | 1.93 | 0.51 |
| 5:E:170:ILE:HD11 | 5:E:183:LEU:HD12 | 1.91 | 0.51 |
| 5:E:246:TRP:CZ3 | 5:E:247:VAL:HG22 | 2.44 | 0.51 |
| 5:E:323:ILE:HG12 | 7:H:197:LEU:HD11 | 1.90 | 0.51 |
| 6:F:35:VAL:HG13 | 6:F:171:VAL:CG2 | 2.40 | 0.51 |
| 6:F:52:SER:O | 6:F:56:ILE:HG12 | 2.10 | 0.51 |
| 8:O:169:ASN:HB3 | 8:O:173:GLY:C | 2.29 | 0.51 |
| 8:O:442:ARG:HD2 | 8:O:447:LEU:O | 2.10 | 0.51 |
| 8:O:480:MET:HB2 | 8:O:510:TYR:HE1 | 1.75 | 0.51 |
| 8:O:588:PHE:CE1 | 8:O:599:LEU:HB2 | 2.45 | 0.51 |
| 9:P:40:ASP:OD1 | 9:P:52:ASP:HA | 2.10 | 0.51 |
| 12:V:111:SER:OG | 12:V:138:PRO:HD3 | 2.09 | 0.51 |
| 12:V:160:GLU:O | 12:V:164:GLN:HG3 | 2.11 | 0.51 |
| 13:G:164:LYS:HB2 | 13:G:164:LYS:NZ | 2.25 | 0.51 |
| 1:A:135:HIS:ND1 | 1:A:162:LEU:HB3 | 2.26 | 0.51 |
| 1:A:208:TYR:CZ | 1:A:216:ASN:HB3 | 2.45 | 0.51 |
| 1:A:339:ARG:O | 1:A:342:LEU:HB2 | 2.10 | 0.51 |
| 2:B:165:TYR:CE1 | 2:B:168:LEU:HD23 | 2.44 | 0.51 |
| 2:B:400:GLY:N | 2:B:412:ASP:H | 2.08 | 0.51 |
| 3:C:94:ARG:HG2 | 3:C:172:GLU:OE1 | 2.11 | 0.51 |
| 4:D:62:SER:HB2 | 4:D:95:ARG:HH22 | 1.75 | 0.51 |
| 4:D:107:ARG:NH1 | 4:D:126:VAL:O | 2.43 | 0.51 |
| 4:D:250:PHE:CE1 | 4:D:265:GLU:HA | 2.46 | 0.51 |
| 4:D:319:ILE:N | 4:D:359:VAL:HG12 | 2.25 | 0.51 |
| 5:E:268:ASP:HB3 | 5:E:272:LYS:NZ | 2.24 | 0.51 |
| 6:F:67:GLN:CD | 6:F:98:ILE:HD11 | 2.30 | 0.51 |
| 8:O:32:ARG:HA | 8:O:35:TRP:CG | 2.45 | 0.51 |
| 8:O:62:LYS:HG3 | 8:O:142:LEU:CD1 | 2.41 | 0.51 |
| 8:O:386:LYS:O | 8:O:390:LEU:HG | 2.10 | 0.51 |
| 8:O:540:PHE:O | 8:O:544:TYR:HB3 | 2.10 | 0.51 |
| 8:O:692:LYS:CD | 8:O:743:TYR:HB2 | 2.18 | 0.51 |
| 8:O:693:VAL:C | 8:O:699:LEU:HG | 2.31 | 0.51 |
| 8:O:700:ILE:HG23 | 8:O:701:GLN:N | 2.25 | 0.51 |
| 8:O:710:ARG:HB3 | 8:O:711:PHE:CD1 | 2.43 | 0.51 |
| 11:R:19:LYS:HA | 11:R:23:GLU:OE2 | 2.10 | 0.51 |
| 11:R:84:ILE:HD13 | 11:R:100:GLU:C | 2.29 | 0.51 |
| 12:V:83:VAL:HA | 12:V:101:LEU:O | 2.10 | 0.51 |
| 12:V:182:ARG:HG2 | 12:V:183:SER:N | 2.25 | 0.51 |
| 13:G:31:ILE:CD1 | 13:G:63:TYR:CD1 | 2.93 | 0.51 |
| 1:A:269:GLU:HB2 | 1:A:273:GLU:HA | 1.92 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:310:SER:CB | 1:A:351:SER:HB3 | 2.39 | 0.51 |
| 1:A:311:PHE:HD2 | 1:A:354:LEU:HD13 | 1.75 | 0.51 |
| 1:A:436:LEU:O | 1:A:439:GLU:HB2 | 2.10 | 0.51 |
| 2:B:76:ILE:HD11 | 2:B:92:TYR:N | 2.25 | 0.51 |
| 2:B:304:ASN:C | 2:B:309:LEU:HD23 | 2.30 | 0.51 |
| 2:B:328:LYS:O | 2:B:331:LYS:HB3 | 2.11 | 0.51 |
| 2:B:347:ILE:O | 2:B:351:LEU:HD23 | 2.10 | 0.51 |
| 2:B:353:ASN:O | 2:B:356:THR:HB | 2.10 | 0.51 |
| 3:C:5:LEU:HD13 | 3:C:42:LEU:HD11 | 1.92 | 0.51 |
| 3:C:60:ALA:HA | 3:C:103:LEU:HD11 | 1.92 | 0.51 |
| 3:C:154:CYS:HB2 | 7:H:59:ARG:CD | 2.41 | 0.51 |
| 3:C:248:ILE:HB | 3:C:252:PHE:CD2 | 2.46 | 0.51 |
| 3:C:319:LEU:HD21 | 3:C:338:VAL:CG2 | 2.41 | 0.51 |
| 3:C:352:ASN:ND2 | 3:C:357:MET:HB2 | 2.25 | 0.51 |
| 3:C:397:ILE:HG23 | 3:C:400:ASN:ND2 | 2.25 | 0.51 |
| 4:D:215:THR:HA | 4:D:222:ARG:CD | 2.40 | 0.51 |
| 5:E:60:LEU:O | 5:E:63:LEU:HB2 | 2.11 | 0.51 |
| 5:E:161:PHE:CB | 5:E:162:GLN:HG3 | 2.40 | 0.51 |
| 5:E:189:TYR:CZ | 5:E:222:TYR:HB3 | 2.46 | 0.51 |
| 5:E:240:LEU:HB3 | 6:F:163:LEU:HB2 | 1.92 | 0.51 |
| 6:F:81:ILE:HD12 | 6:F:186:LEU:HD23 | 1.91 | 0.51 |
| 8:O:110:THR:CB | 10:Q:28:THR:CG2 | 2.80 | 0.51 |
| 8:O:306:THR:O | 8:O:309:PRO:HD2 | 2.09 | 0.51 |
| 8:O:512:LEU:HG | 11:R:32:LEU:CB | 2.41 | 0.51 |
| 8:O:512:LEU:O | 8:O:551:ARG:CD | 2.59 | 0.51 |
| 13:G:18:LEU:CD1 | 13:G:30:LEU:HD13 | 2.41 | 0.51 |
| 13:G:41:TYR:HB3 | 13:G:70:PHE:HB3 | 1.91 | 0.51 |
| 13:G:69:LEU:HD23 | 13:G:96:LEU:CD1 | 2.28 | 0.51 |
| 13:G:144:LYS:HG3 | 13:G:145:LEU:N | 2.26 | 0.51 |
| 1:A:255:LEU:HA | 1:A:258:VAL:CG2 | 2.40 | 0.51 |
| 1:A:303:ALA:HB2 | 1:A:332:CYS:CB | 2.37 | 0.51 |
| 1:A:454:ASP:HB3 | 1:A:457:SER:HB3 | 1.91 | 0.51 |
| 1:A:487:LYS:HD3 | 3:C:165:ASP:HB2 | 1.93 | 0.51 |
| 3:C:8:PHE:O | 3:C:12:VAL:HG23 | 2.10 | 0.51 |
| 3:C:233:ILE:CA | 3:C:301:SER:HB3 | 2.34 | 0.51 |
| 3:C:283:SER:O | 3:C:287:THR:HG23 | 2.10 | 0.51 |
| 3:C:341:MET:O | 3:C:346:GLU:HB2 | 2.11 | 0.51 |
| 4:D:88:THR:CG2 | 4:D:106:ILE:HD13 | 2.40 | 0.51 |
| 4:D:92:ILE:HG22 | 4:D:96:VAL:CB | 2.40 | 0.51 |
| 4:D:101:GLU:OE2 | 4:D:138:GLN:N | 2.44 | 0.51 |
| 4:D:111:ALA:HA | 4:D:114:TYR:HD2 | 1.75 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:D:145:LEU:HD13 | 4:D:171:ALA:O | 2.11 | 0.51 |
| 4:D:199:ARG:HB3 | 4:D:201:PHE:CE2 | 2.45 | 0.51 |
| 4:D:287:PRO:HA | 4:D:290:LYS:HB2 | 1.91 | 0.51 |
| 4:D:317:ASN:CG | 4:D:363:THR:HA | 2.31 | 0.51 |
| 5:E:75:LEU:HB3 | 5:E:100:VAL:O | 2.10 | 0.51 |
| 5:E:80:LEU:HD13 | 5:E:114:TYR:CE1 | 2.45 | 0.51 |
| 6:F:72:LEU:HD11 | 6:F:152:LEU:CB | 2.41 | 0.51 |
| 6:F:102:LYS:NZ | 6:F:141:GLN:HG2 | 2.25 | 0.51 |
| 6:F:108:LYS:O | 6:F:111:GLN:HB2 | 2.11 | 0.51 |
| 6:F:139:HIS:ND1 | 6:F:151:PHE:HB2 | 2.25 | 0.51 |
| 6:F:245:SER:CB | 6:F:256:ILE:HG13 | 2.41 | 0.51 |
| 8:O:43:TYR:OH | 10:Q:48:GLN:CD | 2.47 | 0.51 |
| 8:O:398:LEU:HB3 | 8:O:415:LEU:HD21 | 1.91 | 0.51 |
| 8:O:575:ALA:HB2 | 8:O:650:LYS:HE3 | 1.92 | 0.51 |
| 9:P:8:ARG:HD3 | 9:P:91:GLU:HB3 | 1.91 | 0.51 |
| 9:P:71:ALA:CA | 10:Q:59:GLU:CG | 2.87 | 0.51 |
| 13:G:17:LEU:CD2 | 13:G:20:LYS:HD2 | 2.41 | 0.51 |
| 13:G:76:PRO:O | 13:G:79:ILE:HB | 2.11 | 0.51 |
| 1:A:258:VAL:HG22 | 1:A:285:LEU:HD22 | 1.91 | 0.51 |
| 1:A:297:ARG:HH12 | 12:V:142:VAL:HB | 1.76 | 0.51 |
| 1:A:340:GLN:HB3 | 1:A:344:ARG:NH1 | 2.25 | 0.51 |
| 1:A:349:SER:OG | 1:A:352:PHE:HB3 | 2.11 | 0.51 |
| 1:A:394:LEU:HG | 1:A:398:VAL:CB | 2.41 | 0.51 |
| 2:B:359:LEU:HD21 | 2:B:378:LEU:CD2 | 2.40 | 0.51 |
| 2:B:362:LEU:O | 2:B:365:PRO:HD2 | 2.10 | 0.51 |
| 2:B:369:ILE:HB | 2:B:374:ILE:CD1 | 2.40 | 0.51 |
| 2:B:429:ASN:O | 2:B:432:ASN:HB3 | 2.10 | 0.51 |
| 3:C:98:ASP:HA | 3:C:175:ALA:HA | 1.92 | 0.51 |
| 3:C:210:THR:HA | 3:C:245:THR:HA | 1.93 | 0.51 |
| 5:E:44:PRO:HD2 | 5:E:45:TRP:CZ3 | 2.46 | 0.51 |
| 5:E:67:MET:CE | 6:F:42:ALA:HB1 | 2.41 | 0.51 |
| 5:E:248:ASN:CB | 6:F:222:ILE:HD12 | 2.40 | 0.51 |
| 5:E:269:LEU:HA | 5:E:272:LYS:HB2 | 1.91 | 0.51 |
| 6:F:271:SER:HA | 6:F:276:LYS:NZ | 2.24 | 0.51 |
| 7:H:133:PHE:HD1 | 7:H:136:PHE:HD2 | 1.57 | 0.51 |
| 8:O:26:MET:HE2 | 8:O:90:TYR:O | 2.04 | 0.51 |
| 8:O:223:ALA:HB2 | 8:O:270:MET:CB | 2.41 | 0.51 |
| 8:O:357:VAL:HA | 8:O:359:ASN:ND2 | 2.26 | 0.51 |
| 8:O:442:ARG:HB3 | 8:O:447:LEU:O | 2.10 | 0.51 |
| 8:O:562:GLY:CA | 8:O:577:VAL:H | 2.21 | 0.51 |
| 8:O:563:GLU:OE1 | 8:O:565:LYS:NZ | 2.44 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:728:LYS:O | 8:O:729:GLN:HB2 | 2.10 | 0.51 |
| 9:P:65:GLN:C | 9:P:68:ARG:HB3 | 2.31 | 0.51 |
| 9:P:65:GLN:OE1 | 9:P:68:ARG:HB2 | 2.11 | 0.51 |
| 11:R:40:ASP:HB2 | 11:R:77:HIS:ND1 | 2.23 | 0.51 |
| 12:V:90:ASN:ND2 | 12:V:96:GLN:OE1 | 2.43 | 0.51 |
| 12:V:113:ARG:HG2 | 12:V:138:PRO:HG2 | 1.92 | 0.51 |
| 13:G:42:VAL:HG12 | 13:G:162:ILE:HD12 | 1.93 | 0.51 |
| 13:G:66:LEU:HD13 | 13:G:85:LEU:CD1 | 2.39 | 0.51 |
| 1:A:492:ARG:O | 1:A:496:LEU:HG | 2.11 | 0.51 |
| 2:B:18:LEU:HB3 | 8:O:648:ARG:HD2 | 1.87 | 0.51 |
| 2:B:172:LEU:HD22 | 2:B:197:ILE:CG1 | 2.41 | 0.51 |
| 2:B:351:LEU:O | 2:B:354:ILE:HG13 | 2.11 | 0.51 |
| 2:B:369:ILE:HD12 | 2:B:374:ILE:HD12 | 1.93 | 0.51 |
| 3:C:53:GLU:HA | 3:C:84:PHE:CE1 | 2.45 | 0.51 |
| 3:C:76:THR:O | 3:C:80:GLN:HG3 | 2.11 | 0.51 |
| 3:C:374:HIS:HA | 3:C:377:ASP:OD2 | 2.10 | 0.51 |
| 3:C:393:MET:HB3 | 6:F:305:PHE:CE1 | 2.46 | 0.51 |
| 4:D:2:ALA:CB | 4:D:43:GLU:HB3 | 2.40 | 0.51 |
| 4:D:170:ARG:NH1 | 4:D:171:ALA:HB2 | 2.26 | 0.51 |
| 4:D:175:GLN:HG2 | 11:R:99:ARG:NH2 | 2.26 | 0.51 |
| 4:D:281:PHE:CA | 4:D:284:MET:HB2 | 2.38 | 0.51 |
| 5:E:69:ALA:CB | 5:E:139:SER:HB2 | 2.38 | 0.51 |
| 5:E:246:TRP:N | 6:F:229:LYS:CD | 2.72 | 0.51 |
| 5:E:272:LYS:CD | 5:E:306:ASP:HB3 | 2.41 | 0.51 |
| 6:F:39:VAL:HG22 | 6:F:122:LEU:HD11 | 1.92 | 0.51 |
| 6:F:43:LEU:HD23 | 6:F:191:ALA:CB | 2.40 | 0.51 |
| 6:F:109:GLU:HG2 | 6:F:110:GLU:N | 2.26 | 0.51 |
| 6:F:151:PHE:CB | 6:F:168:PHE:HB2 | 2.34 | 0.51 |
| 7:H:102:VAL:HG12 | 7:H:106:MET:CG | 2.40 | 0.51 |
| 8:O:7:VAL:HA | 8:O:53:LEU:HD21 | 1.93 | 0.51 |
| 8:O:7:VAL:CA | 8:O:53:LEU:HD21 | 2.41 | 0.51 |
| 11:R:40:ASP:OD2 | 11:R:99:ARG:HG3 | 2.11 | 0.51 |
| 12:V:78:ASN:HB2 | 12:V:101:LEU:CD1 | 2.40 | 0.51 |
| 1:A:258:VAL:HG22 | 1:A:285:LEU:CD2 | 2.41 | 0.51 |
| 1:A:349:SER:CB | 1:A:356:LEU:HD11 | 2.41 | 0.51 |
| 1:A:368:LYS:CD | 1:A:377:CYS:HA | 2.41 | 0.51 |
| 1:A:368:LYS:HD3 | 1:A:377:CYS:HA | 1.91 | 0.51 |
| 1:A:451:ALA:CB | 1:A:460:LEU:HD11 | 2.41 | 0.51 |
| 2:B:170:LYS:HA | 2:B:173:ARG:HH21 | 1.75 | 0.51 |
| 2:B:347:ILE:HG23 | 2:B:348:GLU:H | 1.75 | 0.51 |
| 2:B:382:VAL:HA | 2:B:385:VAL:CG2 | 2.40 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:412:ASP:OD1 | 2:B:414:GLN:N | 2.43 | 0.51 |
| 3:C:15:LEU:HA | 3:C:18:GLN:HB2 | 1.93 | 0.51 |
| 3:C:98:ASP:HA | 3:C:175:ALA:CA | 2.41 | 0.51 |
| 3:C:122:GLY:CA | 3:C:125:LYS:HE2 | 2.41 | 0.51 |
| 3:C:182:LEU:HD22 | 3:C:219:ILE:HG21 | 1.92 | 0.51 |
| 3:C:372:MET:O | 3:C:375:ASN:HB3 | 2.11 | 0.51 |
| 4:D:92:ILE:HG21 | 4:D:103:VAL:HG11 | 1.93 | 0.51 |
| 4:D:107:ARG:O | 4:D:111:ALA:N | 2.21 | 0.51 |
| 4:D:120:TRP:HZ3 | 4:D:154:LEU:HD23 | 1.74 | 0.51 |
| 4:D:194:VAL:HA | 4:D:197:TYR:CD2 | 2.45 | 0.51 |
| 4:D:334:LYS:O | 4:D:337:LYS:HB3 | 2.11 | 0.51 |
| 4:D:352:ILE:HG12 | 4:D:359:VAL:HA | 1.91 | 0.51 |
| 5:E:170:ILE:HD11 | 5:E:183:LEU:HG | 1.92 | 0.51 |
| 7:H:56:LEU:O | 7:H:60:ILE:HG12 | 2.11 | 0.51 |
| 7:H:111:ASP:HA | 7:H:114:ARG:NH1 | 2.26 | 0.51 |
| 8:O:40:SER:HA | 8:O:43:TYR:HB3 | 1.92 | 0.51 |
| 8:O:554:THR:H | 11:R:32:LEU:HB2 | 0.60 | 0.51 |
| 13:G:92:GLN:HA | 13:G:95:LYS:CD | 2.37 | 0.51 |
| 13:G:101:ILE:CG2 | 13:G:116:LEU:HG | 2.35 | 0.51 |
| 1:A:135:HIS:CB | 1:A:162:LEU:HB3 | 2.40 | 0.51 |
| 1:A:271:ARG:NH2 | 1:A:274:ARG:HD3 | 2.15 | 0.51 |
| 1:A:368:LYS:HA | 1:A:371:GLU:OE1 | 2.10 | 0.51 |
| 1:A:378:LEU:CD1 | 1:A:406:ARG:HD2 | 2.41 | 0.51 |
| 1:A:414:PHE:CD1 | 1:A:420:ALA:HB2 | 2.46 | 0.51 |
| 2:B:19:GLU:OE2 | 8:O:651:PHE:CD2 | 2.53 | 0.51 |
| 2:B:89:MET:HG2 | 2:B:93:LYS:CE | 2.36 | 0.51 |
| 2:B:172:LEU:HD22 | 2:B:197:ILE:HD13 | 1.92 | 0.51 |
| 2:B:224:ILE:HG22 | 2:B:228:ILE:HB | 1.91 | 0.51 |
| 2:B:246:LEU:HB2 | 2:B:279:TYR:HH | 1.75 | 0.51 |
| 2:B:418:GLY:HA2 | 2:B:421:TYR:HD2 | 1.75 | 0.51 |
| 2:B:422:THR:HA | 2:B:425:ASP:HB2 | 1.93 | 0.51 |
| 2:B:438:VAL:HA | 2:B:441:LYS:HG2 | 1.93 | 0.51 |
| 3:C:15:LEU:C | 3:C:18:GLN:HB2 | 2.32 | 0.51 |
| 3:C:215:ALA:O | 3:C:248:ILE:HD13 | 2.11 | 0.51 |
| 4:D:92:ILE:CG2 | 4:D:96:VAL:HA | 2.40 | 0.51 |
| 4:D:168:ILE:HD13 | 4:D:190:CYS:HB2 | 1.93 | 0.51 |
| 4:D:211:LEU:HD23 | 4:D:214:LYS:CE | 2.41 | 0.51 |
| 4:D:253:GLU:HG3 | 4:D:256:GLN:OE1 | 2.10 | 0.51 |
| 4:D:398:GLN:O | 4:D:401:GLU:HB2 | 2.10 | 0.51 |
| 5:E:125:LYS:CB | 5:E:130:LEU:HD23 | 2.40 | 0.51 |
| 5:E:187:ARG:HG3 | 5:E:224:LEU:HD11 | 1.93 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:E:318:LEU:HD12 | 6:F:282:GLN:HE21 | 1.74 | 0.51 |
| 6:F:46:LEU:HD12 | 6:F:49:LEU:CB | 2.41 | 0.51 |
| 6:F:150:LEU:CD2 | 6:F:167:VAL:HG13 | 2.41 | 0.51 |
| 6:F:231:LEU:HG | 6:F:235:VAL:HG23 | 1.92 | 0.51 |
| 8:O:81:GLU:N | 8:O:84:LEU:HD13 | 2.26 | 0.51 |
| 8:O:239:VAL:O | 8:O:243:LEU:HG | 2.10 | 0.51 |
| 8:O:251:ARG:O | 8:O:254:LEU:HD23 | 2.11 | 0.51 |
| 8:O:291:LYS:HG2 | 8:O:294:MET:HG2 | 1.92 | 0.51 |
| 8:O:326:ALA:HA | 8:O:330:LEU:HG | 1.93 | 0.51 |
| 8:O:563:GLU:HG3 | 11:R:27:TRP:CD1 | 2.46 | 0.51 |
| 8:O:618:LEU:HD13 | 8:O:625:HIS:HE1 | 1.75 | 0.51 |
| 9:P:5:LEU:HD21 | 9:P:62:PHE:CD1 | 2.45 | 0.51 |
| 9:P:96:PRO:N | 10:Q:52:HIS:CG | 2.72 | 0.51 |
| 12:V:113:ARG:HG2 | 12:V:139:SER:OG | 2.09 | 0.51 |
| 12:V:175:TYR:HB3 | 12:V:189:GLU:OE2 | 2.11 | 0.51 |
| 1:A:140:GLU:O | 1:A:144:GLU:HG3 | 2.10 | 0.51 |
| 2:B:314:LEU:HD21 | 2:B:329:ILE:HB | 1.92 | 0.51 |
| 2:B:382:VAL:O | 2:B:385:VAL:HB | 2.10 | 0.51 |
| 3:C:70:SER:HB3 | 3:C:114:ARG:CD | 2.35 | 0.51 |
| 4:D:100:GLU:HB3 | 4:D:137:LYS:HB2 | 1.93 | 0.51 |
| 4:D:400:MET:HA | 4:D:403:GLN:CB | 2.39 | 0.51 |
| 5:E:64:LYS:HB3 | 5:E:96:PHE:HB3 | 1.92 | 0.51 |
| 5:E:69:ALA:O | 5:E:141:PRO:HB3 | 2.11 | 0.51 |
| 5:E:159:GLN:CG | 5:E:165:PHE:HB3 | 2.29 | 0.51 |
| 5:E:323:ILE:HD11 | 7:H:197:LEU:CD2 | 2.40 | 0.51 |
| 6:F:297:LYS:O | 6:F:300:ASN:HB3 | 2.11 | 0.51 |
| 7:H:41:LEU:CD2 | 7:H:74:ILE:HG22 | 2.41 | 0.51 |
| 7:H:90:TYR:OH | 7:H:137:VAL:HA | 2.11 | 0.51 |
| 8:O:391:LEU:HG | 8:O:395:CYS:SG | 2.51 | 0.51 |
| 8:O:494:ILE:CG2 | 8:O:500:VAL:HG11 | 2.33 | 0.51 |
| 8:O:568:TYR:O | 11:R:20:LYS:HB3 | 2.11 | 0.51 |
| 10:Q:84:THR:CG2 | 12:V:169:LEU:HD13 | 2.40 | 0.51 |
| 12:V:86:PRO:HB2 | 12:V:98:TYR:CB | 2.28 | 0.51 |
| 13:G:11:LEU:HD13 | 13:G:37:ALA:CB | 2.41 | 0.51 |
| 13:G:70:PHE:CD1 | 13:G:99:LEU:CD1 | 2.94 | 0.51 |
| 1:A:86:GLN:O | 1:A:89:ALA:HB3 | 2.11 | 0.50 |
| 1:A:242:ILE:HG23 | 1:A:254:VAL:CG1 | 2.41 | 0.50 |
| 1:A:245:SER:CA | 1:A:248:LEU:HD12 | 2.40 | 0.50 |
| 1:A:269:GLU:HB2 | 1:A:274:ARG:N | 2.25 | 0.50 |
| 1:A:387:ASN:CA | 1:A:390:LEU:HD12 | 2.39 | 0.50 |
| 1:A:442:GLN:O | 1:A:446:GLU:N | 2.38 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:132:TYR:CE2 | 2:B:158:LEU:HD11 | 2.47 | 0.50 |
| 2:B:198:TYR:O | 2:B:201:GLU:HB2 | 2.10 | 0.50 |
| 3:C:224:TYR:OH | 3:C:260:TYR:HB2 | 2.10 | 0.50 |
| 3:C:232:LEU:HD12 | 3:C:263:LEU:HG | 1.93 | 0.50 |
| 4:D:132:LEU:HD12 | 4:D:148:TYR:HE1 | 1.76 | 0.50 |
| 4:D:352:ILE:HA | 4:D:360:HIS:HB2 | 1.94 | 0.50 |
| 5:E:170:ILE:CG1 | 5:E:183:LEU:HA | 2.41 | 0.50 |
| 6:F:34:GLY:HA3 | 6:F:182:LEU:O | 2.11 | 0.50 |
| 6:F:131:PRO:HA | 6:F:153:LYS:HE3 | 1.92 | 0.50 |
| 6:F:142:VAL:C | 6:F:149:PRO:HG3 | 2.31 | 0.50 |
| 7:H:148:ILE:CA | 7:H:153:TRP:HB2 | 2.39 | 0.50 |
| 8:O:14:TRP:NE1 | 8:O:60:GLU:HB3 | 2.26 | 0.50 |
| 8:O:169:ASN:HB3 | 8:O:173:GLY:CA | 2.41 | 0.50 |
| 8:O:285:ILE:O | 8:O:289:GLU:HA | 2.11 | 0.50 |
| 8:O:716:SER:C | 8:O:718:ILE:H | 2.12 | 0.50 |
| 8:O:729:GLN:HG2 | 11:R:55:GLU:CG | 2.42 | 0.50 |
| 13:G:28:THR:HA | 13:G:31:ILE:CG2 | 2.40 | 0.50 |
| 13:G:39:GLY:HA2 | 13:G:160:ARG:O | 2.10 | 0.50 |
| 13:G:40:VAL:O | 13:G:40:VAL:HG12 | 2.11 | 0.50 |
| 13:G:43:PHE:HD2 | 13:G:67:LEU:HD13 | 1.76 | 0.50 |
| 1:A:79:ASN:O | 1:A:390:LEU:HD21 | 2.12 | 0.50 |
| 1:A:87:TYR:HA | 1:A:91:TYR:CD2 | 2.40 | 0.50 |
| 1:A:105:ASP:OD1 | 1:A:115:LEU:HD11 | 2.10 | 0.50 |
| 1:A:136:ARG:O | 1:A:140:GLU:HG3 | 2.12 | 0.50 |
| 1:A:243:LYS:O | 1:A:246:VAL:HB | 2.11 | 0.50 |
| 1:A:250:ASN:HB3 | 1:A:254:VAL:HG21 | 1.93 | 0.50 |
| 1:A:451:ALA:O | 1:A:452:ARG:NH1 | 2.33 | 0.50 |
| 1:A:459:ILE:HB | 1:A:461:TYR:CZ | 2.46 | 0.50 |
| 2:B:99:ILE:HG12 | 2:B:138:ALA:HB1 | 1.93 | 0.50 |
| 2:B:216:ALA:HA | 2:B:219:GLU:CD | 2.32 | 0.50 |
| 2:B:314:LEU:HD21 | 2:B:329:ILE:CB | 2.41 | 0.50 |
| 2:B:346:HIS:O | 2:B:349:GLU:HB3 | 2.11 | 0.50 |
| 4:D:5:VAL:HG22 | 4:D:28:GLN:CG | 2.41 | 0.50 |
| 4:D:34:ILE:HG21 | 4:D:72:HIS:CE1 | 2.46 | 0.50 |
| 4:D:112:SER:O | 4:D:115:GLU:HB3 | 2.11 | 0.50 |
| 4:D:208:TYR:HA | 4:D:225:ALA:HB1 | 1.94 | 0.50 |
| 5:E:123:ASN:HD22 | 6:F:107:THR:CG2 | 2.24 | 0.50 |
| 5:E:201:SER:HA | 5:E:221:TYR:CE2 | 2.47 | 0.50 |
| 7:H:13:PHE:CD1 | 7:H:46:LEU:HB3 | 2.47 | 0.50 |
| 8:O:281:GLU:HA | 8:O:284:ASN:HB2 | 1.93 | 0.50 |
| 8:O:415:LEU:O | 8:O:418:PHE:HB2 | 2.11 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:521:GLN:NE2 | 8:O:554:THR:C | 2.62 | 0.50 |
| 8:O:656:SER:O | 8:O:657:MET:C | 2.50 | 0.50 |
| 8:O:688:MET:CE | 8:O:730:TYR:CB | 2.89 | 0.50 |
| 9:P:19:LYS:O | 9:P:57:LEU:HD12 | 2.11 | 0.50 |
| 11:R:35:TRP:O | 11:R:36:ASP:HA | 2.11 | 0.50 |
| 13:G:27:LEU:O | 13:G:27:LEU:HD23 | 2.11 | 0.50 |
| 13:G:75:TYR:CD2 | 13:G:120:LEU:HD22 | 2.47 | 0.50 |
| 1:A:255:LEU:O | 1:A:258:VAL:HB | 2.11 | 0.50 |
| 1:A:467:GLN:HE22 | 2:B:422:THR:CB | 2.24 | 0.50 |
| 2:B:173:ARG:O | 2:B:177:GLN:HG2 | 2.12 | 0.50 |
| 2:B:273:ARG:CZ | 2:B:277:LEU:HB3 | 2.41 | 0.50 |
| 2:B:330:LEU:HA | 2:B:333:ASN:CB | 2.33 | 0.50 |
| 2:B:427:TRP:CA | 5:E:270:SER:CB | 2.81 | 0.50 |
| 3:C:22:THR:HG22 | 3:C:95:TYR:CA | 2.41 | 0.50 |
| 3:C:27:LEU:HD22 | 3:C:30:LYS:HD2 | 1.93 | 0.50 |
| 3:C:89:ASN:OD1 | 3:C:90:GLY:N | 2.44 | 0.50 |
| 3:C:387:ASP:OD1 | 6:F:301:THR:HB | 2.12 | 0.50 |
| 4:D:12:LEU:HA | 4:D:15:SER:CB | 2.41 | 0.50 |
| 4:D:21:ASP:O | 4:D:25:LYS:HG3 | 2.11 | 0.50 |
| 4:D:28:GLN:CG | 4:D:32:LYS:HB3 | 2.41 | 0.50 |
| 4:D:73:LEU:HB2 | 4:D:74:PRO:HD3 | 1.93 | 0.50 |
| 4:D:121:ARG:HG3 | 4:D:125:GLN:NE2 | 2.26 | 0.50 |
| 4:D:205:ALA:HA | 4:D:208:TYR:HD2 | 1.75 | 0.50 |
| 4:D:319:ILE:H | 4:D:359:VAL:HG12 | 1.75 | 0.50 |
| 4:D:367:LEU:O | 4:D:370:TRP:HB3 | 2.10 | 0.50 |
| 5:E:37:GLN:HA | 5:E:40:LEU:CD1 | 2.38 | 0.50 |
| 5:E:43:LYS:CE | 5:E:46:THR:HG21 | 2.41 | 0.50 |
| 5:E:279:GLN:CG | 5:E:295:LYS:CE | 2.86 | 0.50 |
| 6:F:153:LYS:HB3 | 6:F:166:SER:HB2 | 1.93 | 0.50 |
| 6:F:242:VAL:HG13 | 6:F:256:ILE:HG21 | 1.92 | 0.50 |
| 6:F:264:CYS:O | 6:F:267:LEU:HB2 | 2.12 | 0.50 |
| 8:O:295:ALA:O | 8:O:299:VAL:HG23 | 2.12 | 0.50 |
| 8:O:437:ARG:HD2 | 8:O:518:PRO:O | 2.11 | 0.50 |
| 8:O:560:CYS:HB2 | 8:O:579:THR:CG2 | 2.32 | 0.50 |
| 8:O:563:GLU:CG | 11:R:27:TRP:CA | 2.84 | 0.50 |
| 8:O:623:ILE:HD13 | 8:O:625:HIS:HB3 | 1.93 | 0.50 |
| 8:O:699:LEU:HD13 | 8:O:700:ILE:N | 2.26 | 0.50 |
| 11:R:67:GLU:HA | 11:R:70:VAL:HG12 | 1.93 | 0.50 |
| 12:V:82:ARG:HB3 | 12:V:121:ASP:HB3 | 1.92 | 0.50 |
| 13:G:31:ILE:HD11 | 13:G:63:TYR:CD1 | 2.46 | 0.50 |
| 13:G:43:PHE:CB | 13:G:47:LEU:HB2 | 2.41 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 2:B:14:GLU:C | 2:B:18:LEU:HG | 2.28 | 0.50 |
| 2:B:34:ASN:HA | 2:B:57:VAL:HG22 | 1.93 | 0.50 |
| 2:B:135:THR:HG22 | 2:B:139:LEU:CD1 | 2.42 | 0.50 |
| 2:B:169:GLN:HE21 | 2:B:173:ARG:CD | 2.24 | 0.50 |
| 2:B:287:MET:SD | 2:B:289:SER:HB3 | 2.51 | 0.50 |
| 2:B:390:VAL:HA | 2:B:393:ILE:HD11 | 1.93 | 0.50 |
| 2:B:399:HIS:O | 2:B:411:LEU:HA | 2.11 | 0.50 |
| 2:B:436:GLN:HA | 2:B:439:VAL:HB | 1.92 | 0.50 |
| 3:C:21:MET:HB2 | 3:C:95:TYR:CE1 | 2.46 | 0.50 |
| 3:C:74:PHE:O | 3:C:78:PHE:HB2 | 2.11 | 0.50 |
| 3:C:78:PHE:CE2 | 3:C:123:ILE:HG13 | 2.47 | 0.50 |
| 3:C:216:VAL:HG22 | 3:C:253:ILE:HG13 | 1.93 | 0.50 |
| 4:D:96:VAL:HG13 | 4:D:97:ILE:H | 1.77 | 0.50 |
| 4:D:125:GLN:HA | 4:D:128:VAL:CG2 | 2.42 | 0.50 |
| 5:E:57:ILE:HD12 | 5:E:226:VAL:CG1 | 2.41 | 0.50 |
| 5:E:64:LYS:HB3 | 5:E:96:PHE:HB2 | 1.94 | 0.50 |
| 5:E:147:LEU:HD22 | 5:E:151:ASP:CB | 2.40 | 0.50 |
| 5:E:200:PRO:HG2 | 5:E:223:ALA:H | 1.76 | 0.50 |
| 5:E:320:SER:O | 6:F:221:LEU:HD22 | 2.11 | 0.50 |
| 6:F:30:VAL:O | 6:F:136:ILE:HG21 | 2.11 | 0.50 |
| 6:F:254:HIS:HA | 6:F:257:LEU:HB2 | 1.92 | 0.50 |
| 8:O:42:ILE:CD1 | 8:O:108:LEU:HD22 | 2.41 | 0.50 |
| 8:O:42:ILE:CD1 | 8:O:45:LEU:HD12 | 2.42 | 0.50 |
| 8:O:379:ARG:HE | 8:O:384:VAL:HA | 1.77 | 0.50 |
| 8:O:441:LYS:HB3 | 8:O:445:HIS:HD2 | 1.76 | 0.50 |
| 8:O:508:GLN:NE2 | 8:O:559:LEU:HD13 | 2.26 | 0.50 |
| 8:O:612:LYS:CB | 8:O:657:MET:SD | 2.98 | 0.50 |
| 8:O:620:VAL:HG21 | 8:O:653:ILE:CG2 | 2.41 | 0.50 |
| 9:P:76:GLY:HA3 | 9:P:88:LEU:CD2 | 2.38 | 0.50 |
| 13:G:133:ILE:O | 13:G:136:VAL:HG22 | 2.12 | 0.50 |
| 1:A:164:THR:O | 1:A:167:VAL:HB | 2.11 | 0.50 |
| 1:A:355:PHE:O | 1:A:359:GLU:N | 2.45 | 0.50 |
| 1:A:388:LEU:HB3 | 1:A:398:VAL:CG2 | 2.41 | 0.50 |
| 1:A:416:PRO:HG2 | 1:A:417:TYR:CE2 | 2.47 | 0.50 |
| 1:A:487:LYS:HD3 | 3:C:165:ASP:CB | 2.41 | 0.50 |
| 2:B:297:GLN:HE21 | 11:R:67:GLU:HA | 1.75 | 0.50 |
| 3:C:77:LEU:CA | 3:C:80:GLN:HB2 | 2.38 | 0.50 |
| 3:C:125:LYS:CA | 3:C:128:ILE:HD12 | 2.41 | 0.50 |
| 3:C:156:LYS:O | 3:C:159:LEU:HB2 | 2.11 | 0.50 |
| 3:C:396:GLU:HA | 3:C:399:VAL:HB | 1.92 | 0.50 |
| 4:D:246:LEU:CD1 | 4:D:267:MET:HE3 | 2.41 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 4:D:318:ASN:HA | 4:D:359:VAL:O | 2.11 | 0.50 |
| 4:D:370:TRP:CE2 | 4:D:374:ILE:HD11 | 2.47 | 0.50 |
| 5:E:78:MET:HE1 | 5:E:112:ALA:HB3 | 1.94 | 0.50 |
| 5:E:323:ILE:HG12 | 13:G:188:ILE:CD1 | 2.21 | 0.50 |
| 5:E:332:ASN:O | 13:G:177:TRP:HA | 2.11 | 0.50 |
| 6:F:230:MET:O | 6:F:234:ARG:HG2 | 2.10 | 0.50 |
| 7:H:90:TYR:CE2 | 7:H:137:VAL:HA | 2.47 | 0.50 |
| 7:H:133:PHE:HA | 7:H:136:PHE:HB2 | 1.93 | 0.50 |
| 8:O:62:LYS:HA | 8:O:142:LEU:CD2 | 2.40 | 0.50 |
| 8:O:219:TYR:O | 8:O:270:MET:HE3 | 2.11 | 0.50 |
| 8:O:373:THR:HA | 8:O:376:VAL:CG2 | 2.40 | 0.50 |
| 8:O:382:LYS:HE2 | 8:O:382:LYS:HA | 1.94 | 0.50 |
| 8:O:396:ASP:OD1 | 8:O:438:MET:HB3 | 2.11 | 0.50 |
| 8:O:402:SER:H | 8:O:447:LEU:CD2 | 2.24 | 0.50 |
| 8:O:541:GLU:OE2 | 8:O:552:LYS:HB3 | 2.11 | 0.50 |
| 8:O:615:LYS:HA | 8:O:628:GLU:CD | 2.32 | 0.50 |
| 8:O:620:VAL:HG13 | 8:O:645:SER:H | 1.76 | 0.50 |
| 9:P:51:LEU:HD21 | 9:P:60:CYS:HA | 1.93 | 0.50 |
| 9:P:52:ASP:N | 9:P:55:LYS:HD3 | 2.26 | 0.50 |
| 9:P:98:GLU:C | 10:Q:85:GLU:CB | 2.80 | 0.50 |
| 12:V:102:PRO:HD2 | 12:V:105:THR:HG21 | 1.92 | 0.50 |
| 13:G:15:PHE:HD1 | 13:G:30:LEU:HD12 | 1.76 | 0.50 |
| 1:A:221:TYR:HB3 | 1:A:241:VAL:HG22 | 1.93 | 0.50 |
| 1:A:248:LEU:HB3 | 1:A:250:ASN:OD1 | 2.11 | 0.50 |
| 1:A:291:LEU:HD21 | 1:A:393:TYR:CD2 | 2.47 | 0.50 |
| 2:B:202:ILE:HD11 | 2:B:218:TYR:OH | 2.12 | 0.50 |
| 3:C:329:SER:O | 3:C:333:GLU:HB2 | 2.11 | 0.50 |
| 3:C:374:HIS:HA | 3:C:377:ASP:HB2 | 1.93 | 0.50 |
| 3:C:378:GLN:HG3 | 3:C:381:LEU:CD1 | 2.40 | 0.50 |
| 4:D:104:ALA:O | 4:D:108:GLN:HG2 | 2.11 | 0.50 |
| 4:D:202:ILE:H | 4:D:202:ILE:HD12 | 1.77 | 0.50 |
| 4:D:240:GLN:HG3 | 4:D:241:GLN:HG3 | 1.93 | 0.50 |
| 4:D:246:LEU:HD21 | 4:D:267:MET:HE2 | 1.93 | 0.50 |
| 4:D:374:ILE:HG23 | 5:E:328:PHE:CE1 | 2.47 | 0.50 |
| 5:E:272:LYS:HA | 5:E:275:GLN:CG | 2.42 | 0.50 |
| 5:E:315:ILE:HD13 | 7:H:204:VAL:HG22 | 1.93 | 0.50 |
| 5:E:323:ILE:HA | 5:E:326:LYS:CG | 2.42 | 0.50 |
| 6:F:82:GLU:O | 6:F:84:MET:HG3 | 2.12 | 0.50 |
| 6:F:273:ASP:OD2 | 6:F:274:LYS:HB2 | 2.11 | 0.50 |
| 8:O:139:ILE:O | 8:O:142:LEU:HB3 | 2.12 | 0.50 |
| 8:O:480:MET:HB2 | 8:O:510:TYR:CE1 | 2.45 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:O:660:ASP:HA | 8:O:663:GLN:HB3 | 1.92 | 0.50 |
| 9:P:94:SER:HB2 | 10:Q:50:ASP:OD1 | 2.11 | 0.50 |
| 10:Q:88:LEU:HD11 | 12:V:179:ASP:OD2 | 2.11 | 0.50 |
| 12:V:86:PRO:CB | 12:V:98:TYR:HB2 | 2.27 | 0.50 |
| 13:G:23:SER:CB | 13:G:55:LEU:HD21 | 2.41 | 0.50 |
| 1:A:135:HIS:HA | 1:A:162:LEU:HB3 | 1.94 | 0.50 |
| 2:B:151:THR:HA | 2:B:154:LYS:HZ1 | 1.76 | 0.50 |
| 2:B:198:TYR:HE2 | 2:B:224:ILE:HD11 | 1.76 | 0.50 |
| 2:B:314:LEU:HD11 | 2:B:333:ASN:HD21 | 1.77 | 0.50 |
| 3:C:391:LYS:HG3 | 6:F:301:THR:HG21 | 1.92 | 0.50 |
| 4:D:33:ALA:HA | 4:D:36:LEU:CD1 | 2.42 | 0.50 |
| 4:D:150:LYS:O | 4:D:154:LEU:HG | 2.12 | 0.50 |
| 4:D:261:TYR:HA | 4:D:264:LEU:HB3 | 1.94 | 0.50 |
| 5:E:123:ASN:ND2 | 6:F:107:THR:HG21 | 2.27 | 0.50 |
| 6:F:43:LEU:HD12 | 6:F:85:ASN:HB2 | 1.94 | 0.50 |
| 6:F:82:GLU:HG3 | 6:F:189:THR:O | 2.12 | 0.50 |
| 6:F:239:LEU:HA | 13:G:174:LEU:HD12 | 1.93 | 0.50 |
| 7:H:17:LEU:N | 7:H:43:LEU:HD13 | 2.26 | 0.50 |
| 7:H:32:ALA:HB3 | 7:H:37:TYR:CE1 | 2.45 | 0.50 |
| 8:O:92:GLU:O | 8:O:96:LYS:HE2 | 2.11 | 0.50 |
| 9:P:43:ARG:HH21 | 9:P:88:LEU:H | 1.59 | 0.50 |
| 13:G:171:VAL:HG13 | 13:G:172:LYS:N | 2.27 | 0.50 |
| 1:A:125:THR:CA | 1:A:210:ASP:HA | 2.29 | 0.50 |
| 1:A:220:CYS:HA | 1:A:223:ARG:HH21 | 1.76 | 0.50 |
| 1:A:268:ALA:HB2 | 1:A:282:LEU:CD1 | 2.42 | 0.50 |
| 1:A:339:ARG:CZ | 2:B:394:LEU:CD1 | 2.86 | 0.50 |
| 1:A:354:LEU:O | 1:A:357:GLU:HG2 | 2.11 | 0.50 |
| 1:A:478:MET:HE2 | 2:B:428:THR:CG2 | 2.41 | 0.50 |
| 2:B:159:TYR:HD1 | 2:B:162:ARG:HB3 | 1.74 | 0.50 |
| 2:B:255:HIS:CE1 | 11:R:68:CYS:SG | 3.01 | 0.50 |
| 2:B:296:SER:HB2 | 11:R:67:GLU:CD | 2.30 | 0.50 |
| 3:C:68:MET:O | 3:C:71:VAL:HG22 | 2.12 | 0.50 |
| 3:C:192:TYR:CG | 3:C:200:ARG:HD3 | 2.46 | 0.50 |
| 4:D:30:LEU:CD1 | 4:D:34:ILE:HD11 | 2.41 | 0.50 |
| 4:D:264:LEU:HA | 4:D:267:MET:CG | 2.42 | 0.50 |
| 5:E:65:MET:CA | 5:E:96:PHE:HA | 2.41 | 0.50 |
| 5:E:127:VAL:CG1 | 6:F:90:LEU:HB2 | 2.41 | 0.50 |
| 6:F:261:TYR:CG | 13:G:170:ILE:CD1 | 2.64 | 0.50 |
| 7:H:121:VAL:HA | 7:H:125:TYR:CD2 | 2.46 | 0.50 |
| 7:H:154:GLN:CB | 7:H:163:LEU:HB2 | 2.32 | 0.50 |
| 8:O:20:THR:HG22 | 8:O:34:THR:HB | 1.91 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:30:VAL:HB | 8:O:35:TRP:HE1 | 1.77 | 0.50 |
| 8:O:62:LYS:HA | 8:O:142:LEU:HD11 | 1.92 | 0.50 |
| 8:O:208:GLU:O | 8:O:211:PHE:HB3 | 2.12 | 0.50 |
| 8:O:333:GLU:OE2 | 8:O:335:MET:HB3 | 2.11 | 0.50 |
| 8:O:377:ASN:O | 8:O:384:VAL:HG21 | 2.12 | 0.50 |
| 8:O:569:LEU:HD12 | 11:R:18:LYS:CA | 2.42 | 0.50 |
| 9:P:11:LYS:NZ | 10:Q:14:LYS:CE | 2.43 | 0.50 |
| 1:A:297:ARG:HH22 | 12:V:142:VAL:HG11 | 1.74 | 0.50 |
| 1:A:301:GLN:CD | 1:A:304:LYS:HD3 | 2.32 | 0.50 |
| 1:A:386:ASP:O | 1:A:390:LEU:HG | 2.12 | 0.50 |
| 1:A:391:ASP:HB3 | 1:A:394:LEU:CB | 2.38 | 0.50 |
| 2:B:55:GLN:O | 2:B:58:LEU:HB3 | 2.12 | 0.50 |
| 2:B:57:VAL:CG1 | 2:B:68:GLY:HA2 | 2.40 | 0.50 |
| 2:B:277:LEU:HD12 | 2:B:278:LYS:N | 2.27 | 0.50 |
| 4:D:37:SER:N | 4:D:41:GLN:HB2 | 2.27 | 0.50 |
| 4:D:88:THR:HG22 | 4:D:92:ILE:CD1 | 2.34 | 0.50 |
| 4:D:235:LEU:HD23 | 4:D:300:LEU:CD2 | 2.41 | 0.50 |
| 4:D:272:ILE:HG23 | 4:D:274:ARG:NH1 | 2.27 | 0.50 |
| 4:D:281:PHE:CE2 | 4:D:285:LEU:HD11 | 2.47 | 0.50 |
| 5:E:149:GLY:N | 5:E:210:LYS:HD2 | 2.26 | 0.50 |
| 5:E:155:GLN:CG | 5:E:188:THR:HG21 | 2.41 | 0.50 |
| 7:H:114:ARG:HD3 | 7:H:139:LEU:HD11 | 1.94 | 0.50 |
| 7:H:122:SER:HA | 7:H:164:PRO:CB | 2.42 | 0.50 |
| 7:H:200:LEU:O | 7:H:203:TYR:HB2 | 2.12 | 0.50 |
| 8:O:83:VAL:HA | 8:O:86:MET:CG | 2.42 | 0.50 |
| 8:O:192:GLU:HB3 | 8:O:198:PHE:O | 2.12 | 0.50 |
| 8:O:219:TYR:HD2 | 8:O:266:CYS:HB2 | 1.77 | 0.50 |
| 8:O:279:HIS:HB2 | 8:O:314:GLU:OE2 | 2.12 | 0.50 |
| 8:O:344:LEU:HD13 | 8:O:414:ARG:CZ | 2.42 | 0.50 |
| 8:O:533:LEU:HD11 | 11:R:27:TRP:CZ3 | 2.47 | 0.50 |
| 8:O:587:ALA:HB1 | 8:O:599:LEU:HD13 | 1.92 | 0.50 |
| 8:O:696:HIS:NE2 | 8:O:719:LYS:HG2 | 2.26 | 0.50 |
| 9:P:13:THR:O | 10:Q:16:TYR:N | 2.33 | 0.50 |
| 13:G:43:PHE:CD2 | 13:G:67:LEU:CD1 | 2.94 | 0.50 |
| 1:A:350:SER:HA | 1:A:353:LYS:CB | 2.42 | 0.49 |
| 2:B:72:LEU:HD12 | 2:B:95:LEU:HD23 | 1.93 | 0.49 |
| 2:B:248:GLU:HG2 | 2:B:250:GLU:H | 1.77 | 0.49 |
| 2:B:255:HIS:CE1 | 11:R:64:THR:OG1 | 2.65 | 0.49 |
| 3:C:77:LEU:HD12 | 3:C:80:GLN:HB2 | 1.94 | 0.49 |
| 3:C:186:TYR:OH | 3:C:226:LYS:NZ | 2.45 | 0.49 |
| 5:E:77:VAL:HG21 | 5:E:98:LEU:H | 1.77 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:E:98:LEU:HD13 | 5:E:100:VAL:CG1 | 2.40 | 0.49 |
| 5:E:246:TRP:HZ2 | 6:F:233:SER:H | 1.58 | 0.49 |
| 5:E:327:LEU:CD2 | 13:G:181:CYS:CB | 2.89 | 0.49 |
| 6:F:73:ILE:HD12 | 6:F:119:LEU:HD22 | 1.93 | 0.49 |
| 7:H:41:LEU:HG | 7:H:74:ILE:HG22 | 1.93 | 0.49 |
| 8:O:62:LYS:NZ | 8:O:130:VAL:HB | 2.27 | 0.49 |
| 8:O:160:ILE:HA | 8:O:163:LEU:HD12 | 1.93 | 0.49 |
| 8:O:170:ASP:CB | 8:O:249:ARG:HE | 2.22 | 0.49 |
| 8:O:288:GLN:HG3 | 8:O:290:LYS:NZ | 2.27 | 0.49 |
| 8:O:644:PHE:CG | 8:O:650:LYS:HA | 2.46 | 0.49 |
| 9:P:14:ILE:HD12 | 10:Q:17:GLU:OE1 | 2.05 | 0.49 |
| 9:P:68:ARG:HE | 9:P:71:ALA:CB | 2.23 | 0.49 |
| 12:V:146:PRO:C | 12:V:147:ILE:HG13 | 2.32 | 0.49 |
| 12:V:192:PRO:HA | 12:V:196:LYS:NZ | 2.27 | 0.49 |
| 13:G:128:LEU:O | 13:G:132:ILE:HG23 | 2.12 | 0.49 |
| 2:B:173:ARG:HA | 2:B:176:HIS:ND1 | 2.26 | 0.49 |
| 2:B:302:TYR:CE1 | 11:R:35:TRP:CH2 | 2.99 | 0.49 |
| 2:B:323:ILE:HG13 | 2:B:358:VAL:HG21 | 1.92 | 0.49 |
| 2:B:342:PHE:HB3 | 2:B:346:HIS:HD2 | 1.76 | 0.49 |
| 3:C:138:LEU:HD12 | 3:C:184:TYR:CD2 | 2.47 | 0.49 |
| 3:C:210:THR:HG22 | 3:C:245:THR:CA | 2.39 | 0.49 |
| 3:C:352:ASN:HB3 | 3:C:357:MET:H | 1.78 | 0.49 |
| 4:D:22:LEU:CD1 | 4:D:25:LYS:HD2 | 2.35 | 0.49 |
| 4:D:37:SER:HA | 4:D:41:GLN:OE1 | 2.11 | 0.49 |
| 4:D:85:TYR:CB | 4:D:110:LEU:HD13 | 2.41 | 0.49 |
| 4:D:381:VAL:HB | 6:F:231:LEU:CD2 | 2.43 | 0.49 |
| 5:E:25:ILE:HD13 | 5:E:232:SER:HB3 | 1.94 | 0.49 |
| 5:E:33:LYS:CD | 5:E:130:LEU:HB3 | 2.36 | 0.49 |
| 5:E:79:GLY:O | 5:E:136:TRP:CA | 2.53 | 0.49 |
| 5:E:148:SER:O | 5:E:152:VAL:HG23 | 2.12 | 0.49 |
| 5:E:244:LYS:HE2 | 6:F:230:MET:N | 2.27 | 0.49 |
| 5:E:253:SER:HA | 5:E:321:GLN:NE2 | 2.27 | 0.49 |
| 5:E:272:LYS:HA | 5:E:275:GLN:CD | 2.33 | 0.49 |
| 5:E:279:GLN:HB2 | 5:E:299:LYS:CD | 2.42 | 0.49 |
| 6:F:138:VAL:HG13 | 6:F:141:GLN:OE1 | 2.12 | 0.49 |
| 8:O:36:ASN:HA | 8:O:39:PHE:CD2 | 2.41 | 0.49 |
| 8:O:379:ARG:CG | 8:O:384:VAL:HG22 | 2.35 | 0.49 |
| 8:O:394:TYR:CD2 | 8:O:398:LEU:HD11 | 2.47 | 0.49 |
| 8:O:409:ASN:CA | 8:O:412:GLU:HB2 | 2.30 | 0.49 |
| 8:O:540:PHE:CD2 | 8:O:553:LEU:HD23 | 2.47 | 0.49 |
| 9:P:30:ILE:HD11 | 10:Q:5:PHE:HZ | 1.75 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 10:Q:60:TYR:CD2 | 12:V:158:LEU:HB3 | 2.45 | 0.49 |
| 1:A:326:ALA:HA | 1:A:352:PHE:CE1 | 2.46 | 0.49 |
| 1:A:352:PHE:HA | 1:A:355:PHE:CD2 | 2.31 | 0.49 |
| 1:A:400:THR:O | 1:A:403:THR:HB | 2.11 | 0.49 |
| 1:A:420:ALA:N | 1:A:460:LEU:O | 2.45 | 0.49 |
| 2:B:140:LYS:HD2 | 2:B:140:LYS:O | 2.12 | 0.49 |
| 3:C:82:GLN:HA | 3:C:85:ILE:CB | 2.35 | 0.49 |
| 3:C:89:ASN:CG | 3:C:130:LYS:HG3 | 2.33 | 0.49 |
| 3:C:106:GLN:HA | 3:C:109:ASN:ND2 | 2.26 | 0.49 |
| 3:C:192:TYR:HB3 | 3:C:197:ASN:HB3 | 1.94 | 0.49 |
| 3:C:222:GLU:HA | 3:C:225:LYS:HB2 | 1.94 | 0.49 |
| 3:C:231:SER:HB2 | 3:C:239:GLN:H | 1.78 | 0.49 |
| 3:C:279:VAL:HG13 | 3:C:286:PHE:CZ | 2.48 | 0.49 |
| 4:D:19:HIS:CE1 | 4:D:60:VAL:HB | 2.47 | 0.49 |
| 4:D:319:ILE:CD1 | 4:D:327:LEU:HD22 | 2.39 | 0.49 |
| 5:E:270:SER:O | 5:E:273:LEU:HB2 | 2.12 | 0.49 |
| 5:E:279:GLN:CD | 5:E:298:ASP:HA | 2.33 | 0.49 |
| 7:H:148:ILE:HD11 | 7:H:155:ALA:HB2 | 1.94 | 0.49 |
| 8:O:32:ARG:O | 8:O:33:ALA:C | 2.50 | 0.49 |
| 8:O:46:CYS:SG | 10:Q:96:TYR:CE2 | 3.02 | 0.49 |
| 8:O:106:ARG:HH12 | 10:Q:27:PRO:CB | 2.24 | 0.49 |
| 8:O:149:LYS:HG2 | 8:O:152:VAL:CB | 2.42 | 0.49 |
| 8:O:505:ILE:CG1 | 8:O:533:LEU:HD23 | 2.40 | 0.49 |
| 8:O:566:MET:CE | 8:O:574:VAL:HG23 | 2.43 | 0.49 |
| 8:O:640:LEU:CD2 | 11:R:20:LYS:HD2 | 2.33 | 0.49 |
| 8:O:722:ILE:HG21 | 8:O:741:TYR:HE2 | 1.71 | 0.49 |
| 9:P:13:THR:O | 10:Q:16:TYR:CA | 2.46 | 0.49 |
| 13:G:75:TYR:HD2 | 13:G:120:LEU:HA | 1.77 | 0.49 |
| 13:G:98:HIS:C | 13:G:101:ILE:HG12 | 2.31 | 0.49 |
| 13:G:112:PRO:HG3 | 13:G:151:LEU:CD2 | 2.42 | 0.49 |
| 1:A:251:TRP:O | 1:A:255:LEU:N | 2.45 | 0.49 |
| 1:A:343:GLN:HG3 | 1:A:347:ILE:CD1 | 2.42 | 0.49 |
| 2:B:29:ASN:C | 2:B:31:ASP:N | 2.65 | 0.49 |
| 2:B:365:PRO:HG2 | 2:B:366:TYR:CE2 | 2.48 | 0.49 |
| 3:C:124:LEU:O | 3:C:128:ILE:HG13 | 2.11 | 0.49 |
| 3:C:158:ALA:O | 3:C:161:TYR:N | 2.46 | 0.49 |
| 3:C:198:PHE:CB | 3:C:234:LEU:HD22 | 2.38 | 0.49 |
| 3:C:317:LEU:HD12 | 3:C:318:SER:H | 1.77 | 0.49 |
| 4:D:46:LYS:O | 4:D:50:GLU:HG3 | 2.13 | 0.49 |
| 4:D:238:ALA:HA | 4:D:242:ARG:NH1 | 2.26 | 0.49 |
| 4:D:324:LEU:HD12 | 4:D:327:LEU:HD23 | 1.94 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:E:81:MET:HE3 | 5:E:135:GLY:HA3 | 1.93 | 0.49 |
| 5:E:81:MET:CE | 5:E:136:TRP:H | 2.25 | 0.49 |
| 5:E:140:HIS:N | 5:E:144:GLY:O | 2.33 | 0.49 |
| 5:E:147:LEU:HB3 | 5:E:151:ASP:HB3 | 1.95 | 0.49 |
| 5:E:183:LEU:HD22 | 5:E:226:VAL:CG1 | 2.35 | 0.49 |
| 5:E:245:TYR:CE1 | 6:F:192:THR:HG22 | 2.37 | 0.49 |
| 5:E:279:GLN:CD | 5:E:295:LYS:CE | 2.76 | 0.49 |
| 6:F:242:VAL:HG22 | 6:F:256:ILE:HG23 | 1.93 | 0.49 |
| 7:H:28:PRO:HG3 | 7:H:31:ILE:H | 1.76 | 0.49 |
| 7:H:99:SER:HA | 7:H:104:PRO:CD | 2.36 | 0.49 |
| 8:O:189:VAL:CG2 | 8:O:203:TYR:HA | 2.42 | 0.49 |
| 8:O:308:LEU:HD13 | 8:O:363:HIS:CG | 2.47 | 0.49 |
| 8:O:458:ILE:CG1 | 8:O:461:LEU:HD12 | 2.41 | 0.49 |
| 8:O:521:GLN:CB | 8:O:555:TRP:O | 2.52 | 0.49 |
| 8:O:565:LYS:CG | 11:R:19:LYS:HD3 | 2.41 | 0.49 |
| 8:O:618:LEU:HD13 | 8:O:625:HIS:CE1 | 2.47 | 0.49 |
| 8:O:688:MET:CG | 8:O:731:ILE:CD1 | 2.90 | 0.49 |
| 13:G:15:PHE:CZ | 13:G:34:VAL:HA | 2.48 | 0.49 |
| 13:G:43:PHE:HD2 | 13:G:67:LEU:CD1 | 2.26 | 0.49 |
| 13:G:110:CYS:CB | 13:G:151:LEU:HB3 | 2.37 | 0.49 |
| 13:G:111:ILE:CG2 | 13:G:115:VAL:HB | 2.42 | 0.49 |
| 13:G:132:ILE:HG12 | 13:G:145:LEU:HD21 | 1.93 | 0.49 |
| 1:A:205:GLY:HA2 | 1:A:208:TYR:CD2 | 2.47 | 0.49 |
| 1:A:374:TYR:CE2 | 1:A:413:TYR:HB2 | 2.47 | 0.49 |
| 1:A:493:ALA:O | 1:A:497:ARG:HG2 | 2.13 | 0.49 |
| 2:B:153:THR:HG23 | 2:B:196:GLU:HG3 | 1.94 | 0.49 |
| 2:B:232:LEU:HD23 | 2:B:232:LEU:H | 1.77 | 0.49 |
| 2:B:235:GLY:O | 2:B:239:GLU:N | 2.41 | 0.49 |
| 2:B:346:HIS:O | 2:B:350:LEU:HD23 | 2.13 | 0.49 |
| 3:C:93:ILE:HD12 | 3:C:127:ALA:HB1 | 1.94 | 0.49 |
| 3:C:157:PRO:O | 3:C:160:PRO:HD2 | 2.12 | 0.49 |
| 3:C:323:ALA:HA | 3:C:328:LEU:H | 1.78 | 0.49 |
| 4:D:105:SER:HA | 4:D:108:GLN:CG | 2.42 | 0.49 |
| 4:D:120:TRP:CE3 | 4:D:157:GLU:HB2 | 2.47 | 0.49 |
| 4:D:148:TYR:HD2 | 4:D:171:ALA:HA | 1.76 | 0.49 |
| 4:D:205:ALA:HA | 4:D:229:ALA:HA | 1.93 | 0.49 |
| 4:D:227:LYS:HE2 | 4:D:231:HIS:HE1 | 1.75 | 0.49 |
| 5:E:282:ARG:NH1 | 5:E:282:ARG:HB2 | 2.28 | 0.49 |
| 5:E:323:ILE:CG2 | 13:G:185:LEU:CD2 | 2.90 | 0.49 |
| 7:H:132:ASP:HB3 | 7:H:136:PHE:CZ | 2.47 | 0.49 |
| 8:O:12:GLU:HG2 | 8:O:16:LYS:CE | 2.36 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:O:319:ILE:CG2 | 8:O:371:ALA:HB3 | 2.42 | 0.49 |
| 8:O:512:LEU:CB | 8:O:551:ARG:CA | 2.91 | 0.49 |
| 8:O:517:TRP:CE3 | 8:O:518:PRO:HD2 | 2.47 | 0.49 |
| 8:O:530:PRO:HD2 | 8:O:533:LEU:CD1 | 2.42 | 0.49 |
| 8:O:633:ASP:CB | 8:O:635:GLU:HB3 | 2.39 | 0.49 |
| 11:R:41:ASN:N | 11:R:49:ILE:HD13 | 2.27 | 0.49 |
| 12:V:109:ILE:O | 12:V:140:LEU:HD12 | 2.13 | 0.49 |
| 12:V:118:LEU:HD11 | 12:V:194:VAL:HG13 | 1.94 | 0.49 |
| 13:G:99:LEU:CD2 | 13:G:160:ARG:HD2 | 2.42 | 0.49 |
| 1:A:271:ARG:HE | 1:A:274:ARG:HH11 | 1.60 | 0.49 |
| 1:A:307:LEU:HD23 | 1:A:352:PHE:HB2 | 1.95 | 0.49 |
| 2:B:76:ILE:HD13 | 2:B:88:MET:HG2 | 1.95 | 0.49 |
| 2:B:259:PHE:O | 2:B:263:LYS:HG3 | 2.12 | 0.49 |
| 2:B:304:ASN:HA | 2:B:309:LEU:HD23 | 1.95 | 0.49 |
| 3:C:27:LEU:HB3 | 3:C:30:LYS:CD | 2.42 | 0.49 |
| 3:C:39:LEU:CD2 | 3:C:61:VAL:HG13 | 2.43 | 0.49 |
| 4:D:200:LYS:HE2 | 4:D:200:LYS:HA | 1.93 | 0.49 |
| 4:D:299:ILE:O | 4:D:302:ARG:N | 2.44 | 0.49 |
| 5:E:63:LEU:HD22 | 6:F:47:VAL:HG23 | 1.94 | 0.49 |
| 5:E:147:LEU:CB | 5:E:151:ASP:HB3 | 2.43 | 0.49 |
| 5:E:327:LEU:HD22 | 13:G:181:CYS:CA | 2.41 | 0.49 |
| 7:H:113:THR:HG22 | 7:H:137:VAL:HG12 | 1.95 | 0.49 |
| 7:H:145:VAL:O | 7:H:149:LEU:HG | 2.13 | 0.49 |
| 8:O:9:ASP:HB3 | 8:O:48:ALA:HA | 1.93 | 0.49 |
| 8:O:50:PRO:HB2 | 8:O:54:GLY:H | 1.77 | 0.49 |
| 8:O:266:CYS:HA | 8:O:269:ARG:HB2 | 1.93 | 0.49 |
| 8:O:434:PHE:O | 8:O:437:ARG:HB3 | 2.13 | 0.49 |
| 9:P:16:THR:OG1 | 10:Q:19:SER:OG | 2.31 | 0.49 |
| 11:R:50:MET:HE2 | 11:R:70:VAL:CB | 2.37 | 0.49 |
| 12:V:84:VAL:HG13 | 12:V:119:PHE:HB3 | 1.95 | 0.49 |
| 13:G:146:ASP:CG | 13:G:149:ASN:HB2 | 2.33 | 0.49 |
| 1:A:488:ALA:HB1 | 3:C:207:GLN:NE2 | 2.28 | 0.49 |
| 2:B:41:ALA:CB | 2:B:53:SER:HB2 | 2.33 | 0.49 |
| 2:B:66:GLU:HB3 | 2:B:107:TYR:OH | 2.13 | 0.49 |
| 2:B:68:GLY:O | 2:B:72:LEU:HG | 2.13 | 0.49 |
| 2:B:302:TYR:CE1 | 11:R:35:TRP:HZ3 | 2.27 | 0.49 |
| 2:B:368:ARG:CD | 4:D:353:ASP:CB | 2.77 | 0.49 |
| 3:C:61:VAL:HA | 3:C:64:VAL:CG2 | 2.42 | 0.49 |
| 3:C:169:ILE:HD12 | 3:C:169:ILE:H | 1.78 | 0.49 |
| 3:C:222:GLU:HG2 | 3:C:225:LYS:CD | 2.37 | 0.49 |
| 3:C:260:TYR:CA | 3:C:263:LEU:HB3 | 2.42 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:D:139:TYR:HB3 | 4:D:143:TYR:HD2 | 1.76 | 0.49 |
| 4:D:180:ASN:ND2 | 4:D:183:LEU:HB2 | 2.27 | 0.49 |
| 4:D:320:THR:HA | 4:D:358:ILE:CG1 | 2.41 | 0.49 |
| 4:D:395:TRP:CD2 | 6:F:250:VAL:HG23 | 2.47 | 0.49 |
| 4:D:397:ALA:O | 4:D:401:GLU:HG3 | 2.12 | 0.49 |
| 5:E:137:TYR:OH | 6:F:115:VAL:HG11 | 2.11 | 0.49 |
| 5:E:148:SER:CB | 5:E:210:LYS:HG3 | 2.36 | 0.49 |
| 5:E:276:SER:CB | 5:E:300:LEU:HA | 2.41 | 0.49 |
| 5:E:332:ASN:ND2 | 13:G:176:GLU:O | 2.45 | 0.49 |
| 8:O:154:PRO:HG2 | 8:O:155:LEU:HD22 | 1.95 | 0.49 |
| 8:O:562:GLY:HA2 | 8:O:582:MET:SD | 2.53 | 0.49 |
| 8:O:569:LEU:HD11 | 11:R:19:LYS:CA | 2.43 | 0.49 |
| 8:O:610:LEU:HD11 | 8:O:638:PHE:HE1 | 1.78 | 0.49 |
| 8:O:693:VAL:HG12 | 8:O:699:LEU:CB | 2.43 | 0.49 |
| 9:P:5:LEU:HD13 | 9:P:75:VAL:CG2 | 2.42 | 0.49 |
| 9:P:27:LEU:HD11 | 9:P:75:VAL:HG11 | 1.95 | 0.49 |
| 13:G:74:THR:O | 13:G:77:ASP:HB2 | 2.13 | 0.49 |
| 13:G:76:PRO:HA | 13:G:79:ILE:CG1 | 2.42 | 0.49 |
| 1:A:82:LEU:CB | 1:A:390:LEU:HD13 | 2.43 | 0.49 |
| 1:A:135:HIS:ND1 | 1:A:162:LEU:O | 2.46 | 0.49 |
| 1:A:142:THR:HG21 | 1:A:160:PRO:CD | 2.43 | 0.49 |
| 1:A:410:LEU:HA | 1:A:413:TYR:HB3 | 1.95 | 0.49 |
| 1:A:454:ASP:O | 1:A:457:SER:N | 2.46 | 0.49 |
| 1:A:463:ARG:NE | 1:A:464:ASP:O | 2.44 | 0.49 |
| 1:A:477:LEU:O | 1:A:481:GLU:HG2 | 2.13 | 0.49 |
| 1:A:502:VAL:CG1 | 3:C:215:ALA:HB3 | 2.37 | 0.49 |
| 2:B:20:TYR:H | 8:O:652:LYS:HE3 | 1.77 | 0.49 |
| 2:B:119:ILE:CG2 | 2:B:128:LEU:HB2 | 2.42 | 0.49 |
| 2:B:374:ILE:O | 2:B:378:LEU:HG | 2.12 | 0.49 |
| 2:B:407:GLN:C | 2:B:408:LEU:HD12 | 2.33 | 0.49 |
| 2:B:415:LYS:C | 2:B:416:ARG:HD2 | 2.33 | 0.49 |
| 3:C:171:LYS:O | 3:C:172:GLU:HG2 | 2.12 | 0.49 |
| 4:D:120:TRP:HB2 | 4:D:158:ASP:HB2 | 1.93 | 0.49 |
| 4:D:320:THR:HG22 | 4:D:358:ILE:CG1 | 2.40 | 0.49 |
| 4:D:389:SER:N | 4:D:390:GLN:N | 2.61 | 0.49 |
| 5:E:326:LYS:O | 13:G:184:VAL:CB | 2.59 | 0.49 |
| 8:O:50:PRO:CA | 8:O:53:LEU:HB2 | 2.43 | 0.49 |
| 8:O:399:LEU:HD22 | 8:O:454:GLU:HG2 | 1.95 | 0.49 |
| 8:O:480:MET:O | 8:O:483:SER:HB2 | 2.13 | 0.49 |
| 8:O:575:ALA:N | 11:R:19:LYS:CE | 2.68 | 0.49 |
| 8:O:599:LEU:O | 8:O:603:THR:HG23 | 2.12 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 8:O:728:LYS:CB | 8:O:730:TYR:CE2 | 2.96 | 0.49 |
| 11:R:50:MET:O | 11:R:52:LEU:HG | 2.12 | 0.49 |
| 11:R:81:PHE:HD1 | 11:R:102:GLU:HA | 1.77 | 0.49 |
| 11:R:84:ILE:HD13 | 11:R:101:TRP:CA | 2.43 | 0.49 |
| 12:V:86:PRO:HA | 12:V:119:PHE:CD1 | 2.47 | 0.49 |
| 12:V:152:THR:O | 12:V:154:PRO:HD3 | 2.13 | 0.49 |
| 1:A:250:ASN:HB3 | 1:A:254:VAL:CG2 | 2.43 | 0.49 |
| 1:A:273:GLU:HB2 | 1:A:277:GLN:CB | 2.42 | 0.49 |
| 1:A:387:ASN:HA | 1:A:390:LEU:CD1 | 2.38 | 0.49 |
| 1:A:423:HIS:CE1 | 1:A:458:LYS:HB2 | 2.47 | 0.49 |
| 1:A:451:ALA:HA | 1:A:462:ALA:CA | 2.41 | 0.49 |
| 3:C:387:ASP:HB2 | 6:F:298:THR:HA | 1.94 | 0.49 |
| 4:D:34:ILE:HD13 | 4:D:72:HIS:NE2 | 2.28 | 0.49 |
| 5:E:80:LEU:O | 5:E:137:TYR:HD1 | 1.96 | 0.49 |
| 5:E:246:TRP:CZ3 | 6:F:228:ILE:C | 2.85 | 0.49 |
| 5:E:274:GLU:CA | 5:E:277:GLU:HB3 | 2.42 | 0.49 |
| 6:F:29:SER:N | 6:F:133:PRO:HG3 | 2.27 | 0.49 |
| 6:F:50:ASN:HA | 6:F:53:ASP:HB3 | 1.95 | 0.49 |
| 6:F:72:LEU:HD21 | 6:F:152:LEU:HD13 | 1.95 | 0.49 |
| 6:F:150:LEU:CG | 6:F:167:VAL:HG13 | 2.42 | 0.49 |
| 6:F:264:CYS:HA | 6:F:267:LEU:CD1 | 2.40 | 0.49 |
| 8:O:45:LEU:HD13 | 8:O:108:LEU:HD11 | 1.95 | 0.49 |
| 8:O:166:GLU:HA | 8:O:169:ASN:HB2 | 1.94 | 0.49 |
| 8:O:428:LYS:NZ | 8:O:466:GLY:HA2 | 2.28 | 0.49 |
| 8:O:482:VAL:HA | 8:O:485:ASP:HB3 | 1.94 | 0.49 |
| 8:O:508:GLN:NE2 | 8:O:559:LEU:HA | 2.26 | 0.49 |
| 8:O:512:LEU:HA | 11:R:32:LEU:HD13 | 1.94 | 0.49 |
| 9:P:1:MET:HB3 | 9:P:20:GLU:OE1 | 2.12 | 0.49 |
| 9:P:19:LYS:N | 9:P:26:GLU:HG2 | 2.27 | 0.49 |
| 12:V:74:VAL:CG2 | 12:V:138:PRO:HB3 | 2.42 | 0.49 |
| 1:A:300:LYS:HZ1 | 1:A:337:PHE:HA | 1.77 | 0.49 |
| 2:B:17:ASP:HB3 | 2:B:64:LYS:CG | 2.40 | 0.49 |
| 2:B:177:GLN:HA | 2:B:180:GLN:C | 2.34 | 0.49 |
| 2:B:414:GLN:HB3 | 2:B:416:ARG:HD3 | 1.95 | 0.49 |
| 3:C:60:ALA:O | 3:C:64:VAL:HG23 | 2.12 | 0.49 |
| 3:C:184:TYR:HA | 3:C:187:TYR:HD2 | 1.78 | 0.49 |
| 3:C:350:SER:OG | 7:H:126:THR:N | 2.46 | 0.49 |
| 4:D:263:ILE:CD1 | 4:D:273:ILE:HD12 | 2.43 | 0.49 |
| 4:D:343:ILE:HG13 | 4:D:348:MET:SD | 2.53 | 0.49 |
| 5:E:123:ASN:OD1 | 5:E:126:GLN:NE2 | 2.46 | 0.49 |
| 5:E:311:THR:HB | 7:H:207:LEU:CD1 | 2.33 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 6:F:36:THR:HA | 6:F:169:GLU:OE1 | 2.13 | 0.49 |
| 6:F:73:ILE:HA | 6:F:122:LEU:CB | 2.43 | 0.49 |
| 6:F:73:ILE:HA | 6:F:122:LEU:HB3 | 1.94 | 0.49 |
| 6:F:152:LEU:CD1 | 6:F:165:VAL:HG13 | 2.43 | 0.49 |
| 6:F:282:GLN:O | 6:F:286:VAL:HG23 | 2.13 | 0.49 |
| 7:H:56:LEU:O | 7:H:60:ILE:N | 2.46 | 0.49 |
| 8:O:392:ALA:HB3 | 8:O:434:PHE:HE2 | 1.78 | 0.49 |
| 8:O:485:ASP:CG | 8:O:489:LYS:HZ1 | 2.16 | 0.49 |
| 8:O:490:PHE:HE1 | 8:O:539:MET:HG3 | 1.75 | 0.49 |
| 8:O:544:TYR:HE2 | 8:O:552:LYS:HA | 1.76 | 0.49 |
| 8:O:577:VAL:HG12 | 8:O:653:ILE:HD11 | 1.95 | 0.49 |
| 8:O:688:MET:CE | 8:O:730:TYR:HB3 | 2.43 | 0.49 |
| 9:P:9:ARG:HD2 | 9:P:79:PHE:CE2 | 2.48 | 0.49 |
| 9:P:15:PHE:CE1 | 10:Q:58:VAL:HG23 | 2.45 | 0.49 |
| 9:P:43:ARG:HG3 | 9:P:45:TYR:CZ | 2.48 | 0.49 |
| 12:V:92:ASP:O | 12:V:94:GLU:HG3 | 2.13 | 0.49 |
| 13:G:207:GLN:O | 13:G:210:GLU:HB2 | 2.13 | 0.49 |
| 1:A:421:ASP:HA | 1:A:459:ILE:CG2 | 2.37 | 0.48 |
| 1:A:478:MET:CE | 2:B:428:THR:CG2 | 2.89 | 0.48 |
| 1:A:481:GLU:HB3 | 1:A:485:ARG:NH1 | 2.27 | 0.48 |
| 2:B:106:ASN:O | 2:B:109:GLU:HB3 | 2.13 | 0.48 |
| 2:B:119:ILE:HG22 | 2:B:128:LEU:HB2 | 1.95 | 0.48 |
| 2:B:385:VAL:HA | 2:B:388:LEU:CD2 | 2.43 | 0.48 |
| 3:C:149:CYS:HB2 | 3:C:154:CYS:O | 2.13 | 0.48 |
| 3:C:308:GLN:HA | 3:C:311:THR:CG2 | 2.43 | 0.48 |
| 3:C:365:GLU:HG3 | 3:C:372:MET:CE | 2.43 | 0.48 |
| 4:D:76:LEU:HB3 | 4:D:77:PRO:HD2 | 1.94 | 0.48 |
| 4:D:319:ILE:HG12 | 4:D:324:LEU:N | 2.28 | 0.48 |
| 4:D:384:LEU:HD12 | 4:D:387:LYS:HG2 | 1.87 | 0.48 |
| 5:E:43:LYS:HA | 5:E:45:TRP:CZ3 | 2.47 | 0.48 |
| 5:E:63:LEU:CD2 | 6:F:44:HIS:HB2 | 2.43 | 0.48 |
| 5:E:272:LYS:O | 5:E:275:GLN:CB | 2.48 | 0.48 |
| 8:O:101:MET:HB3 | 8:O:139:ILE:CD1 | 2.41 | 0.48 |
| 8:O:118:LEU:HB3 | 8:O:136:LEU:HB2 | 1.95 | 0.48 |
| 8:O:138:GLU:HB2 | 8:O:141:GLU:CD | 2.33 | 0.48 |
| 8:O:166:GLU:O | 8:O:169:ASN:HB2 | 2.13 | 0.48 |
| 8:O:512:LEU:H | 11:R:32:LEU:CD2 | 2.24 | 0.48 |
| 8:O:553:LEU:HA | 11:R:32:LEU:CA | 2.40 | 0.48 |
| 8:O:568:TYR:CD2 | 11:R:20:LYS:O | 2.66 | 0.48 |
| 8:O:579:THR:O | 8:O:582:MET:HB3 | 2.13 | 0.48 |
| 8:O:728:LYS:HE3 | 11:R:54:ILE:HD12 | 1.43 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 11:R:43:ALA:HB2 | 11:R:79:PHE:CE1 | 2.48 | 0.48 |
| 11:R:52:LEU:HD22 | 11:R:80:HIS:NE2 | 2.28 | 0.48 |
| 11:R:67:GLU:O | 11:R:70:VAL:HG12 | 2.13 | 0.48 |
| 12:V:175:TYR:CA | 12:V:178:LEU:HG | 2.31 | 0.48 |
| 13:G:17:LEU:HD22 | 13:G:20:LYS:HD2 | 1.95 | 0.48 |
| 13:G:138:THR:CG2 | 13:G:140:ILE:H | 2.25 | 0.48 |
| 1:A:137:LYS:HA | 1:A:140:GLU:OE1 | 2.13 | 0.48 |
| 1:A:451:ALA:CA | 1:A:463:ARG:H | 2.22 | 0.48 |
| 2:B:192:THR:HB | 8:O:459:ASN:ND2 | 2.28 | 0.48 |
| 2:B:273:ARG:HH12 | 2:B:277:LEU:HB3 | 1.75 | 0.48 |
| 2:B:312:THR:HA | 2:B:315:VAL:HG22 | 1.95 | 0.48 |
| 2:B:374:ILE:O | 2:B:377:GLU:HB3 | 2.12 | 0.48 |
| 3:C:46:LEU:HD23 | 3:C:58:VAL:N | 2.29 | 0.48 |
| 3:C:125:LYS:HD2 | 3:C:161:TYR:CZ | 2.48 | 0.48 |
| 3:C:190:MET:HG2 | 3:C:226:LYS:CE | 2.42 | 0.48 |
| 4:D:169:ASN:CG | 11:R:77:HIS:HB2 | 2.33 | 0.48 |
| 4:D:191:TYR:CE2 | 4:D:207:ARG:HG3 | 2.47 | 0.48 |
| 4:D:210:GLU:O | 4:D:213:TYR:HB2 | 2.12 | 0.48 |
| 4:D:253:GLU:HA | 4:D:256:GLN:CD | 2.33 | 0.48 |
| 4:D:365:GLU:HB2 | 4:D:369:THR:HG21 | 1.96 | 0.48 |
| 4:D:375:GLN:NE2 | 6:F:223:ALA:O | 2.46 | 0.48 |
| 4:D:382:ASN:HB3 | 6:F:234:ARG:NE | 2.28 | 0.48 |
| 5:E:77:VAL:CG2 | 5:E:98:LEU:H | 2.26 | 0.48 |
| 5:E:86:ASP:O | 5:E:89:THR:HB | 2.13 | 0.48 |
| 5:E:117:MET:SD | 5:E:121:ILE:HG13 | 2.53 | 0.48 |
| 5:E:253:SER:HA | 5:E:321:GLN:HE22 | 1.78 | 0.48 |
| 7:H:75:TRP:O | 7:H:79:GLN:HG3 | 2.13 | 0.48 |
| 7:H:90:TYR:CA | 7:H:93:ILE:HB | 2.41 | 0.48 |
| 8:O:26:MET:CE | 8:O:91:TRP:HA | 2.42 | 0.48 |
| 8:O:45:LEU:HD13 | 8:O:108:LEU:CD1 | 2.44 | 0.48 |
| 8:O:286:ILE:CD1 | 8:O:315:LEU:HD22 | 2.43 | 0.48 |
| 8:O:308:LEU:O | 8:O:311:MET:N | 2.46 | 0.48 |
| 8:O:440:ALA:C | 8:O:519:LEU:HD21 | 2.34 | 0.48 |
| 8:O:537:VAL:CG2 | 8:O:553:LEU:HD12 | 2.43 | 0.48 |
| 8:O:568:TYR:HE1 | 11:R:22:PHE:CD2 | 2.31 | 0.48 |
| 8:O:575:ALA:HB3 | 8:O:650:LYS:HE3 | 1.94 | 0.48 |
| 8:O:615:LYS:HG2 | 8:O:628:GLU:HB3 | 1.94 | 0.48 |
| 9:P:8:ARG:O | 9:P:77:LEU:HB2 | 2.13 | 0.48 |
| 9:P:38:PRO:HD2 | 9:P:41:GLU:OE1 | 2.13 | 0.48 |
| 9:P:57:LEU:HA | 9:P:60:CYS:SG | 2.53 | 0.48 |
| 10:Q:67:TYR:CB | 12:V:155:VAL:CG2 | 2.68 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:95:MET:HE1 | 1:A:249:GLN:HG2 | 1.94 | 0.48 |
| 1:A:164:THR:CA | 1:A:167:VAL:HB | 2.42 | 0.48 |
| 1:A:165:ALA:O | 1:A:168:GLU:HB3 | 2.14 | 0.48 |
| 1:A:381:LEU:HD21 | 1:A:402:TYR:CD1 | 2.48 | 0.48 |
| 2:B:169:GLN:HA | 2:B:172:LEU:HD12 | 1.96 | 0.48 |
| 2:B:290:GLY:O | 2:B:293:PRO:HD3 | 2.13 | 0.48 |
| 4:D:48:PHE:HZ | 4:D:65:LEU:HB3 | 1.79 | 0.48 |
| 4:D:97:ILE:HG23 | 4:D:100:GLU:OE1 | 2.13 | 0.48 |
| 4:D:100:GLU:HB3 | 4:D:137:LYS:CD | 2.42 | 0.48 |
| 4:D:169:ASN:HD22 | 11:R:75:CYS:CB | 2.27 | 0.48 |
| 4:D:170:ARG:HA | 4:D:173:LEU:HG | 1.95 | 0.48 |
| 5:E:62:LEU:HA | 5:E:65:MET:CE | 2.43 | 0.48 |
| 5:E:79:GLY:HA3 | 5:E:137:TYR:CE1 | 2.48 | 0.48 |
| 5:E:170:ILE:HD13 | 5:E:181:VAL:HG13 | 1.95 | 0.48 |
| 5:E:279:GLN:HA | 5:E:294:ARG:HE | 1.47 | 0.48 |
| 5:E:324:LYS:O | 5:E:328:PHE:N | 2.42 | 0.48 |
| 6:F:51:ILE:HA | 6:F:125:TYR:CE2 | 2.47 | 0.48 |
| 8:O:153:GLU:HB2 | 8:O:154:PRO:HD3 | 1.95 | 0.48 |
| 9:P:100:PRO:HG3 | 10:Q:88:LEU:HD21 | 1.94 | 0.48 |
| 10:Q:88:LEU:HD21 | 12:V:179:ASP:OD2 | 2.07 | 0.48 |
| 11:R:78:ALA:HA | 11:R:100:GLU:H | 1.78 | 0.48 |
| 11:R:84:ILE:HG21 | 11:R:102:GLU:H | 1.78 | 0.48 |
| 13:G:75:TYR:N | 13:G:76:PRO:HD2 | 2.28 | 0.48 |
| 1:A:128:VAL:HG12 | 1:A:132:GLU:HG3 | 1.95 | 0.48 |
| 1:A:135:HIS:O | 1:A:138:LEU:HB3 | 2.13 | 0.48 |
| 1:A:198:ARG:HG2 | 1:A:224:ALA:CB | 2.31 | 0.48 |
| 1:A:299:TYR:CB | 1:A:336:THR:HG21 | 2.44 | 0.48 |
| 1:A:305:CYS:HA | 1:A:308:LEU:HB2 | 1.94 | 0.48 |
| 2:B:194:LEU:HA | 2:B:197:ILE:HB | 1.95 | 0.48 |
| 2:B:333:ASN:O | 2:B:338:MET:HG2 | 2.13 | 0.48 |
| 3:C:71:VAL:HA | 3:C:115:LYS:NZ | 2.28 | 0.48 |
| 3:C:231:SER:HA | 3:C:235:LEU:CD1 | 2.31 | 0.48 |
| 4:D:253:GLU:O | 4:D:256:GLN:HB2 | 2.12 | 0.48 |
| 4:D:304:VAL:HG12 | 4:D:309:LEU:HG | 1.95 | 0.48 |
| 5:E:269:LEU:CD1 | 5:E:306:ASP:HB3 | 2.44 | 0.48 |
| 5:E:272:LYS:HD3 | 5:E:306:ASP:CB | 2.43 | 0.48 |
| 5:E:329:ASN:HA | 6:F:270:LEU:CB | 2.42 | 0.48 |
| 6:F:73:ILE:N | 6:F:85:ASN:O | 2.47 | 0.48 |
| 6:F:113:LYS:NZ | 6:F:120:GLU:HA | 2.29 | 0.48 |
| 6:F:189:THR:HG23 | 6:F:230:MET:CE | 2.44 | 0.48 |
| 7:H:102:VAL:HG12 | 7:H:106:MET:HG3 | 1.95 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:87:TYR:HA | 8:O:90:TYR:HB2 | 1.95 | 0.48 |
| 8:O:214:GLU:HA | 8:O:217:GLU:HB2 | 1.95 | 0.48 |
| 8:O:275:LEU:HG | 8:O:276:GLN:OE1 | 2.13 | 0.48 |
| 8:O:500:VAL:HA | 8:O:503:LEU:HD21 | 1.95 | 0.48 |
| 8:O:550:GLY:O | 11:R:34:ALA:CB | 2.61 | 0.48 |
| 9:P:23:THR:CA | 9:P:56:THR:HA | 2.25 | 0.48 |
| 9:P:45:TYR:HH | 9:P:50:LEU:HD12 | 1.77 | 0.48 |
| 10:Q:91:LEU:HD23 | 12:V:184:LEU:HD13 | 0.54 | 0.48 |
| 13:G:11:LEU:HA | 13:G:14:GLN:HB3 | 1.94 | 0.48 |
| 13:G:31:ILE:CD1 | 13:G:63:TYR:CG | 2.96 | 0.48 |
| 13:G:129:GLU:HA | 13:G:132:ILE:HG12 | 1.95 | 0.48 |
| 1:A:77:VAL:HG12 | 1:A:106:HIS:O | 2.14 | 0.48 |
| 1:A:420:ALA:CB | 1:A:460:LEU:HB3 | 2.29 | 0.48 |
| 1:A:442:GLN:O | 1:A:445:LEU:HB2 | 2.14 | 0.48 |
| 1:A:500:ILE:O | 3:C:212:PRO:HB2 | 2.13 | 0.48 |
| 2:B:163:GLU:HB3 | 2:B:165:TYR:CE2 | 2.44 | 0.48 |
| 2:B:315:VAL:HG12 | 2:B:318:TYR:CE2 | 2.48 | 0.48 |
| 3:C:39:LEU:HD11 | 3:C:64:VAL:HG12 | 1.95 | 0.48 |
| 3:C:228:ILE:HB | 3:C:260:TYR:CE2 | 2.47 | 0.48 |
| 3:C:242:PRO:HB2 | 3:C:245:THR:HG22 | 1.95 | 0.48 |
| 3:C:396:GLU:O | 3:C:399:VAL:HB | 2.13 | 0.48 |
| 4:D:1:MET:H3 | 4:D:32:LYS:HE2 | 1.78 | 0.48 |
| 4:D:321:PHE:CE2 | 4:D:357:GLY:HA2 | 2.48 | 0.48 |
| 5:E:332:ASN:ND2 | 13:G:179:ASP:CA | 2.62 | 0.48 |
| 8:O:38:ARG:HG3 | 8:O:104:LEU:CD1 | 2.35 | 0.48 |
| 8:O:356:THR:O | 8:O:359:ASN:N | 2.46 | 0.48 |
| 8:O:584:VAL:O | 8:O:587:ALA:HB3 | 2.14 | 0.48 |
| 12:V:87:VAL:HB | 12:V:118:LEU:CD2 | 2.43 | 0.48 |
| 12:V:119:PHE:CE2 | 12:V:149:ALA:HB1 | 2.49 | 0.48 |
| 13:G:62:ALA:HA | 13:G:65:GLN:HG3 | 1.95 | 0.48 |
| 1:A:104:ALA:O | 1:A:107:CYS:N | 2.44 | 0.48 |
| 1:A:112:VAL:O | 1:A:116:LYS:HG3 | 2.14 | 0.48 |
| 1:A:207:HIS:O | 1:A:210:ASP:N | 2.46 | 0.48 |
| 1:A:291:LEU:HD11 | 1:A:393:TYR:CG | 2.48 | 0.48 |
| 1:A:418:VAL:HB | 2:B:401:ARG:HB3 | 1.91 | 0.48 |
| 2:B:10:CYS:HA | 2:B:70:LYS:CD | 2.36 | 0.48 |
| 2:B:245:HIS:HB3 | 2:B:250:GLU:O | 2.14 | 0.48 |
| 3:C:85:ILE:HD12 | 3:C:127:ALA:HB3 | 1.95 | 0.48 |
| 3:C:128:ILE:O | 3:C:132:GLN:HG2 | 2.13 | 0.48 |
| 3:C:141:ILE:O | 3:C:144:ASP:HB2 | 2.14 | 0.48 |
| 3:C:220:MET:O | 3:C:223:SER:OG | 2.25 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:D:30:LEU:HD13 | 4:D:48:PHE:CE1 | 2.49 | 0.48 |
| 4:D:110:LEU:HG | 4:D:114:TYR:CE2 | 2.49 | 0.48 |
| 4:D:141:VAL:HG11 | 4:D:177:GLU:HB3 | 1.95 | 0.48 |
| 4:D:305:ILE:HG21 | 4:D:330:ILE:HD13 | 1.95 | 0.48 |
| 4:D:321:PHE:HB3 | 4:D:336:GLU:HG3 | 1.94 | 0.48 |
| 4:D:395:TRP:CZ2 | 6:F:244:ALA:HB1 | 2.48 | 0.48 |
| 5:E:77:VAL:HA | 5:E:100:VAL:CG2 | 2.44 | 0.48 |
| 5:E:171:ASP:CB | 5:E:174:ARG:HD2 | 2.44 | 0.48 |
| 6:F:47:VAL:HA | 6:F:50:ASN:HD22 | 1.79 | 0.48 |
| 6:F:300:ASN:O | 6:F:304:GLN:HG2 | 2.14 | 0.48 |
| 7:H:145:VAL:O | 7:H:148:ILE:HG13 | 2.13 | 0.48 |
| 8:O:326:ALA:HB3 | 8:O:346:VAL:CG2 | 2.44 | 0.48 |
| 8:O:331:THR:OG1 | 8:O:339:PHE:HA | 2.14 | 0.48 |
| 8:O:339:PHE:O | 8:O:343:VAL:HG23 | 2.13 | 0.48 |
| 8:O:422:PHE:O | 8:O:425:ILE:HB | 2.14 | 0.48 |
| 8:O:555:TRP:HE1 | 8:O:557:HIS:CE1 | 2.31 | 0.48 |
| 9:P:15:PHE:CB | 10:Q:18:ILE:HD11 | 2.12 | 0.48 |
| 11:R:86:ARG:O | 11:R:89:LYS:HG2 | 2.14 | 0.48 |
| 12:V:74:VAL:HG22 | 12:V:140:LEU:CD2 | 2.39 | 0.48 |
| 1:A:95:MET:HB2 | 1:A:319:LEU:HD21 | 1.95 | 0.48 |
| 2:B:25:ASN:C | 2:B:28:PRO:CD | 2.70 | 0.48 |
| 2:B:132:TYR:CG | 2:B:155:LEU:HD13 | 2.48 | 0.48 |
| 2:B:251:PHE:HA | 2:B:254:ALA:CB | 2.28 | 0.48 |
| 2:B:258:PHE:CB | 2:B:280:LEU:HD22 | 2.36 | 0.48 |
| 2:B:291:ILE:O | 11:R:72:TRP:CH2 | 2.66 | 0.48 |
| 3:C:12:VAL:HG21 | 3:C:54:HIS:NE2 | 2.29 | 0.48 |
| 3:C:85:ILE:HA | 3:C:89:ASN:HB3 | 1.96 | 0.48 |
| 3:C:93:ILE:HB | 3:C:94:ARG:CD | 2.42 | 0.48 |
| 3:C:146:CYS:HB2 | 3:C:187:TYR:CD2 | 2.48 | 0.48 |
| 3:C:355:ASP:CB | 3:C:357:MET:HG2 | 2.43 | 0.48 |
| 4:D:45:LEU:O | 4:D:49:VAL:HG23 | 2.13 | 0.48 |
| 4:D:149:LEU:CD2 | 4:D:187:TYR:HA | 2.44 | 0.48 |
| 4:D:270:ASP:HB3 | 4:D:312:ALA:CA | 2.44 | 0.48 |
| 5:E:243:ASN:O | 6:F:229:LYS:CE | 2.48 | 0.48 |
| 5:E:282:ARG:CB | 5:E:282:ARG:NH1 | 2.73 | 0.48 |
| 6:F:146:ILE:HD11 | 6:F:149:PRO:CB | 2.44 | 0.48 |
| 7:H:38:GLY:HA2 | 7:H:71:LEU:CD1 | 2.41 | 0.48 |
| 8:O:361:ASP:HB3 | 8:O:364:PHE:CD2 | 2.49 | 0.48 |
| 8:O:512:LEU:CG | 8:O:552:LYS:C | 2.56 | 0.48 |
| 8:O:575:ALA:N | 11:R:19:LYS:HE2 | 2.25 | 0.48 |
| 9:P:10:HIS:N | 9:P:77:LEU:HD22 | 2.28 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 12:V:148:PHE:HB3 | 12:V:150:ASN:OD1 | 2.14 | 0.48 |
| 12:V:204:GLU:HA | 12:V:207:ALA:HB2 | 1.95 | 0.48 |
| 13:G:49:LEU:H | 13:G:49:LEU:CD1 | 2.27 | 0.48 |
| 13:G:51:ASN:O | 13:G:55:LEU:HG | 2.13 | 0.48 |
| 13:G:112:PRO:HG3 | 13:G:151:LEU:HD22 | 1.96 | 0.48 |
| 1:A:81:SER:O | 1:A:387:ASN:HB2 | 2.13 | 0.48 |
| 1:A:194:LYS:HD3 | 1:A:227:TYR:C | 2.34 | 0.48 |
| 1:A:208:TYR:HB2 | 1:A:217:ALA:HB2 | 1.96 | 0.48 |
| 2:B:21:SER:C | 8:O:652:LYS:CE | 2.82 | 0.48 |
| 3:C:121:ILE:CA | 3:C:145:LEU:HD11 | 2.43 | 0.48 |
| 3:C:221:LEU:HD23 | 3:C:253:ILE:HG23 | 1.95 | 0.48 |
| 4:D:145:LEU:HD12 | 4:D:171:ALA:HB1 | 1.96 | 0.48 |
| 5:E:61:ALA:HA | 5:E:95:SER:O | 2.14 | 0.48 |
| 6:F:59:ARG:HG3 | 6:F:64:ARG:O | 2.14 | 0.48 |
| 7:H:64:ILE:O | 7:H:67:ALA:HB3 | 2.13 | 0.48 |
| 7:H:194:GLU:CD | 13:G:184:VAL:O | 2.52 | 0.48 |
| 8:O:157:ALA:O | 8:O:161:ARG:HD3 | 2.13 | 0.48 |
| 8:O:227:LEU:HD11 | 8:O:277:PHE:CE2 | 2.49 | 0.48 |
| 8:O:428:LYS:O | 8:O:431:PHE:HB3 | 2.14 | 0.48 |
| 8:O:461:LEU:C | 8:O:465:CYS:HB3 | 2.34 | 0.48 |
| 8:O:608:LYS:O | 8:O:611:THR:HG22 | 2.13 | 0.48 |
| 8:O:623:ILE:HG13 | 8:O:639:SER:O | 2.12 | 0.48 |
| 8:O:632:ILE:HD11 | 8:O:636:SER:HB3 | 1.95 | 0.48 |
| 8:O:720:LYS:O | 11:R:46:ARG:CD | 2.62 | 0.48 |
| 9:P:3:VAL:HG23 | 9:P:18:ALA:HB3 | 1.96 | 0.48 |
| 9:P:11:LYS:HZ1 | 10:Q:14:LYS:HE3 | 1.70 | 0.48 |
| 9:P:43:ARG:HG3 | 9:P:45:TYR:CD2 | 2.49 | 0.48 |
| 12:V:118:LEU:HD11 | 12:V:194:VAL:CG1 | 2.44 | 0.48 |
| 1:A:100:LEU:HD13 | 1:A:117:MET:C | 2.35 | 0.48 |
| 1:A:338:ASP:OD1 | 1:A:341:GLU:N | 2.36 | 0.48 |
| 1:A:350:SER:HA | 1:A:353:LYS:HB2 | 1.96 | 0.48 |
| 1:A:476:LEU:O | 1:A:476:LEU:HD23 | 2.14 | 0.48 |
| 2:B:258:PHE:CB | 2:B:280:LEU:HD13 | 2.43 | 0.48 |
| 2:B:338:MET:HE1 | 2:B:347:ILE:CG2 | 2.42 | 0.48 |
| 3:C:28:ILE:HG12 | 3:C:31:SER:CB | 2.44 | 0.48 |
| 3:C:112:VAL:CG1 | 3:C:151:LEU:HD11 | 2.34 | 0.48 |
| 3:C:266:VAL:HA | 3:C:269:THR:CG2 | 2.44 | 0.48 |
| 4:D:95:ARG:O | 4:D:98:SER:HB2 | 2.14 | 0.48 |
| 4:D:175:GLN:HG2 | 11:R:99:ARG:HH21 | 1.79 | 0.48 |
| 4:D:266:LYS:HE3 | 4:D:277:GLN:CD | 2.35 | 0.48 |
| 4:D:332:ALA:O | 4:D:335:ALA:HB3 | 2.14 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:E:81:MET:HG2 | 5:E:95:SER:HA | 1.95 | 0.48 |
| 5:E:170:ILE:HD13 | 5:E:181:VAL:CG1 | 2.44 | 0.48 |
| 5:E:252:SER:N | 6:F:221:LEU:CA | 2.77 | 0.48 |
| 5:E:332:ASN:O | 6:F:267:LEU:HB3 | 2.14 | 0.48 |
| 6:F:48:ILE:O | 6:F:51:ILE:HB | 2.13 | 0.48 |
| 6:F:142:VAL:O | 6:F:149:PRO:HG3 | 2.14 | 0.48 |
| 7:H:34:PRO:HA | 7:H:37:TYR:CD2 | 2.48 | 0.48 |
| 7:H:147:GLY:CA | 7:H:150:GLU:HG2 | 2.44 | 0.48 |
| 8:O:223:ALA:N | 8:O:270:MET:HE3 | 2.29 | 0.48 |
| 8:O:462:LYS:NZ | 8:O:468:GLU:OE2 | 2.36 | 0.48 |
| 8:O:480:MET:HA | 8:O:483:SER:OG | 2.14 | 0.48 |
| 8:O:505:ILE:C | 11:R:28:ASN:HA | 2.31 | 0.48 |
| 8:O:511:VAL:CG1 | 8:O:551:ARG:NH1 | 2.75 | 0.48 |
| 8:O:537:VAL:O | 8:O:541:GLU:HG2 | 2.13 | 0.48 |
| 12:V:111:SER:C | 12:V:138:PRO:HG3 | 2.33 | 0.48 |
| 12:V:135:LEU:CB | 12:V:201:LEU:HD22 | 2.38 | 0.48 |
| 13:G:27:LEU:HD12 | 13:G:55:LEU:HB3 | 1.91 | 0.48 |
| 13:G:41:TYR:O | 13:G:67:LEU:HD12 | 2.14 | 0.48 |
| 13:G:160:ARG:CZ | 13:G:160:ARG:HB3 | 2.44 | 0.48 |
| 13:G:204:ARG:O | 13:G:208:GLN:HG3 | 2.14 | 0.48 |
| 1:A:95:MET:HA | 1:A:98:GLU:OE1 | 2.13 | 0.48 |
| 1:A:115:LEU:HD22 | 1:A:134:ILE:HD12 | 1.95 | 0.48 |
| 1:A:417:TYR:HE1 | 2:B:402:ILE:CG2 | 2.19 | 0.48 |
| 2:B:47:PRO:CA | 2:B:50:ALA:HB3 | 2.33 | 0.48 |
| 2:B:112:ILE:O | 2:B:116:LEU:HG | 2.14 | 0.48 |
| 2:B:162:ARG:NE | 2:B:164:GLU:HB2 | 2.29 | 0.48 |
| 2:B:198:TYR:CE2 | 2:B:221:SER:HB3 | 2.49 | 0.48 |
| 2:B:236:VAL:HG13 | 2:B:239:GLU:OE1 | 2.14 | 0.48 |
| 2:B:263:LYS:O | 2:B:267:GLU:HG3 | 2.14 | 0.48 |
| 2:B:282:LEU:HA | 2:B:285:MET:CE | 2.44 | 0.48 |
| 2:B:359:LEU:HA | 2:B:359:LEU:HD13 | 1.65 | 0.48 |
| 2:B:427:TRP:NE1 | 5:E:269:LEU:HG | 2.29 | 0.48 |
| 3:C:35:LEU:HB2 | 3:C:39:LEU:CG | 2.44 | 0.48 |
| 3:C:192:TYR:CD1 | 3:C:200:ARG:HD3 | 2.48 | 0.48 |
| 3:C:374:HIS:HA | 3:C:377:ASP:CG | 2.34 | 0.48 |
| 4:D:27:ARG:HA | 4:D:30:LEU:CB | 2.37 | 0.48 |
| 4:D:48:PHE:CZ | 4:D:65:LEU:HB3 | 2.49 | 0.48 |
| 4:D:82:LYS:HE2 | 4:D:113:ILE:HG22 | 1.94 | 0.48 |
| 4:D:241:GLN:HB2 | 4:D:347:ARG:HH21 | 1.78 | 0.48 |
| 4:D:252:ASP:O | 4:D:256:GLN:HG3 | 2.13 | 0.48 |
| 5:E:69:ALA:HB1 | 5:E:172:PRO:HG3 | 1.96 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 5:E:159:GLN:NE2 | 5:E:188:THR:H | 2.11 | 0.48 |
| 5:E:164:PRO:HB2 | 5:E:187:ARG:HH12 | 1.79 | 0.48 |
| 5:E:250:LEU:HD21 | 13:G:185:LEU:CD2 | 2.11 | 0.48 |
| 5:E:255:LEU:HG | 5:E:317:GLY:C | 2.34 | 0.48 |
| 6:F:109:GLU:HA | 6:F:112:PHE:CE1 | 2.49 | 0.48 |
| 7:H:97:GLN:C | 7:H:103:GLN:HB2 | 2.34 | 0.48 |
| 8:O:42:ILE:CD1 | 8:O:108:LEU:HB2 | 2.44 | 0.48 |
| 8:O:226:LEU:HD12 | 8:O:239:VAL:HG23 | 1.95 | 0.48 |
| 8:O:554:THR:HB | 11:R:32:LEU:HD12 | 0.48 | 0.48 |
| 8:O:563:GLU:CG | 11:R:27:TRP:CD1 | 2.96 | 0.48 |
| 9:P:99:LEU:HA | 9:P:100:PRO:HD2 | 1.58 | 0.48 |
| 1:A:82:LEU:HD12 | 1:A:83:ASP:H | 1.79 | 0.47 |
| 1:A:92:SER:O | 1:A:319:LEU:HD13 | 2.13 | 0.47 |
| 1:A:196:SER:O | 1:A:199:ARG:HG2 | 2.14 | 0.47 |
| 1:A:247:TYR:CE1 | 1:A:319:LEU:HB2 | 2.49 | 0.47 |
| 1:A:251:TRP:O | 1:A:255:LEU:HG | 2.13 | 0.47 |
| 1:A:367:PHE:O | 1:A:370:TYR:HB2 | 2.14 | 0.47 |
| 1:A:468:ARG:NH2 | 6:F:284:ASN:HB2 | 2.29 | 0.47 |
| 2:B:14:GLU:CG | 2:B:18:LEU:HD11 | 2.40 | 0.47 |
| 2:B:72:LEU:HD22 | 2:B:94:GLN:OE1 | 2.14 | 0.47 |
| 2:B:192:THR:HB | 2:B:230:HIS:CD2 | 2.49 | 0.47 |
| 2:B:381:ASP:HB3 | 2:B:384:ASP:CB | 2.43 | 0.47 |
| 3:C:43:ASP:HB2 | 3:C:62:LEU:HD21 | 1.96 | 0.47 |
| 3:C:294:LEU:HA | 3:C:297:GLN:CD | 2.34 | 0.47 |
| 3:C:365:GLU:CD | 3:C:372:MET:HG3 | 2.34 | 0.47 |
| 4:D:28:GLN:HG3 | 4:D:32:LYS:CB | 2.43 | 0.47 |
| 4:D:306:GLU:O | 4:D:310:LEU:HB2 | 2.13 | 0.47 |
| 4:D:402:ALA:O | 4:D:406:GLN:HG2 | 2.13 | 0.47 |
| 4:D:403:GLN:HA | 4:D:406:GLN:CB | 2.36 | 0.47 |
| 5:E:246:TRP:H | 6:F:229:LYS:HD2 | 1.75 | 0.47 |
| 5:E:250:LEU:HD12 | 6:F:228:ILE:HG21 | 1.96 | 0.47 |
| 6:F:86:SER:HG | 6:F:125:TYR:HD1 | 1.61 | 0.47 |
| 6:F:252:PHE:CZ | 6:F:257:LEU:HD11 | 2.48 | 0.47 |
| 8:O:56:ARG:HA | 8:O:59:THR:HB | 1.96 | 0.47 |
| 8:O:59:THR:HG23 | 8:O:133:ASN:O | 2.15 | 0.47 |
| 8:O:168:LYS:HB3 | 8:O:171:ARG:NH1 | 2.29 | 0.47 |
| 8:O:505:ILE:CG2 | 11:R:27:TRP:CD2 | 2.95 | 0.47 |
| 8:O:615:LYS:CG | 8:O:628:GLU:HB3 | 2.44 | 0.47 |
| 8:O:720:LYS:O | 8:O:723:GLU:HB2 | 2.14 | 0.47 |
| 9:P:9:ARG:HG3 | 9:P:77:LEU:HD21 | 1.96 | 0.47 |
| 9:P:96:PRO:O | 10:Q:85:GLU:OE2 | 2.31 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 13:G:31:ILE:CG1 | 13:G:63:TYR:CD1 | 2.97 | 0.47 |
| 13:G:36:GLU:OE1 | 13:G:92:GLN:HG2 | 2.14 | 0.47 |
| 13:G:99:LEU:HD22 | 13:G:160:ARG:HD2 | 1.96 | 0.47 |
| 13:G:185:LEU:O | 13:G:188:ILE:HG12 | 2.14 | 0.47 |
| 1:A:115:LEU:HD22 | 1:A:134:ILE:CD1 | 2.43 | 0.47 |
| 1:A:186:LYS:HA | 1:A:189:LYS:HD2 | 1.97 | 0.47 |
| 1:A:188:TYR:O | 1:A:191:ASN:HB2 | 2.14 | 0.47 |
| 1:A:201:HIS:CB | 1:A:224:ALA:HB2 | 2.43 | 0.47 |
| 1:A:385:LYS:HA | 1:A:402:TYR:OH | 2.14 | 0.47 |
| 2:B:28:PRO:O | 2:B:31:ASP:CG | 2.43 | 0.47 |
| 3:C:74:PHE:CE2 | 3:C:75:GLU:HG2 | 2.49 | 0.47 |
| 3:C:79:SER:O | 3:C:83:LEU:HG | 2.14 | 0.47 |
| 3:C:121:ILE:HG12 | 3:C:145:LEU:CD1 | 2.42 | 0.47 |
| 3:C:123:ILE:C | 3:C:124:LEU:HD12 | 2.35 | 0.47 |
| 3:C:159:LEU:HD23 | 3:C:162:LEU:HD12 | 1.96 | 0.47 |
| 3:C:202:LEU:HD13 | 3:C:230:VAL:HB | 1.94 | 0.47 |
| 3:C:216:VAL:CG2 | 3:C:252:PHE:HB3 | 2.44 | 0.47 |
| 3:C:319:LEU:O | 3:C:328:LEU:HD12 | 2.15 | 0.47 |
| 3:C:328:LEU:HB3 | 3:C:334:ALA:CB | 2.31 | 0.47 |
| 4:D:100:GLU:OE1 | 4:D:137:LYS:HB2 | 2.13 | 0.47 |
| 4:D:182:GLN:O | 4:D:185:ILE:HB | 2.14 | 0.47 |
| 4:D:227:LYS:HG2 | 4:D:231:HIS:CE1 | 2.49 | 0.47 |
| 5:E:78:MET:HE1 | 5:E:109:ALA:O | 2.14 | 0.47 |
| 5:E:127:VAL:HG12 | 6:F:90:LEU:HB2 | 1.96 | 0.47 |
| 5:E:298:ASP:CA | 5:E:299:LYS:N | 2.76 | 0.47 |
| 6:F:262:ALA:HB2 | 13:G:157:CYS:SG | 2.52 | 0.47 |
| 7:H:115:ARG:O | 7:H:118:PHE:HB3 | 2.14 | 0.47 |
| 7:H:140:PRO:O | 7:H:144:ALA:N | 2.47 | 0.47 |
| 8:O:148:ARG:HG3 | 8:O:149:LYS:H | 1.78 | 0.47 |
| 8:O:168:LYS:HB3 | 8:O:171:ARG:NH2 | 2.29 | 0.47 |
| 8:O:486:LEU:HD23 | 8:O:489:LYS:CD | 2.32 | 0.47 |
| 10:Q:90:LEU:CD2 | 12:V:162:CYS:SG | 3.03 | 0.47 |
| 12:V:85:LEU:HB3 | 12:V:120:ARG:HB2 | 1.95 | 0.47 |
| 12:V:116:LEU:O | 12:V:118:LEU:N | 2.46 | 0.47 |
| 13:G:88:LEU:HB3 | 13:G:92:GLN:HB2 | 1.94 | 0.47 |
| 13:G:129:GLU:C | 13:G:132:ILE:HG13 | 2.33 | 0.47 |
| 13:G:133:ILE:HG13 | 13:G:134:GLU:N | 2.28 | 0.47 |
| 1:A:198:ARG:HE | 1:A:233:HIS:CD2 | 2.32 | 0.47 |
| 1:A:242:ILE:HG23 | 1:A:254:VAL:HG12 | 1.96 | 0.47 |
| 1:A:311:PHE:HB3 | 1:A:354:LEU:CD1 | 2.40 | 0.47 |
| 1:A:353:LYS:HA | 1:A:356:LEU:CB | 2.43 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 2:B:14:GLU:CA | 2:B:18:LEU:CG | 2.92 | 0.47 |
| 2:B:127:LEU:O | 2:B:130:GLU:HB2 | 2.14 | 0.47 |
| 2:B:260:GLU:CD | 11:R:66:GLU:HG2 | 2.33 | 0.47 |
| 2:B:393:ILE:HG22 | 2:B:398:ILE:CG1 | 2.44 | 0.47 |
| 3:C:15:LEU:HD13 | 3:C:24:LEU:HB2 | 1.95 | 0.47 |
| 3:C:75:GLU:HA | 3:C:78:PHE:HB3 | 1.96 | 0.47 |
| 3:C:78:PHE:CE2 | 3:C:123:ILE:HG21 | 2.49 | 0.47 |
| 3:C:140:SER:OG | 3:C:141:ILE:HG13 | 2.15 | 0.47 |
| 4:D:153:ARG:NH2 | 4:D:186:HIS:HB3 | 2.29 | 0.47 |
| 4:D:309:LEU:HB3 | 4:D:313:SER:OG | 2.14 | 0.47 |
| 4:D:403:GLN:HB2 | 6:F:237:LEU:CD2 | 2.44 | 0.47 |
| 5:E:262:THR:HA | 5:E:265:GLN:CB | 2.40 | 0.47 |
| 5:E:323:ILE:CG2 | 13:G:185:LEU:HD23 | 2.43 | 0.47 |
| 7:H:94:ASN:HA | 7:H:97:GLN:NE2 | 2.27 | 0.47 |
| 7:H:102:VAL:C | 7:H:106:MET:HG2 | 2.34 | 0.47 |
| 7:H:103:GLN:NE2 | 7:H:107:GLU:HG3 | 2.29 | 0.47 |
| 8:O:254:LEU:HD12 | 8:O:254:LEU:O | 2.15 | 0.47 |
| 8:O:399:LEU:C | 8:O:449:MET:HB2 | 2.35 | 0.47 |
| 8:O:487:ASN:O | 8:O:491:ASN:ND2 | 2.47 | 0.47 |
| 8:O:681:GLN:HE22 | 8:O:728:LYS:HZ2 | 1.56 | 0.47 |
| 9:P:100:PRO:CG | 10:Q:84:THR:O | 2.62 | 0.47 |
| 13:G:63:TYR:HA | 13:G:86:PRO:HG2 | 1.95 | 0.47 |
| 13:G:113:TYR:HB3 | 13:G:128:LEU:HD11 | 1.95 | 0.47 |
| 1:A:215:SER:HB2 | 1:A:219:LYS:HZ2 | 1.79 | 0.47 |
| 1:A:301:GLN:OE1 | 1:A:304:LYS:HD3 | 2.14 | 0.47 |
| 1:A:418:VAL:CG2 | 2:B:401:ARG:NH2 | 2.74 | 0.47 |
| 2:B:156:GLY:O | 2:B:160:LEU:N | 2.47 | 0.47 |
| 2:B:192:THR:O | 2:B:230:HIS:HB3 | 2.14 | 0.47 |
| 2:B:303:LYS:CD | 2:B:312:THR:HG21 | 2.44 | 0.47 |
| 2:B:315:VAL:HA | 2:B:318:TYR:CG | 2.48 | 0.47 |
| 3:C:156:LYS:HA | 3:C:159:LEU:CG | 2.45 | 0.47 |
| 3:C:202:LEU:HD12 | 3:C:227:TYR:CD1 | 2.49 | 0.47 |
| 3:C:334:ALA:HA | 3:C:337:TYR:HB2 | 1.97 | 0.47 |
| 4:D:92:ILE:HG22 | 4:D:96:VAL:HB | 1.95 | 0.47 |
| 4:D:173:LEU:HD23 | 11:R:77:HIS:CE1 | 2.49 | 0.47 |
| 4:D:241:GLN:CD | 11:R:92:GLN:HG3 | 2.35 | 0.47 |
| 5:E:35:GLN:NE2 | 5:E:39:ILE:HD12 | 2.29 | 0.47 |
| 5:E:44:PRO:HB2 | 5:E:51:TYR:CG | 2.49 | 0.47 |
