



## Full wwPDB EM Validation Report ⓘ

Jun 26, 2025 – 02:51 PM JST

PDB ID : 5Y3R / pdb\_00005y3r  
EMDB ID : EMD-6803  
Title : Cryo-EM structure of Human DNA-PK Holoenzyme  
Authors : Yin, X.; Liu, M.; Tian, Y.; Wang, J.; Xu, Y.  
Deposited on : 2017-07-29  
Resolution : 6.60 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](mailto: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>.

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

EMDB validation analysis : 0.0.1.dev118  
MolProbity : 4-5-2 with Phenix2.0rc1  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.44

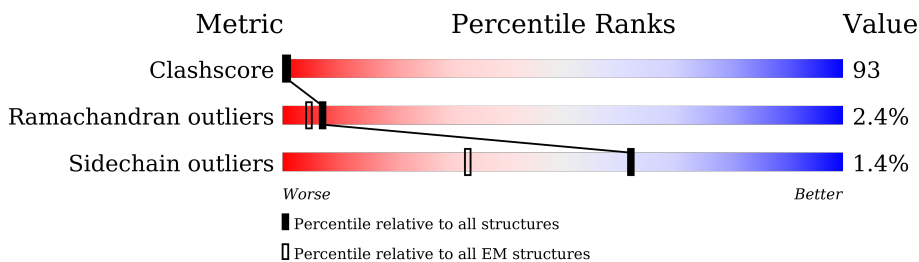
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 6.60 Å.

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



| Metric                | Whole archive<br>(#Entries) | EM structures<br>(#Entries) |
|-----------------------|-----------------------------|-----------------------------|
| Clashscore            | 210492                      | 15764                       |
| Ramachandran outliers | 207382                      | 16835                       |
| Sidechain outliers    | 206894                      | 16415                       |

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  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . 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     | 501    | <div> <div>9%</div> <div>12%</div> <div>82%</div> <div>..</div> </div>                 |
| 2   | B     | 536    | <div> <div>10%</div> <div>20%</div> <div>76%</div> <div>..</div> </div>                |
| 3   | K     | 15     | <div> <div>53%</div> <div>60%</div> <div>40%</div> </div>                              |
| 4   | D     | 34     | <div> <div>6%</div> <div>94%</div> </div>                                              |
| 5   | E     | 36     | <div> <div>100%</div> </div>                                                           |
| 6   | C     | 4119   | <div> <div>11%</div> <div>11%</div> <div>71%</div> <div>5%</div> <div>12%</div> </div> |

## 2 Entry composition [i](#)

There are 6 unique types of molecules in this entry. The entry contains 38766 atoms, of which 0 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 X-ray repair cross-complementing protein 6.

| Mol | Chain | Residues | Atoms |      |     |     |    | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 1   | A     | 493      | Total | C    | N   | O   | S  | 0       | 0     |
|     |       |          | 3982  | 2550 | 675 | 739 | 18 |         |       |

- Molecule 2 is a protein called X-ray repair cross-complementing protein 5.

| Mol | Chain | Residues | Atoms |      |     |     |    | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 2   | B     | 526      | Total | C    | N   | O   | S  | 0       | 0     |
|     |       |          | 4210  | 2696 | 707 | 784 | 23 |         |       |

- Molecule 3 is a protein called PRKDC-Helix.

| Mol | Chain | Residues | Atoms |    |    |    | AltConf | Trace |
|-----|-------|----------|-------|----|----|----|---------|-------|
| 3   | K     | 15       | Total | C  | N  | O  | 0       | 0     |
|     |       |          | 75    | 45 | 15 | 15 |         |       |

- Molecule 4 is a DNA chain called DNA (34-MER).

| Mol | Chain | Residues | Atoms |     |     |     |    | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|----|---------|-------|
| 4   | D     | 34       | Total | C   | N   | O   | P  | 0       | 0     |
|     |       |          | 700   | 336 | 123 | 207 | 34 |         |       |

- Molecule 5 is a DNA chain called DNA (36-MER).

| Mol | Chain | Residues | Atoms |     |     |     |    | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|----|---------|-------|
| 5   | E     | 36       | Total | C   | N   | O   | P  | 0       | 0     |
|     |       |          | 733   | 354 | 132 | 212 | 35 |         |       |