| 5:E:120:TYR:CE1 | 6:F:108:LYS:HE3 | 2.49 | 0.47 |
| 5:E:144:GLY:N | 5:E:171:ASP:OD1 | 2.46 | 0.47 |
| 5:E:155:GLN:CD | 5:E:167:ALA:HB2 | 2.35 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:H:57:TRP:HD1 | 7:H:58:LYS:HZ2 | 1.62 | 0.47 |
| 7:H:195:GLN:O | 7:H:198:ALA:HB3 | 2.13 | 0.47 |
| 8:O:12:GLU:CG | 8:O:16:LYS:HE3 | 2.38 | 0.47 |
| 8:O:326:ALA:O | 8:O:342:SER:HB3 | 2.13 | 0.47 |
| 8:O:394:TYR:HD2 | 8:O:398:LEU:HD11 | 1.79 | 0.47 |
| 8:O:527:PHE:CE2 | 11:R:27:TRP:CZ2 | 3.03 | 0.47 |
| 9:P:93:PHE:CG | 10:Q:55:GLU:CB | 2.87 | 0.47 |
| 12:V:76:PHE:HA | 12:V:149:ALA:CB | 2.44 | 0.47 |
| 12:V:115:HIS:O | 12:V:135:LEU:HD11 | 2.15 | 0.47 |
| 12:V:166:VAL:HG21 | 12:V:188:LEU:HB3 | 1.96 | 0.47 |
| 13:G:124:ASN:HD21 | 13:G:126:ARG:HG3 | 1.78 | 0.47 |
| 13:G:140:ILE:HG23 | 13:G:141:ILE:N | 2.29 | 0.47 |
| 1:A:164:THR:HA | 1:A:167:VAL:CG2 | 2.44 | 0.47 |
| 1:A:426:ALA:HB2 | 1:A:433:VAL:HG23 | 1.95 | 0.47 |
| 1:A:434:ALA:O | 1:A:437:GLU:HB3 | 2.13 | 0.47 |
| 1:A:454:ASP:OD1 | 1:A:456:HIS:HB3 | 2.15 | 0.47 |
| 2:B:78:ILE:O | 2:B:82:LEU:N | 2.48 | 0.47 |
| 2:B:94:GLN:HA | 2:B:97:THR:HG23 | 1.96 | 0.47 |
| 2:B:147:LEU:HD12 | 2:B:148:TRP:N | 2.30 | 0.47 |
| 2:B:170:LYS:CA | 2:B:173:ARG:HH21 | 2.27 | 0.47 |
| 2:B:317:ALA:CA | 2:B:320:ASN:HB2 | 2.36 | 0.47 |
| 2:B:366:TYR:OH | 4:D:340:SER:OG | 2.27 | 0.47 |
| 3:C:68:MET:HB3 | 3:C:71:VAL:HG11 | 1.97 | 0.47 |
| 3:C:119:ARG:NH2 | 7:H:28:PRO:HG2 | 2.28 | 0.47 |
| 3:C:178:ALA:O | 3:C:182:LEU:HG | 2.14 | 0.47 |
| 3:C:222:GLU:HA | 3:C:225:LYS:CD | 2.45 | 0.47 |
| 3:C:281:LYS:HE2 | 3:C:282:HIS:CE1 | 2.49 | 0.47 |
| 3:C:306:ASN:HB3 | 3:C:326:VAL:HG22 | 1.96 | 0.47 |
| 3:C:340:HIS:HA | 3:C:343:GLU:OE1 | 2.14 | 0.47 |
| 3:C:389:ARG:NE | 3:C:389:ARG:HA | 2.30 | 0.47 |
| 4:D:199:ARG:N | 4:D:199:ARG:HD2 | 2.30 | 0.47 |
| 4:D:233:THR:HG22 | 4:D:246:LEU:CD2 | 2.44 | 0.47 |
| 4:D:245:MET:O | 4:D:249:LEU:HG | 2.15 | 0.47 |
| 4:D:263:ILE:CA | 4:D:266:LYS:HE2 | 2.37 | 0.47 |
| 4:D:384:LEU:HD11 | 6:F:259:GLU:HB3 | 1.97 | 0.47 |
| 5:E:240:LEU:HA | 5:E:243:ASN:ND2 | 2.27 | 0.47 |
| 5:E:312:ILE:HG13 | 7:H:207:LEU:HD12 | 1.95 | 0.47 |
| 6:F:55:TRP:CD1 | 6:F:127:THR:HG21 | 2.49 | 0.47 |
| 6:F:81:ILE:HD11 | 6:F:169:GLU:OE1 | 2.14 | 0.47 |
| 8:O:6:ARG:HB2 | 8:O:49:TYR:CB | 2.43 | 0.47 |
| 8:O:13:THR:HB | 8:O:45:LEU:HG | 1.96 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 8:O:51:GLU:CD | 12:V:182:ARG:HG3 | 2.34 | 0.47 |
| 9:P:70:GLN:HG2 | 10:Q:63:TYR:CD1 | 2.50 | 0.47 |
| 1:A:214:LEU:HG | 1:A:215:SER:N | 2.29 | 0.47 |
| 1:A:311:PHE:CD2 | 1:A:354:LEU:HD13 | 2.50 | 0.47 |
| 1:A:320:LEU:HD21 | 1:A:325:VAL:CG2 | 2.45 | 0.47 |
| 2:B:5:GLU:HB3 | 2:B:9:MET:N | 2.29 | 0.47 |
| 2:B:265:TYR:CD2 | 2:B:273:ARG:HD2 | 2.50 | 0.47 |
| 2:B:357:GLN:O | 2:B:361:LYS:HD2 | 2.13 | 0.47 |
| 3:C:10:ASN:O | 3:C:14:GLN:HG3 | 2.14 | 0.47 |
| 4:D:5:VAL:CG2 | 4:D:28:GLN:HG2 | 2.44 | 0.47 |
| 4:D:150:LYS:O | 4:D:153:ARG:HG2 | 2.14 | 0.47 |
| 4:D:168:ILE:O | 4:D:171:ALA:HB3 | 2.15 | 0.47 |
| 4:D:286:MET:O | 4:D:289:GLN:N | 2.47 | 0.47 |
| 4:D:306:GLU:HA | 4:D:328:LEU:CD2 | 2.44 | 0.47 |
| 4:D:356:ASP:HB2 | 4:D:360:HIS:NE2 | 2.30 | 0.47 |
| 5:E:31:TYR:CE2 | 5:E:131:GLU:HG3 | 2.49 | 0.47 |
| 5:E:59:ALA:HB3 | 6:F:46:LEU:CB | 2.38 | 0.47 |
| 5:E:137:TYR:HH | 6:F:115:VAL:HG11 | 1.78 | 0.47 |
| 6:F:67:GLN:CG | 6:F:98:ILE:HD11 | 2.43 | 0.47 |
| 6:F:143:CYS:CA | 6:F:149:PRO:HG3 | 2.40 | 0.47 |
| 6:F:191:ALA:HB3 | 6:F:196:GLU:OE2 | 2.15 | 0.47 |
| 8:O:118:LEU:HD12 | 8:O:122:ASP:HA | 1.96 | 0.47 |
| 8:O:118:LEU:HB2 | 8:O:125:TYR:HB2 | 1.97 | 0.47 |
| 8:O:226:LEU:HD12 | 8:O:239:VAL:CG2 | 2.45 | 0.47 |
| 8:O:282:CYS:HB2 | 8:O:311:MET:CE | 2.45 | 0.47 |
| 8:O:429:ASP:HA | 8:O:432:GLN:CG | 2.45 | 0.47 |
| 8:O:632:ILE:HB | 8:O:638:PHE:CZ | 2.49 | 0.47 |
| 8:O:720:LYS:O | 8:O:724:VAL:HG23 | 2.14 | 0.47 |
| 9:P:2:ASP:HA | 9:P:18:ALA:O | 2.15 | 0.47 |
| 1:A:224:ALA:HA | 1:A:227:TYR:CE2 | 2.49 | 0.47 |
| 1:A:303:ALA:HA | 1:A:306:LEU:HB2 | 1.97 | 0.47 |
| 1:A:406:ARG:HH21 | 1:A:436:LEU:CD1 | 2.28 | 0.47 |
| 2:B:25:ASN:HD21 | 8:O:646:SER:HB3 | 1.79 | 0.47 |
| 2:B:28:PRO:O | 8:O:648:ARG:NH2 | 2.35 | 0.47 |
| 2:B:51:LEU:O | 2:B:55:GLN:HB2 | 2.15 | 0.47 |
| 2:B:169:GLN:HA | 2:B:172:LEU:HG | 1.95 | 0.47 |
| 3:C:220:MET:HE1 | 3:C:253:ILE:HD12 | 1.96 | 0.47 |
| 3:C:306:ASN:O | 3:C:310:LEU:HG | 2.14 | 0.47 |
| 3:C:319:LEU:HD22 | 3:C:328:LEU:HD13 | 1.97 | 0.47 |
| 3:C:344:ASP:HB2 | 3:C:346:GLU:OE2 | 2.15 | 0.47 |
| 4:D:298:SER:O | 4:D:301:ASP:HB2 | 2.15 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 4:D:320:THR:HA | 4:D:358:ILE:CA | 2.41 | 0.47 |
| 4:D:370:TRP:HD1 | 6:F:270:LEU:HG | 1.79 | 0.47 |
| 5:E:65:MET:HA | 5:E:96:PHE:HA | 1.97 | 0.47 |
| 5:E:123:ASN:CB | 6:F:111:GLN:HE22 | 2.23 | 0.47 |
| 5:E:144:GLY:HA2 | 5:E:171:ASP:CA | 2.38 | 0.47 |
| 5:E:147:LEU:CD1 | 5:E:155:GLN:HB2 | 2.45 | 0.47 |
| 5:E:161:PHE:HB3 | 5:E:162:GLN:HG3 | 1.94 | 0.47 |
| 5:E:164:PRO:CB | 5:E:187:ARG:HH12 | 2.27 | 0.47 |
| 5:E:272:LYS:HD3 | 5:E:306:ASP:CG | 2.35 | 0.47 |
| 5:E:274:GLU:O | 5:E:277:GLU:HB3 | 2.15 | 0.47 |
| 5:E:318:LEU:HB2 | 6:F:286:VAL:CG1 | 2.31 | 0.47 |
| 5:E:323:ILE:HG23 | 13:G:185:LEU:HD23 | 1.96 | 0.47 |
| 5:E:326:LYS:HD3 | 13:G:184:VAL:HG11 | 1.91 | 0.47 |
| 6:F:31:MET:HG3 | 6:F:32:ALA:H | 1.78 | 0.47 |
| 6:F:100:ILE:HB | 6:F:141:GLN:OE1 | 2.15 | 0.47 |
| 6:F:276:LYS:HA | 6:F:279:PHE:HB3 | 1.97 | 0.47 |
| 7:H:121:VAL:HA | 7:H:125:TYR:HD2 | 1.80 | 0.47 |
| 8:O:24:VAL:HG22 | 8:O:97:GLY:HA2 | 1.97 | 0.47 |
| 8:O:34:THR:HA | 8:O:37:ASP:HB2 | 1.96 | 0.47 |
| 8:O:87:TYR:OH | 8:O:150:LEU:HD22 | 2.14 | 0.47 |
| 8:O:188:PHE:CB | 8:O:206:ILE:HD13 | 2.34 | 0.47 |
| 8:O:189:VAL:HG22 | 8:O:206:ILE:HD12 | 1.97 | 0.47 |
| 8:O:193:GLN:O | 8:O:195:LYS:N | 2.47 | 0.47 |
| 8:O:212:LEU:HD22 | 8:O:262:VAL:HB | 1.95 | 0.47 |
| 8:O:419:ILE:O | 8:O:423:LYS:HG3 | 2.15 | 0.47 |
| 8:O:462:LYS:HD2 | 8:O:467:TYR:O | 2.15 | 0.47 |
| 8:O:462:LYS:HZ3 | 8:O:467:TYR:C | 2.18 | 0.47 |
| 8:O:482:VAL:HG13 | 8:O:485:ASP:HB3 | 1.97 | 0.47 |
| 8:O:508:GLN:CG | 8:O:559:LEU:CG | 2.90 | 0.47 |
| 8:O:596:TYR:HB3 | 8:O:634:ALA:HA | 1.97 | 0.47 |
| 8:O:696:HIS:HB3 | 8:O:739:ASP:HA | 1.93 | 0.47 |
| 11:R:78:ALA:HA | 11:R:100:GLU:CB | 2.41 | 0.47 |
| 12:V:60:ARG:HH11 | 12:V:65:SER:H | 1.62 | 0.47 |
| 12:V:181:VAL:HG23 | 12:V:184:LEU:HD12 | 1.97 | 0.47 |
| 13:G:23:SER:HA | 13:G:55:LEU:HD11 | 1.96 | 0.47 |
| 1:A:326:ALA:HB1 | 1:A:359:GLU:CG | 2.45 | 0.47 |
| 1:A:378:LEU:HD21 | 1:A:405:ILE:HG22 | 1.97 | 0.47 |
| 1:A:385:LYS:HE3 | 1:A:402:TYR:HE2 | 1.80 | 0.47 |
| 1:A:472:PHE:CD1 | 6:F:288:LEU:HD22 | 2.49 | 0.47 |
| 2:B:130:GLU:O | 2:B:134:THR:HG23 | 2.14 | 0.47 |
| 2:B:290:GLY:C | 2:B:293:PRO:HD3 | 2.35 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 2:B:393:ILE:N | 2:B:398:ILE:HD13 | 2.30 | 0.47 |
| 3:C:5:LEU:CD1 | 3:C:35:LEU:HG | 2.44 | 0.47 |
| 3:C:97:THR:O | 3:C:175:ALA:HB2 | 2.15 | 0.47 |
| 3:C:179:LYS:CG | 3:C:182:LEU:HD12 | 2.42 | 0.47 |
| 3:C:196:LYS:HG2 | 3:C:198:PHE:CZ | 2.50 | 0.47 |
| 3:C:283:SER:HA | 3:C:286:PHE:CD2 | 2.50 | 0.47 |
| 4:D:186:HIS:O | 4:D:189:VAL:HB | 2.15 | 0.47 |
| 5:E:35:GLN:HE22 | 5:E:86:ASP:HA | 1.79 | 0.47 |
| 5:E:49:HIS:HB2 | 5:E:193:TYR:CE2 | 2.49 | 0.47 |
| 5:E:80:LEU:HA | 5:E:135:GLY:O | 2.15 | 0.47 |
| 5:E:102:GLY:HA3 | 5:E:106:ARG:HE | 1.79 | 0.47 |
| 5:E:104:GLU:O | 5:E:148:SER:OG | 2.23 | 0.47 |
| 5:E:174:ARG:O | 5:E:178:ALA:HB2 | 2.13 | 0.47 |
| 5:E:315:ILE:HD13 | 7:H:204:VAL:HG23 | 1.95 | 0.47 |
| 6:F:43:LEU:CB | 6:F:84:MET:HE2 | 2.39 | 0.47 |
| 6:F:59:ARG:HA | 6:F:64:ARG:O | 2.15 | 0.47 |
| 6:F:267:LEU:CD1 | 13:G:177:TRP:CB | 2.84 | 0.47 |
| 8:O:71:HIS:HA | 8:O:74:LYS:HD2 | 1.97 | 0.47 |
| 8:O:266:CYS:O | 8:O:269:ARG:HB2 | 2.15 | 0.47 |
| 8:O:731:ILE:HA | 8:O:744:VAL:H | 1.80 | 0.47 |
| 9:P:1:MET:N | 9:P:21:SER:H | 2.12 | 0.47 |
| 9:P:9:ARG:N | 9:P:12:THR:HB | 2.26 | 0.47 |
| 11:R:35:TRP:HA | 11:R:36:ASP:OD1 | 2.14 | 0.47 |
| 11:R:38:VAL:HG12 | 11:R:40:ASP:H | 1.79 | 0.47 |
| 12:V:73:GLN:N | 12:V:140:LEU:HB2 | 1.88 | 0.47 |
| 13:G:36:GLU:O | 13:G:38:PRO:HD3 | 2.15 | 0.47 |
| 13:G:104:LEU:O | 13:G:111:ILE:HD11 | 2.14 | 0.47 |
| 1:A:385:LYS:HG3 | 1:A:402:TYR:OH | 2.15 | 0.47 |
| 1:A:501:HIS:HA | 3:C:212:PRO:O | 2.14 | 0.47 |
| 2:B:20:TYR:N | 8:O:652:LYS:HG2 | 2.28 | 0.47 |
| 2:B:260:GLU:CD | 11:R:66:GLU:OE1 | 2.48 | 0.47 |
| 2:B:428:THR:CA | 2:B:431:LEU:HD12 | 2.44 | 0.47 |
| 3:C:132:GLN:HE22 | 3:C:161:TYR:HE1 | 1.62 | 0.47 |
| 3:C:135:THR:HG1 | 3:C:167:MET:H | 1.56 | 0.47 |
| 3:C:230:VAL:HG13 | 3:C:234:LEU:CD2 | 2.45 | 0.47 |
| 3:C:342:ILE:HG21 | 7:H:124:ALA:CB | 2.45 | 0.47 |
| 4:D:188:LYS:HA | 4:D:191:TYR:HB3 | 1.97 | 0.47 |
| 4:D:195:LEU:CB | 4:D:200:LYS:HB2 | 2.42 | 0.47 |
| 4:D:376:SER:O | 4:D:380:GLN:HG3 | 2.15 | 0.47 |
| 5:E:56:LYS:H | 5:E:89:THR:CG2 | 2.27 | 0.47 |
| 5:E:123:ASN:HB3 | 6:F:104:TYR:HE1 | 1.80 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 6:F:57:ARG:O | 6:F:61:GLN:HG3 | 2.15 | 0.47 |
| 6:F:103:GLU:HA | 6:F:106:TYR:CD2 | 2.42 | 0.47 |
| 6:F:130:PRO:C | 6:F:153:LYS:HE3 | 2.36 | 0.47 |
| 8:O:87:TYR:HD1 | 8:O:90:TYR:HD2 | 1.63 | 0.47 |
| 8:O:141:GLU:HG2 | 8:O:194:TYR:CD2 | 2.50 | 0.47 |
| 8:O:219:TYR:CD2 | 8:O:266:CYS:HB2 | 2.50 | 0.47 |
| 8:O:557:HIS:O | 8:O:560:CYS:N | 2.24 | 0.47 |
| 8:O:614:ILE:HD11 | 8:O:638:PHE:CE1 | 2.50 | 0.47 |
| 8:O:700:ILE:CG2 | 8:O:718:ILE:CD1 | 2.93 | 0.47 |
| 8:O:733:ARG:HD2 | 8:O:741:TYR:CE1 | 2.50 | 0.47 |
| 9:P:30:ILE:N | 10:Q:5:PHE:HD2 | 2.10 | 0.47 |
| 9:P:39:PRO:HB2 | 9:P:53:ASP:OD1 | 2.15 | 0.47 |
| 11:R:43:ALA:CB | 11:R:96:LEU:HD12 | 2.44 | 0.47 |
| 13:G:28:THR:HA | 13:G:31:ILE:HG21 | 1.96 | 0.47 |
| 13:G:96:LEU:HD23 | 13:G:96:LEU:O | 2.15 | 0.47 |
| 13:G:113:TYR:CE2 | 13:G:150:GLN:CA | 2.94 | 0.47 |
| 13:G:140:ILE:HA | 13:G:158:ILE:HG12 | 1.95 | 0.47 |
| 2:B:93:LYS:O | 2:B:97:THR:HG23 | 2.14 | 0.47 |
| 2:B:228:ILE:HG23 | 2:B:229:PRO:O | 2.15 | 0.47 |
| 2:B:260:GLU:O | 2:B:263:LYS:HB2 | 2.14 | 0.47 |
| 2:B:389:LEU:O | 2:B:393:ILE:HG23 | 2.14 | 0.47 |
| 2:B:414:GLN:HA | 2:B:416:ARG:NE | 2.30 | 0.47 |
| 3:C:61:VAL:O | 3:C:64:VAL:HB | 2.15 | 0.47 |
| 3:C:138:LEU:HD22 | 3:C:176:TYR:HE1 | 1.80 | 0.47 |
| 3:C:156:LYS:HG3 | 3:C:159:LEU:HD12 | 1.97 | 0.47 |
| 3:C:299:LEU:CD1 | 3:C:302:LEU:HD23 | 2.45 | 0.47 |
| 3:C:397:ILE:HG21 | 6:F:308:LYS:HB3 | 1.95 | 0.47 |
| 4:D:109:HIS:O | 4:D:113:ILE:N | 2.40 | 0.47 |
| 4:D:133:GLU:OE1 | 4:D:138:GLN:HB3 | 2.14 | 0.47 |
| 4:D:315:LEU:CA | 13:G:134:GLU:OE1 | 2.55 | 0.47 |
| 5:E:31:TYR:HE1 | 5:E:84:LYS:HB3 | 1.78 | 0.47 |
| 5:E:84:LYS:HE2 | 5:E:91:ILE:HG21 | 1.97 | 0.47 |
| 5:E:331:ILE:HG21 | 13:G:177:TRP:O | 2.15 | 0.47 |
| 7:H:156:ASP:OD2 | 7:H:161:MET:HB2 | 2.14 | 0.47 |
| 8:O:16:LYS:HD2 | 8:O:41:ASP:N | 2.30 | 0.47 |
| 8:O:73:HIS:O | 8:O:76:VAL:HG22 | 2.14 | 0.47 |
| 8:O:81:GLU:CA | 8:O:84:LEU:HD13 | 2.43 | 0.47 |
| 8:O:326:ALA:HA | 8:O:330:LEU:CG | 2.45 | 0.47 |
| 8:O:610:LEU:HG | 8:O:631:ASP:O | 2.14 | 0.47 |
| 9:P:11:LYS:CE | 10:Q:14:LYS:CG | 2.84 | 0.47 |
| 13:G:150:GLN:O | 13:G:151:LEU:HD23 | 2.13 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:300:LYS:NZ | 1:A:337:PHE:HA | 2.30 | 0.46 |
| 1:A:363:ARG:HG2 | 1:A:367:PHE:CE2 | 2.50 | 0.46 |
| 1:A:496:LEU:O | 1:A:499:GLN:NE2 | 2.47 | 0.46 |
| 2:B:76:ILE:CD1 | 2:B:91:ARG:HB2 | 2.46 | 0.46 |
| 2:B:215:LYS:O | 2:B:219:GLU:HG3 | 2.16 | 0.46 |
| 2:B:358:VAL:HA | 2:B:361:LYS:CD | 2.46 | 0.46 |
| 2:B:420:ARG:CZ | 5:E:260:ASP:OD1 | 2.63 | 0.46 |
| 3:C:43:ASP:CB | 3:C:62:LEU:HD21 | 2.45 | 0.46 |
| 3:C:80:GLN:HA | 3:C:83:LEU:CG | 2.45 | 0.46 |
| 3:C:189:GLY:HA3 | 3:C:205:TYR:OH | 2.15 | 0.46 |
| 3:C:397:ILE:HD13 | 6:F:309:PHE:CA | 2.44 | 0.46 |
| 4:D:27:ARG:HA | 4:D:30:LEU:CD2 | 2.43 | 0.46 |
| 5:E:209:ASN:OD1 | 5:E:210:LYS:N | 2.48 | 0.46 |
| 6:F:83:VAL:HG12 | 6:F:152:LEU:HD12 | 1.97 | 0.46 |
| 7:H:13:PHE:CZ | 7:H:108:ALA:HB1 | 2.50 | 0.46 |
| 7:H:15:LYS:O | 7:H:19:GLN:HG3 | 2.14 | 0.46 |
| 7:H:20:CYS:HA | 7:H:23:GLN:OE1 | 2.15 | 0.46 |
| 7:H:117:ALA:HA | 7:H:120:LEU:CB | 2.45 | 0.46 |
| 8:O:182:HIS:CB | 8:O:253:TYR:HA | 2.41 | 0.46 |
| 8:O:268:GLN:HA | 8:O:271:VAL:HG22 | 1.95 | 0.46 |
| 8:O:622:MET:CE | 8:O:653:ILE:HD13 | 2.44 | 0.46 |
| 11:R:42:CYS:HB2 | 11:R:83:CYS:SG | 2.56 | 0.46 |
| 11:R:53:CYS:H | 11:R:80:HIS:HE1 | 1.61 | 0.46 |
| 11:R:84:ILE:HD13 | 11:R:101:TRP:HA | 1.96 | 0.46 |
| 12:V:140:LEU:HB3 | 12:V:144:GLY:HA2 | 1.97 | 0.46 |
| 13:G:50:ALA:CA | 13:G:53:GLN:HG2 | 2.45 | 0.46 |
| 1:A:282:LEU:HD23 | 1:A:285:LEU:CD1 | 2.35 | 0.46 |
| 2:B:40:LYS:HD2 | 2:B:53:SER:OG | 2.15 | 0.46 |
| 2:B:110:LYS:HA | 2:B:113:ASN:ND2 | 2.25 | 0.46 |
| 2:B:111:SER:O | 2:B:115:ILE:HG13 | 2.15 | 0.46 |
| 2:B:214:LEU:HD23 | 2:B:217:LEU:CD1 | 2.44 | 0.46 |
| 2:B:286:LEU:HD21 | 2:B:350:LEU:CD2 | 2.45 | 0.46 |
| 2:B:382:VAL:HA | 2:B:385:VAL:CB | 2.45 | 0.46 |
| 2:B:427:TRP:HE1 | 5:E:273:LEU:HG | 1.77 | 0.46 |
| 3:C:44:THR:HG22 | 3:C:45:VAL:HG23 | 1.96 | 0.46 |
| 3:C:71:VAL:HB | 3:C:72:PRO:CD | 2.45 | 0.46 |
| 3:C:84:PHE:CE1 | 3:C:89:ASN:HA | 2.51 | 0.46 |
| 3:C:260:TYR:CD1 | 3:C:263:LEU:HD22 | 2.51 | 0.46 |
| 3:C:340:HIS:O | 3:C:344:ASP:N | 2.32 | 0.46 |
| 4:D:155:TYR:HB3 | 4:D:164:ALA:HB2 | 1.97 | 0.46 |
| 4:D:304:VAL:O | 4:D:309:LEU:HG | 2.14 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:D:390:GLN:N | 4:D:393:PRO:HD3 | 2.30 | 0.46 |
| 5:E:142:GLY:N | 5:E:172:PRO:HG2 | 2.27 | 0.46 |
| 5:E:240:LEU:HD23 | 5:E:243:ASN:ND2 | 2.26 | 0.46 |
| 5:E:329:ASN:HA | 6:F:270:LEU:HB2 | 1.96 | 0.46 |
| 6:F:121:PHE:CZ | 6:F:142:VAL:HG22 | 2.50 | 0.46 |
| 7:H:103:GLN:HA | 7:H:106:MET:CB | 2.45 | 0.46 |
| 7:H:147:GLY:HA2 | 7:H:150:GLU:CG | 2.42 | 0.46 |
| 8:O:298:TYR:HD1 | 8:O:364:PHE:HE2 | 1.63 | 0.46 |
| 8:O:337:THR:HA | 8:O:394:TYR:HE1 | 1.77 | 0.46 |
| 8:O:540:PHE:HD2 | 8:O:553:LEU:HB2 | 1.80 | 0.46 |
| 8:O:696:HIS:H | 8:O:740:GLU:H | 1.62 | 0.46 |
| 1:A:94:LEU:HD12 | 1:A:248:LEU:N | 2.31 | 0.46 |
| 1:A:107:CYS:N | 1:A:111:ARG:HH21 | 2.14 | 0.46 |
| 1:A:193:ILE:CG2 | 1:A:196:SER:H | 2.26 | 0.46 |
| 2:B:342:PHE:HB3 | 2:B:346:HIS:CD2 | 2.50 | 0.46 |
| 3:C:266:VAL:O | 3:C:269:THR:OG1 | 2.25 | 0.46 |
| 3:C:351:ILE:O | 7:H:126:THR:HB | 2.15 | 0.46 |
| 5:E:129:ARG:HH22 | 6:F:87:PHE:HD2 | 1.63 | 0.46 |
| 5:E:150:ILE:O | 5:E:153:SER:HB2 | 2.15 | 0.46 |
| 5:E:246:TRP:CE2 | 6:F:229:LYS:O | 2.66 | 0.46 |
| 5:E:299:LYS:HE2 | 5:E:302:LYS:HZ2 | 1.80 | 0.46 |
| 6:F:72:LEU:HD23 | 6:F:86:SER:CB | 2.45 | 0.46 |
| 6:F:289:MET:O | 6:F:292:LEU:HB2 | 2.14 | 0.46 |
| 7:H:200:LEU:HD23 | 7:H:203:TYR:CD2 | 2.51 | 0.46 |
| 8:O:13:THR:HA | 8:O:16:LYS:HZ2 | 1.81 | 0.46 |
| 8:O:122:ASP:OD2 | 8:O:127:TYR:HA | 2.15 | 0.46 |
| 8:O:373:THR:HA | 8:O:376:VAL:CB | 2.45 | 0.46 |
| 8:O:443:LEU:HD22 | 8:O:476:MET:HE1 | 1.96 | 0.46 |
| 8:O:734:SER:OG | 8:O:742:SER:HB3 | 2.16 | 0.46 |
| 9:P:28:LYS:O | 10:Q:5:PHE:CZ | 2.68 | 0.46 |
| 9:P:64:SER:O | 9:P:69:PRO:HD3 | 2.15 | 0.46 |
| 12:V:146:PRO:N | 12:V:148:PHE:N | 2.63 | 0.46 |
| 13:G:62:ALA:HA | 13:G:65:GLN:CG | 2.45 | 0.46 |
| 13:G:62:ALA:CA | 13:G:65:GLN:HE21 | 2.17 | 0.46 |
| 1:A:97:ILE:HA | 1:A:100:LEU:HB2 | 1.96 | 0.46 |
| 1:A:267:ILE:HG22 | 1:A:282:LEU:HG | 1.97 | 0.46 |
| 1:A:382:ASP:O | 1:A:385:LYS:HB3 | 2.15 | 0.46 |
| 1:A:425:MET:HE3 | 1:A:429:PHE:CE2 | 2.50 | 0.46 |
| 2:B:99:ILE:CG2 | 2:B:100:ARG:HG3 | 2.37 | 0.46 |
| 2:B:132:TYR:CE1 | 2:B:154:LYS:HE2 | 2.50 | 0.46 |
| 3:C:317:LEU:HD11 | 3:C:325:ARG:NH1 | 2.22 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 3:C:344:ASP:HB2 | 3:C:346:GLU:CD | 2.35 | 0.46 |
| 4:D:12:LEU:HD13 | 4:D:25:LYS:C | 2.36 | 0.46 |
| 4:D:96:VAL:HG23 | 4:D:103:VAL:HG11 | 1.98 | 0.46 |
| 4:D:153:ARG:HB3 | 4:D:190:CYS:SG | 2.56 | 0.46 |
| 5:E:241:LEU:HD23 | 6:F:200:VAL:CG1 | 2.46 | 0.46 |
| 6:F:109:GLU:HB2 | 6:F:113:LYS:HG2 | 1.98 | 0.46 |
| 8:O:115:LYS:NZ | 8:O:116:ASN:OD1 | 2.36 | 0.46 |
| 8:O:170:ASP:HB2 | 8:O:249:ARG:NE | 2.27 | 0.46 |
| 8:O:191:VAL:O | 8:O:191:VAL:HG12 | 2.16 | 0.46 |
| 8:O:266:CYS:O | 8:O:270:MET:HG3 | 2.15 | 0.46 |
| 8:O:460:LYS:HA | 8:O:463:GLN:OE1 | 2.16 | 0.46 |
| 8:O:527:PHE:HD2 | 8:O:529:ILE:HD12 | 1.77 | 0.46 |
| 8:O:688:MET:HG3 | 8:O:731:ILE:HD12 | 1.95 | 0.46 |
| 12:V:87:VAL:HB | 12:V:118:LEU:HD21 | 1.97 | 0.46 |
| 12:V:140:LEU:HD23 | 12:V:147:ILE:HG22 | 1.97 | 0.46 |
| 1:A:101:GLN:HG3 | 1:A:115:LEU:HD21 | 1.97 | 0.46 |
| 1:A:245:SER:HA | 1:A:248:LEU:CB | 2.36 | 0.46 |
| 1:A:355:PHE:HA | 1:A:358:LEU:HD12 | 1.97 | 0.46 |
| 1:A:454:ASP:H | 1:A:461:TYR:HE2 | 1.64 | 0.46 |
| 2:B:157:LYS:CD | 2:B:160:LEU:HD11 | 2.46 | 0.46 |
| 2:B:246:LEU:HD21 | 2:B:342:PHE:CE1 | 2.50 | 0.46 |
| 2:B:283:ALA:O | 2:B:287:MET:N | 2.47 | 0.46 |
| 3:C:5:LEU:HD13 | 3:C:42:LEU:CD1 | 2.45 | 0.46 |
| 3:C:35:LEU:HB2 | 3:C:39:LEU:HG | 1.97 | 0.46 |
| 3:C:229:LEU:HD22 | 3:C:233:ILE:CD1 | 2.45 | 0.46 |
| 3:C:299:LEU:O | 3:C:302:LEU:HB3 | 2.15 | 0.46 |
| 3:C:331:PRO:HG2 | 3:C:332:GLN:NE2 | 2.30 | 0.46 |
| 4:D:8:ASP:OD2 | 4:D:28:GLN:NE2 | 2.48 | 0.46 |
| 4:D:13:MET:CE | 4:D:57:VAL:HG23 | 2.46 | 0.46 |
| 4:D:42:LEU:O | 4:D:46:LYS:HG3 | 2.15 | 0.46 |
| 4:D:385:LEU:HD22 | 6:F:234:ARG:O | 2.14 | 0.46 |
| 4:D:403:GLN:HB2 | 6:F:237:LEU:HD23 | 1.98 | 0.46 |
| 5:E:276:SER:O | 5:E:298:ASP:OD2 | 2.33 | 0.46 |
| 6:F:67:GLN:HG2 | 6:F:98:ILE:CD1 | 2.45 | 0.46 |
| 8:O:13:THR:HG22 | 8:O:44:ALA:HB3 | 1.96 | 0.46 |
| 8:O:189:VAL:HG21 | 8:O:203:TYR:HA | 1.96 | 0.46 |
| 8:O:372:LEU:O | 8:O:376:VAL:HG23 | 2.16 | 0.46 |
| 8:O:397:ASN:HA | 8:O:400:LYS:HG2 | 1.96 | 0.46 |
| 9:P:46:LYS:HD3 | 9:P:61:GLY:HA3 | 1.97 | 0.46 |
| 9:P:98:GLU:CD | 10:Q:85:GLU:OE1 | 2.54 | 0.46 |
| 12:V:74:VAL:CG2 | 12:V:111:SER:HB3 | 2.36 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 12:V:79:ARG:H | 12:V:151:ILE:HB | 1.81 | 0.46 |
| 13:G:29:ALA:O | 13:G:32:SER:HB3 | 2.15 | 0.46 |
| 13:G:43:PHE:H | 13:G:67:LEU:HD11 | 1.80 | 0.46 |
| 13:G:108:MET:CB | 13:G:111:ILE:HD13 | 2.32 | 0.46 |
| 1:A:122:VAL:HG11 | 1:A:131:TYR:CD1 | 2.50 | 0.46 |
| 1:A:138:LEU:HD23 | 1:A:162:LEU:N | 2.31 | 0.46 |
| 1:A:194:LYS:HB3 | 1:A:227:TYR:HB3 | 1.97 | 0.46 |
| 1:A:492:ARG:O | 1:A:495:VAL:HG22 | 2.16 | 0.46 |
| 2:B:133:GLU:OE2 | 2:B:134:THR:HG23 | 2.15 | 0.46 |
| 2:B:162:ARG:HD3 | 2:B:164:GLU:N | 2.31 | 0.46 |
| 2:B:163:GLU:OE2 | 2:B:203:GLN:HG3 | 2.16 | 0.46 |
| 2:B:216:ALA:HA | 2:B:219:GLU:OE1 | 2.15 | 0.46 |
| 2:B:379:ASN:O | 2:B:380:ILE:HD13 | 2.15 | 0.46 |
| 3:C:71:VAL:HA | 3:C:115:LYS:HZ1 | 1.80 | 0.46 |
| 3:C:238:VAL:HG12 | 3:C:239:GLN:O | 2.15 | 0.46 |
| 4:D:149:LEU:HD12 | 4:D:183:LEU:HD11 | 1.97 | 0.46 |
| 4:D:183:LEU:HA | 4:D:186:HIS:CD2 | 2.49 | 0.46 |
| 4:D:215:THR:CA | 4:D:222:ARG:HD3 | 2.43 | 0.46 |
| 5:E:234:ASP:CA | 6:F:49:LEU:HD22 | 2.46 | 0.46 |
| 6:F:67:GLN:NE2 | 6:F:98:ILE:HD11 | 2.31 | 0.46 |
| 8:O:27:LEU:HA | 8:O:28:GLU:HA | 1.63 | 0.46 |
| 8:O:62:LYS:HA | 8:O:142:LEU:CD1 | 2.46 | 0.46 |
| 8:O:65:LEU:HD13 | 8:O:142:LEU:HD23 | 1.98 | 0.46 |
| 8:O:240:LEU:HG | 8:O:244:LYS:HE3 | 1.96 | 0.46 |
| 8:O:279:HIS:HB3 | 8:O:310:HIS:CB | 2.45 | 0.46 |
| 8:O:403:ALA:O | 8:O:404:LYS:HG3 | 2.15 | 0.46 |
| 8:O:566:MET:N | 11:R:23:GLU:OE2 | 2.47 | 0.46 |
| 8:O:584:VAL:HG11 | 8:O:610:LEU:CB | 2.42 | 0.46 |
| 8:O:584:VAL:HG21 | 8:O:609:GLU:HB2 | 1.97 | 0.46 |
| 8:O:587:ALA:HB1 | 8:O:599:LEU:CD1 | 2.46 | 0.46 |
| 8:O:610:LEU:HD23 | 8:O:631:ASP:HB3 | 1.98 | 0.46 |
| 12:V:146:PRO:HG3 | 12:V:148:PHE:CG | 2.51 | 0.46 |
| 13:G:43:PHE:CE2 | 13:G:67:LEU:HD13 | 2.50 | 0.46 |
| 13:G:145:LEU:HA | 13:G:152:LEU:HA | 1.97 | 0.46 |
| 13:G:211:ALA:O | 13:G:214:THR:HG22 | 2.15 | 0.46 |
| 1:A:344:ARG:O | 1:A:348:SER:OG | 2.34 | 0.46 |
| 1:A:376:SER:O | 1:A:379:LYS:HB3 | 2.16 | 0.46 |
| 1:A:389:LEU:HD12 | 1:A:395:ALA:CA | 2.36 | 0.46 |
| 1:A:487:LYS:O | 1:A:491:LEU:HG | 2.16 | 0.46 |
| 2:B:34:ASN:OD1 | 2:B:60:LEU:HB2 | 2.15 | 0.46 |
| 2:B:167:LYS:O | 2:B:170:LYS:HE3 | 2.16 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:441:LYS:NZ | 6:F:303:ASN:HD21 | 2.10 | 0.46 |
| 3:C:41:HIS:HA | 3:C:44:THR:HB | 1.97 | 0.46 |
| 3:C:57:GLY:O | 3:C:61:VAL:HG23 | 2.15 | 0.46 |
| 3:C:176:TYR:CE1 | 3:C:180:HIS:HB2 | 2.50 | 0.46 |
| 4:D:206:GLN:O | 4:D:210:GLU:HG3 | 2.15 | 0.46 |
| 4:D:361:PHE:CB | 4:D:364:ARG:HH12 | 2.21 | 0.46 |
| 4:D:392:ALA:HA | 4:D:394:GLU:OE1 | 2.16 | 0.46 |
| 5:E:92:ILE:HG23 | 5:E:94:ASP:O | 2.15 | 0.46 |
| 5:E:253:SER:CA | 5:E:324:LYS:HZ3 | 2.28 | 0.46 |
| 5:E:317:GLY:O | 5:E:320:SER:OG | 2.27 | 0.46 |
| 7:H:38:GLY:O | 7:H:74:ILE:HD13 | 2.15 | 0.46 |
| 7:H:133:PHE:HA | 7:H:136:PHE:CB | 2.46 | 0.46 |
| 7:H:163:LEU:HB3 | 7:H:165:ARG:NH2 | 2.31 | 0.46 |
| 8:O:50:PRO:HA | 8:O:53:LEU:HB2 | 1.97 | 0.46 |
| 8:O:178:GLN:O | 8:O:252:LYS:HB3 | 2.16 | 0.46 |
| 8:O:610:LEU:O | 8:O:613:THR:HB | 2.16 | 0.46 |
| 8:O:641:ASN:OD1 | 8:O:642:MET:N | 2.48 | 0.46 |
| 8:O:653:ILE:O | 8:O:655:THR:N | 2.48 | 0.46 |
| 8:O:688:MET:SD | 8:O:725:LEU:CD1 | 3.04 | 0.46 |
| 11:R:38:VAL:CG1 | 11:R:40:ASP:H | 2.28 | 0.46 |
| 12:V:73:GLN:CB | 12:V:140:LEU:HB3 | 2.28 | 0.46 |
| 1:A:98:GLU:OE1 | 1:A:249:GLN:NE2 | 2.49 | 0.46 |
| 1:A:170:THR:HA | 1:A:173:LYS:HE2 | 1.98 | 0.46 |
| 1:A:473:GLU:O | 1:A:477:LEU:HG | 2.15 | 0.46 |
| 2:B:165:TYR:O | 2:B:169:GLN:N | 2.23 | 0.46 |
| 2:B:298:GLU:HB2 | 2:B:302:TYR:CE2 | 2.51 | 0.46 |
| 3:C:94:ARG:CD | 3:C:131:MET:HG3 | 2.38 | 0.46 |
| 3:C:192:TYR:O | 3:C:197:ASN:N | 2.49 | 0.46 |
| 3:C:309:ARG:HA | 3:C:312:LYS:HZ3 | 1.81 | 0.46 |
| 3:C:339:LEU:O | 3:C:343:GLU:HB3 | 2.10 | 0.46 |
| 3:C:397:ILE:HA | 3:C:400:ASN:ND2 | 2.31 | 0.46 |
| 4:D:2:ALA:HB1 | 4:D:43:GLU:CG | 2.46 | 0.46 |
| 4:D:78:ASP:HA | 4:D:81:ALA:CB | 2.43 | 0.46 |
| 4:D:211:LEU:HD23 | 4:D:214:LYS:NZ | 2.31 | 0.46 |
| 4:D:263:ILE:HD11 | 4:D:280:GLU:OE1 | 2.15 | 0.46 |
| 4:D:264:LEU:HA | 4:D:267:MET:CB | 2.42 | 0.46 |
| 4:D:319:ILE:HG22 | 4:D:359:VAL:CG1 | 2.46 | 0.46 |
| 4:D:325:GLY:HA3 | 4:D:332:ALA:HA | 1.98 | 0.46 |
| 5:E:104:GLU:CD | 5:E:148:SER:HB3 | 2.36 | 0.46 |
| 5:E:262:THR:O | 5:E:266:VAL:HG23 | 2.16 | 0.46 |
| 5:E:268:ASP:C | 5:E:272:LYS:HG3 | 2.37 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 6:F:267:LEU:CD1 | 13:G:177:TRP:CD2 | 2.86 | 0.46 |
| 7:H:103:GLN:N | 7:H:104:PRO:HD2 | 2.31 | 0.46 |
| 7:H:129:ILE:HG22 | 7:H:132:ASP:N | 2.28 | 0.46 |
| 8:O:6:ARG:CB | 8:O:49:TYR:HB2 | 2.43 | 0.46 |
| 8:O:53:LEU:HG | 8:O:56:ARG:HH12 | 1.81 | 0.46 |
| 8:O:65:LEU:HD13 | 8:O:142:LEU:CD2 | 2.46 | 0.46 |
| 8:O:119:THR:HG23 | 8:O:136:LEU:O | 2.16 | 0.46 |
| 8:O:226:LEU:HD13 | 8:O:238:LYS:HB2 | 1.98 | 0.46 |
| 8:O:245:ASP:O | 8:O:248:ILE:HB | 2.16 | 0.46 |
| 8:O:399:LEU:HD22 | 8:O:454:GLU:CG | 2.45 | 0.46 |
| 8:O:512:LEU:CB | 8:O:551:ARG:HA | 2.46 | 0.46 |
| 8:O:529:ILE:CG2 | 8:O:533:LEU:HB2 | 2.44 | 0.46 |
| 8:O:555:TRP:CZ3 | 11:R:29:ALA:CA | 2.99 | 0.46 |
| 11:R:44:ILE:HG22 | 11:R:55:GLU:CD | 2.36 | 0.46 |
| 12:V:74:VAL:HG23 | 12:V:140:LEU:CA | 2.46 | 0.46 |
| 12:V:181:VAL:N | 12:V:184:LEU:HB2 | 2.31 | 0.46 |
| 12:V:192:PRO:HA | 12:V:196:LYS:HD2 | 1.97 | 0.46 |
| 13:G:66:LEU:CD1 | 13:G:85:LEU:HD13 | 2.42 | 0.46 |
| 13:G:71:ALA:CA | 13:G:163:ARG:HA | 2.45 | 0.46 |
| 13:G:102:VAL:HG23 | 13:G:103:SER:N | 2.30 | 0.46 |
| 1:A:94:LEU:HB2 | 1:A:247:TYR:O | 2.16 | 0.46 |
| 1:A:201:HIS:O | 1:A:220:CYS:HB3 | 2.16 | 0.46 |
| 1:A:203:ASP:O | 1:A:206:ASP:HB2 | 2.16 | 0.46 |
| 1:A:244:VAL:O | 1:A:248:LEU:HG | 2.16 | 0.46 |
| 1:A:486:ALA:HB2 | 3:C:386:LEU:HD21 | 1.97 | 0.46 |
| 2:B:230:HIS:CD2 | 8:O:459:ASN:ND2 | 2.84 | 0.46 |
| 2:B:294:PHE:CD2 | 2:B:300:LYS:HA | 2.50 | 0.46 |
| 2:B:387:SER:O | 2:B:391:GLN:HG3 | 2.16 | 0.46 |
| 3:C:131:MET:HG2 | 3:C:170:CYS:SG | 2.56 | 0.46 |
| 3:C:198:PHE:HB2 | 3:C:234:LEU:CD2 | 2.38 | 0.46 |
| 3:C:225:LYS:HA | 3:C:260:TYR:CZ | 2.51 | 0.46 |
| 4:D:217:VAL:CG1 | 4:D:221:GLU:HB2 | 2.46 | 0.46 |
| 4:D:250:PHE:HA | 4:D:261:TYR:HE1 | 1.81 | 0.46 |
| 4:D:406:GLN:OE1 | 6:F:236:LYS:HD2 | 2.16 | 0.46 |
| 5:E:84:LYS:CE | 5:E:91:ILE:HG21 | 2.46 | 0.46 |
| 5:E:170:ILE:HG12 | 5:E:183:LEU:HA | 1.97 | 0.46 |
| 5:E:245:TYR:HE2 | 6:F:222:ILE:HD13 | 1.54 | 0.46 |
| 5:E:246:TRP:HE3 | 6:F:228:ILE:HG22 | 1.71 | 0.46 |
| 6:F:41:VAL:HG12 | 6:F:74:GLY:O | 2.16 | 0.46 |
| 6:F:72:LEU:O | 6:F:122:LEU:HB3 | 2.16 | 0.46 |
| 7:H:60:ILE:HG22 | 7:H:65:LYS:HG3 | 1.98 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 7:H:96:HIS:CE1 | 7:H:102:VAL:HG11 | 2.51 | 0.46 |
| 8:O:38:ARG:CG | 8:O:104:LEU:HD22 | 2.46 | 0.46 |
| 8:O:78:GLU:HB2 | 8:O:83:VAL:HG21 | 1.97 | 0.46 |
| 8:O:160:ILE:HG23 | 8:O:207:PHE:CD1 | 2.51 | 0.46 |
| 8:O:322:GLU:HB2 | 8:O:325:ARG:NH1 | 2.29 | 0.46 |
| 8:O:363:HIS:O | 8:O:366:SER:HB2 | 2.16 | 0.46 |
| 8:O:395:CYS:SG | 8:O:398:LEU:HD12 | 2.56 | 0.46 |
| 8:O:407:THR:HB | 8:O:410:GLU:CB | 2.41 | 0.46 |
| 8:O:407:THR:O | 8:O:410:GLU:HB3 | 2.16 | 0.46 |
| 8:O:695:ARG:CD | 8:O:740:GLU:CB | 2.94 | 0.46 |
| 8:O:695:ARG:CD | 8:O:740:GLU:HB2 | 2.46 | 0.46 |
| 12:V:88:TRP:CZ3 | 12:V:90:ASN:HA | 2.49 | 0.46 |
| 13:G:56:ALA:HB1 | 13:G:64:LEU:CD1 | 2.32 | 0.46 |
| 13:G:66:LEU:HD22 | 13:G:88:LEU:HD21 | 1.98 | 0.46 |
| 13:G:69:LEU:HD11 | 13:G:74:THR:H | 1.81 | 0.46 |
| 13:G:93:GLN:O | 13:G:97:LYS:HG3 | 2.14 | 0.46 |
| 1:A:178:LEU:HD11 | 1:A:211:CYS:SG | 2.56 | 0.46 |
| 1:A:208:TYR:CE2 | 1:A:216:ASN:HB3 | 2.51 | 0.46 |
| 1:A:422:MET:HG3 | 1:A:459:ILE:CA | 2.46 | 0.46 |
| 1:A:494:ALA:HA | 1:A:497:ARG:CZ | 2.46 | 0.46 |
| 2:B:212:LYS:HA | 2:B:215:LYS:HB3 | 1.98 | 0.46 |
| 3:C:167:MET:HA | 3:C:169:ILE:HD12 | 1.98 | 0.46 |
| 3:C:217:SER:OG | 3:C:219:ILE:HB | 2.16 | 0.46 |
| 3:C:310:LEU:CD1 | 3:C:322:MET:HG3 | 2.46 | 0.46 |
| 4:D:213:TYR:O | 4:D:215:THR:HG23 | 2.16 | 0.46 |
| 4:D:242:ARG:O | 4:D:246:LEU:HG | 2.16 | 0.46 |
| 4:D:287:PRO:HA | 4:D:290:LYS:CD | 2.42 | 0.46 |
| 4:D:381:VAL:HG21 | 6:F:263:LEU:CD1 | 2.46 | 0.46 |
| 4:D:394:GLU:O | 4:D:398:GLN:HG2 | 2.16 | 0.46 |
| 5:E:159:GLN:HE22 | 5:E:187:ARG:HA | 1.81 | 0.46 |
| 5:E:187:ARG:HD3 | 5:E:222:TYR:OH | 2.16 | 0.46 |
| 5:E:209:ASN:HB2 | 5:E:210:LYS:HZ3 | 1.79 | 0.46 |
| 5:E:246:TRP:HZ2 | 6:F:233:SER:N | 2.14 | 0.46 |
| 5:E:306:ASP:O | 5:E:309:LYS:HG2 | 2.15 | 0.46 |
| 5:E:322:VAL:HA | 6:F:279:PHE:CE1 | 2.51 | 0.46 |
| 6:F:58:MET:O | 6:F:66:VAL:HG21 | 2.16 | 0.46 |
| 6:F:69:ILE:CG2 | 6:F:124:TRP:HB2 | 2.45 | 0.46 |
| 6:F:100:ILE:HG12 | 6:F:138:VAL:CG1 | 2.46 | 0.46 |
| 6:F:254:HIS:CD2 | 13:G:162:ILE:HD13 | 2.51 | 0.46 |
| 7:H:20:CYS:O | 7:H:23:GLN:HB2 | 2.15 | 0.46 |
| 7:H:23:GLN:OE1 | 7:H:36:VAL:HG22 | 2.16 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:H:46:LEU:HD21 | 7:H:105:ILE:O | 2.17 | 0.46 |
| 8:O:311:MET:HB3 | 8:O:364:PHE:CE1 | 2.51 | 0.46 |
| 8:O:555:TRP:CH2 | 11:R:29:ALA:HB1 | 2.43 | 0.46 |
| 11:R:79:PHE:HE2 | 11:R:94:CYS:SG | 2.39 | 0.46 |
| 12:V:84:VAL:HG13 | 12:V:119:PHE:CG | 2.51 | 0.46 |
| 12:V:146:PRO:CG | 12:V:148:PHE:CG | 2.99 | 0.46 |
| 12:V:181:VAL:HG12 | 12:V:183:SER:H | 1.81 | 0.46 |
| 1:A:135:HIS:HB2 | 1:A:162:LEU:CD2 | 2.32 | 0.45 |
| 1:A:343:GLN:HG3 | 1:A:347:ILE:HD12 | 1.98 | 0.45 |
| 2:B:287:MET:CE | 2:B:289:SER:HB3 | 2.46 | 0.45 |
| 3:C:39:LEU:HD22 | 3:C:61:VAL:HG13 | 1.97 | 0.45 |
| 3:C:41:HIS:HA | 3:C:44:THR:CB | 2.46 | 0.45 |
| 3:C:376:ILE:O | 3:C:379:GLU:HB2 | 2.15 | 0.45 |
| 4:D:120:TRP:CE3 | 4:D:154:LEU:HA | 2.51 | 0.45 |
| 4:D:279:GLN:HA | 4:D:282:ALA:HB3 | 1.97 | 0.45 |
| 5:E:56:LYS:O | 5:E:91:ILE:HG23 | 2.16 | 0.45 |
| 5:E:62:LEU:O | 5:E:66:VAL:HB | 2.16 | 0.45 |
| 5:E:205:THR:HG21 | 5:E:302:LYS:HG2 | 1.95 | 0.45 |
| 5:E:252:SER:H | 6:F:221:LEU:CA | 2.29 | 0.45 |
| 5:E:268:ASP:HB3 | 5:E:272:LYS:HZ2 | 1.81 | 0.45 |
| 6:F:69:ILE:HG13 | 6:F:91:SER:CB | 2.44 | 0.45 |
| 6:F:72:LEU:HD13 | 6:F:150:LEU:CD2 | 2.45 | 0.45 |
| 6:F:291:TYR:O | 6:F:295:ILE:HG13 | 2.16 | 0.45 |
| 8:O:227:LEU:HD22 | 8:O:274:HIS:ND1 | 2.31 | 0.45 |
| 8:O:397:ASN:O | 8:O:400:LYS:HG2 | 2.16 | 0.45 |
| 8:O:407:THR:H | 8:O:410:GLU:HB3 | 1.80 | 0.45 |
| 8:O:412:GLU:HA | 8:O:415:LEU:HD12 | 1.97 | 0.45 |
| 8:O:660:ASP:CA | 8:O:663:GLN:CB | 2.94 | 0.45 |
| 11:R:19:LYS:HA | 11:R:23:GLU:CD | 2.36 | 0.45 |
| 11:R:64:THR:O | 11:R:68:CYS:HB3 | 2.15 | 0.45 |
| 11:R:84:ILE:HA | 11:R:95:PRO:HD3 | 1.97 | 0.45 |
| 13:G:130:ASP:O | 13:G:133:ILE:HG12 | 2.17 | 0.45 |
| 13:G:197:GLN:NE2 | 13:G:197:GLN:HA | 2.30 | 0.45 |
| 1:A:139:SER:HA | 1:A:160:PRO:HB3 | 1.98 | 0.45 |
| 1:A:146:GLN:HA | 1:A:149:PRO:CG | 2.28 | 0.45 |
| 1:A:185:LEU:HD22 | 1:A:204:LEU:CD2 | 2.46 | 0.45 |
| 1:A:255:LEU:HA | 1:A:258:VAL:HG23 | 1.99 | 0.45 |
| 1:A:306:LEU:O | 1:A:309:ALA:HB3 | 2.16 | 0.45 |
| 1:A:453:VAL:HG23 | 1:A:460:LEU:CD1 | 2.46 | 0.45 |
| 2:B:146:ARG:NE | 2:B:193:GLN:HE22 | 2.14 | 0.45 |
| 2:B:170:LYS:HD2 | 2:B:171:ILE:N | 2.31 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:201:GLU:O | 2:B:205:TYR:HD2 | 1.99 | 0.45 |
| 2:B:245:HIS:CD2 | 2:B:254:ALA:HB2 | 2.51 | 0.45 |
| 2:B:387:SER:O | 2:B:390:VAL:HG22 | 2.16 | 0.45 |
| 3:C:224:TYR:CE1 | 3:C:257:SER:HB2 | 2.51 | 0.45 |
| 4:D:127:LEU:HD23 | 4:D:130:ILE:HD11 | 1.98 | 0.45 |
| 4:D:305:ILE:O | 4:D:328:LEU:HD22 | 2.16 | 0.45 |
| 5:E:60:LEU:HD12 | 5:E:63:LEU:HD12 | 1.98 | 0.45 |
| 5:E:234:ASP:OD1 | 6:F:49:LEU:HD22 | 2.16 | 0.45 |
| 5:E:246:TRP:HA | 6:F:219:GLU:CB | 2.45 | 0.45 |
| 6:F:49:LEU:O | 6:F:52:SER:HB3 | 2.16 | 0.45 |
| 6:F:273:ASP:O | 6:F:274:LYS:N | 2.49 | 0.45 |
| 7:H:194:GLU:N | 13:G:187:GLY:C | 2.68 | 0.45 |
| 8:O:387:ALA:HA | 8:O:390:LEU:HD12 | 1.97 | 0.45 |
| 8:O:409:ASN:HB3 | 8:O:413:ASP:CG | 2.37 | 0.45 |
| 8:O:537:VAL:HG23 | 8:O:553:LEU:CG | 2.46 | 0.45 |
| 8:O:571:LYS:HB3 | 8:O:573:TYR:CD2 | 2.52 | 0.45 |
| 8:O:623:ILE:CG2 | 8:O:625:HIS:HB3 | 2.47 | 0.45 |
| 8:O:656:SER:CB | 8:O:658:GLN:HG3 | 2.40 | 0.45 |
| 8:O:725:LEU:HD23 | 8:O:725:LEU:HA | 1.69 | 0.45 |
| 11:R:77:HIS:HB3 | 11:R:99:ARG:CD | 2.37 | 0.45 |
| 13:G:88:LEU:HD22 | 13:G:92:GLN:OE1 | 2.17 | 0.45 |
| 1:A:196:SER:HA | 1:A:199:ARG:HG2 | 1.98 | 0.45 |
| 1:A:313:HIS:HB2 | 1:A:315:ASP:O | 2.16 | 0.45 |
| 1:A:407:ASN:O | 1:A:411:ILE:HG13 | 2.16 | 0.45 |
| 1:A:414:PHE:CE1 | 1:A:420:ALA:HB2 | 2.52 | 0.45 |
| 1:A:453:VAL:HA | 1:A:459:ILE:O | 2.15 | 0.45 |
| 2:B:85:PHE:O | 2:B:88:MET:N | 2.49 | 0.45 |
| 2:B:205:TYR:HB3 | 2:B:211:ASN:OD1 | 2.16 | 0.45 |
| 2:B:218:TYR:HA | 2:B:221:SER:CB | 2.46 | 0.45 |
| 2:B:333:ASN:CG | 2:B:337:ILE:HG13 | 2.36 | 0.45 |
| 2:B:402:ILE:HA | 2:B:409:LEU:CD1 | 2.43 | 0.45 |
| 2:B:424:LEU:CA | 5:E:266:VAL:HG12 | 2.19 | 0.45 |
| 3:C:125:LYS:HA | 3:C:128:ILE:CB | 2.46 | 0.45 |
| 3:C:158:ALA:O | 3:C:162:LEU:HG | 2.15 | 0.45 |
| 3:C:184:TYR:HA | 3:C:187:TYR:CD2 | 2.51 | 0.45 |
| 4:D:70:CYS:HA | 4:D:73:LEU:CD1 | 2.46 | 0.45 |
| 4:D:228:HIS:O | 4:D:231:HIS:HB2 | 2.17 | 0.45 |
| 4:D:235:LEU:HD21 | 4:D:285:LEU:HD11 | 1.99 | 0.45 |
| 5:E:81:MET:HG3 | 5:E:137:TYR:N | 2.31 | 0.45 |
| 5:E:251:SER:C | 5:E:324:LYS:HD3 | 2.37 | 0.45 |
| 5:E:332:ASN:CG | 13:G:180:GLY:N | 2.65 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 6:F:155:ASN:HD21 | 6:F:157:MET:HB2 | 1.80 | 0.45 |
| 7:H:148:ILE:HG21 | 7:H:162:VAL:HG11 | 1.98 | 0.45 |
| 8:O:285:ILE:HG21 | 8:O:294:MET:HB2 | 1.99 | 0.45 |
| 8:O:695:ARG:CD | 8:O:740:GLU:HG3 | 2.45 | 0.45 |
| 8:O:729:GLN:CA | 11:R:55:GLU:HG3 | 2.44 | 0.45 |
| 9:P:93:PHE:CA | 10:Q:16:TYR:HH | 2.29 | 0.45 |
| 9:P:93:PHE:C | 10:Q:51:SER:HB2 | 2.37 | 0.45 |
| 1:A:251:TRP:CZ2 | 1:A:291:LEU:HD23 | 2.50 | 0.45 |
| 1:A:368:LYS:HE3 | 1:A:380:MET:CG | 2.46 | 0.45 |
| 1:A:372:SER:HB3 | 1:A:374:TYR:CE2 | 2.52 | 0.45 |
| 1:A:388:LEU:CA | 1:A:394:LEU:HD23 | 2.46 | 0.45 |
| 1:A:401:LEU:O | 1:A:405:ILE:HG13 | 2.16 | 0.45 |
| 1:A:467:GLN:HE22 | 2:B:422:THR:CA | 2.28 | 0.45 |
| 2:B:11:ASP:O | 2:B:15:ASP:CG | 2.55 | 0.45 |
| 2:B:162:ARG:CD | 2:B:164:GLU:HB2 | 2.46 | 0.45 |
| 2:B:292:ASN:HA | 2:B:295:ASP:HB2 | 1.98 | 0.45 |
| 2:B:340:ASP:OD2 | 2:B:343:ILE:HG13 | 2.15 | 0.45 |
| 2:B:357:GLN:C | 2:B:361:LYS:HZ2 | 2.19 | 0.45 |
| 2:B:389:LEU:O | 2:B:393:ILE:HG12 | 2.16 | 0.45 |
| 2:B:426:LYS:HA | 2:B:429:ASN:HB3 | 1.98 | 0.45 |
| 3:C:5:LEU:HA | 3:C:8:PHE:CE2 | 2.41 | 0.45 |
| 3:C:13:ARG:HA | 3:C:49:LEU:CD1 | 2.46 | 0.45 |
| 3:C:23:GLN:O | 3:C:27:LEU:HG | 2.16 | 0.45 |
| 3:C:76:THR:OG1 | 3:C:77:LEU:N | 2.50 | 0.45 |
| 3:C:176:TYR:HA | 3:C:180:HIS:ND1 | 2.31 | 0.45 |
| 3:C:225:LYS:HD3 | 3:C:285:THR:HG21 | 1.96 | 0.45 |
| 3:C:378:GLN:HA | 3:C:381:LEU:CD1 | 2.46 | 0.45 |
| 3:C:386:LEU:O | 3:C:390:LEU:HG | 2.16 | 0.45 |
| 4:D:10:ALA:O | 4:D:13:MET:HB3 | 2.17 | 0.45 |
| 4:D:40:GLU:OE1 | 4:D:40:GLU:N | 2.46 | 0.45 |
| 4:D:319:ILE:HG22 | 4:D:359:VAL:HG12 | 1.99 | 0.45 |
| 4:D:342:MET:HA | 4:D:345:GLU:OE1 | 2.17 | 0.45 |
| 5:E:121:ILE:O | 5:E:124:ALA:HB3 | 2.17 | 0.45 |
| 5:E:242:TRP:CZ3 | 6:F:219:GLU:CD | 2.88 | 0.45 |
| 5:E:273:LEU:HA | 5:E:303:ALA:CB | 2.46 | 0.45 |
| 5:E:299:LYS:HG2 | 5:E:302:LYS:CE | 2.47 | 0.45 |
| 5:E:330:GLN:HG2 | 6:F:268:PRO:HG3 | 1.98 | 0.45 |
| 6:F:72:LEU:HD21 | 6:F:152:LEU:CB | 2.45 | 0.45 |
| 6:F:311:VAL:HG12 | 6:F:312:LEU:HD22 | 1.99 | 0.45 |
| 7:H:80:ARG:HD3 | 7:H:92:THR:HG21 | 1.98 | 0.45 |
| 7:H:123:GLN:CA | 7:H:166:LYS:HE3 | 2.29 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 7:H:129:ILE:HB | 7:H:132:ASP:OD2 | 2.17 | 0.45 |
| 8:O:38:ARG:HA | 8:O:41:ASP:HB3 | 1.99 | 0.45 |
| 8:O:80:GLU:C | 8:O:84:LEU:HD13 | 2.37 | 0.45 |
| 8:O:182:HIS:CE1 | 8:O:186:ASN:HD21 | 2.34 | 0.45 |
| 8:O:257:SER:HB3 | 8:O:261:LYS:HE3 | 1.98 | 0.45 |
| 8:O:308:LEU:O | 8:O:311:MET:HB2 | 2.16 | 0.45 |
| 8:O:521:GLN:H | 8:O:556:LEU:HD23 | 0.66 | 0.45 |
| 8:O:596:TYR:HA | 8:O:632:ILE:CG2 | 2.46 | 0.45 |
| 13:G:12:LEU:HD22 | 13:G:13:GLU:N | 2.32 | 0.45 |
| 13:G:18:LEU:CD1 | 13:G:30:LEU:CD1 | 2.95 | 0.45 |
| 1:A:107:CYS:SG | 1:A:110:LEU:HB2 | 2.56 | 0.45 |
| 1:A:254:VAL:O | 1:A:258:VAL:HG23 | 2.17 | 0.45 |
| 1:A:431:THR:CG2 | 1:A:436:LEU:HD22 | 2.47 | 0.45 |
| 1:A:436:LEU:HA | 1:A:439:GLU:CD | 2.37 | 0.45 |
| 1:A:487:LYS:HG2 | 3:C:167:MET:CE | 2.47 | 0.45 |
| 2:B:300:LYS:HD2 | 11:R:72:TRP:HB3 | 1.98 | 0.45 |
| 2:B:384:ASP:O | 2:B:387:SER:HB2 | 2.17 | 0.45 |
| 2:B:399:HIS:HB3 | 2:B:412:ASP:N | 2.32 | 0.45 |
| 3:C:154:CYS:HB2 | 7:H:59:ARG:NE | 2.32 | 0.45 |
| 3:C:320:GLN:CB | 3:C:331:PRO:HD3 | 2.37 | 0.45 |
| 4:D:238:ALA:HA | 4:D:242:ARG:CD | 2.37 | 0.45 |
| 4:D:320:THR:CG2 | 4:D:358:ILE:HG12 | 2.41 | 0.45 |
| 4:D:388:ILE:CG2 | 4:D:393:PRO:C | 2.69 | 0.45 |
| 5:E:90:MET:HB2 | 5:E:224:LEU:CD2 | 2.46 | 0.45 |
| 5:E:159:GLN:HG3 | 5:E:165:PHE:HD2 | 1.82 | 0.45 |
| 5:E:189:TYR:CZ | 5:E:196:PRO:HD2 | 2.51 | 0.45 |
| 5:E:238:LEU:CD1 | 6:F:203:VAL:HB | 2.46 | 0.45 |
| 5:E:315:ILE:HG21 | 7:H:204:VAL:HG23 | 1.98 | 0.45 |
| 5:E:327:LEU:HD22 | 13:G:181:CYS:C | 2.37 | 0.45 |
| 6:F:171:VAL:HG12 | 6:F:172:ILE:N | 2.31 | 0.45 |
| 7:H:13:PHE:HD1 | 7:H:46:LEU:HB3 | 1.82 | 0.45 |
| 7:H:62:PRO:HA | 7:H:65:LYS:HB2 | 1.98 | 0.45 |
| 8:O:69:VAL:HG12 | 8:O:150:LEU:HD12 | 1.99 | 0.45 |
| 8:O:130:VAL:CG2 | 8:O:142:LEU:HA | 2.47 | 0.45 |
| 8:O:154:PRO:HG2 | 8:O:155:LEU:HD23 | 1.99 | 0.45 |
| 8:O:159:LEU:HD13 | 8:O:188:PHE:CZ | 2.52 | 0.45 |
| 8:O:207:PHE:O | 8:O:210:PRO:HD2 | 2.17 | 0.45 |
| 8:O:220:LYS:HD3 | 8:O:269:ARG:O | 2.17 | 0.45 |
| 8:O:512:LEU:HB3 | 8:O:551:ARG:HA | 1.97 | 0.45 |
| 8:O:599:LEU:HD22 | 8:O:610:LEU:HD22 | 1.99 | 0.45 |
| 8:O:622:MET:SD | 8:O:650:LYS:HD2 | 2.57 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 11:R:53:CYS:HB3 | 11:R:80:HIS:CE1 | 2.51 | 0.45 |
| 11:R:78:ALA:HB2 | 11:R:100:GLU:OE1 | 2.17 | 0.45 |
| 13:G:15:PHE:CZ | 13:G:33:GLN:HG2 | 2.52 | 0.45 |
| 13:G:112:PRO:CG | 13:G:151:LEU:HD22 | 2.47 | 0.45 |
| 1:A:200:GLY:O | 1:A:204:LEU:HD13 | 2.17 | 0.45 |
| 1:A:341:GLU:HA | 1:A:344:ARG:HB2 | 1.97 | 0.45 |
| 1:A:350:SER:O | 1:A:353:LYS:HB3 | 2.17 | 0.45 |
| 2:B:172:LEU:HD13 | 2:B:197:ILE:HG23 | 1.99 | 0.45 |
| 2:B:314:LEU:CD2 | 2:B:329:ILE:HD13 | 2.47 | 0.45 |
| 2:B:417:GLY:HA2 | 2:B:420:ARG:NH2 | 2.30 | 0.45 |
| 2:B:428:THR:HA | 2:B:431:LEU:CD1 | 2.44 | 0.45 |
| 3:C:139:THR:HA | 3:C:170:CYS:O | 2.17 | 0.45 |
| 3:C:226:LYS:HA | 3:C:229:LEU:HD12 | 1.97 | 0.45 |
| 3:C:258:ASN:HA | 3:C:261:HIS:HD2 | 1.81 | 0.45 |
| 3:C:306:ASN:HD22 | 3:C:309:ARG:NH1 | 2.15 | 0.45 |
| 4:D:215:THR:HA | 4:D:222:ARG:NH1 | 2.31 | 0.45 |
| 4:D:263:ILE:CD1 | 4:D:277:GLN:HB3 | 2.46 | 0.45 |
| 5:E:282:ARG:HH11 | 5:E:282:ARG:HB2 | 1.77 | 0.45 |
| 6:F:59:ARG:HG3 | 6:F:64:ARG:C | 2.37 | 0.45 |
| 6:F:83:VAL:HG21 | 6:F:167:VAL:CG2 | 2.46 | 0.45 |
| 6:F:138:VAL:O | 6:F:142:VAL:HG23 | 2.17 | 0.45 |
| 6:F:252:PHE:CE1 | 13:G:165:LYS:HG3 | 2.50 | 0.45 |
| 7:H:34:PRO:O | 7:H:37:TYR:HB2 | 2.17 | 0.45 |
| 8:O:3:LEU:HD23 | 8:O:49:TYR:OH | 2.17 | 0.45 |
| 8:O:117:LYS:CD | 8:O:136:LEU:HB3 | 2.47 | 0.45 |
| 8:O:513:GLN:NE2 | 8:O:554:THR:HG21 | 2.31 | 0.45 |
| 8:O:564:VAL:CG2 | 11:R:19:LYS:CE | 2.80 | 0.45 |
| 8:O:656:SER:C | 8:O:658:GLN:HG3 | 2.36 | 0.45 |
| 8:O:727:ASP:CA | 11:R:55:GLU:OE2 | 2.61 | 0.45 |
| 9:P:15:PHE:HE2 | 10:Q:16:TYR:HB2 | 1.59 | 0.45 |
| 9:P:19:LYS:O | 9:P:57:LEU:HB2 | 2.17 | 0.45 |
| 9:P:43:ARG:NH1 | 9:P:85:PHE:HB3 | 2.31 | 0.45 |
| 9:P:43:ARG:NE | 9:P:88:LEU:HB2 | 2.31 | 0.45 |
| 9:P:45:TYR:HA | 9:P:51:LEU:CD1 | 2.46 | 0.45 |
| 9:P:103:MET:HA | 10:Q:84:THR:CG2 | 2.34 | 0.45 |
| 9:P:103:MET:HG2 | 10:Q:84:THR:OG1 | 2.16 | 0.45 |
| 11:R:88:LEU:O | 11:R:92:GLN:NE2 | 2.49 | 0.45 |
| 13:G:11:LEU:HD13 | 13:G:37:ALA:HB1 | 1.98 | 0.45 |
| 13:G:145:LEU:HG | 13:G:152:LEU:HD13 | 1.99 | 0.45 |
| 1:A:273:GLU:HG3 | 1:A:277:GLN:HG3 | 1.98 | 0.45 |
| 1:A:372:SER:HB3 | 1:A:374:TYR:CZ | 2.52 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:453:VAL:HG22 | 1:A:459:ILE:O | 2.17 | 0.45 |
| 1:A:468:ARG:NH1 | 6:F:285:ASP:OD2 | 2.49 | 0.45 |
| 1:A:502:VAL:HG12 | 3:C:215:ALA:CB | 2.41 | 0.45 |
| 1:A:502:VAL:N | 3:C:213:ALA:HA | 2.15 | 0.45 |
| 2:B:149:PHE:CE2 | 2:B:193:GLN:HA | 2.52 | 0.45 |
| 2:B:225:LYS:HA | 2:B:228:ILE:HG22 | 1.99 | 0.45 |
| 2:B:278:LYS:CE | 2:B:311:MET:HB2 | 2.44 | 0.45 |
| 2:B:282:LEU:O | 2:B:285:MET:HG2 | 2.16 | 0.45 |
| 3:C:55:SER:O | 3:C:59:LEU:HG | 2.15 | 0.45 |
| 3:C:303:TYR:CE1 | 3:C:327:GLN:HB2 | 2.52 | 0.45 |
| 4:D:146:GLU:N | 4:D:183:LEU:HD21 | 2.31 | 0.45 |
| 4:D:226:LEU:CG | 4:D:258:LEU:HD11 | 2.39 | 0.45 |
| 4:D:324:LEU:CD1 | 4:D:327:LEU:HD23 | 2.46 | 0.45 |
| 5:E:243:ASN:C | 6:F:229:LYS:CD | 2.85 | 0.45 |
| 6:F:43:LEU:CD1 | 6:F:84:MET:HB3 | 2.46 | 0.45 |
| 6:F:50:ASN:HA | 6:F:53:ASP:CB | 2.46 | 0.45 |
| 6:F:289:MET:HA | 6:F:292:LEU:CD1 | 2.44 | 0.45 |
| 8:O:7:VAL:HG22 | 12:V:182:ARG:HH22 | 1.82 | 0.45 |
| 8:O:36:ASN:OD1 | 10:Q:39:GLU:CB | 2.65 | 0.45 |
| 8:O:87:TYR:HA | 8:O:90:TYR:CG | 2.51 | 0.45 |
| 8:O:581:GLN:HE21 | 8:O:612:LYS:HZ3 | 1.64 | 0.45 |
| 8:O:596:TYR:HB2 | 8:O:632:ILE:HG23 | 1.99 | 0.45 |
| 11:R:72:TRP:CE2 | 11:R:102:GLU:HG2 | 2.52 | 0.45 |
| 13:G:22:THR:CG2 | 13:G:27:LEU:CA | 2.94 | 0.45 |
| 13:G:104:LEU:HD12 | 13:G:116:LEU:HD21 | 1.99 | 0.45 |
| 1:A:128:VAL:CG1 | 1:A:132:GLU:HG3 | 2.47 | 0.45 |
| 1:A:173:LYS:HB3 | 1:A:177:LYS:NZ | 2.32 | 0.45 |
| 1:A:411:ILE:HA | 1:A:448:LEU:HD11 | 1.98 | 0.45 |
| 1:A:425:MET:HE1 | 1:A:440:LEU:HD11 | 1.99 | 0.45 |
| 2:B:93:LYS:HA | 2:B:96:LEU:HD12 | 1.99 | 0.45 |
| 2:B:282:LEU:HD21 | 2:B:346:HIS:CB | 2.47 | 0.45 |
| 2:B:305:ASP:HB3 | 2:B:308:ILE:HG12 | 1.97 | 0.45 |
| 2:B:381:ASP:OD2 | 2:B:383:ALA:HB3 | 2.17 | 0.45 |
| 3:C:93:ILE:CB | 3:C:94:ARG:HH11 | 2.25 | 0.45 |
| 3:C:222:GLU:CG | 3:C:225:LYS:HD2 | 2.37 | 0.45 |
| 3:C:291:ASN:O | 3:C:294:LEU:HG | 2.17 | 0.45 |
| 3:C:318:SER:HB3 | 3:C:321:ASP:HB2 | 1.99 | 0.45 |
| 3:C:331:PRO:CA | 3:C:334:ALA:HB3 | 2.40 | 0.45 |
| 4:D:57:VAL:HG12 | 4:D:62:SER:OG | 2.17 | 0.45 |
| 4:D:214:LYS:C | 4:D:222:ARG:HD3 | 2.37 | 0.45 |
| 5:E:55:CYS:HB3 | 5:E:226:VAL:HA | 1.99 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 5:E:102:GLY:HA3 | 5:E:106:ARG:NE | 2.32 | 0.45 |
| 5:E:166:VAL:HG21 | 5:E:185:ALA:HB1 | 1.99 | 0.45 |
| 5:E:166:VAL:CG1 | 5:E:168:VAL:HG23 | 2.46 | 0.45 |
| 5:E:209:ASN:O | 5:E:210:LYS:HD3 | 2.17 | 0.45 |
| 5:E:282:ARG:O | 5:E:282:ARG:HD3 | 2.16 | 0.45 |
| 5:E:320:SER:HB3 | 6:F:220:HIS:CD2 | 2.52 | 0.45 |
| 6:F:138:VAL:HG22 | 6:F:141:GLN:OE1 | 2.17 | 0.45 |
| 6:F:146:ILE:HD11 | 6:F:149:PRO:CA | 2.47 | 0.45 |
| 7:H:22:ASN:HA | 7:H:25:LEU:HD12 | 1.98 | 0.45 |
| 7:H:141:VAL:O | 7:H:144:ALA:HB3 | 2.16 | 0.45 |
| 8:O:4:LYS:NZ | 10:Q:48:GLN:HE22 | 2.15 | 0.45 |
| 8:O:21:ILE:HA | 8:O:24:VAL:CG1 | 2.47 | 0.45 |
| 8:O:57:LEU:HD21 | 8:O:108:LEU:HD21 | 1.99 | 0.45 |
| 8:O:291:LYS:HG2 | 8:O:294:MET:CG | 2.47 | 0.45 |
| 8:O:505:ILE:CG2 | 8:O:533:LEU:HD21 | 2.47 | 0.45 |
| 8:O:555:TRP:CH2 | 11:R:29:ALA:HA | 2.52 | 0.45 |
| 8:O:564:VAL:HB | 11:R:19:LYS:NZ | 2.31 | 0.45 |
| 8:O:566:MET:HE3 | 8:O:574:VAL:HG23 | 1.99 | 0.45 |
| 8:O:568:TYR:CE1 | 11:R:22:PHE:CD2 | 3.03 | 0.45 |
| 8:O:626:ASP:HB2 | 8:O:636:SER:HB3 | 1.98 | 0.45 |
| 11:R:39:VAL:N | 11:R:49:ILE:HG12 | 2.19 | 0.45 |
| 12:V:195:GLN:HA | 12:V:198:LEU:HB2 | 1.99 | 0.45 |
| 1:A:283:THR:CG2 | 1:A:309:ALA:HA | 2.47 | 0.45 |
| 1:A:470:THR:HA | 1:A:473:GLU:OE1 | 2.16 | 0.45 |
| 2:B:37:TYR:HB2 | 2:B:57:VAL:HG23 | 1.99 | 0.45 |
| 2:B:340:ASP:CB | 2:B:343:ILE:HD12 | 2.47 | 0.45 |
| 2:B:421:TYR:CE1 | 6:F:289:MET:CE | 2.99 | 0.45 |
| 3:C:23:GLN:OE1 | 3:C:26:GLU:HG3 | 2.17 | 0.45 |
| 3:C:85:ILE:HG22 | 3:C:126:GLN:OE1 | 2.17 | 0.45 |
| 3:C:205:TYR:CE2 | 3:C:226:LYS:HB2 | 2.52 | 0.45 |
| 3:C:221:LEU:CD2 | 3:C:253:ILE:HG23 | 2.46 | 0.45 |
| 3:C:310:LEU:HD22 | 3:C:314:PHE:CE2 | 2.40 | 0.45 |
| 3:C:340:HIS:HB3 | 3:C:344:ASP:OD2 | 2.15 | 0.45 |
| 3:C:354:LYS:HA | 7:H:161:MET:HG3 | 1.99 | 0.45 |
| 3:C:367:TYR:HA | 3:C:372:MET:CB | 2.47 | 0.45 |
| 4:D:293:THR:HG21 | 4:D:302:ARG:CD | 2.47 | 0.45 |
| 5:E:44:PRO:HD2 | 5:E:45:TRP:CE3 | 2.51 | 0.45 |
| 5:E:80:LEU:HD12 | 5:E:135:GLY:O | 2.17 | 0.45 |
| 5:E:285:PHE:HB3 | 12:V:62:VAL:HG13 | 1.82 | 0.45 |
| 6:F:54:HIS:CE1 | 6:F:89:LEU:H | 2.35 | 0.45 |
| 7:H:46:LEU:CD2 | 7:H:109:LEU:HB2 | 2.34 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 7:H:56:LEU:HG | 7:H:60:ILE:CG1 | 2.47 | 0.45 |
| 7:H:90:TYR:O | 7:H:93:ILE:HB | 2.17 | 0.45 |
| 7:H:140:PRO:O | 7:H:143:GLU:HB3 | 2.17 | 0.45 |
| 8:O:76:VAL:CB | 8:O:155:LEU:HD21 | 2.46 | 0.45 |
| 8:O:323:GLY:HA3 | 8:O:375:VAL:HG21 | 1.99 | 0.45 |
| 8:O:552:LYS:CA | 11:R:33:TRP:N | 2.62 | 0.45 |
| 8:O:732:GLU:CB | 8:O:744:VAL:HG21 | 2.45 | 0.45 |
| 9:P:31:VAL:HG13 | 9:P:35:LEU:HD12 | 1.98 | 0.45 |
| 9:P:32:GLU:HG3 | 9:P:36:LYS:CA | 2.46 | 0.45 |
| 11:R:42:CYS:SG | 11:R:53:CYS:HB3 | 2.57 | 0.45 |
| 12:V:71:PRO:CB | 12:V:110:HIS:HB3 | 2.25 | 0.45 |
| 12:V:155:VAL:HG13 | 12:V:155:VAL:O | 2.17 | 0.45 |
| 13:G:66:LEU:CD1 | 13:G:69:LEU:HD23 | 2.47 | 0.45 |
| 13:G:101:ILE:HG13 | 13:G:102:VAL:N | 2.32 | 0.45 |
| 13:G:141:ILE:HG23 | 13:G:154:VAL:CG1 | 2.47 | 0.45 |
| 1:A:142:THR:HB | 1:A:160:PRO:HB3 | 1.99 | 0.45 |
| 1:A:247:TYR:OH | 1:A:318:GLU:HB3 | 2.17 | 0.45 |
| 1:A:361:GLN:O | 1:A:365:ILE:HG13 | 2.17 | 0.45 |
| 2:B:58:LEU:CD1 | 2:B:72:LEU:HD21 | 2.44 | 0.45 |
| 2:B:119:ILE:HD13 | 2:B:131:PHE:CE2 | 2.52 | 0.45 |
| 2:B:198:TYR:O | 2:B:202:ILE:HG13 | 2.17 | 0.45 |
| 2:B:221:SER:HA | 2:B:224:ILE:CG1 | 2.47 | 0.45 |
| 2:B:284:ASN:O | 2:B:287:MET:HB3 | 2.17 | 0.45 |
| 2:B:300:LYS:CD | 11:R:72:TRP:HB3 | 2.46 | 0.45 |
| 3:C:135:THR:CB | 3:C:166:MET:HA | 2.46 | 0.45 |
| 4:D:145:LEU:HB2 | 4:D:174:LEU:CD1 | 2.45 | 0.45 |
| 4:D:206:GLN:HG2 | 4:D:245:MET:SD | 2.57 | 0.45 |
| 4:D:264:LEU:CA | 4:D:267:MET:HB2 | 2.44 | 0.45 |
| 5:E:120:TYR:HA | 6:F:111:GLN:CB | 2.42 | 0.45 |
| 5:E:230:LYS:HB2 | 5:E:234:ASP:OD2 | 2.16 | 0.45 |
| 5:E:244:LYS:C | 6:F:229:LYS:HB3 | 2.38 | 0.45 |
| 5:E:252:SER:HB3 | 6:F:222:ILE:H | 1.82 | 0.45 |
| 6:F:171:VAL:HB | 6:F:182:LEU:CD1 | 2.38 | 0.45 |
| 6:F:258:ARG:CG | 13:G:159:GLY:HA2 | 2.47 | 0.45 |
| 8:O:34:THR:O | 8:O:37:ASP:HB3 | 2.17 | 0.45 |
| 8:O:118:LEU:HA | 8:O:121:ALA:O | 2.17 | 0.45 |
| 8:O:137:MET:HE3 | 8:O:141:GLU:OE1 | 2.17 | 0.45 |
| 8:O:169:ASN:HB3 | 8:O:174:GLU:N | 2.32 | 0.45 |
| 8:O:395:CYS:HA | 8:O:398:LEU:CD1 | 2.47 | 0.45 |
| 8:O:454:GLU:O | 8:O:457:MET:HB3 | 2.16 | 0.45 |
| 8:O:505:ILE:CA | 11:R:27:TRP:H | 2.30 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 8:O:578:THR:OG1 | 8:O:656:SER:HB3 | 2.17 | 0.45 |
| 8:O:623:ILE:HG12 | 8:O:625:HIS:HB3 | 1.99 | 0.45 |
| 9:P:25:PHE:CA | 9:P:39:PRO:HG3 | 2.44 | 0.45 |
| 9:P:100:PRO:CD | 10:Q:88:LEU:HD11 | 2.47 | 0.45 |
| 11:R:84:ILE:HD12 | 11:R:94:CYS:SG | 2.57 | 0.45 |
| 11:R:84:ILE:HG13 | 11:R:95:PRO:CD | 2.47 | 0.45 |
| 12:V:73:GLN:O | 12:V:140:LEU:CD2 | 2.40 | 0.45 |
| 13:G:35:LEU:CD2 | 13:G:63:TYR:HE1 | 2.30 | 0.45 |
| 1:A:108:PRO:HA | 1:A:111:ARG:CB | 2.46 | 0.44 |
| 1:A:450:SER:O | 1:A:463:ARG:N | 2.50 | 0.44 |
| 2:B:26:SER:C | 2:B:28:PRO:CD | 2.86 | 0.44 |
| 2:B:37:TYR:O | 2:B:53:SER:HB3 | 2.17 | 0.44 |
| 2:B:281:VAL:HG12 | 2:B:285:MET:HE2 | 1.98 | 0.44 |
| 2:B:282:LEU:HD21 | 2:B:346:HIS:CD2 | 2.52 | 0.44 |
| 3:C:15:LEU:O | 3:C:21:MET:HE3 | 2.16 | 0.44 |
| 4:D:30:LEU:O | 4:D:34:ILE:HG13 | 2.17 | 0.44 |
| 4:D:68:ASP:O | 4:D:71:THR:OG1 | 2.22 | 0.44 |
| 4:D:237:SER:O | 4:D:239:GLY:N | 2.51 | 0.44 |
| 4:D:254:ARG:O | 4:D:257:GLN:HB2 | 2.16 | 0.44 |
| 4:D:293:THR:HG22 | 4:D:299:ILE:CA | 2.48 | 0.44 |
| 4:D:306:GLU:HG2 | 4:D:328:LEU:CD1 | 2.47 | 0.44 |
| 4:D:403:GLN:OE1 | 6:F:237:LEU:N | 2.50 | 0.44 |
| 5:E:45:TRP:HE3 | 5:E:52:PHE:HE2 | 1.64 | 0.44 |
| 5:E:50:HIS:NE2 | 5:E:198:GLU:HB2 | 2.32 | 0.44 |
| 5:E:120:TYR:HE1 | 6:F:112:PHE:HD1 | 1.64 | 0.44 |
| 5:E:151:ASP:HA | 5:E:154:THR:CB | 2.47 | 0.44 |
| 5:E:187:ARG:CG | 5:E:224:LEU:HD11 | 2.46 | 0.44 |
| 5:E:279:GLN:HB2 | 5:E:299:LYS:CG | 2.47 | 0.44 |
| 5:E:298:ASP:OD1 | 5:E:299:LYS:CA | 2.66 | 0.44 |
| 5:E:300:LEU:HD23 | 6:F:304:GLN:NE2 | 2.32 | 0.44 |
| 6:F:36:THR:HG22 | 6:F:169:GLU:OE1 | 2.17 | 0.44 |
| 6:F:46:LEU:HD12 | 6:F:49:LEU:HB2 | 1.97 | 0.44 |
| 6:F:235:VAL:CG2 | 6:F:238:ILE:HD12 | 2.38 | 0.44 |
| 8:O:10:PHE:HA | 8:O:13:THR:OG1 | 2.17 | 0.44 |
| 8:O:16:LYS:HB3 | 8:O:41:ASP:HB2 | 1.98 | 0.44 |
| 8:O:175:ASP:HB3 | 8:O:181:ILE:HG21 | 1.98 | 0.44 |
| 8:O:178:GLN:OE1 | 8:O:252:LYS:HE3 | 2.16 | 0.44 |
| 8:O:240:LEU:CG | 8:O:244:LYS:HE3 | 2.47 | 0.44 |
| 12:V:126:ASP:OD1 | 12:V:192:PRO:HG3 | 2.17 | 0.44 |
| 12:V:134:GLU:HG3 | 12:V:200:ARG:HD2 | 1.99 | 0.44 |
| 13:G:36:GLU:HA | 13:G:36:GLU:OE1 | 2.17 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:A:175:LEU:O | 1:A:179:GLU:HG2 | 2.18 | 0.44 |
| 1:A:217:ALA:O | 1:A:221:TYR:HD2 | 2.00 | 0.44 |
| 1:A:251:TRP:CH2 | 1:A:291:LEU:HB3 | 2.52 | 0.44 |
| 1:A:253:HIS:O | 1:A:256:SER:HB2 | 2.17 | 0.44 |
| 1:A:291:LEU:HD11 | 1:A:294:LEU:HD13 | 2.00 | 0.44 |
| 1:A:294:LEU:CD2 | 1:A:393:TYR:HB3 | 2.47 | 0.44 |
| 1:A:457:SER:CB | 1:A:461:TYR:HH | 2.31 | 0.44 |
| 1:A:458:LYS:O | 1:A:459:ILE:HG13 | 2.17 | 0.44 |
| 2:B:32:LEU:HD11 | 8:O:649:THR:HG1 | 1.81 | 0.44 |
| 2:B:156:GLY:HA3 | 2:B:200:LEU:HD11 | 1.98 | 0.44 |
| 2:B:388:LEU:HA | 2:B:391:GLN:OE1 | 2.16 | 0.44 |
| 3:C:5:LEU:HB3 | 3:C:42:LEU:CD2 | 2.48 | 0.44 |
| 3:C:41:HIS:O | 3:C:44:THR:HB | 2.17 | 0.44 |
| 3:C:77:LEU:O | 3:C:81:VAL:HG23 | 2.16 | 0.44 |
| 3:C:301:SER:O | 3:C:304:LYS:HB2 | 2.17 | 0.44 |
| 3:C:310:LEU:HA | 3:C:313:THR:OG1 | 2.16 | 0.44 |
| 5:E:27:GLU:HA | 5:E:30:LYS:HE3 | 2.00 | 0.44 |
| 5:E:60:LEU:H | 6:F:46:LEU:HD22 | 1.78 | 0.44 |
| 5:E:218:CYS:SG | 5:E:219:LYS:HG2 | 2.57 | 0.44 |
| 6:F:181:MET:HG3 | 6:F:182:LEU:H | 1.82 | 0.44 |
| 8:O:6:ARG:O | 12:V:182:ARG:NH2 | 2.50 | 0.44 |
| 8:O:17:LEU:HD12 | 8:O:38:ARG:NH2 | 2.32 | 0.44 |
| 8:O:115:LYS:HG3 | 8:O:116:ASN:OD1 | 2.17 | 0.44 |
| 8:O:117:LYS:HD3 | 8:O:136:LEU:CB | 2.46 | 0.44 |
| 8:O:136:LEU:HD23 | 8:O:136:LEU:HA | 1.73 | 0.44 |
| 8:O:508:GLN:CB | 8:O:559:LEU:HB3 | 2.30 | 0.44 |
| 8:O:555:TRP:CH2 | 11:R:29:ALA:CB | 3.00 | 0.44 |
| 8:O:565:LYS:HA | 8:O:574:VAL:HG22 | 1.98 | 0.44 |
| 8:O:622:MET:CG | 8:O:650:LYS:HD2 | 2.47 | 0.44 |
| 8:O:718:ILE:HG23 | 8:O:719:LYS:HG3 | 1.99 | 0.44 |
| 9:P:6:MET:SD | 10:Q:16:TYR:CD2 | 3.11 | 0.44 |
| 12:V:185:TYR:O | 12:V:189:GLU:N | 2.51 | 0.44 |
| 13:G:22:THR:HG23 | 13:G:27:LEU:CA | 2.47 | 0.44 |
| 13:G:116:LEU:HD13 | 13:G:119:ASP:CB | 2.43 | 0.44 |
| 13:G:140:ILE:CD1 | 13:G:158:ILE:H | 2.28 | 0.44 |
| 1:A:194:LYS:CB | 1:A:229:THR:HG23 | 2.44 | 0.44 |
| 1:A:367:PHE:O | 1:A:371:GLU:HG3 | 2.18 | 0.44 |
| 1:A:455:SER:HB3 | 3:C:314:PHE:CD1 | 2.53 | 0.44 |
| 2:B:73:LYS:NZ | 2:B:111:SER:HA | 2.31 | 0.44 |
| 2:B:194:LEU:HA | 2:B:197:ILE:CD1 | 2.39 | 0.44 |
| 2:B:426:LYS:HD2 | 2:B:429:ASN:CB | 2.41 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:431:LEU:HD11 | 6:F:296:THR:OG1 | 2.17 | 0.44 |
| 2:B:443:ALA:CB | 3:C:244:TYR:HB3 | 2.46 | 0.44 |
| 3:C:3:SER:HA | 3:C:38:ASN:ND2 | 2.32 | 0.44 |
| 3:C:171:LYS:HB2 | 3:C:176:TYR:CG | 2.52 | 0.44 |
| 3:C:352:ASN:HB3 | 3:C:357:MET:N | 2.33 | 0.44 |
| 3:C:390:LEU:CD1 | 6:F:302:MET:HB2 | 2.46 | 0.44 |
| 4:D:5:VAL:CG1 | 4:D:28:GLN:HG2 | 2.47 | 0.44 |
| 4:D:195:LEU:HD13 | 4:D:204:ALA:HA | 1.98 | 0.44 |
| 4:D:250:PHE:O | 4:D:261:TYR:OH | 2.21 | 0.44 |
| 5:E:31:TYR:OH | 5:E:131:GLU:HA | 2.17 | 0.44 |
| 5:E:83:GLY:CA | 5:E:134:ILE:HG21 | 2.46 | 0.44 |
| 5:E:115:GLU:HA | 5:E:118:ALA:HB2 | 2.00 | 0.44 |
| 6:F:102:LYS:HZ1 | 6:F:141:GLN:HG2 | 1.82 | 0.44 |
| 7:H:148:ILE:HG21 | 7:H:162:VAL:CG1 | 2.48 | 0.44 |
| 8:O:42:ILE:HG23 | 8:O:108:LEU:HD13 | 1.99 | 0.44 |
| 8:O:167:ILE:HG23 | 8:O:249:ARG:HD2 | 1.99 | 0.44 |
| 8:O:274:HIS:HB3 | 8:O:277:PHE:CD2 | 2.51 | 0.44 |
| 8:O:508:GLN:HB2 | 11:R:29:ALA:O | 2.17 | 0.44 |
| 8:O:614:ILE:HG22 | 8:O:628:GLU:CG | 2.39 | 0.44 |
| 8:O:696:HIS:CE1 | 8:O:718:ILE:HD13 | 2.53 | 0.44 |
| 9:P:78:ALA:CB | 9:P:86:GLU:HB3 | 2.46 | 0.44 |
| 11:R:42:CYS:O | 11:R:44:ILE:N | 2.51 | 0.44 |
| 12:V:154:PRO:HD2 | 12:V:156:TYR:CE1 | 2.53 | 0.44 |
| 13:G:156:PHE:CG | 13:G:157:CYS:N | 2.86 | 0.44 |
| 1:A:100:LEU:HD22 | 1:A:117:MET:CB | 2.46 | 0.44 |
| 1:A:251:TRP:CZ3 | 1:A:291:LEU:HB3 | 2.52 | 0.44 |
| 1:A:456:HIS:ND1 | 3:C:357:MET:HG3 | 2.32 | 0.44 |
| 2:B:281:VAL:HG12 | 2:B:285:MET:CE | 2.47 | 0.44 |
| 2:B:314:LEU:HD11 | 2:B:329:ILE:HG22 | 1.99 | 0.44 |
| 3:C:89:ASN:ND2 | 3:C:130:LYS:HG3 | 2.32 | 0.44 |
| 3:C:131:MET:SD | 3:C:139:THR:OG1 | 2.63 | 0.44 |
| 3:C:166:MET:HG3 | 3:C:169:ILE:CG1 | 2.48 | 0.44 |
| 3:C:232:LEU:CD1 | 3:C:263:LEU:HG | 2.47 | 0.44 |
| 3:C:238:VAL:HG21 | 3:C:264:ALA:HB1 | 1.99 | 0.44 |
| 3:C:374:HIS:HA | 3:C:377:ASP:CB | 2.48 | 0.44 |
| 4:D:45:LEU:HB3 | 4:D:69:PHE:CZ | 2.51 | 0.44 |
| 4:D:145:LEU:CD2 | 4:D:178:SER:HB3 | 2.47 | 0.44 |
| 5:E:62:LEU:HA | 5:E:65:MET:HE2 | 1.98 | 0.44 |
| 5:E:111:ALA:HA | 5:E:114:TYR:CD2 | 2.53 | 0.44 |
| 5:E:246:TRP:N | 6:F:229:LYS:HD2 | 2.33 | 0.44 |
| 5:E:258:ASN:HB2 | 5:E:261:TYR:CD2 | 2.52 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 7:H:126:THR:HA | 7:H:166:LYS:NZ | 2.33 | 0.44 |
| 7:H:148:ILE:HD12 | 7:H:149:LEU:HG | 1.99 | 0.44 |
| 8:O:376:VAL:HG21 | 8:O:424:TYR:CB | 2.48 | 0.44 |
| 8:O:421:VAL:O | 8:O:424:TYR:HB2 | 2.18 | 0.44 |
| 8:O:428:LYS:HG3 | 8:O:429:ASP:N | 2.33 | 0.44 |
| 8:O:429:ASP:O | 8:O:433:LYS:HG2 | 2.17 | 0.44 |
| 8:O:623:ILE:CG1 | 8:O:625:HIS:HB3 | 2.48 | 0.44 |
| 9:P:13:THR:C | 10:Q:16:TYR:HA | 2.06 | 0.44 |
| 9:P:24:VAL:HG12 | 9:P:39:PRO:HB3 | 1.98 | 0.44 |
| 10:Q:82:ILE:O | 12:V:165:VAL:HG21 | 2.17 | 0.44 |
| 11:R:87:TRP:HA | 11:R:90:THR:CG2 | 2.45 | 0.44 |
| 12:V:73:GLN:HB3 | 12:V:141:ASN:C | 2.25 | 0.44 |
| 12:V:76:PHE:CA | 12:V:149:ALA:HB3 | 2.47 | 0.44 |
| 12:V:112:TYR:HB2 | 12:V:115:HIS:ND1 | 2.32 | 0.44 |
| 13:G:132:ILE:CD1 | 13:G:133:ILE:HG23 | 2.48 | 0.44 |
| 1:A:122:VAL:HG21 | 1:A:131:TYR:HD1 | 1.83 | 0.44 |
| 1:A:271:ARG:HB3 | 1:A:275:ASP:H | 1.83 | 0.44 |
| 1:A:322:PRO:HB2 | 1:A:358:LEU:HD13 | 1.99 | 0.44 |
| 2:B:159:TYR:CD2 | 2:B:164:GLU:HB3 | 2.53 | 0.44 |
| 3:C:276:ARG:HD2 | 3:C:280:ASN:ND2 | 2.33 | 0.44 |
| 3:C:351:ILE:CG2 | 3:C:353:GLN:HB2 | 2.44 | 0.44 |
| 4:D:285:LEU:CD2 | 4:D:289:GLN:HB3 | 2.42 | 0.44 |
| 4:D:288:HIS:NE2 | 4:D:289:GLN:HG3 | 2.32 | 0.44 |
| 5:E:189:TYR:CZ | 5:E:195:PRO:HA | 2.52 | 0.44 |
| 5:E:285:PHE:CD2 | 12:V:62:VAL:CB | 3.01 | 0.44 |
| 5:E:308:CYS:HA | 7:H:207:LEU:CD2 | 2.40 | 0.44 |
| 5:E:325:ASP:HA | 5:E:329:ASN:ND2 | 2.33 | 0.44 |
| 5:E:330:GLN:HG2 | 6:F:268:PRO:HG2 | 1.98 | 0.44 |
| 6:F:72:LEU:CD2 | 6:F:152:LEU:HD13 | 2.47 | 0.44 |
| 7:H:43:LEU:O | 7:H:46:LEU:HB2 | 2.17 | 0.44 |
| 8:O:227:LEU:HD11 | 8:O:277:PHE:HE2 | 1.82 | 0.44 |
| 8:O:354:ILE:HD11 | 8:O:368:LEU:HD13 | 1.98 | 0.44 |
| 8:O:443:LEU:HD11 | 8:O:480:MET:HE1 | 2.00 | 0.44 |
| 8:O:483:SER:C | 8:O:507:PHE:CE2 | 2.91 | 0.44 |
| 8:O:554:THR:CG2 | 11:R:32:LEU:CD1 | 2.86 | 0.44 |
| 8:O:623:ILE:CD1 | 8:O:625:HIS:HB3 | 2.48 | 0.44 |
| 8:O:640:LEU:HD23 | 11:R:20:LYS:CD | 2.36 | 0.44 |
| 8:O:722:ILE:HG22 | 8:O:726:ILE:HD11 | 1.98 | 0.44 |
| 12:V:84:VAL:HG12 | 12:V:86:PRO:HG3 | 1.99 | 0.44 |
| 13:G:19:ALA:CB | 13:G:52:VAL:CG1 | 2.95 | 0.44 |
| 13:G:28:THR:C | 13:G:31:ILE:HG22 | 2.38 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 13:G:132:ILE:HD11 | 13:G:145:LEU:HD11 | 1.95 | 0.44 |
| 13:G:141:ILE:CG2 | 13:G:154:VAL:CG2 | 2.95 | 0.44 |
| 13:G:146:ASP:CB | 13:G:151:LEU:HB2 | 2.47 | 0.44 |
| 1:A:91:TYR:OH | 1:A:322:PRO:HD2 | 2.18 | 0.44 |
| 1:A:142:THR:CB | 1:A:160:PRO:HB3 | 2.48 | 0.44 |
| 1:A:262:GLU:OE2 | 1:A:285:LEU:HD13 | 2.18 | 0.44 |
| 1:A:483:GLN:HB3 | 3:C:382:LYS:HE2 | 2.00 | 0.44 |
| 2:B:5:GLU:HB3 | 2:B:9:MET:H | 1.83 | 0.44 |
| 2:B:24:SER:CB | 8:O:652:LYS:NZ | 2.79 | 0.44 |
| 2:B:326:PHE:O | 2:B:330:LEU:HG | 2.18 | 0.44 |
| 2:B:338:MET:CE | 2:B:347:ILE:HG21 | 2.42 | 0.44 |
| 3:C:39:LEU:HD12 | 3:C:65:LYS:HG2 | 2.00 | 0.44 |
| 3:C:286:PHE:HB3 | 3:C:292:MET:HE1 | 1.99 | 0.44 |
| 4:D:30:LEU:HG | 4:D:34:ILE:HD12 | 2.00 | 0.44 |
| 4:D:120:TRP:O | 4:D:124:ALA:HB3 | 2.17 | 0.44 |
| 4:D:275:GLY:HA2 | 4:D:278:LEU:HB3 | 2.00 | 0.44 |
| 4:D:337:LYS:HZ3 | 4:D:338:ILE:CD1 | 2.30 | 0.44 |
| 5:E:59:ALA:CB | 6:F:46:LEU:HD13 | 2.47 | 0.44 |
| 5:E:164:PRO:HA | 5:E:187:ARG:HH22 | 1.82 | 0.44 |
| 5:E:230:LYS:HD3 | 6:F:203:VAL:HG13 | 2.00 | 0.44 |
| 5:E:308:CYS:CA | 7:H:207:LEU:HD22 | 2.40 | 0.44 |
| 6:F:132:ASP:O | 6:F:136:ILE:HG13 | 2.18 | 0.44 |
| 6:F:242:VAL:HG11 | 13:G:171:VAL:HA | 2.00 | 0.44 |
| 7:H:122:SER:HA | 7:H:164:PRO:HB3 | 2.00 | 0.44 |
| 7:H:141:VAL:CG2 | 7:H:160:ARG:HH12 | 2.30 | 0.44 |
| 7:H:154:GLN:H | 7:H:165:ARG:HG2 | 1.82 | 0.44 |
| 8:O:13:THR:CG2 | 8:O:45:LEU:HG | 2.47 | 0.44 |
| 8:O:16:LYS:HD2 | 8:O:41:ASP:CA | 2.47 | 0.44 |
| 8:O:731:ILE:HG12 | 8:O:742:SER:O | 2.18 | 0.44 |
| 9:P:11:LYS:HG2 | 9:P:91:GLU:CD | 2.37 | 0.44 |
| 12:V:182:ARG:HA | 12:V:185:TYR:CE2 | 2.52 | 0.44 |
| 13:G:15:PHE:CE1 | 13:G:34:VAL:CG2 | 2.95 | 0.44 |
| 13:G:35:LEU:HD21 | 13:G:63:TYR:CE1 | 2.52 | 0.44 |
| 13:G:99:LEU:CD2 | 13:G:160:ARG:CD | 2.95 | 0.44 |
| 13:G:116:LEU:HD12 | 13:G:120:LEU:HG | 1.98 | 0.44 |
| 1:A:142:THR:HG21 | 1:A:160:PRO:HG3 | 1.99 | 0.44 |
| 1:A:241:VAL:HG12 | 1:A:257:TYR:CE2 | 2.52 | 0.44 |
| 1:A:484:ARG:HH21 | 3:C:203:TYR:HA | 1.83 | 0.44 |
| 2:B:24:SER:CA | 8:O:652:LYS:NZ | 2.75 | 0.44 |
| 2:B:132:TYR:HE1 | 2:B:154:LYS:HE2 | 1.82 | 0.44 |
| 2:B:214:LEU:HA | 2:B:217:LEU:CD1 | 2.36 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:B:338:MET:O | 2:B:344:ARG:HB2 | 2.18 | 0.44 |
| 2:B:426:LYS:O | 2:B:430:GLN:N | 2.41 | 0.44 |
| 4:D:71:THR:O | 4:D:74:PRO:HD2 | 2.18 | 0.44 |
| 5:E:54:TYR:CB | 5:E:89:THR:HG23 | 2.48 | 0.44 |
| 5:E:197:ASP:OD1 | 5:E:198:GLU:N | 2.51 | 0.44 |
| 5:E:316:HIS:O | 6:F:220:HIS:NE2 | 2.43 | 0.44 |
| 6:F:71:ALA:HA | 6:F:121:PHE:CE1 | 2.53 | 0.44 |
| 8:O:311:MET:HB3 | 8:O:364:PHE:HE1 | 1.83 | 0.44 |
| 8:O:325:ARG:CA | 8:O:329:ASN:HB2 | 2.42 | 0.44 |
| 8:O:547:HIS:HB3 | 8:O:548:PHE:CD2 | 2.53 | 0.44 |
| 8:O:688:MET:CE | 8:O:730:TYR:HB2 | 2.47 | 0.44 |
| 13:G:142:GLN:HB2 | 13:G:155:ASP:HB2 | 2.00 | 0.44 |
| 13:G:172:LYS:HA | 13:G:172:LYS:NZ | 2.32 | 0.44 |
| 13:G:207:GLN:HA | 13:G:210:GLU:HG3 | 1.98 | 0.44 |
| 1:A:245:SER:CB | 1:A:254:VAL:HG21 | 2.47 | 0.44 |
| 1:A:426:ALA:HB2 | 1:A:433:VAL:CG2 | 2.48 | 0.44 |
| 2:B:100:ARG:NH2 | 2:B:138:ALA:O | 2.49 | 0.44 |
| 2:B:317:ALA:HB3 | 2:B:325:GLU:CD | 2.37 | 0.44 |
| 2:B:422:THR:HA | 2:B:425:ASP:CB | 2.47 | 0.44 |
| 3:C:41:HIS:HA | 3:C:44:THR:OG1 | 2.17 | 0.44 |
| 3:C:136:ASN:HB3 | 3:C:161:TYR:HD1 | 1.82 | 0.44 |
| 3:C:227:TYR:OH | 3:C:239:GLN:HG2 | 2.18 | 0.44 |
| 3:C:367:TYR:CG | 3:C:376:ILE:HD11 | 2.52 | 0.44 |
| 4:D:121:ARG:HB2 | 4:D:158:ASP:OD1 | 2.18 | 0.44 |
| 4:D:262:GLY:HA2 | 4:D:265:GLU:CB | 2.48 | 0.44 |
| 4:D:403:GLN:CA | 4:D:406:GLN:HB2 | 2.38 | 0.44 |
| 5:E:33:LYS:HE3 | 5:E:37:GLN:NE2 | 2.29 | 0.44 |
| 5:E:49:HIS:HB2 | 5:E:193:TYR:CD2 | 2.53 | 0.44 |
| 5:E:203:TYR:HA | 5:E:214:PHE:CZ | 2.52 | 0.44 |
| 5:E:244:LYS:HZ3 | 6:F:230:MET:HA | 1.77 | 0.44 |
| 6:F:41:VAL:HG11 | 6:F:73:ILE:HD12 | 1.99 | 0.44 |
| 6:F:41:VAL:HG12 | 6:F:74:GLY:N | 2.33 | 0.44 |
| 6:F:67:GLN:HA | 6:F:127:THR:O | 2.17 | 0.44 |
| 6:F:109:GLU:O | 6:F:113:LYS:HG2 | 2.18 | 0.44 |
| 6:F:140:LYS:O | 6:F:143:CYS:HB2 | 2.18 | 0.44 |
| 6:F:202:HIS:CD2 | 6:F:206:MET:HG2 | 2.52 | 0.44 |
| 8:O:4:LYS:HE3 | 8:O:47:VAL:HG21 | 2.00 | 0.44 |
| 8:O:31:GLU:O | 8:O:34:THR:OG1 | 2.34 | 0.44 |
| 8:O:59:THR:HA | 8:O:135:PRO:CD | 2.44 | 0.44 |
| 8:O:250:CYS:HB3 | 8:O:259:TYR:HB2 | 1.99 | 0.44 |
| 8:O:291:LYS:CA | 8:O:294:MET:HB3 | 2.20 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:347:HIS:O | 8:O:351:VAL:HG12 | 2.18 | 0.44 |
| 8:O:555:TRP:HH2 | 11:R:29:ALA:HA | 1.83 | 0.44 |
| 8:O:618:LEU:HD22 | 8:O:625:HIS:HE1 | 1.83 | 0.44 |
| 12:V:131:ASN:OD1 | 12:V:150:ASN:HB2 | 2.18 | 0.44 |
| 13:G:69:LEU:HD11 | 13:G:77:ASP:CB | 2.46 | 0.44 |
| 13:G:121:GLU:HG3 | 13:G:123:ARG:NH2 | 2.31 | 0.44 |
| 1:A:243:LYS:HA | 1:A:246:VAL:HG23 | 2.00 | 0.44 |
| 2:B:26:SER:C | 2:B:28:PRO:HD3 | 2.37 | 0.44 |
| 2:B:71:ALA:O | 2:B:74:GLN:HB2 | 2.18 | 0.44 |
| 2:B:106:ASN:HA | 2:B:109:GLU:HB3 | 2.00 | 0.44 |
| 2:B:265:TYR:HD2 | 2:B:273:ARG:HD2 | 1.81 | 0.44 |
| 3:C:70:SER:C | 3:C:74:PHE:HB3 | 2.38 | 0.44 |
| 3:C:94:ARG:HB3 | 3:C:97:THR:CG2 | 2.40 | 0.44 |
| 3:C:179:LYS:HA | 3:C:182:LEU:HB2 | 1.99 | 0.44 |
| 3:C:190:MET:CG | 3:C:226:LYS:HE2 | 2.46 | 0.44 |
| 3:C:196:LYS:HA | 3:C:198:PHE:CZ | 2.53 | 0.44 |
| 3:C:233:ILE:O | 3:C:304:LYS:NZ | 2.25 | 0.44 |
| 4:D:169:ASN:HB2 | 11:R:75:CYS:O | 2.18 | 0.44 |
| 4:D:214:LYS:O | 4:D:222:ARG:HD3 | 2.17 | 0.44 |
| 4:D:228:HIS:HA | 4:D:231:HIS:CG | 2.53 | 0.44 |
| 5:E:244:LYS:HA | 6:F:229:LYS:CG | 2.39 | 0.44 |
| 5:E:249:THR:OG1 | 6:F:219:GLU:O | 2.21 | 0.44 |
| 8:O:291:LYS:NZ | 8:O:294:MET:HG2 | 2.33 | 0.44 |
| 8:O:564:VAL:CG2 | 11:R:19:LYS:NZ | 2.81 | 0.44 |
| 8:O:571:LYS:HB3 | 8:O:573:TYR:CG | 2.53 | 0.44 |
| 8:O:575:ALA:N | 11:R:19:LYS:HE3 | 2.31 | 0.44 |
| 8:O:618:LEU:HB2 | 8:O:625:HIS:CE1 | 2.52 | 0.44 |
| 8:O:744:VAL:CG1 | 8:O:745:ALA:N | 2.81 | 0.44 |
| 9:P:15:PHE:HD2 | 10:Q:16:TYR:CB | 2.05 | 0.44 |
| 9:P:78:ALA:HA | 9:P:86:GLU:HB3 | 1.99 | 0.44 |
| 10:Q:60:TYR:CB | 12:V:158:LEU:HD13 | 2.42 | 0.44 |
| 11:R:100:GLU:CD | 11:R:102:GLU:HB3 | 2.38 | 0.44 |
| 12:V:88:TRP:CH2 | 12:V:90:ASN:HA | 2.52 | 0.44 |
| 13:G:43:PHE:HD2 | 13:G:67:LEU:CD2 | 2.31 | 0.44 |
| 13:G:66:LEU:HD12 | 13:G:69:LEU:HB3 | 2.00 | 0.44 |
| 13:G:164:LYS:CG | 13:G:165:LYS:H | 2.31 | 0.44 |
| 1:A:94:LEU:HB3 | 1:A:98:GLU:OE2 | 2.17 | 0.43 |
| 1:A:173:LYS:O | 1:A:177:LYS:HG3 | 2.18 | 0.43 |
| 1:A:184:ASP:HA | 1:A:187:ASN:ND2 | 2.28 | 0.43 |
| 1:A:293:GLU:OE1 | 1:A:296:ALA:HB3 | 2.18 | 0.43 |
| 1:A:327:ILE:CG2 | 1:A:331:LEU:HD12 | 2.48 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:A:500:ILE:HG23 | 3:C:178:ALA:HB2 | 1.99 | 0.43 |
| 2:B:109:GLU:HG2 | 2:B:113:ASN:HD21 | 1.83 | 0.43 |
| 2:B:264:ASN:O | 2:B:267:GLU:HB2 | 2.18 | 0.43 |
| 2:B:392:CYS:SG | 2:B:398:ILE:HD11 | 2.58 | 0.43 |
| 3:C:121:ILE:HA | 3:C:145:LEU:CD1 | 2.44 | 0.43 |
| 3:C:224:TYR:OH | 3:C:257:SER:O | 2.36 | 0.43 |
| 3:C:387:ASP:CB | 6:F:298:THR:HG23 | 2.45 | 0.43 |
| 4:D:12:LEU:CD2 | 4:D:25:LYS:HB3 | 2.38 | 0.43 |
| 4:D:82:LYS:CA | 4:D:113:ILE:HD13 | 2.44 | 0.43 |
| 4:D:168:ILE:CD1 | 4:D:190:CYS:HB2 | 2.48 | 0.43 |
| 4:D:245:MET:HE3 | 4:D:249:LEU:CD2 | 2.48 | 0.43 |
| 4:D:275:GLY:HA2 | 4:D:278:LEU:CD2 | 2.48 | 0.43 |
| 4:D:342:MET:HA | 4:D:345:GLU:CB | 2.38 | 0.43 |
| 4:D:395:TRP:CE3 | 4:D:398:GLN:HG3 | 2.53 | 0.43 |
| 5:E:69:ALA:HB1 | 5:E:172:PRO:HB3 | 2.00 | 0.43 |
| 5:E:124:ALA:C | 5:E:129:ARG:HB2 | 2.38 | 0.43 |
| 6:F:48:ILE:HA | 6:F:51:ILE:HD12 | 2.00 | 0.43 |
| 7:H:44:TYR:O | 7:H:48:ASN:N | 2.51 | 0.43 |
| 7:H:156:ASP:H | 7:H:162:VAL:HG22 | 1.81 | 0.43 |
| 8:O:250:CYS:HB3 | 8:O:259:TYR:CD2 | 2.53 | 0.43 |
| 8:O:301:LEU:HD13 | 8:O:311:MET:SD | 2.58 | 0.43 |
| 8:O:397:ASN:HA | 8:O:400:LYS:CE | 2.45 | 0.43 |
| 8:O:488:ASN:O | 8:O:492:ASN:CG | 2.57 | 0.43 |
| 8:O:508:GLN:CB | 8:O:559:LEU:CG | 2.95 | 0.43 |
| 8:O:525:SER:OG | 8:O:604:GLN:HG2 | 2.17 | 0.43 |
| 8:O:593:THR:OG1 | 8:O:637:SER:HB3 | 2.18 | 0.43 |
| 8:O:594:VAL:HG22 | 8:O:598:GLU:OE1 | 2.18 | 0.43 |
| 8:O:633:ASP:HB2 | 8:O:636:SER:HB2 | 1.99 | 0.43 |
| 8:O:729:GLN:HG3 | 11:R:55:GLU:HA | 2.00 | 0.43 |
| 9:P:11:LYS:HG2 | 9:P:91:GLU:OE1 | 2.18 | 0.43 |
| 13:G:15:PHE:CD1 | 13:G:30:LEU:CD1 | 2.94 | 0.43 |
| 13:G:100:THR:HG21 | 13:G:120:LEU:CD2 | 2.48 | 0.43 |
| 1:A:96:ARG:HD2 | 1:A:121:PHE:CG | 2.53 | 0.43 |
| 1:A:294:LEU:O | 1:A:397:HIS:NE2 | 2.50 | 0.43 |
| 1:A:368:LYS:HE3 | 1:A:380:MET:HG2 | 2.00 | 0.43 |
| 1:A:372:SER:OG | 1:A:412:GLN:NE2 | 2.51 | 0.43 |
| 1:A:478:MET:CE | 2:B:431:LEU:HB3 | 2.48 | 0.43 |
| 2:B:357:GLN:HA | 2:B:360:ILE:CD1 | 2.33 | 0.43 |
| 3:C:140:SER:HA | 3:C:180:HIS:CE1 | 2.52 | 0.43 |
| 3:C:142:HIS:HB3 | 3:C:184:TYR:CD1 | 2.53 | 0.43 |
| 3:C:380:MET:HG2 | 3:C:384:ILE:HD12 | 2.00 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 4:D:53:VAL:HA | 4:D:95:ARG:HD3 | 1.99 | 0.43 |
| 5:E:243:ASN:O | 5:E:244:LYS:HD2 | 2.17 | 0.43 |
| 5:E:299:LYS:O | 5:E:302:LYS:HB2 | 2.17 | 0.43 |
| 7:H:44:TYR:CE2 | 7:H:56:LEU:HD13 | 2.53 | 0.43 |
| 7:H:61:PRO:CB | 7:H:64:ILE:HD12 | 2.48 | 0.43 |
| 8:O:85:VAL:HA | 8:O:88:HIS:HB3 | 2.00 | 0.43 |
| 8:O:283:HIS:HB2 | 8:O:314:GLU:OE1 | 2.19 | 0.43 |
| 8:O:354:ILE:CD1 | 8:O:368:LEU:HD13 | 2.48 | 0.43 |
| 8:O:433:LYS:HA | 8:O:433:LYS:HE2 | 1.98 | 0.43 |
| 8:O:437:ARG:O | 8:O:441:LYS:HG3 | 2.19 | 0.43 |
| 8:O:458:ILE:HG13 | 8:O:461:LEU:HD12 | 2.00 | 0.43 |
| 8:O:507:PHE:CD2 | 8:O:507:PHE:O | 2.70 | 0.43 |
| 8:O:508:GLN:HE22 | 8:O:559:LEU:HA | 1.83 | 0.43 |
| 8:O:535:LYS:HA | 8:O:538:GLN:CG | 2.46 | 0.43 |
| 8:O:596:TYR:HB3 | 8:O:634:ALA:CA | 2.48 | 0.43 |
| 9:P:6:MET:SD | 9:P:8:ARG:NH1 | 2.87 | 0.43 |
| 9:P:99:LEU:CD1 | 9:P:103:MET:HB3 | 2.36 | 0.43 |
| 13:G:15:PHE:HA | 13:G:18:LEU:HD12 | 2.00 | 0.43 |
| 13:G:23:SER:N | 13:G:26:ALA:HB3 | 2.29 | 0.43 |
| 13:G:45:GLU:HA | 13:G:48:GLU:HG3 | 2.00 | 0.43 |
| 13:G:66:LEU:HG | 13:G:70:PHE:CZ | 2.53 | 0.43 |
| 13:G:132:ILE:CG1 | 13:G:145:LEU:HD21 | 2.46 | 0.43 |
| 1:A:182:ASP:O | 1:A:185:LEU:HB3 | 2.19 | 0.43 |
| 1:A:247:TYR:HA | 1:A:319:LEU:CD2 | 2.48 | 0.43 |
| 1:A:327:ILE:HG23 | 1:A:331:LEU:HD12 | 2.00 | 0.43 |
| 1:A:424:ARG:HH12 | 1:A:428:ALA:HB2 | 1.81 | 0.43 |
| 2:B:6:ASP:HB3 | 2:B:74:GLN:HE22 | 1.82 | 0.43 |
| 2:B:192:THR:CG2 | 8:O:459:ASN:HD21 | 2.25 | 0.43 |
| 2:B:372:PRO:O | 2:B:375:SER:HB3 | 2.19 | 0.43 |
| 2:B:428:THR:HG23 | 2:B:431:LEU:CD1 | 2.47 | 0.43 |
| 2:B:431:LEU:HA | 2:B:434:LEU:CB | 2.48 | 0.43 |
| 3:C:37:LYS:HG3 | 3:C:41:HIS:CD2 | 2.53 | 0.43 |
| 3:C:242:PRO:HB2 | 3:C:245:THR:CG2 | 2.48 | 0.43 |
| 3:C:283:SER:HA | 3:C:286:PHE:HD2 | 1.84 | 0.43 |
| 4:D:83:GLU:HA | 4:D:86:HIS:CD2 | 2.52 | 0.43 |
| 4:D:201:PHE:CD1 | 4:D:232:CYS:HA | 2.53 | 0.43 |
| 4:D:281:PHE:O | 4:D:284:MET:HB2 | 2.19 | 0.43 |
| 4:D:314:LYS:O | 4:D:315:LEU:HD23 | 2.18 | 0.43 |
| 5:E:138:HIS:CD2 | 5:E:145:CYS:HB3 | 2.53 | 0.43 |
| 5:E:179:GLY:HA2 | 6:F:198:ILE:CD1 | 2.47 | 0.43 |
| 6:F:57:ARG:HG2 | 6:F:61:GLN:NE2 | 2.33 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 6:F:82:GLU:HG3 | 6:F:189:THR:C | 2.38 | 0.43 |
| 7:H:76:SER:O | 7:H:80:ARG:HD3 | 2.17 | 0.43 |
| 8:O:32:ARG:HH12 | 10:Q:41:LYS:HE3 | 1.82 | 0.43 |
| 8:O:46:CYS:CB | 10:Q:96:TYR:CD2 | 3.02 | 0.43 |
| 8:O:52:PRO:HB2 | 8:O:56:ARG:HH22 | 1.80 | 0.43 |
| 8:O:399:LEU:HB2 | 8:O:442:ARG:NH2 | 2.30 | 0.43 |
| 8:O:505:ILE:O | 11:R:28:ASN:CA | 2.66 | 0.43 |
| 8:O:567:ASN:H | 11:R:20:LYS:N | 2.15 | 0.43 |
| 8:O:645:SER:O | 8:O:646:SER:OG | 2.28 | 0.43 |
| 8:O:732:GLU:CB | 8:O:744:VAL:CG2 | 2.94 | 0.43 |
| 9:P:6:MET:N | 9:P:73:ALA:O | 2.48 | 0.43 |
| 9:P:20:GLU:HG3 | 9:P:58:GLY:HA2 | 2.01 | 0.43 |
| 9:P:28:LYS:CG | 9:P:44:LEU:CD1 | 2.96 | 0.43 |
| 9:P:32:GLU:HG3 | 9:P:36:LYS:C | 2.38 | 0.43 |
| 11:R:72:TRP:CZ2 | 11:R:102:GLU:HG2 | 2.54 | 0.43 |
| 12:V:177:ARG:O | 12:V:177:ARG:HG2 | 2.19 | 0.43 |
| 13:G:37:ALA:CB | 13:G:40:VAL:HB | 2.46 | 0.43 |
| 13:G:43:PHE:O | 13:G:46:LEU:N | 2.50 | 0.43 |
| 13:G:66:LEU:HG | 13:G:70:PHE:CE2 | 2.53 | 0.43 |
| 1:A:88:ALA:HA | 1:A:96:ARG:NE | 2.32 | 0.43 |
| 1:A:97:ILE:HG13 | 1:A:121:PHE:CD2 | 2.51 | 0.43 |
| 1:A:130:MET:SD | 1:A:133:GLU:HG2 | 2.59 | 0.43 |
| 1:A:131:TYR:HE2 | 1:A:164:THR:HG22 | 1.80 | 0.43 |
| 2:B:31:ASP:OD1 | 2:B:32:LEU:N | 2.51 | 0.43 |
| 2:B:265:TYR:CE2 | 2:B:270:SER:HA | 2.54 | 0.43 |
| 2:B:280:LEU:HG | 2:B:284:ASN:ND2 | 2.32 | 0.43 |
| 3:C:118:LEU:HD21 | 7:H:25:LEU:HA | 2.01 | 0.43 |
| 3:C:224:TYR:CZ | 3:C:260:TYR:HB2 | 2.53 | 0.43 |
| 3:C:319:LEU:CB | 3:C:331:PRO:HA | 2.46 | 0.43 |
| 3:C:352:ASN:CB | 3:C:357:MET:HB2 | 2.47 | 0.43 |
| 4:D:73:LEU:HD23 | 4:D:76:LEU:CD1 | 2.48 | 0.43 |
| 4:D:101:GLU:HG2 | 4:D:139:TYR:CZ | 2.53 | 0.43 |
| 4:D:125:GLN:O | 4:D:128:VAL:HB | 2.19 | 0.43 |
| 4:D:210:GLU:HA | 4:D:213:TYR:CD2 | 2.37 | 0.43 |
| 4:D:374:ILE:HG21 | 6:F:224:GLN:HB3 | 1.99 | 0.43 |
| 4:D:385:LEU:HD23 | 6:F:234:ARG:CD | 2.48 | 0.43 |
| 5:E:158:ASN:HA | 5:E:161:PHE:CB | 2.35 | 0.43 |
| 5:E:189:TYR:CE2 | 5:E:195:PRO:HB3 | 2.52 | 0.43 |
| 5:E:303:ALA:HA | 5:E:306:ASP:OD2 | 2.18 | 0.43 |
| 5:E:323:ILE:HD11 | 13:G:188:ILE:HB | 2.01 | 0.43 |
| 5:E:332:ASN:N | 6:F:268:PRO:HB3 | 2.33 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 6:F:70:GLY:HA3 | 6:F:125:TYR:CD1 | 2.54 | 0.43 |
| 6:F:143:CYS:HA | 6:F:149:PRO:CG | 2.46 | 0.43 |
| 7:H:11:PHE:N | 7:H:15:LYS:HZ2 | 2.17 | 0.43 |
| 8:O:132:MET:O | 8:O:133:ASN:HB2 | 2.17 | 0.43 |
| 8:O:168:LYS:HD2 | 8:O:214:GLU:CG | 2.47 | 0.43 |
| 8:O:279:HIS:HB3 | 8:O:310:HIS:HB3 | 2.00 | 0.43 |
| 8:O:490:PHE:CD1 | 8:O:539:MET:HB2 | 2.38 | 0.43 |
| 8:O:512:LEU:CB | 8:O:551:ARG:CB | 2.93 | 0.43 |
| 8:O:644:PHE:CE1 | 8:O:646:SER:HB2 | 2.54 | 0.43 |
| 8:O:699:LEU:HD22 | 8:O:699:LEU:C | 2.38 | 0.43 |
| 9:P:32:GLU:HA | 9:P:36:LYS:N | 2.30 | 0.43 |
| 11:R:38:VAL:HB | 11:R:39:VAL:HA | 2.00 | 0.43 |
| 12:V:60:ARG:HD2 | 12:V:65:SER:N | 2.33 | 0.43 |
| 12:V:72:SER:OG | 12:V:113:ARG:NH2 | 2.51 | 0.43 |
| 1:A:271:ARG:NE | 1:A:274:ARG:HH11 | 2.17 | 0.43 |
| 1:A:273:GLU:CG | 1:A:277:GLN:HG3 | 2.48 | 0.43 |
| 1:A:470:THR:O | 1:A:473:GLU:HB2 | 2.19 | 0.43 |
| 2:B:14:GLU:OE1 | 2:B:67:TRP:NE1 | 2.48 | 0.43 |
| 2:B:47:PRO:HD3 | 2:B:82:LEU:HD12 | 2.00 | 0.43 |
| 2:B:384:ASP:O | 2:B:388:LEU:HD23 | 2.18 | 0.43 |
| 2:B:438:VAL:HG11 | 6:F:302:MET:SD | 2.58 | 0.43 |
| 3:C:101:ALA:HB2 | 3:C:175:ALA:CB | 2.48 | 0.43 |
| 4:D:45:LEU:HB3 | 4:D:69:PHE:CE1 | 2.54 | 0.43 |
| 4:D:52:MET:SD | 4:D:65:LEU:HB2 | 2.57 | 0.43 |
| 4:D:367:LEU:HD23 | 6:F:275:PHE:CE1 | 2.53 | 0.43 |
| 5:E:238:LEU:CD2 | 6:F:200:VAL:HG22 | 2.48 | 0.43 |
| 6:F:73:ILE:HG12 | 6:F:85:ASN:O | 2.17 | 0.43 |
| 6:F:249:GLU:CB | 6:F:250:VAL:N | 2.75 | 0.43 |
| 7:H:60:ILE:HB | 7:H:65:LYS:HE2 | 2.00 | 0.43 |
| 7:H:68:ASN:O | 7:H:71:LEU:HB3 | 2.18 | 0.43 |
| 8:O:22:LYS:HA | 8:O:25:VAL:HG22 | 1.99 | 0.43 |
| 8:O:98:ALA:CB | 8:O:140:GLY:HA2 | 2.45 | 0.43 |
| 8:O:344:LEU:HD11 | 8:O:418:PHE:HE1 | 1.82 | 0.43 |
| 8:O:499:THR:C | 8:O:500:VAL:CG2 | 2.84 | 0.43 |
| 8:O:660:ASP:HA | 8:O:663:GLN:HB2 | 2.01 | 0.43 |
| 8:O:727:ASP:HB2 | 11:R:54:ILE:HB | 1.56 | 0.43 |
| 9:P:11:LYS:HZ3 | 10:Q:14:LYS:NZ | 1.83 | 0.43 |
| 9:P:57:LEU:HD23 | 9:P:60:CYS:SG | 2.58 | 0.43 |
| 10:Q:84:THR:HG23 | 12:V:169:LEU:CD1 | 2.47 | 0.43 |
| 13:G:15:PHE:CD1 | 13:G:30:LEU:HD12 | 2.52 | 0.43 |
| 13:G:103:SER:O | 13:G:106:SER:HB3 | 2.19 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:A:95:MET:HA | 1:A:98:GLU:CB | 2.41 | 0.43 |
| 1:A:451:ALA:HB2 | 1:A:462:ALA:HA | 2.00 | 0.43 |
| 2:B:18:LEU:CD2 | 8:O:648:ARG:CD | 2.83 | 0.43 |
| 2:B:100:ARG:CZ | 2:B:141:ASP:HB2 | 2.48 | 0.43 |
| 2:B:139:LEU:HD22 | 2:B:147:LEU:CD1 | 2.49 | 0.43 |
| 2:B:312:THR:O | 2:B:315:VAL:HG22 | 2.19 | 0.43 |
| 3:C:35:LEU:H | 3:C:39:LEU:HD11 | 1.84 | 0.43 |
| 3:C:138:LEU:N | 3:C:169:ILE:HG23 | 2.34 | 0.43 |
| 3:C:387:ASP:HB2 | 6:F:298:THR:CG2 | 2.44 | 0.43 |
| 4:D:30:LEU:HG | 4:D:34:ILE:HD11 | 2.00 | 0.43 |
| 4:D:100:GLU:HB3 | 4:D:137:LYS:HG2 | 2.00 | 0.43 |
| 4:D:281:PHE:O | 4:D:285:LEU:HG | 2.19 | 0.43 |
| 4:D:355:ILE:H | 4:D:355:ILE:HD12 | 1.83 | 0.43 |
| 5:E:45:TRP:CD1 | 5:E:46:THR:HG23 | 2.54 | 0.43 |
| 5:E:170:ILE:HD11 | 5:E:183:LEU:CD1 | 2.47 | 0.43 |
| 5:E:173:THR:CA | 5:E:176:ILE:HD12 | 2.38 | 0.43 |
| 5:E:187:ARG:HG3 | 5:E:224:LEU:CD1 | 2.48 | 0.43 |
| 5:E:194:LYS:O | 5:E:196:PRO:HD3 | 2.19 | 0.43 |
| 5:E:217:HIS:HD1 | 5:E:220:GLN:CD | 2.22 | 0.43 |
| 5:E:244:LYS:HE3 | 6:F:230:MET:C | 2.38 | 0.43 |
| 7:H:156:ASP:CB | 7:H:162:VAL:HA | 2.49 | 0.43 |
| 8:O:325:ARG:O | 8:O:329:ASN:HB2 | 2.18 | 0.43 |
| 8:O:385:CYS:CB | 8:O:427:ASP:HB3 | 2.48 | 0.43 |
| 8:O:479:ASP:O | 8:O:483:SER:OG | 2.14 | 0.43 |
| 8:O:512:LEU:CG | 11:R:32:LEU:HB3 | 2.48 | 0.43 |
| 8:O:573:TYR:HB3 | 8:O:650:LYS:CB | 2.43 | 0.43 |
| 8:O:623:ILE:C | 8:O:641:ASN:HB2 | 2.39 | 0.43 |
| 9:P:28:LYS:O | 9:P:30:ILE:CA | 2.34 | 0.43 |
| 9:P:71:ALA:HA | 10:Q:59:GLU:HG2 | 2.00 | 0.43 |
| 11:R:81:PHE:CA | 11:R:102:GLU:HA | 2.45 | 0.43 |
| 12:V:116:LEU:HD23 | 12:V:201:LEU:HB2 | 2.00 | 0.43 |
| 13:G:22:THR:HG21 | 13:G:30:LEU:HB2 | 2.00 | 0.43 |
| 13:G:140:ILE:HD13 | 13:G:140:ILE:C | 2.38 | 0.43 |
| 1:A:206:ASP:OD1 | 1:A:221:TYR:OH | 2.37 | 0.43 |
| 1:A:463:ARG:HE | 1:A:465:VAL:HA | 1.84 | 0.43 |
| 2:B:194:LEU:HG | 2:B:198:TYR:CZ | 2.53 | 0.43 |
| 2:B:198:TYR:HB3 | 2:B:218:TYR:CZ | 2.54 | 0.43 |
| 2:B:438:VAL:CG1 | 6:F:306:VAL:HG21 | 2.49 | 0.43 |
| 3:C:13:ARG:HG2 | 3:C:49:LEU:CD1 | 2.48 | 0.43 |
| 3:C:79:SER:O | 3:C:83:LEU:N | 2.48 | 0.43 |
| 3:C:307:ILE:HG13 | 3:C:326:VAL:HG11 | 2.00 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 3:C:321:ASP:HB3 | 3:C:325:ARG:NH1 | 2.34 | 0.43 |
| 3:C:391:LYS:HG2 | 6:F:301:THR:HG21 | 1.99 | 0.43 |
| 4:D:201:PHE:HD1 | 4:D:232:CYS:HA | 1.83 | 0.43 |
| 4:D:223:LEU:HG | 4:D:226:LEU:HD23 | 2.00 | 0.43 |
| 4:D:374:ILE:HG22 | 4:D:375:GLN:N | 2.33 | 0.43 |
| 5:E:25:ILE:HD12 | 5:E:232:SER:HB3 | 1.99 | 0.43 |
| 5:E:183:LEU:HD22 | 5:E:226:VAL:CG2 | 2.44 | 0.43 |
| 5:E:209:ASN:OD1 | 5:E:210:LYS:HG2 | 2.19 | 0.43 |
| 5:E:332:ASN:HD21 | 13:G:179:ASP:HB3 | 1.81 | 0.43 |
| 6:F:83:VAL:HG21 | 6:F:150:LEU:HD21 | 2.01 | 0.43 |
| 6:F:245:SER:HB3 | 6:F:253:ASN:CB | 2.48 | 0.43 |
| 7:H:139:LEU:HD22 | 7:H:143:GLU:HG2 | 2.00 | 0.43 |
| 8:O:20:THR:O | 8:O:23:ALA:HB3 | 2.19 | 0.43 |
| 8:O:34:THR:HA | 8:O:37:ASP:HB3 | 2.01 | 0.43 |
| 8:O:101:MET:CE | 8:O:139:ILE:HD11 | 2.48 | 0.43 |
| 8:O:395:CYS:O | 8:O:399:LEU:N | 2.50 | 0.43 |
| 8:O:412:GLU:OE2 | 8:O:453:SER:HB3 | 2.18 | 0.43 |
| 8:O:462:LYS:HA | 8:O:466:GLY:O | 2.19 | 0.43 |
| 8:O:508:GLN:HB3 | 8:O:559:LEU:CB | 2.48 | 0.43 |
| 8:O:537:VAL:HG23 | 8:O:553:LEU:HD12 | 2.00 | 0.43 |
| 8:O:676:ARG:NH2 | 8:O:710:ARG:CA | 2.80 | 0.43 |
| 9:P:51:LEU:HD23 | 9:P:55:LYS:NZ | 2.33 | 0.43 |
| 12:V:87:VAL:HG22 | 12:V:97:PRO:HA | 1.99 | 0.43 |
| 13:G:66:LEU:CD2 | 13:G:88:LEU:HD21 | 2.48 | 0.43 |
| 13:G:76:PRO:HA | 13:G:79:ILE:HG12 | 2.01 | 0.43 |
| 13:G:128:LEU:HD23 | 13:G:128:LEU:C | 2.38 | 0.43 |
| 13:G:136:VAL:HG12 | 13:G:141:ILE:CB | 2.41 | 0.43 |
| 13:G:141:ILE:CG2 | 13:G:142:GLN:N | 2.81 | 0.43 |
| 1:A:251:TRP:CE3 | 1:A:288:ALA:HA | 2.54 | 0.43 |
| 1:A:326:ALA:O | 1:A:352:PHE:HZ | 2.01 | 0.43 |
| 1:A:397:HIS:O | 1:A:401:LEU:HG | 2.18 | 0.43 |
| 1:A:504:SER:CA | 3:C:215:ALA:HB2 | 2.44 | 0.43 |
| 2:B:211:ASN:O | 2:B:214:LEU:HB2 | 2.19 | 0.43 |
| 2:B:310:ALA:HA | 2:B:313:ASN:HD22 | 1.83 | 0.43 |
| 2:B:314:LEU:HD21 | 2:B:329:ILE:HD13 | 2.00 | 0.43 |
| 2:B:323:ILE:CD1 | 2:B:355:ARG:HA | 2.47 | 0.43 |
| 2:B:390:VAL:CA | 2:B:393:ILE:HG12 | 2.48 | 0.43 |
| 3:C:72:PRO:HA | 3:C:74:PHE:CD1 | 2.54 | 0.43 |
| 3:C:94:ARG:CD | 3:C:131:MET:HE2 | 2.47 | 0.43 |
| 3:C:138:LEU:HD22 | 3:C:176:TYR:CE1 | 2.54 | 0.43 |
| 3:C:191:ILE:HG22 | 3:C:195:LEU:HG | 2.00 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 3:C:233:ILE:HD13 | 3:C:297:GLN:HB3 | 1.99 | 0.43 |
| 4:D:140:ASN:O | 4:D:144:LYS:HG3 | 2.19 | 0.43 |
| 4:D:153:ARG:O | 4:D:157:GLU:HG2 | 2.19 | 0.43 |
| 4:D:280:GLU:O | 4:D:284:MET:HG3 | 2.18 | 0.43 |
| 4:D:318:ASN:OD1 | 13:G:147:GLN:CB | 2.67 | 0.43 |
| 5:E:59:ALA:HB3 | 6:F:46:LEU:CD1 | 2.48 | 0.43 |
| 5:E:63:LEU:CA | 6:F:44:HIS:HB2 | 2.49 | 0.43 |
| 5:E:239:GLU:HG2 | 5:E:243:ASN:HD21 | 1.83 | 0.43 |
| 5:E:246:TRP:CH2 | 5:E:247:VAL:HG22 | 2.53 | 0.43 |
| 5:E:274:GLU:HA | 5:E:277:GLU:CB | 2.47 | 0.43 |
| 5:E:274:GLU:HG3 | 5:E:277:GLU:HB3 | 1.99 | 0.43 |
| 6:F:109:GLU:HB2 | 6:F:113:LYS:HE2 | 2.00 | 0.43 |
| 6:F:196:GLU:O | 6:F:200:VAL:HG23 | 2.19 | 0.43 |
| 6:F:266:CYS:O | 6:F:269:VAL:HG22 | 2.19 | 0.43 |
| 6:F:309:PHE:CE2 | 6:F:314:ASP:HB2 | 2.53 | 0.43 |
| 7:H:50:MET:HB3 | 7:H:82:TRP:CE3 | 2.54 | 0.43 |
| 7:H:77:VAL:HG22 | 7:H:92:THR:CB | 2.49 | 0.43 |
| 7:H:121:VAL:CG1 | 7:H:128:ILE:HG21 | 2.44 | 0.43 |
| 8:O:20:THR:OG1 | 8:O:38:ARG:HD3 | 2.19 | 0.43 |
| 8:O:62:LYS:HZ2 | 8:O:130:VAL:HB | 1.84 | 0.43 |
| 8:O:211:PHE:HE1 | 8:O:253:TYR:HE2 | 1.66 | 0.43 |
| 8:O:395:CYS:HB3 | 8:O:435:TYR:OH | 2.18 | 0.43 |
| 8:O:538:GLN:HG3 | 8:O:539:MET:CE | 2.48 | 0.43 |
| 8:O:575:ALA:HB2 | 8:O:650:LYS:CG | 2.27 | 0.43 |
| 12:V:146:PRO:CD | 12:V:148:PHE:CG | 2.99 | 0.43 |
| 13:G:138:THR:HG23 | 13:G:140:ILE:N | 2.34 | 0.43 |
| 13:G:206:GLN:O | 13:G:210:GLU:HG3 | 2.19 | 0.43 |
| 1:A:198:ARG:HB2 | 1:A:227:TYR:HB2 | 2.01 | 0.43 |
| 1:A:201:HIS:HB3 | 1:A:220:CYS:O | 2.19 | 0.43 |
| 1:A:300:LYS:HA | 1:A:337:PHE:CE1 | 2.54 | 0.43 |
| 1:A:394:LEU:O | 1:A:398:VAL:HB | 2.19 | 0.43 |
| 1:A:502:VAL:O | 3:C:214:MET:N | 2.51 | 0.43 |
| 2:B:27:GLU:OE2 | 2:B:64:LYS:CG | 2.56 | 0.43 |
| 2:B:58:LEU:HD13 | 2:B:72:LEU:CD2 | 2.45 | 0.43 |
| 2:B:76:ILE:CD1 | 2:B:88:MET:HG2 | 2.49 | 0.43 |
| 2:B:76:ILE:CA | 2:B:88:MET:HG2 | 2.47 | 0.43 |
| 2:B:77:LYS:HG3 | 2:B:80:PHE:CZ | 2.53 | 0.43 |
| 2:B:258:PHE:HB2 | 2:B:280:LEU:HD13 | 2.01 | 0.43 |
| 3:C:136:ASN:CG | 3:C:161:TYR:HA | 2.38 | 0.43 |
| 3:C:262:GLU:O | 3:C:266:VAL:HG23 | 2.18 | 0.43 |
| 3:C:284:GLU:HB3 | 3:C:288:ARG:HH21 | 1.83 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:C:341:MET:HB3 | 3:C:347:ILE:HG22 | 1.99 | 0.43 |
| 4:D:122:ASN:HA | 4:D:125:GLN:CD | 2.38 | 0.43 |
| 4:D:233:THR:O | 4:D:242:ARG:HG3 | 2.18 | 0.43 |
| 4:D:306:GLU:HA | 4:D:328:LEU:HD22 | 1.99 | 0.43 |
| 4:D:406:GLN:NE2 | 6:F:240:GLU:OE2 | 2.51 | 0.43 |
| 5:E:70:ARG:NH1 | 5:E:176:ILE:HD13 | 2.34 | 0.43 |
| 5:E:252:SER:N | 5:E:324:LYS:HD3 | 2.34 | 0.43 |
| 6:F:217:VAL:O | 6:F:220:HIS:HB2 | 2.19 | 0.43 |
| 7:H:37:TYR:CZ | 7:H:61:PRO:HD2 | 2.54 | 0.43 |
| 7:H:38:GLY:H | 7:H:68:ASN:HD22 | 1.67 | 0.43 |
| 8:O:79:SER:O | 8:O:83:VAL:HG12 | 2.19 | 0.43 |
| 8:O:167:ILE:HA | 8:O:249:ARG:HD3 | 2.01 | 0.43 |
| 8:O:250:CYS:HB3 | 8:O:259:TYR:CG | 2.54 | 0.43 |
| 8:O:278:LEU:CD2 | 8:O:301:LEU:HD21 | 2.49 | 0.43 |
| 8:O:725:LEU:HD22 | 8:O:730:TYR:HD2 | 1.82 | 0.43 |
| 9:P:98:GLU:C | 10:Q:85:GLU:HB2 | 2.39 | 0.43 |
| 13:G:28:THR:CA | 13:G:31:ILE:HG22 | 2.49 | 0.43 |
| 13:G:111:ILE:O | 13:G:151:LEU:HA | 2.19 | 0.43 |
| 13:G:133:ILE:O | 13:G:137:TYR:HB2 | 2.19 | 0.43 |
| 1:A:194:LYS:CA | 1:A:227:TYR:HB3 | 2.49 | 0.43 |
| 1:A:387:ASN:OD1 | 1:A:390:LEU:HB2 | 2.19 | 0.43 |
| 2:B:169:GLN:HG3 | 2:B:173:ARG:NE | 2.34 | 0.43 |
| 2:B:418:GLY:O | 2:B:421:TYR:HB2 | 2.19 | 0.43 |
| 3:C:92:HIS:HB3 | 3:C:95:TYR:CE2 | 2.53 | 0.43 |
| 3:C:94:ARG:HD3 | 3:C:94:ARG:N | 2.34 | 0.43 |
| 3:C:97:THR:OG1 | 3:C:98:ASP:N | 2.52 | 0.43 |
| 3:C:125:LYS:HA | 3:C:128:ILE:CD1 | 2.46 | 0.43 |
| 3:C:286:PHE:HE1 | 3:C:295:VAL:N | 2.16 | 0.43 |
| 3:C:317:LEU:HD23 | 3:C:322:MET:CE | 2.31 | 0.43 |
| 4:D:133:GLU:CD | 4:D:144:LYS:HD3 | 2.39 | 0.43 |
| 4:D:292:THR:HB | 4:D:296:GLY:O | 2.19 | 0.43 |
| 4:D:338:ILE:HA | 4:D:341:GLN:CD | 2.39 | 0.43 |
| 5:E:251:SER:HA | 6:F:224:GLN:HB2 | 1.91 | 0.43 |
| 7:H:38:GLY:CA | 7:H:71:LEU:HD13 | 2.45 | 0.43 |
| 7:H:98:TRP:CB | 7:H:102:VAL:HB | 2.44 | 0.43 |
| 7:H:128:ILE:HD11 | 7:H:132:ASP:HB2 | 2.00 | 0.43 |
| 8:O:130:VAL:HG23 | 8:O:145:ASP:HB3 | 2.01 | 0.43 |
| 8:O:166:GLU:HB3 | 8:O:175:ASP:CA | 2.48 | 0.43 |
| 8:O:236:MET:CE | 8:O:296:ASN:HB3 | 2.49 | 0.43 |
| 8:O:417:SER:HA | 8:O:420:THR:HB | 1.99 | 0.43 |
| 8:O:734:SER:HB2 | 8:O:741:TYR:HA | 2.00 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:744:VAL:HG12 | 8:O:745:ALA:N | 2.32 | 0.43 |
| 12:V:182:ARG:H | 12:V:182:ARG:HD3 | 1.83 | 0.43 |
| 13:G:22:THR:O | 13:G:55:LEU:HD11 | 2.19 | 0.43 |
| 13:G:98:HIS:HA | 13:G:101:ILE:CG1 | 2.40 | 0.43 |
| 13:G:110:CYS:HA | 13:G:152:LEU:O | 2.19 | 0.43 |
| 1:A:194:LYS:CD | 1:A:229:THR:HG23 | 2.49 | 0.42 |
| 1:A:245:SER:CB | 1:A:250:ASN:HB2 | 2.43 | 0.42 |
| 2:B:30:VAL:O | 2:B:33:GLU:N | 2.49 | 0.42 |
| 2:B:136:LEU:O | 2:B:148:TRP:HZ3 | 2.02 | 0.42 |
| 2:B:154:LYS:O | 2:B:157:LYS:HB2 | 2.19 | 0.42 |
| 2:B:311:MET:SD | 2:B:314:LEU:HD12 | 2.59 | 0.42 |
| 3:C:138:LEU:HD23 | 3:C:139:THR:O | 2.18 | 0.42 |
| 3:C:159:LEU:HD21 | 3:C:195:LEU:CD1 | 2.47 | 0.42 |
| 3:C:190:MET:O | 3:C:193:THR:HB | 2.19 | 0.42 |
| 4:D:19:HIS:HE1 | 4:D:60:VAL:HB | 1.83 | 0.42 |
| 4:D:208:TYR:HA | 4:D:211:LEU:HD12 | 2.01 | 0.42 |
| 4:D:370:TRP:O | 4:D:374:ILE:HG13 | 2.19 | 0.42 |
| 5:E:34:LYS:O | 5:E:38:GLU:HG3 | 2.19 | 0.42 |
| 5:E:63:LEU:HD13 | 6:F:47:VAL:HG22 | 2.00 | 0.42 |
| 5:E:63:LEU:HD13 | 6:F:47:VAL:CG2 | 2.49 | 0.42 |
| 5:E:158:ASN:HA | 5:E:161:PHE:CD2 | 2.54 | 0.42 |
| 5:E:329:ASN:O | 6:F:271:SER:HB3 | 2.18 | 0.42 |
| 6:F:57:ARG:HD3 | 6:F:88:GLU:CD | 2.39 | 0.42 |
| 7:H:154:GLN:O | 7:H:163:LEU:N | 2.38 | 0.42 |
| 8:O:140:GLY:O | 8:O:144:LEU:HG | 2.19 | 0.42 |
| 8:O:233:SER:HA | 8:O:293:ASP:OD1 | 2.19 | 0.42 |
| 8:O:373:THR:CA | 8:O:376:VAL:HB | 2.48 | 0.42 |
| 8:O:512:LEU:O | 11:R:34:ALA:HB2 | 2.18 | 0.42 |
| 8:O:554:THR:O | 11:R:30:VAL:O | 2.37 | 0.42 |
| 8:O:569:LEU:HG | 11:R:19:LYS:N | 2.32 | 0.42 |
| 8:O:633:ASP:HB3 | 8:O:635:GLU:CB | 2.44 | 0.42 |
| 8:O:660:ASP:C | 8:O:663:GLN:N | 2.65 | 0.42 |
| 9:P:20:GLU:OE1 | 9:P:63:THR:HA | 2.18 | 0.42 |
| 9:P:43:ARG:HH21 | 9:P:88:LEU:N | 2.16 | 0.42 |
| 11:R:50:MET:CE | 11:R:70:VAL:HB | 2.38 | 0.42 |
| 12:V:136:PHE:HZ | 12:V:147:ILE:HG23 | 1.84 | 0.42 |
| 13:G:44:GLY:CA | 13:G:162:ILE:CD1 | 2.93 | 0.42 |
| 13:G:122:MET:HE2 | 13:G:131:LEU:CD1 | 2.35 | 0.42 |
| 13:G:130:ASP:O | 13:G:134:GLU:HG2 | 2.19 | 0.42 |
| 1:A:105:ASP:HA | 1:A:111:ARG:NE | 2.33 | 0.42 |
| 1:A:303:ALA:HB3 | 1:A:337:PHE:CZ | 2.54 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:A:453:VAL:HG13 | 1:A:459:ILE:O | 2.19 | 0.42 |
| 2:B:14:GLU:CG | 2:B:67:TRP:HE1 | 2.30 | 0.42 |
| 2:B:322:ASP:HB3 | 2:B:325:GLU:CG | 2.49 | 0.42 |
| 3:C:51:VAL:HG12 | 3:C:51:VAL:O | 2.19 | 0.42 |
| 3:C:138:LEU:HB2 | 3:C:166:MET:SD | 2.59 | 0.42 |
| 3:C:258:ASN:HA | 3:C:261:HIS:CD2 | 2.55 | 0.42 |
| 4:D:55:GLU:HA | 4:D:59:LEU:CD2 | 2.29 | 0.42 |
| 4:D:133:GLU:CG | 4:D:144:LYS:HD3 | 2.49 | 0.42 |
| 4:D:288:HIS:CD2 | 4:D:289:GLN:HG3 | 2.54 | 0.42 |
| 4:D:308:ASN:O | 4:D:309:LEU:HD23 | 2.19 | 0.42 |
| 5:E:36:GLN:OE1 | 5:E:84:LYS:HB2 | 2.19 | 0.42 |
| 5:E:59:ALA:N | 6:F:46:LEU:HD13 | 2.29 | 0.42 |
| 5:E:77:VAL:CG1 | 5:E:98:LEU:HB2 | 2.49 | 0.42 |
| 5:E:195:PRO:HG3 | 5:E:219:LYS:O | 2.19 | 0.42 |
| 5:E:276:SER:O | 5:E:280:LEU:N | 2.52 | 0.42 |
| 5:E:276:SER:HA | 5:E:298:ASP:OD1 | 2.19 | 0.42 |
| 5:E:285:PHE:CZ | 12:V:62:VAL:CG2 | 2.78 | 0.42 |
| 5:E:289:LEU:C | 5:E:291:THR:H | 2.23 | 0.42 |
| 5:E:326:LYS:CA | 13:G:184:VAL:CG1 | 2.65 | 0.42 |
| 5:E:332:ASN:HB2 | 13:G:176:GLU:C | 2.23 | 0.42 |
| 6:F:312:LEU:C | 6:F:315:ARG:HH12 | 2.22 | 0.42 |
| 8:O:231:ASN:O | 8:O:233:SER:N | 2.52 | 0.42 |
| 8:O:255:HIS:HD2 | 8:O:258:SER:H | 1.68 | 0.42 |
| 9:P:43:ARG:HB3 | 9:P:78:ALA:CB | 2.25 | 0.42 |
| 9:P:94:SER:O | 10:Q:52:HIS:HB3 | 2.19 | 0.42 |
| 13:G:132:ILE:HD12 | 13:G:132:ILE:C | 2.39 | 0.42 |
| 1:A:205:GLY:HA3 | 1:A:221:TYR:HE2 | 1.84 | 0.42 |
| 1:A:305:CYS:HA | 1:A:308:LEU:CD1 | 2.35 | 0.42 |
| 1:A:307:LEU:HD23 | 1:A:352:PHE:CB | 2.49 | 0.42 |
| 2:B:241:GLY:HA2 | 2:B:244:MET:CB | 2.48 | 0.42 |
| 2:B:347:ILE:HG23 | 2:B:348:GLU:N | 2.34 | 0.42 |
| 3:C:39:LEU:CD1 | 3:C:65:LYS:HG2 | 2.49 | 0.42 |
| 3:C:84:PHE:CZ | 3:C:89:ASN:HA | 2.53 | 0.42 |
| 3:C:323:ALA:HA | 3:C:328:LEU:N | 2.34 | 0.42 |
| 3:C:348:PHE:CB | 3:C:362:ASP:H | 2.32 | 0.42 |
| 4:D:36:LEU:HD22 | 4:D:40:GLU:CG | 2.47 | 0.42 |
| 4:D:321:PHE:HA | 4:D:336:GLU:CD | 2.40 | 0.42 |
| 4:D:367:LEU:CA | 4:D:370:TRP:HB3 | 2.44 | 0.42 |
| 5:E:170:ILE:HD11 | 5:E:183:LEU:CB | 2.49 | 0.42 |
| 5:E:200:PRO:HG2 | 5:E:223:ALA:HB3 | 2.00 | 0.42 |
| 5:E:332:ASN:HB2 | 13:G:177:TRP:CA | 2.49 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 6:F:124:TRP:CE2 | 6:F:138:VAL:HB | 2.54 | 0.42 |
| 6:F:188:TYR:HD2 | 6:F:189:THR:O | 2.01 | 0.42 |
| 6:F:239:LEU:O | 6:F:243:LYS:HG3 | 2.18 | 0.42 |
| 8:O:6:ARG:HD2 | 12:V:182:ARG:CD | 2.48 | 0.42 |
| 8:O:278:LEU:HD22 | 8:O:301:LEU:CD2 | 2.47 | 0.42 |
| 8:O:569:LEU:HD11 | 11:R:19:LYS:CB | 2.47 | 0.42 |
| 8:O:727:ASP:OD2 | 11:R:47:ASN:N | 2.43 | 0.42 |
| 9:P:44:LEU:HD23 | 9:P:76:GLY:O | 2.19 | 0.42 |
| 11:R:50:MET:SD | 11:R:52:LEU:HD21 | 2.60 | 0.42 |
| 1:A:95:MET:HE2 | 1:A:249:GLN:HG2 | 2.01 | 0.42 |
| 2:B:76:ILE:HD13 | 2:B:91:ARG:HB2 | 2.01 | 0.42 |
| 2:B:297:GLN:CG | 11:R:67:GLU:HG3 | 2.40 | 0.42 |
| 2:B:316:SER:O | 2:B:319:GLN:HB3 | 2.19 | 0.42 |
| 2:B:368:ARG:HB3 | 2:B:410:GLU:HA | 2.01 | 0.42 |
| 3:C:12:VAL:CG1 | 3:C:24:LEU:HD21 | 2.38 | 0.42 |
| 3:C:279:VAL:HA | 3:C:286:PHE:HE2 | 1.82 | 0.42 |
| 4:D:1:MET:HA | 4:D:36:LEU:CD2 | 2.47 | 0.42 |
| 4:D:38:GLY:O | 4:D:42:LEU:N | 2.34 | 0.42 |
| 4:D:60:VAL:HG22 | 4:D:63:ARG:NE | 2.34 | 0.42 |
| 4:D:102:GLN:O | 4:D:106:ILE:HG13 | 2.19 | 0.42 |
| 4:D:311:SER:O | 4:D:314:LYS:HE3 | 2.18 | 0.42 |
| 5:E:57:ILE:HD12 | 5:E:226:VAL:HG13 | 2.02 | 0.42 |
| 5:E:318:LEU:HG | 7:H:200:LEU:HD11 | 2.01 | 0.42 |
| 5:E:325:ASP:CB | 5:E:329:ASN:HD22 | 2.32 | 0.42 |
| 7:H:65:LYS:O | 7:H:68:ASN:N | 2.49 | 0.42 |
| 8:O:569:LEU:HB2 | 11:R:18:LYS:CG | 2.50 | 0.42 |
| 8:O:733:ARG:HA | 8:O:741:TYR:HB3 | 2.02 | 0.42 |
| 9:P:32:GLU:CG | 9:P:36:LYS:HA | 2.48 | 0.42 |
| 11:R:81:PHE:CD1 | 11:R:102:GLU:HA | 2.53 | 0.42 |
| 12:V:72:SER:HB2 | 12:V:113:ARG:NH1 | 2.35 | 0.42 |
| 12:V:72:SER:O | 12:V:140:LEU:HB2 | 2.20 | 0.42 |
| 13:G:138:THR:CG2 | 13:G:140:ILE:HB | 2.49 | 0.42 |
| 1:A:185:LEU:O | 1:A:189:LYS:HG3 | 2.20 | 0.42 |
| 1:A:273:GLU:HG3 | 1:A:281:ILE:CD1 | 2.43 | 0.42 |
| 1:A:360:PRO:HA | 1:A:363:ARG:NH2 | 2.34 | 0.42 |
| 1:A:458:LYS:HB2 | 1:A:458:LYS:HE2 | 1.89 | 0.42 |
| 2:B:442:LEU:HB2 | 6:F:309:PHE:CE2 | 2.53 | 0.42 |
| 3:C:34:LEU:HA | 3:C:64:VAL:CG1 | 2.49 | 0.42 |
| 3:C:158:ALA:C | 3:C:162:LEU:HG | 2.39 | 0.42 |
| 3:C:262:GLU:HG2 | 3:C:278:LEU:HD22 | 2.01 | 0.42 |
| 4:D:385:LEU:HD23 | 6:F:234:ARG:HD3 | 2.01 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 4:D:385:LEU:CD2 | 6:F:234:ARG:HA | 2.47 | 0.42 |
| 5:E:28:ILE:HD13 | 5:E:229:PHE:CB | 2.49 | 0.42 |
| 5:E:185:ALA:O | 5:E:223:ALA:HA | 2.19 | 0.42 |
| 5:E:269:LEU:HA | 5:E:272:LYS:CB | 2.50 | 0.42 |
| 6:F:35:VAL:H | 6:F:170:SER:C | 2.23 | 0.42 |
| 6:F:138:VAL:HA | 6:F:141:GLN:CD | 2.40 | 0.42 |
| 6:F:154:LEU:HD23 | 6:F:155:ASN:N | 2.34 | 0.42 |
| 7:H:17:LEU:HD21 | 7:H:44:TYR:CD1 | 2.54 | 0.42 |
| 7:H:20:CYS:C | 7:H:40:LEU:HD21 | 2.40 | 0.42 |
| 7:H:37:TYR:HB2 | 7:H:71:LEU:HD22 | 2.01 | 0.42 |
| 7:H:80:ARG:O | 7:H:83:GLN:N | 2.52 | 0.42 |
| 7:H:130:ALA:HB3 | 7:H:141:VAL:HG13 | 2.00 | 0.42 |
| 7:H:147:GLY:O | 7:H:150:GLU:HG2 | 2.18 | 0.42 |
| 8:O:32:ARG:CZ | 10:Q:38:ARG:C | 2.86 | 0.42 |
| 8:O:243:LEU:HD13 | 8:O:267:GLN:CB | 2.49 | 0.42 |
| 8:O:723:GLU:O | 11:R:45:CYS:C | 2.58 | 0.42 |
| 11:R:21:ARG:O | 11:R:22:PHE:HB2 | 2.19 | 0.42 |
| 13:G:49:LEU:HB2 | 13:G:52:VAL:HG22 | 2.01 | 0.42 |
| 13:G:129:GLU:O | 13:G:133:ILE:HG23 | 2.20 | 0.42 |
| 1:A:135:HIS:HA | 1:A:162:LEU:CB | 2.50 | 0.42 |
| 1:A:338:ASP:O | 1:A:342:LEU:HG | 2.19 | 0.42 |
| 1:A:441:THR:O | 1:A:444:ILE:HB | 2.19 | 0.42 |
| 1:A:485:ARG:O | 1:A:489:MET:HG3 | 2.18 | 0.42 |
| 2:B:21:SER:C | 8:O:652:LYS:CG | 2.85 | 0.42 |
| 2:B:146:ARG:HG3 | 2:B:193:GLN:NE2 | 2.35 | 0.42 |
| 2:B:198:TYR:CE2 | 2:B:224:ILE:HD11 | 2.53 | 0.42 |
| 2:B:442:LEU:CD2 | 6:F:309:PHE:CZ | 3.02 | 0.42 |
| 3:C:89:ASN:O | 3:C:93:ILE:HD13 | 2.19 | 0.42 |
| 3:C:112:VAL:HG22 | 3:C:151:LEU:CD1 | 2.49 | 0.42 |
| 3:C:129:ASP:HA | 3:C:132:GLN:HG3 | 2.02 | 0.42 |
| 3:C:189:GLY:HA2 | 3:C:201:ALA:CB | 2.50 | 0.42 |
| 4:D:165:GLU:HA | 4:D:168:ILE:HG22 | 2.02 | 0.42 |
| 4:D:268:TYR:CE2 | 4:D:269:LEU:HG | 2.54 | 0.42 |
| 4:D:281:PHE:HA | 4:D:284:MET:CB | 2.43 | 0.42 |
| 5:E:60:LEU:HA | 5:E:63:LEU:HG | 2.01 | 0.42 |
| 5:E:190:PRO:HD2 | 5:E:193:TYR:HB3 | 2.01 | 0.42 |
| 5:E:244:LYS:O | 6:F:229:LYS:HB3 | 2.20 | 0.42 |
| 6:F:69:ILE:CG2 | 6:F:100:ILE:HD11 | 2.49 | 0.42 |
| 7:H:122:SER:OG | 7:H:123:GLN:N | 2.52 | 0.42 |
| 8:O:182:HIS:CE1 | 8:O:254:LEU:HG | 2.55 | 0.42 |
| 8:O:243:LEU:HD13 | 8:O:267:GLN:HB3 | 2.00 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:O:620:VAL:HG13 | 8:O:644:PHE:CD1 | 2.55 | 0.42 |
| 8:O:644:PHE:CE2 | 8:O:650:LYS:HA | 2.54 | 0.42 |
| 11:R:38:VAL:H | 11:R:39:VAL:HA | 1.85 | 0.42 |
| 13:G:134:GLU:HA | 13:G:134:GLU:OE1 | 2.20 | 0.42 |
| 13:G:171:VAL:CG1 | 13:G:172:LYS:N | 2.83 | 0.42 |
| 1:A:94:LEU:HB2 | 1:A:247:TYR:C | 2.40 | 0.42 |
| 1:A:375:ALA:HB2 | 1:A:429:PHE:O | 2.19 | 0.42 |
| 1:A:451:ALA:HB1 | 1:A:460:LEU:HD11 | 2.01 | 0.42 |
| 2:B:37:TYR:HD1 | 2:B:53:SER:HA | 1.84 | 0.42 |
| 2:B:57:VAL:HG11 | 2:B:71:ALA:CB | 2.50 | 0.42 |
| 3:C:135:THR:CB | 3:C:167:MET:H | 2.30 | 0.42 |
| 3:C:224:TYR:HH | 3:C:257:SER:HB2 | 1.83 | 0.42 |
| 3:C:228:ILE:HG22 | 3:C:263:LEU:HD23 | 2.01 | 0.42 |
| 3:C:229:LEU:O | 3:C:233:ILE:HB | 2.19 | 0.42 |
| 3:C:266:VAL:HA | 3:C:269:THR:HG23 | 2.02 | 0.42 |
| 3:C:310:LEU:CD1 | 3:C:326:VAL:HG23 | 2.50 | 0.42 |
| 4:D:96:VAL:HG13 | 4:D:97:ILE:N | 2.34 | 0.42 |
| 4:D:127:LEU:HA | 4:D:130:ILE:HD11 | 2.01 | 0.42 |
| 4:D:166:ALA:HA | 11:R:75:CYS:HA | 2.01 | 0.42 |
| 4:D:168:ILE:HD13 | 4:D:190:CYS:CB | 2.50 | 0.42 |
| 5:E:64:LYS:HZ1 | 6:F:44:HIS:CE1 | 2.37 | 0.42 |
| 6:F:43:LEU:CB | 6:F:191:ALA:HB2 | 2.47 | 0.42 |
| 6:F:73:ILE:HD11 | 6:F:85:ASN:HB3 | 2.02 | 0.42 |
| 7:H:60:ILE:HG23 | 7:H:61:PRO:HD2 | 2.01 | 0.42 |
| 8:O:32:ARG:CG | 10:Q:38:ARG:O | 2.68 | 0.42 |
| 8:O:285:ILE:CG1 | 8:O:290:LYS:HB2 | 2.49 | 0.42 |
| 8:O:382:LYS:O | 8:O:384:VAL:HG23 | 2.19 | 0.42 |
| 8:O:482:VAL:HG12 | 8:O:482:VAL:O | 2.20 | 0.42 |
| 8:O:507:PHE:O | 8:O:509:ILE:HG22 | 2.20 | 0.42 |
| 8:O:569:LEU:HD12 | 11:R:18:LYS:HA | 2.02 | 0.42 |
| 8:O:569:LEU:HD22 | 8:O:571:LYS:NZ | 2.34 | 0.42 |
| 8:O:692:LYS:HB3 | 8:O:743:TYR:CB | 2.49 | 0.42 |
| 11:R:67:GLU:CA | 11:R:70:VAL:HG12 | 2.50 | 0.42 |
| 12:V:82:ARG:NH1 | 12:V:153:LEU:HD11 | 2.34 | 0.42 |
| 12:V:146:PRO:CA | 12:V:147:ILE:C | 2.46 | 0.42 |
| 12:V:170:VAL:HG11 | 12:V:178:LEU:CD2 | 2.49 | 0.42 |
| 12:V:178:LEU:HB2 | 12:V:185:TYR:CD1 | 2.55 | 0.42 |
| 13:G:23:SER:C | 13:G:27:LEU:HB2 | 2.39 | 0.42 |
| 13:G:43:PHE:HD2 | 13:G:67:LEU:HD22 | 1.84 | 0.42 |
| 13:G:45:GLU:O | 13:G:48:GLU:HB2 | 2.20 | 0.42 |
| 13:G:75:TYR:CD2 | 13:G:120:LEU:HA | 2.54 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 13:G:100:THR:HG21 | 13:G:120:LEU:HD21 | 2.01 | 0.42 |
| 13:G:179:ASP:C | 13:G:182:GLU:HG2 | 2.39 | 0.42 |
| 1:A:385:LYS:CA | 1:A:388:LEU:HD12 | 2.47 | 0.42 |
| 2:B:218:TYR:O | 2:B:221:SER:OG | 2.20 | 0.42 |
| 3:C:121:ILE:HD13 | 3:C:157:PRO:HB2 | 2.01 | 0.42 |
| 3:C:139:THR:HG22 | 3:C:142:HIS:HE1 | 1.80 | 0.42 |
| 3:C:222:GLU:HA | 3:C:225:LYS:CB | 2.50 | 0.42 |
| 4:D:247:ALA:HA | 4:D:268:TYR:HD1 | 1.84 | 0.42 |
| 4:D:266:LYS:HE3 | 4:D:277:GLN:OE1 | 2.20 | 0.42 |
| 4:D:381:VAL:CG2 | 6:F:263:LEU:HD13 | 2.50 | 0.42 |
| 5:E:63:LEU:HD21 | 6:F:47:VAL:H | 1.85 | 0.42 |
| 5:E:69:ALA:HB3 | 5:E:172:PRO:HB3 | 2.02 | 0.42 |
| 5:E:121:ILE:HA | 5:E:124:ALA:HB3 | 2.02 | 0.42 |
| 5:E:121:ILE:HD13 | 5:E:133:ALA:N | 2.35 | 0.42 |
| 5:E:293:ASP:HB3 | 5:E:295:LYS:HG2 | 1.78 | 0.42 |
| 5:E:310:THR:HG23 | 5:E:313:GLU:OE2 | 2.19 | 0.42 |
| 6:F:43:LEU:HD13 | 6:F:84:MET:C | 2.40 | 0.42 |
| 6:F:238:ILE:O | 6:F:242:VAL:HG23 | 2.20 | 0.42 |
| 7:H:39:GLN:HE21 | 7:H:101:THR:HA | 1.85 | 0.42 |
| 8:O:65:LEU:CD1 | 8:O:142:LEU:HG | 2.50 | 0.42 |
| 8:O:149:LYS:HA | 8:O:152:VAL:CB | 2.44 | 0.42 |
| 8:O:186:ASN:O | 8:O:190:HIS:HB2 | 2.19 | 0.42 |
| 8:O:226:LEU:CB | 8:O:235:TYR:HD1 | 2.33 | 0.42 |
| 8:O:379:ARG:HG2 | 8:O:384:VAL:HG13 | 2.02 | 0.42 |
| 8:O:539:MET:O | 8:O:542:LEU:HB3 | 2.20 | 0.42 |
| 9:P:1:MET:HB3 | 9:P:20:GLU:CB | 2.47 | 0.42 |
| 9:P:13:THR:O | 10:Q:16:TYR:O | 2.33 | 0.42 |
| 11:R:40:ASP:CB | 11:R:77:HIS:HD1 | 2.27 | 0.42 |
| 11:R:43:ALA:HB1 | 11:R:96:LEU:CG | 2.50 | 0.42 |
| 13:G:38:PRO:HA | 13:G:41:TYR:CZ | 2.55 | 0.42 |
| 13:G:79:ILE:HD12 | 13:G:121:GLU:HB2 | 2.01 | 0.42 |
| 1:A:111:ARG:O | 1:A:115:LEU:HB2 | 2.20 | 0.42 |
| 1:A:303:ALA:CA | 1:A:306:LEU:HD12 | 2.49 | 0.42 |
| 1:A:393:TYR:C | 1:A:396:PRO:HD2 | 2.40 | 0.42 |
| 2:B:100:ARG:NE | 2:B:141:ASP:HB2 | 2.35 | 0.42 |
| 2:B:273:ARG:NH2 | 2:B:277:LEU:HB3 | 2.35 | 0.42 |
| 2:B:337:ILE:HG22 | 2:B:343:ILE:HG21 | 2.02 | 0.42 |
| 2:B:434:LEU:HG | 6:F:299:CYS:SG | 2.59 | 0.42 |
| 3:C:75:GLU:CA | 3:C:78:PHE:HB3 | 2.50 | 0.42 |
| 3:C:233:ILE:HD11 | 3:C:298:CYS:SG | 2.59 | 0.42 |
| 3:C:373:LEU:HA | 3:C:376:ILE:HD12 | 2.02 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 4:D:77:PRO:O | 4:D:80:THR:HB | 2.19 | 0.42 |
| 4:D:169:ASN:HB3 | 11:R:77:HIS:HB2 | 2.02 | 0.42 |
| 4:D:183:LEU:HA | 4:D:183:LEU:HD12 | 1.88 | 0.42 |
| 4:D:387:LYS:HA | 4:D:390:GLN:HB3 | 2.02 | 0.42 |
| 5:E:31:TYR:CE2 | 5:E:131:GLU:HA | 2.55 | 0.42 |
| 5:E:120:TYR:HE1 | 6:F:112:PHE:CD1 | 2.36 | 0.42 |
| 5:E:125:LYS:NZ | 5:E:132:ASN:HD21 | 2.17 | 0.42 |
| 5:E:248:ASN:CB | 6:F:222:ILE:CD1 | 2.97 | 0.42 |
| 5:E:323:ILE:O | 5:E:326:LYS:HB2 | 2.20 | 0.42 |
| 6:F:40:SER:HA | 6:F:76:GLN:H | 1.85 | 0.42 |
| 6:F:69:ILE:HD13 | 6:F:138:VAL:HG11 | 2.01 | 0.42 |
| 6:F:265:HIS:CE1 | 13:G:173:THR:HG21 | 2.55 | 0.42 |
| 7:H:46:LEU:HD23 | 7:H:109:LEU:CB | 2.34 | 0.42 |
| 7:H:46:LEU:CA | 7:H:109:LEU:HD13 | 2.31 | 0.42 |
| 7:H:55:TYR:O | 7:H:59:ARG:N | 2.52 | 0.42 |
| 8:O:89:ARG:HD2 | 8:O:89:ARG:O | 2.19 | 0.42 |
| 8:O:159:LEU:HD23 | 8:O:163:LEU:HG | 2.01 | 0.42 |
| 8:O:508:GLN:CB | 8:O:559:LEU:CB | 2.95 | 0.42 |
| 8:O:573:TYR:CG | 8:O:650:LYS:HB2 | 2.54 | 0.42 |
| 9:P:2:ASP:HB3 | 10:Q:66:LYS:HZ3 | 1.85 | 0.42 |
| 9:P:5:LEU:HD21 | 9:P:62:PHE:CE1 | 2.55 | 0.42 |
| 9:P:44:LEU:HD23 | 9:P:77:LEU:HA | 2.01 | 0.42 |
| 9:P:69:PRO:HB2 | 10:Q:63:TYR:HA | 2.02 | 0.42 |
| 12:V:87:VAL:HG12 | 12:V:198:LEU:HD21 | 2.02 | 0.42 |
| 12:V:181:VAL:CG1 | 12:V:182:ARG:HD3 | 2.50 | 0.42 |
| 13:G:145:LEU:H | 13:G:145:LEU:CD1 | 2.32 | 0.42 |
| 1:A:148:ALA:HB3 | 1:A:149:PRO:HD3 | 2.02 | 0.42 |
| 1:A:175:LEU:HD12 | 1:A:178:LEU:HD12 | 2.02 | 0.42 |
| 1:A:235:ILE:HG22 | 1:A:239:LEU:HD11 | 2.01 | 0.42 |
| 1:A:492:ARG:NE | 1:A:496:LEU:HD11 | 2.35 | 0.42 |
| 2:B:99:ILE:HG21 | 2:B:100:ARG:NH1 | 2.34 | 0.42 |
| 2:B:165:TYR:OH | 2:B:204:MET:HB2 | 2.20 | 0.42 |
| 2:B:214:LEU:CA | 2:B:217:LEU:HD12 | 2.37 | 0.42 |
| 2:B:255:HIS:HA | 2:B:258:PHE:CD2 | 2.43 | 0.42 |
| 2:B:270:SER:HB2 | 2:B:273:ARG:CB | 2.50 | 0.42 |
| 3:C:16:SER:CB | 3:C:49:LEU:HD13 | 2.48 | 0.42 |
| 3:C:125:LYS:HA | 3:C:128:ILE:CG1 | 2.50 | 0.42 |
| 5:E:255:LEU:H | 5:E:321:GLN:HE21 | 1.68 | 0.42 |
| 6:F:139:HIS:CE1 | 6:F:151:PHE:HB2 | 2.54 | 0.42 |
| 6:F:146:ILE:HD11 | 6:F:149:PRO:HA | 2.01 | 0.42 |
| 7:H:21:GLU:N | 7:H:40:LEU:HD21 | 2.35 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 7:H:137:VAL:CG2 | 7:H:139:LEU:HG | 2.50 | 0.42 |
| 8:O:30:VAL:O | 8:O:35:TRP:CZ2 | 2.73 | 0.42 |
| 8:O:42:ILE:HD11 | 8:O:108:LEU:HD22 | 2.01 | 0.42 |
| 8:O:118:LEU:HD23 | 8:O:136:LEU:C | 2.41 | 0.42 |
| 8:O:291:LYS:HZ2 | 8:O:357:VAL:CG2 | 2.32 | 0.42 |
| 8:O:336:PRO:O | 8:O:340:VAL:HB | 2.19 | 0.42 |
| 8:O:441:LYS:O | 8:O:444:ILE:N | 2.53 | 0.42 |
| 8:O:530:PRO:CG | 11:R:27:TRP:CH2 | 2.78 | 0.42 |
| 8:O:534:GLU:O | 8:O:538:GLN:HG2 | 2.20 | 0.42 |
| 8:O:544:TYR:HA | 8:O:547:HIS:HB2 | 2.01 | 0.42 |
| 8:O:700:ILE:CG2 | 8:O:701:GLN:N | 2.81 | 0.42 |
| 9:P:3:VAL:HG12 | 9:P:63:THR:C | 2.40 | 0.42 |
| 12:V:181:VAL:HG23 | 12:V:184:LEU:CD1 | 2.50 | 0.42 |
| 1:A:81:SER:OG | 1:A:387:ASN:HB2 | 2.19 | 0.41 |
| 1:A:100:LEU:O | 1:A:114:ALA:HB1 | 2.20 | 0.41 |
| 1:A:214:LEU:HG | 1:A:215:SER:H | 1.85 | 0.41 |
| 1:A:300:LYS:HG3 | 1:A:337:PHE:HE1 | 1.82 | 0.41 |
| 2:B:135:THR:O | 2:B:139:LEU:HG | 2.20 | 0.41 |
| 2:B:244:MET:O | 2:B:248:GLU:N | 2.53 | 0.41 |
| 2:B:274:THR:HA | 2:B:277:LEU:HG | 2.01 | 0.41 |
| 2:B:329:ILE:O | 2:B:332:THR:HB | 2.20 | 0.41 |
| 2:B:351:LEU:HA | 2:B:354:ILE:CG1 | 2.49 | 0.41 |
| 2:B:412:ASP:OD1 | 2:B:413:HIS:N | 2.53 | 0.41 |
| 3:C:134:ASN:H | 3:C:137:GLN:CD | 2.23 | 0.41 |
| 4:D:12:LEU:HD22 | 4:D:25:LYS:CB | 2.41 | 0.41 |
| 4:D:169:ASN:HB2 | 11:R:75:CYS:C | 2.41 | 0.41 |
| 4:D:181:GLU:HA | 4:D:184:GLN:OE1 | 2.20 | 0.41 |
| 4:D:385:LEU:O | 4:D:388:ILE:HG12 | 2.19 | 0.41 |
| 5:E:63:LEU:HD11 | 6:F:46:LEU:HB3 | 2.01 | 0.41 |
| 6:F:51:ILE:HG12 | 6:F:125:TYR:CE1 | 2.55 | 0.41 |
| 6:F:238:ILE:HG22 | 13:G:174:LEU:CD1 | 2.44 | 0.41 |
| 6:F:254:HIS:CE1 | 13:G:44:GLY:HA2 | 2.53 | 0.41 |
| 7:H:141:VAL:HG21 | 7:H:160:ARG:HH12 | 1.85 | 0.41 |
| 8:O:110:THR:CG2 | 10:Q:28:THR:CB | 2.91 | 0.41 |
| 8:O:168:LYS:HZ2 | 8:O:218:TYR:HB2 | 1.85 | 0.41 |
| 8:O:226:LEU:HD13 | 8:O:238:LYS:CB | 2.50 | 0.41 |
| 8:O:275:LEU:O | 8:O:278:LEU:HG | 2.20 | 0.41 |
| 8:O:344:LEU:HD11 | 8:O:418:PHE:CE1 | 2.54 | 0.41 |
| 8:O:441:LYS:O | 8:O:444:ILE:HB | 2.20 | 0.41 |
| 8:O:443:LEU:HD11 | 8:O:480:MET:HE2 | 2.01 | 0.41 |
| 8:O:482:VAL:HA | 8:O:485:ASP:CB | 2.50 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:508:GLN:NE2 | 8:O:559:LEU:HD12 | 2.28 | 0.41 |
| 8:O:718:ILE:CG2 | 8:O:719:LYS:H | 2.33 | 0.41 |
| 8:O:718:ILE:CG2 | 8:O:719:LYS:N | 2.80 | 0.41 |
| 9:P:43:ARG:HG2 | 9:P:88:LEU:CD1 | 2.32 | 0.41 |
| 9:P:100:PRO:HG2 | 10:Q:84:THR:HB | 2.02 | 0.41 |
| 10:Q:91:LEU:CB | 12:V:184:LEU:HD13 | 2.46 | 0.41 |
| 12:V:84:VAL:CB | 12:V:101:LEU:HD12 | 2.50 | 0.41 |
| 12:V:87:VAL:HB | 12:V:118:LEU:HG | 2.01 | 0.41 |
| 1:A:79:ASN:HA | 1:A:80:PRO:HD3 | 1.95 | 0.41 |
| 1:A:423:HIS:HE1 | 1:A:457:SER:O | 2.03 | 0.41 |
| 2:B:130:GLU:O | 2:B:133:GLU:HG3 | 2.20 | 0.41 |
| 2:B:156:GLY:HA3 | 2:B:200:LEU:HD13 | 2.02 | 0.41 |
| 2:B:172:LEU:CD2 | 2:B:197:ILE:HG12 | 2.49 | 0.41 |
| 2:B:175:LEU:HD13 | 2:B:197:ILE:HD11 | 2.03 | 0.41 |
| 3:C:23:GLN:HE21 | 3:C:27:LEU:CD2 | 2.32 | 0.41 |
| 3:C:77:LEU:HA | 3:C:80:GLN:CG | 2.50 | 0.41 |
| 3:C:136:ASN:CB | 3:C:161:TYR:HA | 2.50 | 0.41 |
| 3:C:306:ASN:HA | 3:C:309:ARG:CZ | 2.51 | 0.41 |
| 4:D:60:VAL:CG1 | 4:D:63:ARG:HD2 | 2.38 | 0.41 |
| 4:D:139:TYR:O | 4:D:144:LYS:HE2 | 2.19 | 0.41 |
| 5:E:238:LEU:O | 5:E:241:LEU:HB3 | 2.20 | 0.41 |
| 5:E:241:LEU:CD2 | 6:F:200:VAL:HG11 | 2.50 | 0.41 |
| 5:E:254:SER:HB3 | 5:E:320:SER:OG | 2.20 | 0.41 |
| 5:E:256:LEU:HD12 | 5:E:257:THR:N | 2.35 | 0.41 |
| 5:E:323:ILE:CB | 13:G:188:ILE:CD1 | 2.68 | 0.41 |
| 6:F:33:CYS:N | 6:F:183:PHE:O | 2.51 | 0.41 |
| 7:H:35:PRO:HA | 7:H:68:ASN:ND2 | 2.35 | 0.41 |
| 7:H:55:TYR:HB3 | 7:H:59:ARG:NH1 | 2.35 | 0.41 |
| 7:H:61:PRO:O | 7:H:65:LYS:N | 2.44 | 0.41 |
| 8:O:16:LYS:HD3 | 8:O:40:SER:OG | 2.19 | 0.41 |
| 8:O:117:LYS:HB3 | 8:O:117:LYS:HE2 | 1.83 | 0.41 |
| 8:O:180:VAL:O | 8:O:184:VAL:HG23 | 2.20 | 0.41 |
| 8:O:505:ILE:HG22 | 11:R:27:TRP:CD2 | 2.56 | 0.41 |
| 8:O:512:LEU:H | 11:R:32:LEU:HB3 | 1.85 | 0.41 |
| 8:O:611:THR:HA | 8:O:629:LYS:O | 2.20 | 0.41 |
| 8:O:621:LYS:HB2 | 8:O:643:ASN:HB3 | 2.02 | 0.41 |
| 11:R:44:ILE:HG22 | 11:R:55:GLU:OE1 | 2.20 | 0.41 |
| 12:V:89:LEU:CB | 12:V:198:LEU:HD22 | 2.49 | 0.41 |
| 12:V:89:LEU:CA | 12:V:198:LEU:HD22 | 2.50 | 0.41 |
| 12:V:101:LEU:HA | 12:V:105:THR:HG21 | 2.01 | 0.41 |
| 12:V:121:ASP:H | 12:V:128:LEU:CD1 | 2.32 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 12:V:180:ILE:HB | 12:V:184:LEU:HB3 | 2.03 | 0.41 |
| 13:G:100:THR:CG2 | 13:G:120:LEU:CD2 | 2.95 | 0.41 |
| 1:A:245:SER:HA | 1:A:248:LEU:CD1 | 2.46 | 0.41 |
| 2:B:71:ALA:HA | 2:B:74:GLN:HG2 | 2.00 | 0.41 |
| 2:B:98:TYR:O | 2:B:103:VAL:HG21 | 2.20 | 0.41 |
| 2:B:163:GLU:OE1 | 2:B:204:MET:HA | 2.20 | 0.41 |
| 3:C:117:PRO:HB2 | 3:C:151:LEU:HB2 | 2.02 | 0.41 |
| 3:C:139:THR:H | 3:C:142:HIS:CE1 | 2.38 | 0.41 |
| 4:D:5:VAL:CG2 | 4:D:32:LYS:HD3 | 2.48 | 0.41 |
| 4:D:11:GLN:O | 4:D:14:ASN:HB2 | 2.19 | 0.41 |
| 4:D:54:ASN:O | 4:D:57:VAL:HB | 2.20 | 0.41 |
| 4:D:155:TYR:HB2 | 4:D:164:ALA:HB2 | 2.01 | 0.41 |
| 4:D:195:LEU:HD13 | 4:D:204:ALA:CA | 2.50 | 0.41 |
| 5:E:77:VAL:CG1 | 5:E:100:VAL:HG22 | 2.39 | 0.41 |
| 5:E:249:THR:OG1 | 6:F:225:HIS:CD2 | 2.74 | 0.41 |
| 5:E:330:GLN:HE21 | 6:F:268:PRO:HG3 | 1.85 | 0.41 |
| 6:F:41:VAL:HB | 6:F:120:GLU:OE2 | 2.20 | 0.41 |
| 6:F:72:LEU:HD12 | 6:F:123:GLY:HA3 | 2.01 | 0.41 |
| 6:F:238:ILE:HA | 6:F:241:TYR:HB3 | 2.01 | 0.41 |
| 7:H:100:GLU:H | 7:H:104:PRO:CG | 2.33 | 0.41 |
| 7:H:148:ILE:CD1 | 7:H:149:LEU:HG | 2.50 | 0.41 |
| 7:H:197:LEU:HB2 | 13:G:188:ILE:HA | 1.93 | 0.41 |
| 8:O:249:ARG:HA | 8:O:252:LYS:CD | 2.50 | 0.41 |
| 8:O:563:GLU:HB2 | 8:O:582:MET:HE1 | 2.02 | 0.41 |
| 8:O:720:LYS:HA | 8:O:723:GLU:HG3 | 2.02 | 0.41 |
| 9:P:1:MET:N | 9:P:20:GLU:HB3 | 2.35 | 0.41 |
| 9:P:6:MET:SD | 9:P:13:THR:HG23 | 2.60 | 0.41 |
| 9:P:52:ASP:O | 9:P:55:LYS:HB2 | 2.20 | 0.41 |
| 12:V:78:ASN:ND2 | 12:V:102:PRO:O | 2.53 | 0.41 |
| 13:G:113:TYR:CD2 | 13:G:150:GLN:OE1 | 2.74 | 0.41 |
| 1:A:357:GLU:HA | 1:A:363:ARG:HH12 | 1.82 | 0.41 |
| 2:B:18:LEU:CB | 8:O:648:ARG:HD2 | 2.47 | 0.41 |
| 2:B:192:THR:CG2 | 8:O:474:HIS:CD2 | 2.99 | 0.41 |
| 2:B:192:THR:HB | 2:B:230:HIS:CE1 | 2.55 | 0.41 |
| 2:B:357:GLN:HG3 | 2:B:360:ILE:HD12 | 2.02 | 0.41 |
| 4:D:2:ALA:HB1 | 4:D:43:GLU:CB | 2.50 | 0.41 |
| 4:D:81:ALA:CA | 4:D:84:ILE:HD12 | 2.39 | 0.41 |
| 4:D:124:ALA:HA | 4:D:127:LEU:HD12 | 2.01 | 0.41 |
| 4:D:287:PRO:HA | 4:D:290:LYS:CG | 2.51 | 0.41 |
| 4:D:367:LEU:HD22 | 4:D:370:TRP:CE3 | 2.55 | 0.41 |
| 4:D:383:ASN:O | 4:D:387:LYS:HB2 | 2.21 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:E:123:ASN:O | 5:E:126:GLN:HB2 | 2.19 | 0.41 |
| 5:E:159:GLN:O | 5:E:163:GLU:HB2 | 2.20 | 0.41 |
| 5:E:194:LYS:CG | 5:E:195:PRO:HD2 | 2.51 | 0.41 |
| 5:E:313:GLU:O | 5:E:316:HIS:HB2 | 2.20 | 0.41 |
| 5:E:319:MET:HE3 | 7:H:200:LEU:HB3 | 2.02 | 0.41 |
| 5:E:333:ILE:HG23 | 6:F:265:HIS:HA | 2.02 | 0.41 |
| 7:H:117:ALA:HB1 | 7:H:136:PHE:HB3 | 2.03 | 0.41 |
| 8:O:20:THR:CG2 | 8:O:38:ARG:HG2 | 2.40 | 0.41 |
| 8:O:243:LEU:CD1 | 8:O:267:GLN:HG2 | 2.48 | 0.41 |
| 8:O:527:PHE:HE2 | 11:R:27:TRP:CZ2 | 2.38 | 0.41 |
| 8:O:567:ASN:HA | 11:R:23:GLU:CD | 2.28 | 0.41 |
| 8:O:572:PRO:HD2 | 8:O:573:TYR:CE1 | 2.55 | 0.41 |
| 8:O:623:ILE:HD11 | 8:O:638:PHE:CD1 | 2.55 | 0.41 |
| 8:O:712:ASN:HA | 8:O:713:PRO:HD2 | 1.81 | 0.41 |
| 9:P:1:MET:CB | 9:P:20:GLU:HB3 | 2.48 | 0.41 |
| 9:P:8:ARG:CD | 9:P:91:GLU:HB3 | 2.50 | 0.41 |
| 9:P:9:ARG:HG3 | 9:P:77:LEU:HD22 | 2.01 | 0.41 |
| 12:V:165:VAL:HG22 | 12:V:169:LEU:HD12 | 2.02 | 0.41 |
| 13:G:75:TYR:CE2 | 13:G:79:ILE:HD11 | 2.56 | 0.41 |
| 13:G:140:ILE:HG12 | 13:G:158:ILE:HB | 2.02 | 0.41 |
| 1:A:192:SER:CA | 1:A:197:ILE:HD11 | 2.49 | 0.41 |
| 1:A:301:GLN:NE2 | 1:A:304:LYS:HD3 | 2.35 | 0.41 |
| 2:B:33:GLU:HA | 2:B:36:TYR:CD2 | 2.55 | 0.41 |
| 2:B:116:LEU:HD11 | 2:B:154:LYS:HE3 | 2.02 | 0.41 |
| 2:B:167:LYS:O | 2:B:171:ILE:HG13 | 2.20 | 0.41 |
| 2:B:274:THR:HA | 2:B:277:LEU:CG | 2.51 | 0.41 |
| 2:B:375:SER:OG | 2:B:380:ILE:O | 2.39 | 0.41 |
| 2:B:443:ALA:HB1 | 3:C:244:TYR:HB2 | 2.01 | 0.41 |
| 3:C:101:ALA:HB1 | 3:C:140:SER:HB3 | 2.02 | 0.41 |
| 3:C:176:TYR:OH | 3:C:181:PHE:HB2 | 2.19 | 0.41 |
| 3:C:186:TYR:CZ | 3:C:222:GLU:HB3 | 2.55 | 0.41 |
| 3:C:286:PHE:HE1 | 3:C:295:VAL:H | 1.69 | 0.41 |
| 4:D:198:ARG:HA | 4:D:198:ARG:NE | 2.36 | 0.41 |
| 4:D:240:GLN:CG | 4:D:244:ARG:HH12 | 2.32 | 0.41 |
| 4:D:324:LEU:HB3 | 4:D:336:GLU:OE2 | 2.20 | 0.41 |
| 4:D:373:GLN:HA | 4:D:376:SER:HB3 | 2.01 | 0.41 |
| 4:D:389:SER:OG | 4:D:393:PRO:CB | 2.52 | 0.41 |
| 4:D:395:TRP:HZ2 | 6:F:244:ALA:HB1 | 1.82 | 0.41 |
| 5:E:36:GLN:HB3 | 5:E:84:LYS:HB2 | 2.03 | 0.41 |
| 5:E:185:ALA:O | 5:E:224:LEU:N | 2.53 | 0.41 |
| 5:E:279:GLN:CD | 5:E:298:ASP:CA | 2.89 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 5:E:331:ILE:H | 6:F:268:PRO:HB3 | 1.86 | 0.41 |
| 6:F:132:ASP:H | 6:F:135:ASP:HB2 | 1.85 | 0.41 |
| 7:H:201:THR:HG22 | 13:G:195:ALA:CB | 2.18 | 0.41 |
| 8:O:68:HIS:CD2 | 8:O:72:LEU:HD11 | 2.55 | 0.41 |
| 8:O:76:VAL:HB | 8:O:155:LEU:HD21 | 2.03 | 0.41 |
| 8:O:92:GLU:O | 8:O:96:LYS:HG3 | 2.20 | 0.41 |
| 8:O:131:ASP:HB2 | 8:O:135:PRO:CA | 2.50 | 0.41 |
| 8:O:301:LEU:HB3 | 8:O:311:MET:SD | 2.60 | 0.41 |
| 8:O:510:TYR:HD1 | 8:O:510:TYR:HA | 1.75 | 0.41 |
| 9:P:51:LEU:HD22 | 9:P:60:CYS:SG | 2.60 | 0.41 |
| 9:P:93:PHE:HB3 | 10:Q:51:SER:C | 2.40 | 0.41 |
| 10:Q:82:ILE:HD12 | 12:V:162:CYS:SG | 2.60 | 0.41 |
| 11:R:41:ASN:H | 11:R:49:ILE:CB | 2.26 | 0.41 |
| 13:G:78:TYR:CD1 | 13:G:82:LYS:HA | 2.54 | 0.41 |
| 1:A:85:GLU:HG3 | 1:A:117:MET:HE2 | 2.03 | 0.41 |
| 1:A:183:THR:HG22 | 1:A:187:ASN:HD21 | 1.86 | 0.41 |
| 1:A:388:LEU:HB3 | 1:A:398:VAL:HG23 | 2.02 | 0.41 |
| 2:B:78:ILE:O | 2:B:82:LEU:HB2 | 2.20 | 0.41 |
| 2:B:330:LEU:HD23 | 2:B:333:ASN:ND2 | 2.25 | 0.41 |
| 3:C:193:THR:HA | 3:C:198:PHE:CE1 | 2.56 | 0.41 |
| 4:D:2:ALA:HA | 4:D:44:ALA:CB | 2.32 | 0.41 |
| 4:D:6:ARG:NE | 4:D:43:GLU:HG2 | 2.26 | 0.41 |
| 4:D:15:SER:HG | 4:D:25:LYS:NZ | 2.14 | 0.41 |
| 4:D:149:LEU:HD21 | 4:D:187:TYR:HA | 2.00 | 0.41 |
| 4:D:382:ASN:HB3 | 6:F:234:ARG:HE | 1.86 | 0.41 |
| 5:E:26:ASP:O | 5:E:30:LYS:HG3 | 2.20 | 0.41 |
| 5:E:244:LYS:HD3 | 6:F:233:SER:CB | 2.50 | 0.41 |
| 6:F:43:LEU:HD13 | 6:F:84:MET:CB | 2.50 | 0.41 |
| 6:F:47:VAL:HG12 | 6:F:86:SER:C | 2.41 | 0.41 |
| 6:F:83:VAL:HG11 | 6:F:152:LEU:HD12 | 2.02 | 0.41 |
| 6:F:276:LYS:O | 6:F:279:PHE:HB3 | 2.19 | 0.41 |
| 7:H:43:LEU:HA | 7:H:46:LEU:CD1 | 2.39 | 0.41 |
| 7:H:117:ALA:CA | 7:H:120:LEU:HB3 | 2.49 | 0.41 |
| 7:H:126:THR:HA | 7:H:166:LYS:HZ3 | 1.86 | 0.41 |
| 7:H:197:LEU:HB3 | 13:G:191:GLN:HB2 | 2.01 | 0.41 |
| 8:O:93:GLU:HA | 8:O:96:LYS:HE2 | 2.02 | 0.41 |
| 8:O:118:LEU:HD22 | 8:O:131:ASP:CG | 2.40 | 0.41 |
| 8:O:148:ARG:HB3 | 8:O:191:VAL:CG1 | 2.35 | 0.41 |
| 8:O:152:VAL:O | 8:O:156:GLN:HB2 | 2.20 | 0.41 |
| 8:O:385:CYS:O | 8:O:389:GLU:HG3 | 2.21 | 0.41 |
| 8:O:396:ASP:HA | 8:O:442:ARG:CZ | 2.50 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:429:ASP:OD1 | 8:O:430:VAL:N | 2.51 | 0.41 |
| 8:O:439:LEU:HD13 | 8:O:442:ARG:NH1 | 2.36 | 0.41 |
| 8:O:696:HIS:NE2 | 8:O:719:LYS:CG | 2.83 | 0.41 |
| 10:Q:81:GLU:HA | 12:V:161:ARG:CZ | 2.50 | 0.41 |
| 12:V:60:ARG:NH1 | 12:V:64:ARG:HB2 | 2.34 | 0.41 |
| 12:V:113:ARG:HG3 | 12:V:138:PRO:HG2 | 2.01 | 0.41 |
| 13:G:123:ARG:HA | 13:G:123:ARG:HH11 | 1.85 | 0.41 |
| 13:G:140:ILE:CG2 | 13:G:141:ILE:N | 2.83 | 0.41 |
| 1:A:342:LEU:HD23 | 1:A:346:VAL:HG21 | 2.02 | 0.41 |
| 2:B:130:GLU:OE1 | 2:B:130:GLU:N | 2.47 | 0.41 |
| 2:B:167:LYS:C | 2:B:170:LYS:HG3 | 2.40 | 0.41 |
| 2:B:194:LEU:HD23 | 2:B:224:ILE:CD1 | 2.51 | 0.41 |
| 2:B:221:SER:O | 2:B:224:ILE:HG13 | 2.20 | 0.41 |
| 3:C:59:LEU:CD2 | 3:C:77:LEU:HD11 | 2.51 | 0.41 |
| 4:D:97:ILE:CA | 4:D:100:GLU:HB2 | 2.48 | 0.41 |
| 4:D:141:VAL:HG12 | 4:D:178:SER:HB2 | 2.01 | 0.41 |
| 4:D:200:LYS:HE2 | 4:D:200:LYS:CA | 2.51 | 0.41 |
| 4:D:247:ALA:HA | 4:D:268:TYR:CE1 | 2.55 | 0.41 |
| 4:D:319:ILE:CG1 | 4:D:323:GLU:HG3 | 2.51 | 0.41 |
| 4:D:342:MET:O | 4:D:348:MET:HB3 | 2.20 | 0.41 |
| 5:E:120:TYR:HA | 6:F:111:GLN:OE1 | 2.20 | 0.41 |
| 5:E:200:PRO:CD | 5:E:222:TYR:HB2 | 2.51 | 0.41 |
| 6:F:72:LEU:HD13 | 6:F:150:LEU:HD22 | 2.02 | 0.41 |
| 6:F:234:ARG:O | 6:F:237:LEU:HB2 | 2.21 | 0.41 |
| 6:F:242:VAL:CG2 | 6:F:256:ILE:HD12 | 2.40 | 0.41 |
| 7:H:107:GLU:HA | 7:H:110:ARG:NE | 2.33 | 0.41 |
| 7:H:148:ILE:HD12 | 7:H:149:LEU:N | 2.36 | 0.41 |
| 8:O:76:VAL:HG11 | 8:O:155:LEU:HD21 | 2.03 | 0.41 |
| 8:O:178:GLN:CB | 8:O:252:LYS:HD3 | 2.51 | 0.41 |
| 8:O:204:GLN:HA | 8:O:208:GLU:CB | 2.41 | 0.41 |
| 8:O:309:PRO:O | 8:O:313:GLN:HG3 | 2.20 | 0.41 |
| 8:O:310:HIS:O | 8:O:314:GLU:HG2 | 2.20 | 0.41 |
| 8:O:362:GLN:OE1 | 8:O:365:MET:HG3 | 2.21 | 0.41 |
| 8:O:644:PHE:CD2 | 8:O:650:LYS:HA | 2.55 | 0.41 |
| 12:V:74:VAL:CG2 | 12:V:139:SER:C | 2.87 | 0.41 |
| 12:V:117:TRP:HB3 | 12:V:136:PHE:HB3 | 2.01 | 0.41 |
| 12:V:175:TYR:HB3 | 12:V:189:GLU:CD | 2.41 | 0.41 |
| 1:A:109:THR:O | 1:A:110:LEU:HD23 | 2.21 | 0.41 |
| 1:A:215:SER:HB2 | 1:A:219:LYS:NZ | 2.34 | 0.41 |
| 1:A:277:GLN:NE2 | 1:A:281:ILE:HB | 2.32 | 0.41 |
| 1:A:286:LYS:HE3 | 1:A:308:LEU:CB | 2.47 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:340:GLN:O | 1:A:344:ARG:HG3 | 2.20 | 0.41 |
| 1:A:394:LEU:CD1 | 1:A:398:VAL:HA | 2.50 | 0.41 |
| 2:B:214:LEU:O | 2:B:217:LEU:HB2 | 2.19 | 0.41 |
| 2:B:265:TYR:HH | 2:B:272:ARG:H | 1.57 | 0.41 |
| 2:B:294:PHE:CE2 | 2:B:303:LYS:HD3 | 2.55 | 0.41 |
| 3:C:122:GLY:HA2 | 3:C:125:LYS:CD | 2.50 | 0.41 |
| 3:C:206:GLU:HG3 | 3:C:242:PRO:CG | 2.49 | 0.41 |
| 3:C:262:GLU:CG | 3:C:278:LEU:HD13 | 2.50 | 0.41 |
| 3:C:378:GLN:HA | 3:C:381:LEU:HG | 2.02 | 0.41 |
| 3:C:400:ASN:ND2 | 6:F:312:LEU:HG | 2.26 | 0.41 |
| 4:D:13:MET:HA | 4:D:26:TYR:OH | 2.20 | 0.41 |
| 4:D:352:ILE:HG22 | 4:D:353:ASP:C | 2.41 | 0.41 |
| 5:E:204:GLN:O | 5:E:206:ILE:HG12 | 2.20 | 0.41 |
| 5:E:316:HIS:C | 6:F:220:HIS:HE2 | 2.21 | 0.41 |
| 6:F:57:ARG:CZ | 6:F:88:GLU:HB3 | 2.51 | 0.41 |
| 6:F:101:ASP:O | 6:F:104:TYR:HB3 | 2.20 | 0.41 |
| 8:O:45:LEU:HD23 | 8:O:45:LEU:HA | 1.93 | 0.41 |
| 8:O:106:ARG:HH12 | 10:Q:27:PRO:HA | 1.79 | 0.41 |
| 8:O:110:THR:CG2 | 10:Q:28:THR:HG23 | 2.49 | 0.41 |
| 8:O:123:LEU:HD12 | 8:O:127:TYR:HE1 | 1.85 | 0.41 |
| 8:O:219:TYR:O | 8:O:270:MET:HG2 | 2.21 | 0.41 |
| 8:O:291:LYS:HG2 | 8:O:294:MET:HB3 | 2.02 | 0.41 |
| 8:O:321:ASP:O | 8:O:325:ARG:HG3 | 2.21 | 0.41 |
| 8:O:350:PHE:HB3 | 8:O:368:LEU:HD11 | 2.02 | 0.41 |
| 8:O:368:LEU:O | 8:O:372:LEU:HB2 | 2.20 | 0.41 |
| 8:O:527:PHE:HE2 | 11:R:27:TRP:HH2 | 1.68 | 0.41 |
| 8:O:528:ALA:C | 8:O:529:ILE:N | 2.74 | 0.41 |
| 8:O:554:THR:HG22 | 8:O:555:TRP:N | 2.33 | 0.41 |
| 8:O:577:VAL:HB | 8:O:581:GLN:OE1 | 2.21 | 0.41 |
| 9:P:24:VAL:O | 9:P:27:LEU:HB3 | 2.20 | 0.41 |
| 9:P:93:PHE:CE1 | 10:Q:55:GLU:CB | 2.90 | 0.41 |
| 11:R:41:ASN:HA | 11:R:49:ILE:CB | 2.50 | 0.41 |
| 12:V:73:GLN:HB3 | 12:V:140:LEU:C | 2.41 | 0.41 |
| 13:G:28:THR:CA | 13:G:31:ILE:CG2 | 2.99 | 0.41 |
| 1:A:81:SER:H | 1:A:390:LEU:HD11 | 1.85 | 0.41 |
| 1:A:92:SER:HB3 | 1:A:96:ARG:NH2 | 2.36 | 0.41 |
| 1:A:142:THR:HG22 | 1:A:146:GLN:HG3 | 2.02 | 0.41 |
| 1:A:280:ALA:O | 1:A:283:THR:N | 2.54 | 0.41 |
| 1:A:376:SER:HA | 1:A:379:LYS:HB3 | 2.02 | 0.41 |
| 1:A:378:LEU:HA | 1:A:381:LEU:HB3 | 2.01 | 0.41 |
| 1:A:440:LEU:O | 1:A:444:ILE:HG13 | 2.21 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:504:SER:HA | 3:C:215:ALA:CA | 2.50 | 0.41 |
| 2:B:6:ASP:CG | 2:B:77:LYS:NZ | 2.72 | 0.41 |
| 2:B:47:PRO:O | 2:B:51:LEU:HG | 2.21 | 0.41 |
| 2:B:72:LEU:HD12 | 2:B:95:LEU:CD2 | 2.50 | 0.41 |
| 2:B:132:TYR:O | 2:B:136:LEU:HG | 2.21 | 0.41 |
| 2:B:153:THR:HG23 | 2:B:196:GLU:CG | 2.50 | 0.41 |
| 2:B:169:GLN:HA | 2:B:172:LEU:CG | 2.50 | 0.41 |
| 2:B:215:LYS:HE3 | 2:B:215:LYS:HB3 | 1.83 | 0.41 |
| 2:B:259:PHE:CD1 | 2:B:296:SER:HB2 | 2.54 | 0.41 |
| 2:B:300:LYS:HD3 | 2:B:300:LYS:H | 1.86 | 0.41 |
| 2:B:306:PRO:HA | 2:B:309:LEU:HD21 | 2.02 | 0.41 |
| 2:B:370:HIS:ND1 | 2:B:408:LEU:HD21 | 2.36 | 0.41 |
| 2:B:418:GLY:O | 2:B:422:THR:HG23 | 2.08 | 0.41 |
| 3:C:28:ILE:HG22 | 3:C:61:VAL:CG2 | 2.50 | 0.41 |
| 3:C:33:GLU:C | 3:C:64:VAL:HG13 | 2.42 | 0.41 |
| 3:C:71:VAL:HB | 3:C:72:PRO:HD2 | 2.01 | 0.41 |
| 3:C:112:VAL:HG22 | 3:C:151:LEU:HD11 | 2.03 | 0.41 |
| 3:C:135:THR:H | 3:C:137:GLN:HG3 | 1.86 | 0.41 |
| 3:C:135:THR:H | 3:C:137:GLN:NE2 | 2.18 | 0.41 |
| 3:C:199:GLU:N | 3:C:234:LEU:HD22 | 2.36 | 0.41 |
| 3:C:206:GLU:HB2 | 3:C:227:TYR:HE1 | 1.83 | 0.41 |
| 3:C:310:LEU:HD12 | 3:C:326:VAL:CG2 | 2.50 | 0.41 |
| 3:C:353:GLN:NE2 | 7:H:129:ILE:HD12 | 2.36 | 0.41 |
| 3:C:390:LEU:HD13 | 6:F:302:MET:N | 2.36 | 0.41 |
| 4:D:153:ARG:HH22 | 4:D:186:HIS:CA | 2.34 | 0.41 |
| 4:D:213:TYR:O | 4:D:215:THR:N | 2.54 | 0.41 |
| 4:D:235:LEU:HD21 | 4:D:281:PHE:HE2 | 1.85 | 0.41 |
| 4:D:243:SER:HA | 4:D:246:LEU:HD12 | 2.03 | 0.41 |
| 4:D:275:GLY:CA | 4:D:278:LEU:HB3 | 2.50 | 0.41 |
| 4:D:281:PHE:CZ | 4:D:285:LEU:HD21 | 2.55 | 0.41 |
| 4:D:328:LEU:CB | 4:D:330:ILE:HG12 | 2.47 | 0.41 |
| 4:D:352:ILE:HG23 | 4:D:358:ILE:O | 2.21 | 0.41 |
| 4:D:384:LEU:CD2 | 6:F:259:GLU:HB3 | 2.51 | 0.41 |
| 5:E:63:LEU:HD21 | 6:F:47:VAL:N | 2.36 | 0.41 |
| 5:E:250:LEU:N | 6:F:228:ILE:CD1 | 2.64 | 0.41 |
| 5:E:294:ARG:HD2 | 5:E:294:ARG:C | 2.41 | 0.41 |
| 5:E:328:PHE:CZ | 6:F:224:GLN:HB3 | 2.56 | 0.41 |
| 6:F:32:ALA:O | 6:F:182:LEU:HD22 | 2.20 | 0.41 |
| 6:F:64:ARG:O | 6:F:66:VAL:HG23 | 2.20 | 0.41 |
| 6:F:90:LEU:HD21 | 6:F:92:HIS:NE2 | 2.36 | 0.41 |
| 7:H:24:GLU:HA | 7:H:32:ALA:CB | 2.43 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 7:H:56:LEU:HG | 7:H:60:ILE:HG12 | 2.03 | 0.41 |
| 8:O:38:ARG:HA | 8:O:41:ASP:CB | 2.50 | 0.41 |
| 8:O:39:PHE:HD2 | 10:Q:39:GLU:CD | 2.24 | 0.41 |
| 8:O:44:ALA:HA | 8:O:47:VAL:HG12 | 2.03 | 0.41 |
| 8:O:50:PRO:HB2 | 8:O:54:GLY:N | 2.35 | 0.41 |
| 8:O:87:TYR:HE2 | 8:O:151:MET:HA | 1.85 | 0.41 |
| 8:O:107:TYR:HB2 | 10:Q:32:MET:HG2 | 1.01 | 0.41 |
| 8:O:148:ARG:HA | 8:O:151:MET:HE2 | 2.03 | 0.41 |
| 8:O:164:LEU:HD21 | 8:O:210:PRO:HB2 | 2.03 | 0.41 |
| 8:O:211:PHE:HZ | 8:O:259:TYR:CB | 2.33 | 0.41 |
| 8:O:312:ILE:HD12 | 8:O:312:ILE:H | 1.85 | 0.41 |
| 8:O:316:GLN:N | 8:O:367:ALA:HB1 | 2.35 | 0.41 |
| 8:O:319:ILE:HB | 8:O:371:ALA:HB3 | 2.03 | 0.41 |
| 8:O:379:ARG:CD | 8:O:387:ALA:HB2 | 2.32 | 0.41 |
| 8:O:550:GLY:O | 11:R:34:ALA:HB3 | 2.20 | 0.41 |
| 8:O:553:LEU:HD13 | 11:R:31:ALA:HA | 1.86 | 0.41 |
| 8:O:555:TRP:HZ3 | 11:R:29:ALA:CA | 2.31 | 0.41 |
| 8:O:556:LEU:O | 11:R:30:VAL:CG2 | 2.67 | 0.41 |
| 8:O:564:VAL:CB | 11:R:19:LYS:NZ | 2.84 | 0.41 |
| 8:O:620:VAL:HG13 | 8:O:644:PHE:HD1 | 1.86 | 0.41 |
| 8:O:663:GLN:O | 8:O:667:GLN:HG2 | 2.20 | 0.41 |
| 11:R:41:ASN:HA | 11:R:49:ILE:HA | 2.03 | 0.41 |
| 11:R:44:ILE:HG13 | 11:R:83:CYS:CB | 2.51 | 0.41 |
| 13:G:15:PHE:CE1 | 13:G:34:VAL:HA | 2.56 | 0.41 |
| 13:G:64:LEU:HD12 | 13:G:67:LEU:CD2 | 2.50 | 0.41 |
| 13:G:69:LEU:CD1 | 13:G:74:THR:N | 2.84 | 0.41 |
| 13:G:164:LYS:HG2 | 13:G:165:LYS:H | 1.86 | 0.41 |
| 1:A:102:PHE:CD2 | 1:A:392:MET:HG3 | 2.56 | 0.41 |
| 1:A:247:TYR:HA | 1:A:319:LEU:HD22 | 2.02 | 0.41 |
| 2:B:25:ASN:O | 2:B:28:PRO:HG2 | 2.21 | 0.41 |
| 2:B:119:ILE:HG22 | 2:B:119:ILE:O | 2.21 | 0.41 |
| 2:B:441:LYS:HE2 | 2:B:441:LYS:HA | 2.02 | 0.41 |
| 3:C:127:ALA:HA | 3:C:130:LYS:HB2 | 2.03 | 0.41 |
| 3:C:205:TYR:CD1 | 3:C:223:SER:HA | 2.56 | 0.41 |
| 4:D:73:LEU:HB2 | 4:D:85:TYR:OH | 2.21 | 0.41 |
| 4:D:212:SER:HA | 4:D:222:ARG:CA | 2.51 | 0.41 |
| 4:D:266:LYS:HD2 | 4:D:272:ILE:O | 2.21 | 0.41 |
| 5:E:49:HIS:CD2 | 5:E:190:PRO:HG2 | 2.56 | 0.41 |
| 5:E:205:THR:CG2 | 5:E:302:LYS:CG | 2.91 | 0.41 |
| 5:E:252:SER:N | 6:F:221:LEU:HA | 2.30 | 0.41 |
| 6:F:46:LEU:HG | 6:F:49:LEU:HB2 | 2.02 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:F:46:LEU:HA | 6:F:49:LEU:HD12 | 2.01 | 0.41 |
| 6:F:140:LYS:HE3 | 6:F:140:LYS:HB3 | 1.96 | 0.41 |
| 6:F:274:LYS:O | 6:F:277:THR:HB | 2.21 | 0.41 |
| 7:H:89:ILE:O | 7:H:92:THR:OG1 | 2.37 | 0.41 |
| 7:H:125:TYR:CB | 7:H:128:ILE:HB | 2.51 | 0.41 |
| 7:H:197:LEU:HD23 | 7:H:197:LEU:HA | 1.88 | 0.41 |
| 8:O:25:VAL:C | 8:O:27:LEU:H | 2.24 | 0.41 |
| 8:O:151:MET:SD | 8:O:188:PHE:HA | 2.61 | 0.41 |
| 8:O:178:GLN:HB2 | 8:O:252:LYS:CG | 2.51 | 0.41 |
| 8:O:235:TYR:CE1 | 8:O:239:VAL:HG21 | 2.55 | 0.41 |
| 8:O:288:GLN:O | 8:O:288:GLN:HG3 | 2.20 | 0.41 |
| 8:O:354:ILE:HG23 | 8:O:358:LEU:HB3 | 2.03 | 0.41 |
| 8:O:395:CYS:HB3 | 8:O:435:TYR:CZ | 2.56 | 0.41 |
| 8:O:567:ASN:HD21 | 11:R:19:LYS:HB3 | 1.21 | 0.41 |
| 8:O:608:LYS:CA | 8:O:611:THR:HG22 | 2.47 | 0.41 |
| 8:O:610:LEU:HA | 8:O:613:THR:OG1 | 2.21 | 0.41 |
| 9:P:37:ARG:HA | 9:P:38:PRO:HD3 | 1.94 | 0.41 |
| 12:V:60:ARG:CB | 12:V:91:PHE:HB3 | 2.47 | 0.41 |
| 12:V:101:LEU:HD22 | 12:V:105:THR:HG22 | 2.03 | 0.41 |
| 12:V:113:ARG:CG | 12:V:139:SER:OG | 2.69 | 0.41 |
| 12:V:162:CYS:HB3 | 12:V:188:LEU:CD2 | 2.50 | 0.41 |
| 13:G:112:PRO:CA | 13:G:151:LEU:CD2 | 2.98 | 0.41 |
| 1:A:208:TYR:CA | 1:A:213:ASP:HB2 | 2.51 | 0.40 |
| 1:A:215:SER:O | 1:A:219:LYS:HD3 | 2.21 | 0.40 |
| 1:A:243:LYS:HA | 1:A:246:VAL:CG2 | 2.51 | 0.40 |
| 1:A:250:ASN:CB | 1:A:254:VAL:HG21 | 2.51 | 0.40 |
| 1:A:307:LEU:O | 1:A:307:LEU:HD22 | 2.21 | 0.40 |
| 1:A:353:LYS:CA | 1:A:356:LEU:HD12 | 2.48 | 0.40 |
| 1:A:388:LEU:HA | 1:A:394:LEU:HD23 | 2.03 | 0.40 |
| 1:A:433:VAL:O | 1:A:433:VAL:HG12 | 2.20 | 0.40 |
| 1:A:437:GLU:O | 1:A:440:LEU:HB2 | 2.21 | 0.40 |
| 1:A:444:ILE:CG1 | 1:A:449:ILE:HG21 | 2.42 | 0.40 |
| 1:A:492:ARG:NH1 | 3:C:211:THR:HA | 2.36 | 0.40 |
| 1:A:497:ARG:O | 1:A:499:GLN:HG2 | 2.21 | 0.40 |
| 2:B:12:ASP:O | 2:B:16:TYR:HD2 | 2.03 | 0.40 |
| 2:B:89:MET:CG | 2:B:93:LYS:HE3 | 2.37 | 0.40 |
| 2:B:205:TYR:CZ | 2:B:214:LEU:HG | 2.55 | 0.40 |
| 2:B:323:ILE:CD1 | 2:B:358:VAL:HG21 | 2.51 | 0.40 |
| 2:B:323:ILE:CG1 | 2:B:358:VAL:HG21 | 2.51 | 0.40 |
| 2:B:378:LEU:CB | 2:B:380:ILE:HG12 | 2.50 | 0.40 |
| 2:B:443:ALA:C | 3:C:244:TYR:HB3 | 2.41 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:C:78:PHE:CE2 | 3:C:119:ARG:HG2 | 2.55 | 0.40 |
| 3:C:128:ILE:HG22 | 3:C:132:GLN:NE2 | 2.36 | 0.40 |
| 3:C:249:VAL:HG12 | 3:C:254:LYS:HB2 | 2.03 | 0.40 |
| 4:D:54:ASN:ND2 | 4:D:56:ASN:HD22 | 2.16 | 0.40 |
| 4:D:156:LEU:HD12 | 4:D:193:ARG:HD3 | 2.02 | 0.40 |
| 4:D:211:LEU:HA | 4:D:214:LYS:CD | 2.50 | 0.40 |
| 4:D:238:ALA:HB2 | 4:D:300:LEU:HD12 | 2.03 | 0.40 |
| 4:D:316:TYR:N | 13:G:144:LYS:HE2 | 2.36 | 0.40 |
| 4:D:384:LEU:HD11 | 6:F:259:GLU:CB | 2.51 | 0.40 |
| 5:E:58:SER:OG | 5:E:93:MET:HA | 2.21 | 0.40 |
| 5:E:171:ASP:OD2 | 5:E:174:ARG:HG3 | 2.21 | 0.40 |
| 5:E:203:TYR:CD1 | 5:E:214:PHE:HE2 | 2.39 | 0.40 |
| 5:E:245:TYR:O | 5:E:248:ASN:HB2 | 2.20 | 0.40 |
| 5:E:247:VAL:CA | 6:F:225:HIS:ND1 | 2.81 | 0.40 |
| 5:E:330:GLN:NE2 | 5:E:331:ILE:O | 2.54 | 0.40 |
| 6:F:73:ILE:HG12 | 6:F:85:ASN:CB | 2.50 | 0.40 |
| 6:F:150:LEU:HD23 | 6:F:151:PHE:N | 2.37 | 0.40 |
| 6:F:225:HIS:CA | 6:F:228:ILE:HD12 | 2.47 | 0.40 |
| 7:H:28:PRO:HB3 | 7:H:31:ILE:H | 1.86 | 0.40 |
| 7:H:119:ALA:HA | 7:H:122:SER:OG | 2.21 | 0.40 |
| 8:O:101:MET:HE1 | 8:O:139:ILE:HG12 | 2.01 | 0.40 |
| 8:O:106:ARG:NH1 | 10:Q:30:LYS:HB3 | 2.36 | 0.40 |
| 8:O:302:ARG:HG3 | 8:O:361:ASP:OD1 | 2.21 | 0.40 |
| 8:O:610:LEU:HD23 | 8:O:631:ASP:CA | 2.51 | 0.40 |
| 13:G:41:TYR:CD2 | 13:G:160:ARG:CD | 3.01 | 0.40 |
| 1:A:135:HIS:HB2 | 1:A:162:LEU:HB3 | 2.03 | 0.40 |
| 1:A:277:GLN:CG | 1:A:281:ILE:HD12 | 2.52 | 0.40 |
| 1:A:293:GLU:CD | 1:A:298:LYS:HD2 | 2.42 | 0.40 |
| 2:B:128:LEU:O | 2:B:131:PHE:HB2 | 2.21 | 0.40 |
| 2:B:193:GLN:O | 2:B:197:ILE:HG13 | 2.21 | 0.40 |
| 2:B:196:GLU:OE2 | 2:B:200:LEU:HG | 2.21 | 0.40 |
| 2:B:233:ILE:HG22 | 2:B:233:ILE:O | 2.22 | 0.40 |
| 2:B:248:GLU:OE2 | 2:B:250:GLU:HB3 | 2.21 | 0.40 |
| 2:B:260:GLU:CG | 11:R:66:GLU:CD | 2.89 | 0.40 |
| 2:B:282:LEU:HD12 | 2:B:285:MET:SD | 2.61 | 0.40 |
| 2:B:298:GLU:HB3 | 2:B:301:PRO:HG2 | 2.02 | 0.40 |
| 2:B:314:LEU:HD22 | 2:B:326:PHE:HB3 | 2.01 | 0.40 |
| 2:B:323:ILE:HG23 | 2:B:354:ILE:CD1 | 2.51 | 0.40 |
| 2:B:368:ARG:HA | 2:B:411:LEU:HD23 | 2.03 | 0.40 |
| 3:C:150:LEU:HA | 3:C:155:PHE:CE1 | 2.56 | 0.40 |
| 3:C:326:VAL:O | 3:C:327:GLN:HB2 | 2.20 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 3:C:378:GLN:HA | 3:C:381:LEU:CG | 2.52 | 0.40 |
| 4:D:224:GLU:CD | 4:D:227:LYS:HD3 | 2.41 | 0.40 |
| 4:D:298:SER:N | 4:D:301:ASP:OD2 | 2.54 | 0.40 |
| 4:D:323:GLU:OE1 | 13:G:125:LEU:HD23 | 2.17 | 0.40 |
| 5:E:76:GLU:O | 5:E:100:VAL:HG23 | 2.21 | 0.40 |
| 5:E:82:LEU:HD21 | 5:E:121:ILE:HG12 | 2.04 | 0.40 |
| 6:F:57:ARG:HD3 | 6:F:88:GLU:OE1 | 2.21 | 0.40 |
| 6:F:150:LEU:HD11 | 6:F:167:VAL:CG1 | 2.52 | 0.40 |
| 7:H:121:VAL:HG13 | 7:H:128:ILE:HD13 | 2.03 | 0.40 |
| 8:O:17:LEU:HG | 8:O:21:ILE:CD1 | 2.50 | 0.40 |
| 8:O:53:LEU:HD12 | 8:O:53:LEU:H | 1.85 | 0.40 |
| 8:O:70:ARG:NE | 8:O:70:ARG:HA | 2.36 | 0.40 |
| 8:O:91:TRP:HB2 | 8:O:147:TRP:NE1 | 2.36 | 0.40 |
| 8:O:564:VAL:HG23 | 11:R:19:LYS:HZ3 | 1.85 | 0.40 |
| 8:O:611:THR:O | 8:O:615:LYS:HG3 | 2.20 | 0.40 |
| 11:R:84:ILE:HG21 | 11:R:101:TRP:CA | 2.44 | 0.40 |
| 11:R:97:ASP:HB3 | 11:R:99:ARG:CZ | 2.51 | 0.40 |
| 12:V:118:LEU:HG | 12:V:118:LEU:O | 2.22 | 0.40 |
| 13:G:41:TYR:HD2 | 13:G:160:ARG:CD | 2.35 | 0.40 |
| 13:G:142:GLN:OE1 | 13:G:155:ASP:HB2 | 2.21 | 0.40 |
| 13:G:188:ILE:HG13 | 13:G:189:GLU:N | 2.36 | 0.40 |
| 1:A:238:CYS:HB2 | 1:A:261:ALA:HB2 | 2.02 | 0.40 |
| 1:A:310:SER:OG | 1:A:311:PHE:N | 2.55 | 0.40 |
| 1:A:456:HIS:CE1 | 3:C:357:MET:HG3 | 2.57 | 0.40 |
| 2:B:14:GLU:HG3 | 2:B:65:GLY:HA2 | 2.03 | 0.40 |
| 3:C:126:GLN:H | 3:C:126:GLN:HG3 | 1.73 | 0.40 |
| 3:C:159:LEU:HD23 | 3:C:162:LEU:CD1 | 2.52 | 0.40 |
| 3:C:190:MET:CA | 3:C:226:LYS:HE2 | 2.48 | 0.40 |
| 3:C:217:SER:O | 3:C:221:LEU:HG | 2.21 | 0.40 |
| 3:C:343:GLU:HG2 | 3:C:344:ASP:OD1 | 2.21 | 0.40 |
| 4:D:81:ALA:O | 4:D:84:ILE:HB | 2.22 | 0.40 |
| 4:D:213:TYR:HA | 4:D:254:ARG:HH22 | 1.86 | 0.40 |
| 4:D:293:THR:HG21 | 4:D:302:ARG:HD3 | 2.03 | 0.40 |
| 5:E:231:SER:O | 5:E:234:ASP:HB2 | 2.21 | 0.40 |
| 5:E:255:LEU:CD1 | 5:E:321:GLN:HG3 | 2.44 | 0.40 |
| 5:E:311:THR:HG23 | 6:F:290:ALA:HB1 | 2.04 | 0.40 |
| 5:E:323:ILE:CD1 | 7:H:197:LEU:HD21 | 2.46 | 0.40 |
| 6:F:46:LEU:HA | 6:F:49:LEU:CD1 | 2.52 | 0.40 |
| 6:F:72:LEU:HB2 | 6:F:123:GLY:CA | 2.52 | 0.40 |
| 6:F:254:HIS:CG | 13:G:162:ILE:CD1 | 3.05 | 0.40 |
| 8:O:45:LEU:CD2 | 8:O:57:LEU:HD22 | 2.45 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:O:118:LEU:HB3 | 8:O:136:LEU:O | 2.21 | 0.40 |
| 8:O:208:GLU:HA | 8:O:211:PHE:CB | 2.49 | 0.40 |
| 8:O:220:LYS:HD2 | 8:O:220:LYS:HA | 1.78 | 0.40 |
| 8:O:505:ILE:CG2 | 11:R:27:TRP:CB | 2.87 | 0.40 |
| 8:O:610:LEU:HD21 | 8:O:638:PHE:HZ | 1.83 | 0.40 |
| 8:O:720:LYS:O | 11:R:46:ARG:HG3 | 2.21 | 0.40 |
| 9:P:8:ARG:NE | 9:P:91:GLU:HB3 | 2.35 | 0.40 |
| 9:P:80:ARG:H | 9:P:80:ARG:HD3 | 1.87 | 0.40 |
| 12:V:84:VAL:CG2 | 12:V:101:LEU:HD12 | 2.51 | 0.40 |
| 12:V:140:LEU:HD22 | 12:V:144:GLY:C | 2.42 | 0.40 |
| 12:V:205:ARG:NH2 | 12:V:206:ILE:HD11 | 2.36 | 0.40 |
| 1:A:444:ILE:HG12 | 1:A:449:ILE:CG2 | 2.41 | 0.40 |
| 2:B:71:ALA:HA | 2:B:74:GLN:HG3 | 2.04 | 0.40 |
| 2:B:93:LYS:O | 2:B:96:LEU:HB2 | 2.21 | 0.40 |
| 2:B:94:GLN:HA | 2:B:97:THR:CG2 | 2.52 | 0.40 |
| 2:B:195:LEU:N | 2:B:228:ILE:HD11 | 2.25 | 0.40 |
| 3:C:40:SER:CA | 3:C:43:ASP:HB3 | 2.49 | 0.40 |
| 3:C:138:LEU:H | 3:C:169:ILE:HG23 | 1.86 | 0.40 |
| 3:C:156:LYS:HA | 3:C:159:LEU:HG | 2.04 | 0.40 |
| 3:C:232:LEU:HD12 | 3:C:263:LEU:HD21 | 2.03 | 0.40 |
| 3:C:383:CYS:HB2 | 6:F:291:TYR:HE1 | 1.86 | 0.40 |
| 4:D:79:SER:O | 4:D:82:LYS:HB3 | 2.21 | 0.40 |
| 4:D:201:PHE:HB3 | 4:D:232:CYS:HB3 | 2.02 | 0.40 |
| 4:D:211:LEU:HB2 | 4:D:225:ALA:HB1 | 2.03 | 0.40 |
| 4:D:236:ALA:HB3 | 4:D:242:ARG:CG | 2.52 | 0.40 |
| 5:E:106:ARG:CB | 5:E:109:ALA:HB2 | 2.35 | 0.40 |
| 5:E:115:GLU:O | 5:E:118:ALA:HB3 | 2.21 | 0.40 |
| 5:E:159:GLN:NE2 | 5:E:165:PHE:O | 2.55 | 0.40 |
| 6:F:106:TYR:HA | 6:F:109:GLU:OE2 | 2.21 | 0.40 |
| 6:F:135:ASP:HB3 | 6:F:151:PHE:HZ | 1.86 | 0.40 |
| 6:F:154:LEU:HA | 6:F:164:PRO:O | 2.21 | 0.40 |
| 6:F:221:LEU:C | 6:F:225:HIS:HB2 | 2.42 | 0.40 |
| 6:F:274:LYS:N | 6:F:277:THR:OG1 | 2.43 | 0.40 |
| 7:H:122:SER:HA | 7:H:164:PRO:HB2 | 2.03 | 0.40 |
| 8:O:38:ARG:HG3 | 8:O:104:LEU:HD22 | 2.04 | 0.40 |
| 8:O:72:LEU:HD12 | 8:O:147:TRP:HZ3 | 1.87 | 0.40 |
| 8:O:118:LEU:CD2 | 8:O:136:LEU:H | 2.34 | 0.40 |
| 8:O:232:CYS:O | 8:O:236:MET:HG2 | 2.21 | 0.40 |
| 8:O:239:VAL:HG13 | 8:O:270:MET:CE | 2.51 | 0.40 |
| 8:O:291:LYS:HZ2 | 8:O:294:MET:HG2 | 1.86 | 0.40 |
| 8:O:574:VAL:CA | 11:R:19:LYS:HE3 | 2.45 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:O:688:MET:HE3 | 8:O:730:TYR:CB | 2.51 | 0.40 |
| 13:G:66:LEU:HD12 | 13:G:69:LEU:HD23 | 2.03 | 0.40 |
| 13:G:76:PRO:HB3 | 13:G:119:ASP:O | 2.22 | 0.40 |
| 13:G:96:LEU:CA | 13:G:99:LEU:HG | 2.49 | 0.40 |
| 13:G:110:CYS:HB2 | 13:G:151:LEU:CD1 | 2.49 | 0.40 |
| 13:G:140:ILE:CD1 | 13:G:157:CYS:HB2 | 2.52 | 0.40 |
| 13:G:182:GLU:CG | 13:G:183:ALA:N | 2.84 | 0.40 |
| 1:A:132:GLU:HA | 1:A:135:HIS:HB3 | 2.03 | 0.40 |
| 1:A:231:ALA:O | 1:A:235:ILE:HG13 | 2.22 | 0.40 |
| 1:A:277:GLN:HG3 | 1:A:281:ILE:HD12 | 2.03 | 0.40 |
| 1:A:414:PHE:CE1 | 1:A:460:LEU:HD23 | 2.57 | 0.40 |
| 2:B:5:GLU:HB3 | 2:B:8:PHE:CB | 2.44 | 0.40 |
| 2:B:212:LYS:HA | 2:B:215:LYS:CB | 2.52 | 0.40 |
| 4:D:31:GLU:HA | 4:D:34:ILE:CD1 | 2.44 | 0.40 |
| 4:D:52:MET:SD | 4:D:65:LEU:HD12 | 2.62 | 0.40 |
| 4:D:369:THR:HA | 4:D:372:LYS:HB2 | 2.03 | 0.40 |
| 5:E:247:VAL:O | 6:F:228:ILE:HG13 | 2.18 | 0.40 |
| 5:E:250:LEU:N | 6:F:225:HIS:HD1 | 2.07 | 0.40 |
| 5:E:325:ASP:CG | 5:E:329:ASN:HD22 | 2.21 | 0.40 |
| 6:F:217:VAL:CB | 13:G:192:VAL:HG21 | 2.32 | 0.40 |
| 6:F:257:LEU:CD1 | 13:G:162:ILE:CG2 | 2.99 | 0.40 |
| 8:O:4:LYS:HB2 | 8:O:5:PRO:HD2 | 2.03 | 0.40 |
| 8:O:182:HIS:HB2 | 8:O:252:LYS:O | 2.21 | 0.40 |
| 8:O:388:PRO:HB2 | 8:O:431:PHE:CD1 | 2.56 | 0.40 |
| 11:R:79:PHE:CD2 | 11:R:99:ARG:HB2 | 2.56 | 0.40 |
| 11:R:87:TRP:CB | 11:R:95:PRO:HB3 | 2.49 | 0.40 |

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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 | 415/491 (84%) | 340 (82%) | 75 (18%) | 0 | 100 | 100 |
| 2 | B | 423/443 (96%) | 367 (87%) | 52 (12%) | 4 (1%) | 17 | 57 |
| 3 | C | 396/403 (98%) | 328 (83%) | 68 (17%) | 0 | 100 | 100 |
| 4 | D | 395/406 (97%) | 337 (85%) | 58 (15%) | 0 | 100 | 100 |
| 5 | E | 302/334 (90%) | 240 (80%) | 56 (18%) | 6 (2%) | 7 | 38 |
| 6 | F | 271/308 (88%) | 224 (83%) | 47 (17%) | 0 | 100 | 100 |
| 7 | H | 166/209 (79%) | 147 (89%) | 19 (11%) | 0 | 100 | 100 |
| 8 | O | 733/745 (98%) | 588 (80%) | 135 (18%) | 10 (1%) | 11 | 46 |
| 9 | P | 101/105 (96%) | 76 (75%) | 21 (21%) | 4 (4%) | 3 | 23 |
| 10 | Q | 97/99 (98%) | 81 (84%) | 14 (14%) | 2 (2%) | 7 | 36 |
| 11 | R | 82/86 (95%) | 59 (72%) | 22 (27%) | 1 (1%) | 13 | 50 |
| 12 | V | 144/150 (96%) | 118 (82%) | 25 (17%) | 1 (1%) | 22 | 63 |
| 13 | G | 204/206 (99%) | 190 (93%) | 11 (5%) | 3 (2%) | 10 | 46 |
| All | All | 3729/3985 (94%) | 3095 (83%) | 603 (16%) | 31 (1%) | 24 | 60 |

All (31) Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 2 | B | 30 | VAL |
| 5 | E | 290 | GLU |
| 5 | E | 297 | GLU |
| 8 | O | 500 | VAL |
| 8 | O | 513 | GLN |
| 8 | O | 514 | ALA |
| 9 | P | 27 | LEU |
| 9 | P | 99 | LEU |
| 9 | P | 100 | PRO |
| 13 | G | 165 | LYS |
| 2 | B | 19 | GLU |
| 8 | O | 497 | GLN |
| 9 | P | 103 | MET |
| 10 | Q | 48 | GLN |
| 13 | G | 173 | THR |
| 2 | B | 21 | SER |
| 5 | E | 286 | MET |
| 8 | O | 81 | GLU |
| 8 | O | 232 | CYS |
| 8 | O | 496 | ASN |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 8 | O | 654 | THR |
| 12 | V | 139 | SER |
| 2 | B | 18 | LEU |
| 5 | E | 291 | THR |
| 10 | Q | 11 | LYS |
| 11 | R | 43 | ALA |
| 13 | G | 163 | ARG |
| 5 | E | 293 | ASP |
| 8 | O | 30 | VAL |
| 5 | E | 63 | LEU |
| 8 | O | 509 | ILE |

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 PDB entries followed by that with respect to all EM entries.

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 | 365/429 (85%) | 363 (100%) | 2 (0%) | 88 | 93 |
| 2 | B | 392/405 (97%) | 381 (97%) | 11 (3%) | 43 | 65 |
| 3 | C | 357/359 (99%) | 354 (99%) | 3 (1%) | 81 | 89 |
| 4 | D | 346/347 (100%) | 342 (99%) | 4 (1%) | 71 | 83 |
| 5 | E | 262/283 (93%) | 256 (98%) | 6 (2%) | 50 | 70 |
| 6 | F | 251/270 (93%) | 251 (100%) | 0 | 100 | 100 |
| 7 | H | 144/173 (83%) | 143 (99%) | 1 (1%) | 84 | 90 |
| 8 | O | 679/681 (100%) | 654 (96%) | 25 (4%) | 34 | 58 |
| 9 | P | 91/92 (99%) | 88 (97%) | 3 (3%) | 38 | 61 |
| 10 | Q | 90/90 (100%) | 84 (93%) | 6 (7%) | 16 | 41 |
| 11 | R | 73/75 (97%) | 73 (100%) | 0 | 100 | 100 |
| 12 | V | 138/138 (100%) | 136 (99%) | 2 (1%) | 67 | 80 |
| 13 | G | 179/179 (100%) | 174 (97%) | 5 (3%) | 43 | 65 |
| All | All | 3367/3521 (96%) | 3299 (98%) | 68 (2%) | 57 | 74 |

All (68) residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 424 | ARG |
| 1 | A | 463 | ARG |
| 2 | B | 110 | LYS |
| 2 | B | 140 | LYS |
| 2 | B | 162 | ARG |
| 2 | B | 167 | LYS |
| 2 | B | 170 | LYS |
| 2 | B | 173 | ARG |
| 2 | B | 225 | LYS |
| 2 | B | 361 | LYS |
| 2 | B | 368 | ARG |
| 2 | B | 396 | ASN |
| 2 | B | 429 | ASN |
| 3 | C | 119 | ARG |
| 3 | C | 312 | LYS |
| 3 | C | 341 | MET |
| 4 | D | 170 | ARG |
| 4 | D | 209 | ASN |
| 4 | D | 271 | ARG |
| 4 | D | 308 | ASN |
| 5 | E | 282 | ARG |
| 5 | E | 284 | SER |
| 5 | E | 291 | THR |
| 5 | E | 295 | LYS |
| 5 | E | 296 | SER |
| 5 | E | 298 | ASP |
| 7 | H | 116 | ARG |
| 8 | O | 27 | LEU |
| 8 | O | 28 | GLU |
| 8 | O | 31 | GLU |
| 8 | O | 32 | ARG |
| 8 | O | 67 | ASN |
| 8 | O | 114 | LYS |
| 8 | O | 251 | ARG |
| 8 | O | 311 | MET |
| 8 | O | 438 | MET |
| 8 | O | 492 | ASN |
| 8 | O | 493 | PHE |
| 8 | O | 494 | ILE |
| 8 | O | 495 | LYS |
| 8 | O | 496 | ASN |
| 8 | O | 502 | ASP |
| 8 | O | 503 | LEU |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 8 | O | 505 | ILE |
| 8 | O | 510 | TYR |
| 8 | O | 566 | MET |
| 8 | O | 657 | MET |
| 8 | O | 660 | ASP |
| 8 | O | 681 | GLN |
| 8 | O | 686 | ARG |
| 8 | O | 699 | LEU |
| 8 | O | 712 | ASN |
| 9 | P | 19 | LYS |
| 9 | P | 68 | ARG |
| 9 | P | 80 | ARG |
| 10 | Q | 24 | MET |
| 10 | Q | 28 | THR |
| 10 | Q | 38 | ARG |
| 10 | Q | 56 | LYS |
| 10 | Q | 64 | ASN |
| 10 | Q | 98 | SER |
| 12 | V | 67 | ASN |
| 12 | V | 182 | ARG |
| 13 | G | 12 | LEU |
| 13 | G | 123 | ARG |
| 13 | G | 140 | ILE |
| 13 | G | 164 | LYS |
| 13 | G | 172 | LYS |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (119) such sidechains are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 101 | GLN |
| 1 | A | 187 | ASN |
| 1 | A | 191 | ASN |
| 1 | A | 216 | ASN |
| 1 | A | 233 | HIS |
| 1 | A | 277 | GLN |
| 1 | A | 345 | ASN |
| 1 | A | 407 | ASN |
| 1 | A | 412 | GLN |
| 1 | A | 423 | HIS |
| 1 | A | 499 | GLN |
| 2 | B | 25 | ASN |
| 2 | B | 74 | GLN |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 2 | B | 79 | ASN |
| 2 | B | 106 | ASN |
| 2 | B | 113 | ASN |
| 2 | B | 144 | ASN |
| 2 | B | 169 | GLN |
| 2 | B | 230 | HIS |
| 2 | B | 255 | HIS |
| 2 | B | 264 | ASN |
| 2 | B | 284 | ASN |
| 2 | B | 292 | ASN |
| 2 | B | 297 | GLN |
| 2 | B | 313 | ASN |
| 2 | B | 320 | ASN |
| 2 | B | 321 | ASN |
| 2 | B | 333 | ASN |
| 2 | B | 357 | GLN |
| 2 | B | 396 | ASN |
| 2 | B | 406 | ASN |
| 2 | B | 413 | HIS |
| 2 | B | 429 | ASN |
| 3 | C | 23 | GLN |
| 3 | C | 82 | GLN |
| 3 | C | 109 | ASN |
| 3 | C | 136 | ASN |
| 3 | C | 137 | GLN |
| 3 | C | 207 | GLN |
| 3 | C | 277 | ASN |
| 3 | C | 280 | ASN |
| 3 | C | 340 | HIS |
| 3 | C | 400 | ASN |
| 3 | C | 402 | GLN |
| 4 | D | 19 | HIS |
| 4 | D | 56 | ASN |
| 4 | D | 86 | HIS |
| 4 | D | 176 | ASN |
| 4 | D | 288 | HIS |
| 4 | D | 341 | GLN |
| 4 | D | 360 | HIS |
| 4 | D | 373 | GLN |
| 4 | D | 375 | GLN |
| 4 | D | 383 | ASN |
| 5 | E | 35 | GLN |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 5 | E | 36 | GLN |
| 5 | E | 37 | GLN |
| 5 | E | 49 | HIS |
| 5 | E | 126 | GLN |
| 5 | E | 132 | ASN |
| 5 | E | 155 | GLN |
| 5 | E | 204 | GLN |
| 5 | E | 243 | ASN |
| 5 | E | 279 | GLN |
| 5 | E | 330 | GLN |
| 5 | E | 332 | ASN |
| 6 | F | 50 | ASN |
| 6 | F | 61 | GLN |
| 6 | F | 111 | GLN |
| 6 | F | 137 | HIS |
| 6 | F | 224 | GLN |
| 6 | F | 232 | HIS |
| 6 | F | 282 | GLN |
| 6 | F | 307 | ASN |
| 6 | F | 310 | ASN |
| 7 | H | 39 | GLN |
| 7 | H | 97 | GLN |
| 7 | H | 209 | ASN |
| 8 | O | 15 | ASN |
| 8 | O | 67 | ASN |
| 8 | O | 68 | HIS |
| 8 | O | 169 | ASN |
| 8 | O | 186 | ASN |
| 8 | O | 190 | HIS |
| 8 | O | 234 | GLN |
| 8 | O | 255 | HIS |
| 8 | O | 267 | GLN |
| 8 | O | 268 | GLN |
| 8 | O | 284 | ASN |
| 8 | O | 288 | GLN |
| 8 | O | 318 | HIS |
| 8 | O | 409 | ASN |
| 8 | O | 432 | GLN |
| 8 | O | 445 | HIS |
| 8 | O | 459 | ASN |
| 8 | O | 487 | ASN |
| 8 | O | 488 | ASN |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 8 | O | 491 | ASN |
| 8 | O | 513 | GLN |
| 8 | O | 521 | GLN |
| 8 | O | 538 | GLN |
| 8 | O | 589 | ASN |
| 8 | O | 625 | HIS |
| 8 | O | 658 | GLN |
| 8 | O | 681 | GLN |
| 8 | O | 701 | GLN |
| 8 | O | 706 | GLN |
| 8 | O | 712 | ASN |
| 10 | Q | 48 | GLN |
| 10 | Q | 62 | ASN |
| 11 | R | 76 | ASN |
| 12 | V | 67 | ASN |
| 13 | G | 14 | GLN |
| 13 | G | 65 | GLN |
| 13 | G | 124 | ASN |
| 13 | G | 191 | GLN |
| 13 | G | 197 | GLN |
| 13 | G | 202 | HIS |
| 13 | G | 206 | 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](#)

Of 1 ligands modelled in this entry, 1 is monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

| Mol | Chain | Number of breaks |
|-----|-------|------------------|
| 8 | O | 6 |
| 5 | E | 4 |
| 4 | D | 3 |
| 9 | P | 3 |
| 6 | F | 3 |
| 12 | V | 3 |
| 2 | B | 1 |
| 11 | R | 1 |
| 13 | G | 1 |

All chain breaks are listed below:

| Model | Chain | Residue-1 | Atom-1 | Residue-2 | Atom-2 | Distance (Å) |
|-------|-------|-----------|--------|-----------|--------|--------------|
| 1 | D | 315:LEU | C | 316:TYR | N | 14.37 |
| 1 | B | 192:THR | C | 193:GLN | N | 11.96 |
| 1 | O | 693:VAL | C | 694:LEU | N | 4.82 |
| 1 | P | 29:ARG | C | 30:ILE | N | 4.76 |
| 1 | D | 389:SER | C | 390:GLN | N | 3.72 |
| 1 | F | 246:GLU | C | 247:ALA | N | 3.58 |
| 1 | V | 146:PRO | C | 147:ILE | N | 3.56 |
| 1 | F | 273:ASP | C | 274:LYS | N | 3.54 |
| 1 | R | 35:TRP | C | 36:ASP | N | 3.26 |
| 1 | F | 249:GLU | C | 250:VAL | N | 3.22 |
| 1 | V | 207:ALA | C | 208:ALA | N | 3.09 |
| 1 | E | 281:GLY | C | 282:ARG | N | 2.97 |
| 1 | O | 657:MET | C | 658:GLN | N | 2.84 |

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| Model | Chain | Residue-1 | Atom-1 | Residue-2 | Atom-2 | Distance (Å) |
|-------|-------|-----------|--------|-----------|--------|--------------|
| 1 | O | 528:ALA | C | 529:ILE | N | 2.74 |
| 1 | O | 660:ASP | C | 661:THR | N | 2.61 |
| 1 | D | 386:GLU | C | 387:LYS | N | 2.55 |
| 1 | E | 294:ARG | C | 295:LYS | N | 2.54 |
| 1 | O | 503:LEU | C | 504:GLY | N | 2.24 |
| 1 | E | 298:ASP | C | 299:LYS | N | 2.18 |
| 1 | P | 99:LEU | C | 100:PRO | N | 1.61 |
| 1 | E | 289:LEU | C | 290:GLU | N | 1.17 |
| 1 | V | 206:ILE | C | 207:ALA | N | 1.10 |
| 1 | G | 172:LYS | C | 173:THR | N | 1.10 |
| 1 | P | 102:VAL | C | 103:MET | N | 0.83 |
| 1 | O | 499:THR | C | 500:VAL | N | 0.48 |

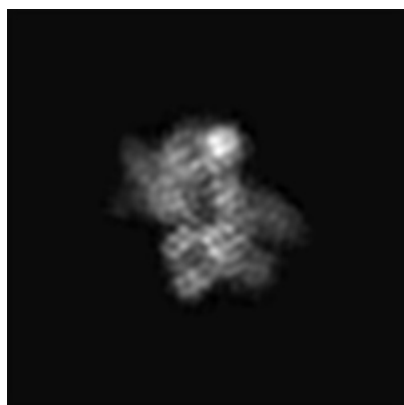
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-4736. These allow visual inspection of the internal detail of the map and identification of artifacts.

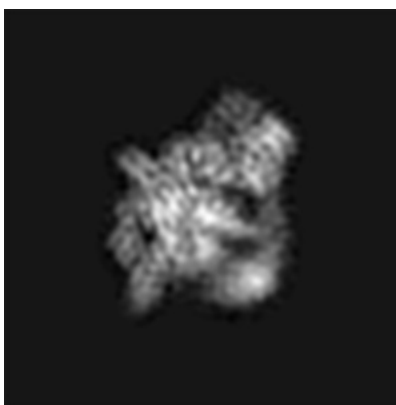
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

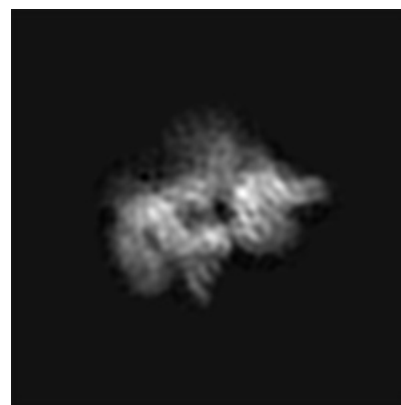
6.1.1 Primary map



X



Y



Z

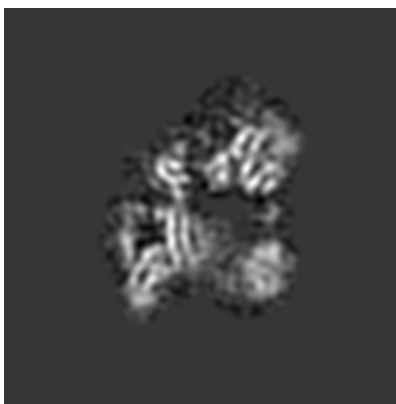
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

6.2.1 Primary map



X Index: 150



Y Index: 150



Z Index: 150

The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

6.3.1 Primary map



X Index: 179



Y Index: 159



Z Index: 191

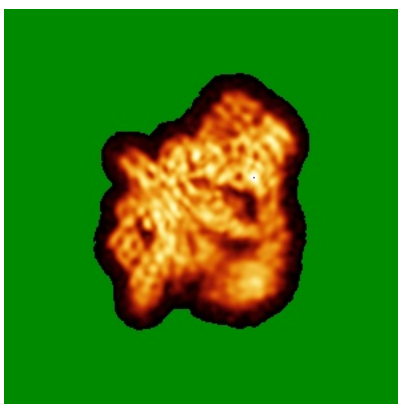
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

6.4.1 Primary map



X



Y

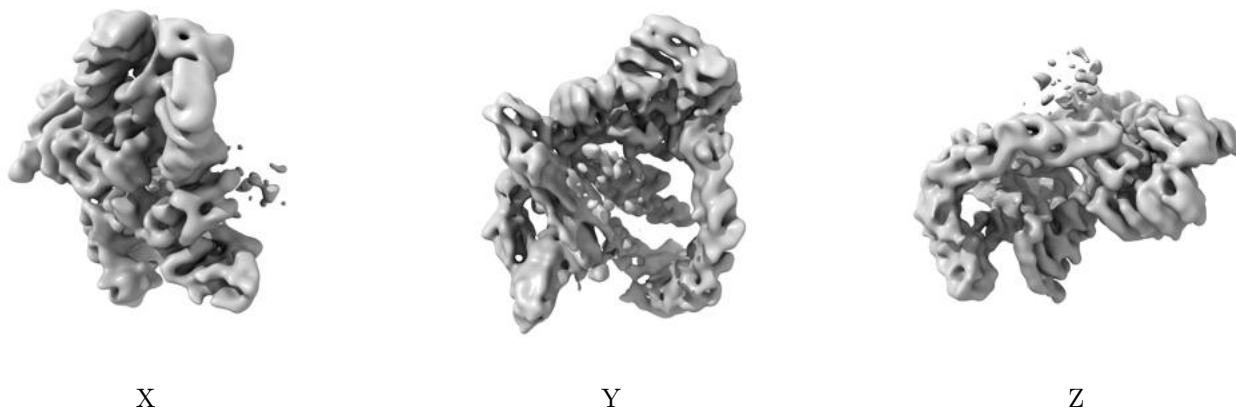


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 6.0. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

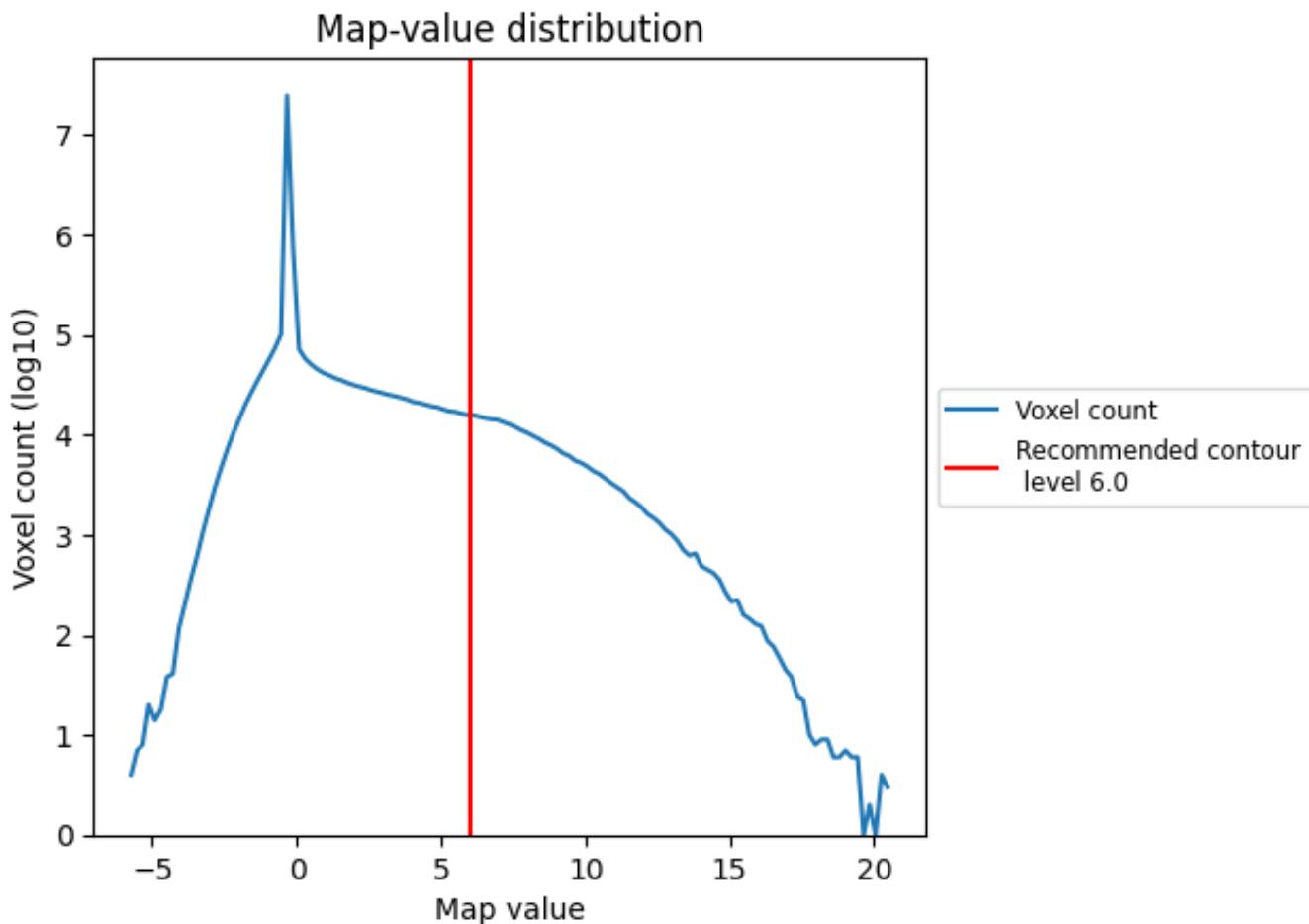
6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

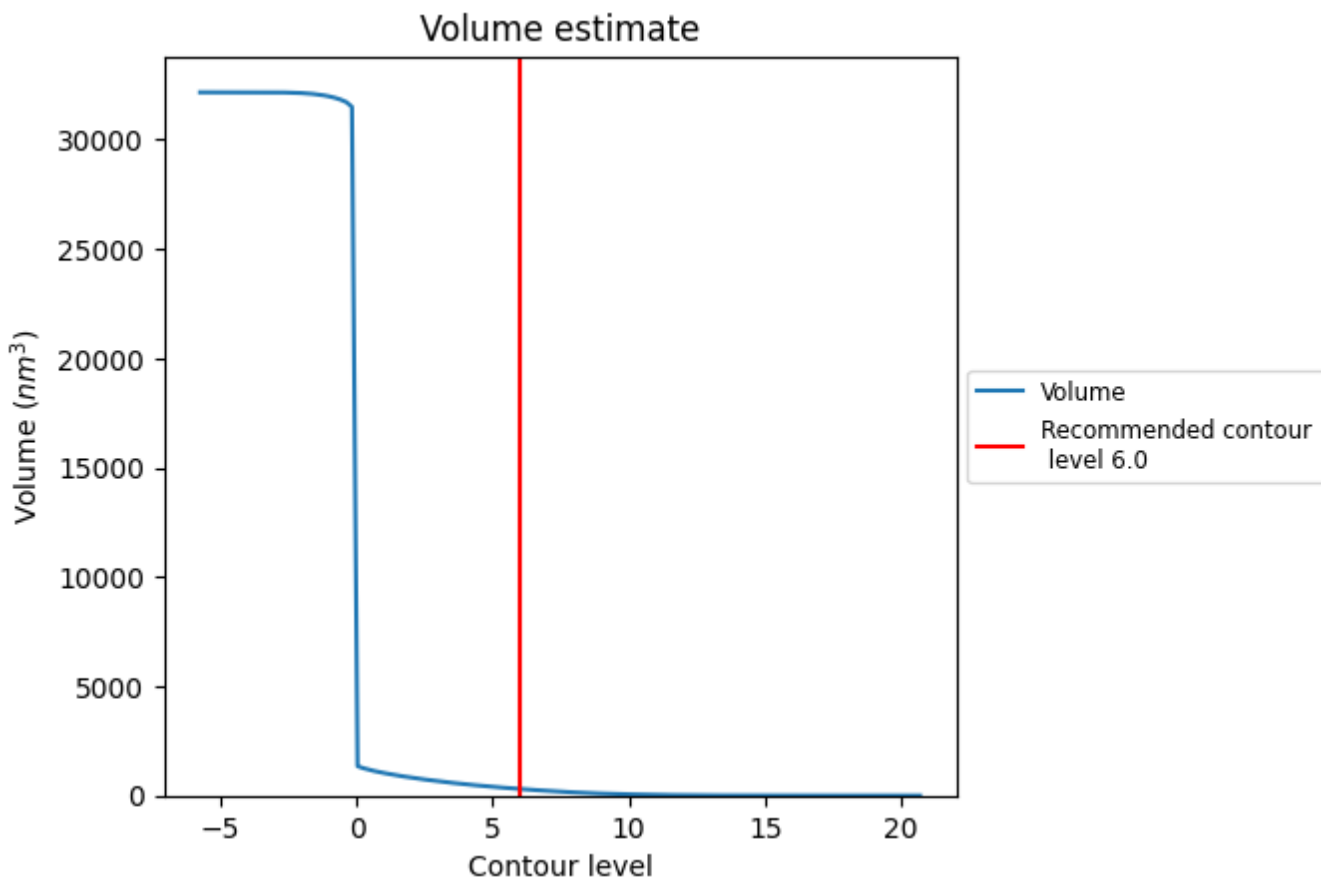
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

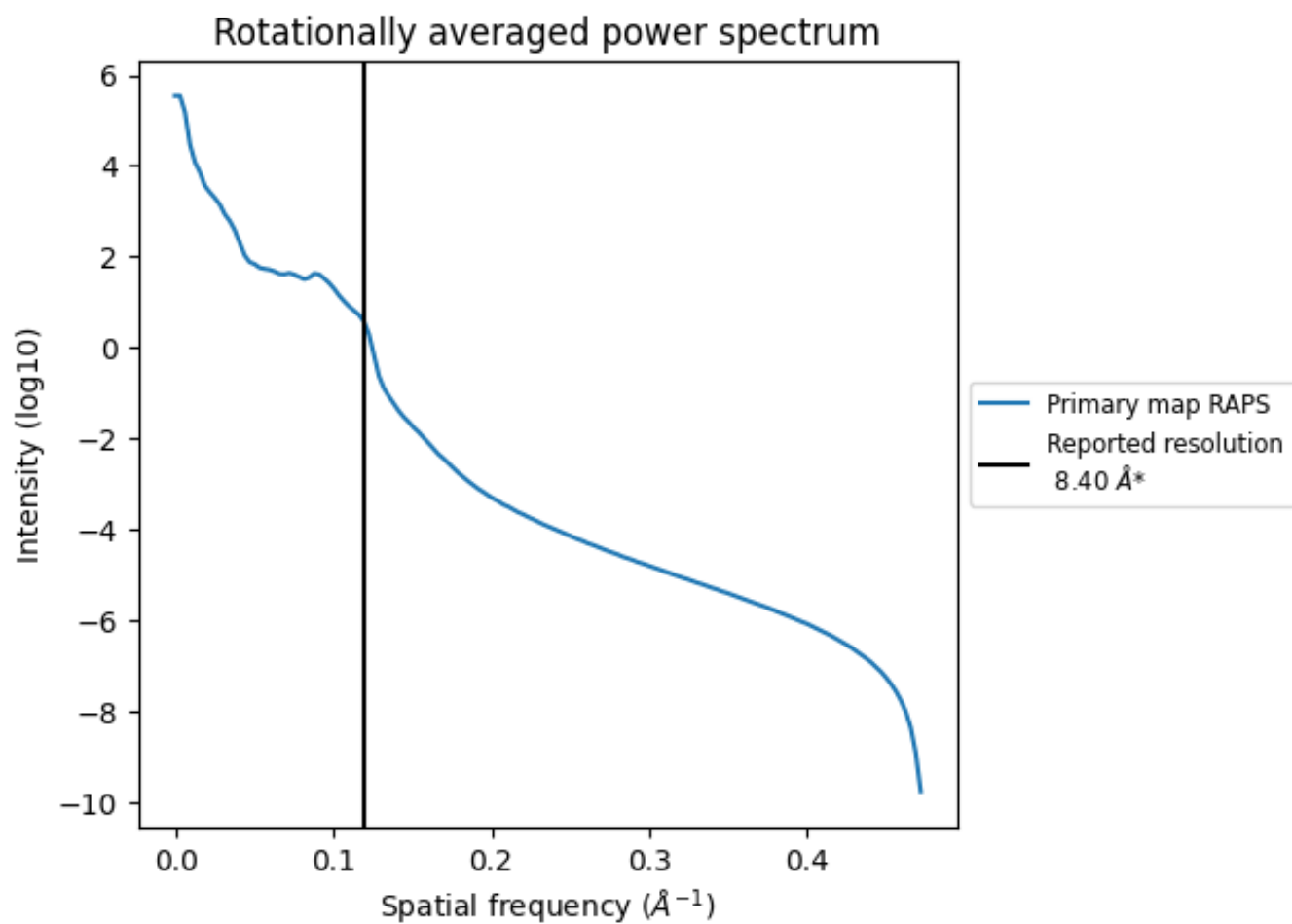
7.2 Volume estimate [\(i\)](#)



The volume at the recommended contour level is 302 nm^3 ; this corresponds to an approximate mass of 273 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum [\(i\)](#)



*Reported resolution corresponds to spatial frequency of 0.119 Å⁻¹

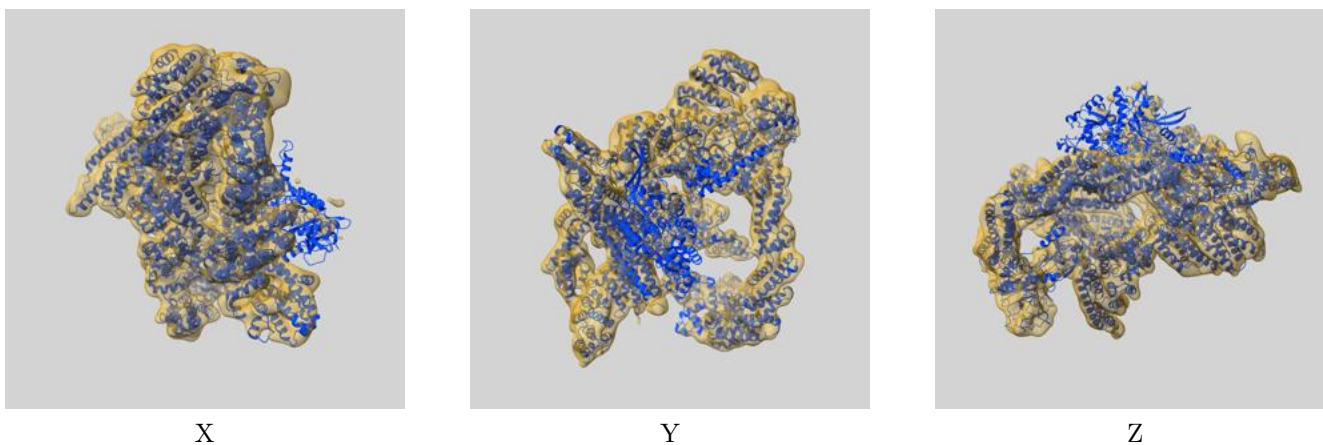
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit [i](#)

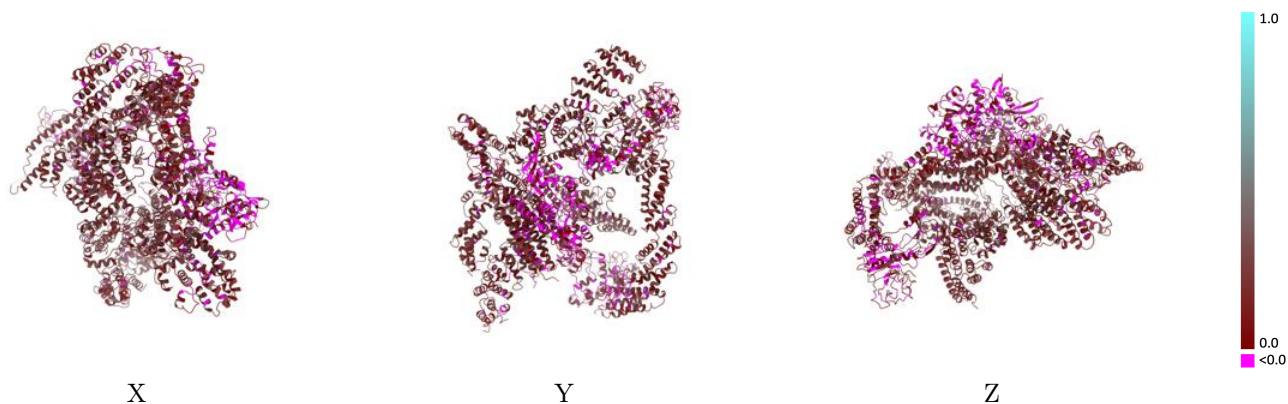
This section contains information regarding the fit between EMDB map EMD-4736 and PDB model 6R6H. Per-residue inclusion information can be found in section 3 on page 7.

9.1 Map-model overlay [i](#)



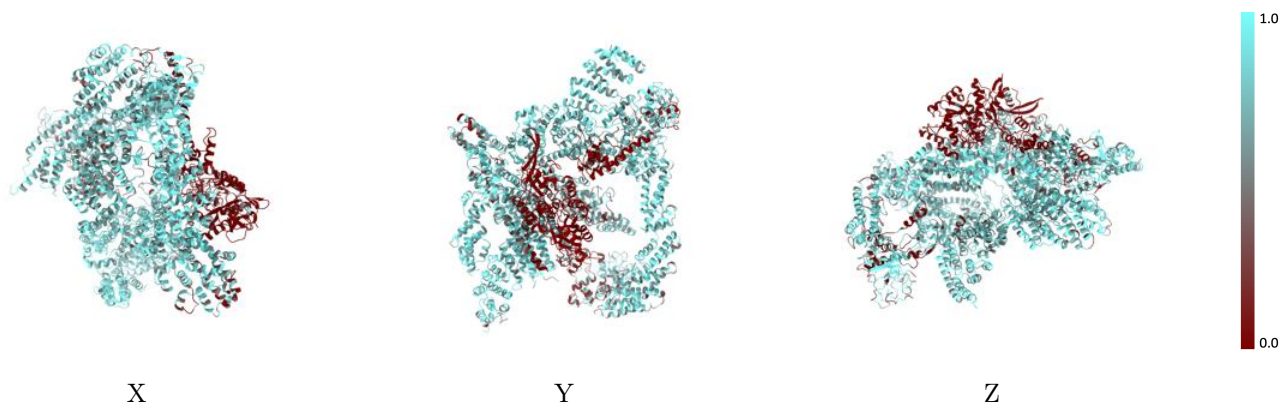
The images above show the 3D surface view of the map at the recommended contour level 6.0 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [\(i\)](#)



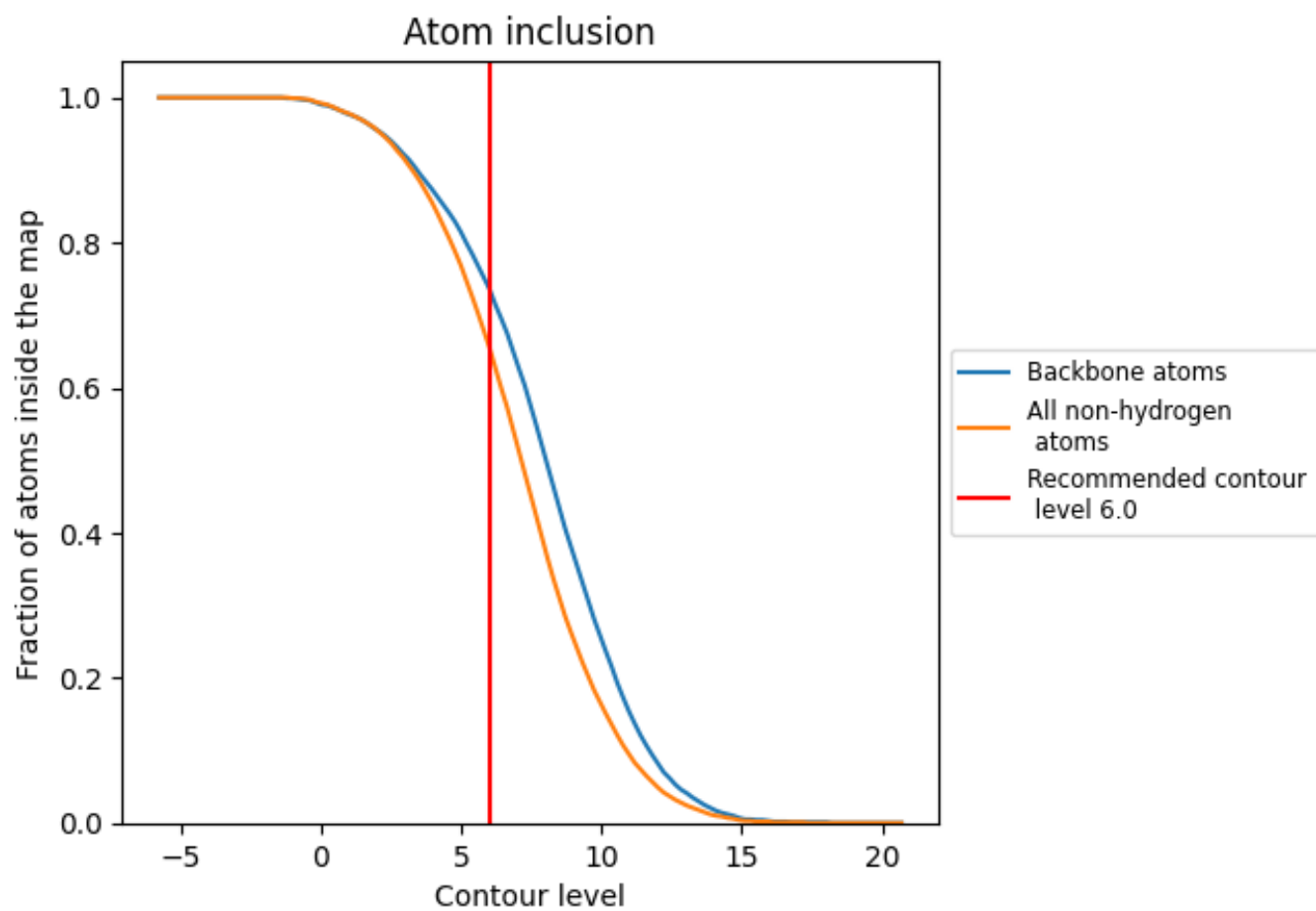
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [\(i\)](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (6.0).





























9.4 Atom inclusion [i](#)



At the recommended contour level, 74% of all backbone atoms, 66% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary [i](#)

The table lists the average atom inclusion at the recommended contour level (6.0) and Q-score for the entire model and for each chain.

| Chain | Atom inclusion | Q-score |
|-------|--|--|
| All |  0.6570 |  0.1460 |
| A |  0.7590 |  0.1950 |
| B |  0.7650 |  0.1810 |
| C |  0.8520 |  0.1870 |
| D |  0.8290 |  0.1940 |
| E |  0.1980 |  0.0600 |
| F |  0.3110 |  0.0510 |
| G |  0.6110 |  0.1550 |
| H |  0.8720 |  0.1880 |
| O |  0.6740 |  0.1360 |
| P |  0.6710 |  0.1300 |
| Q |  0.5680 |  0.0640 |
| R |  0.6130 |  0.0940 |
| V |  0.4750 |  0.1140 |