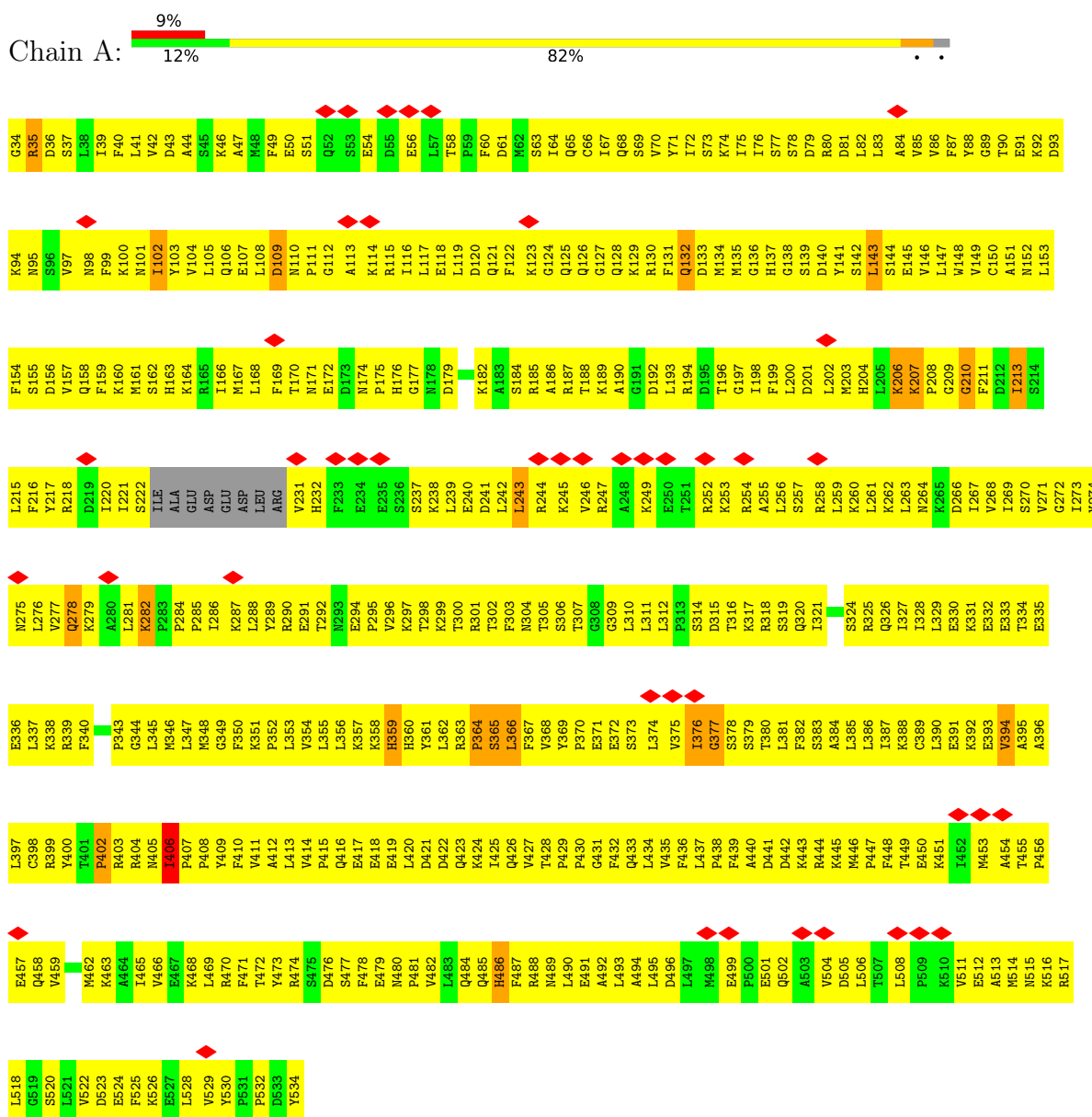
- Molecule 6 is a protein called DNA-dependent protein kinase catalytic subunit.

| Mol | Chain | Residues | Atoms |       |      |      |     | AltConf | Trace |
|-----|-------|----------|-------|-------|------|------|-----|---------|-------|
| 6   | C     | 3636     | Total | C     | N    | O    | S   | 0       | 0     |
|     |       |          | 29066 | 18608 | 4912 | 5356 | 190 |         |       |

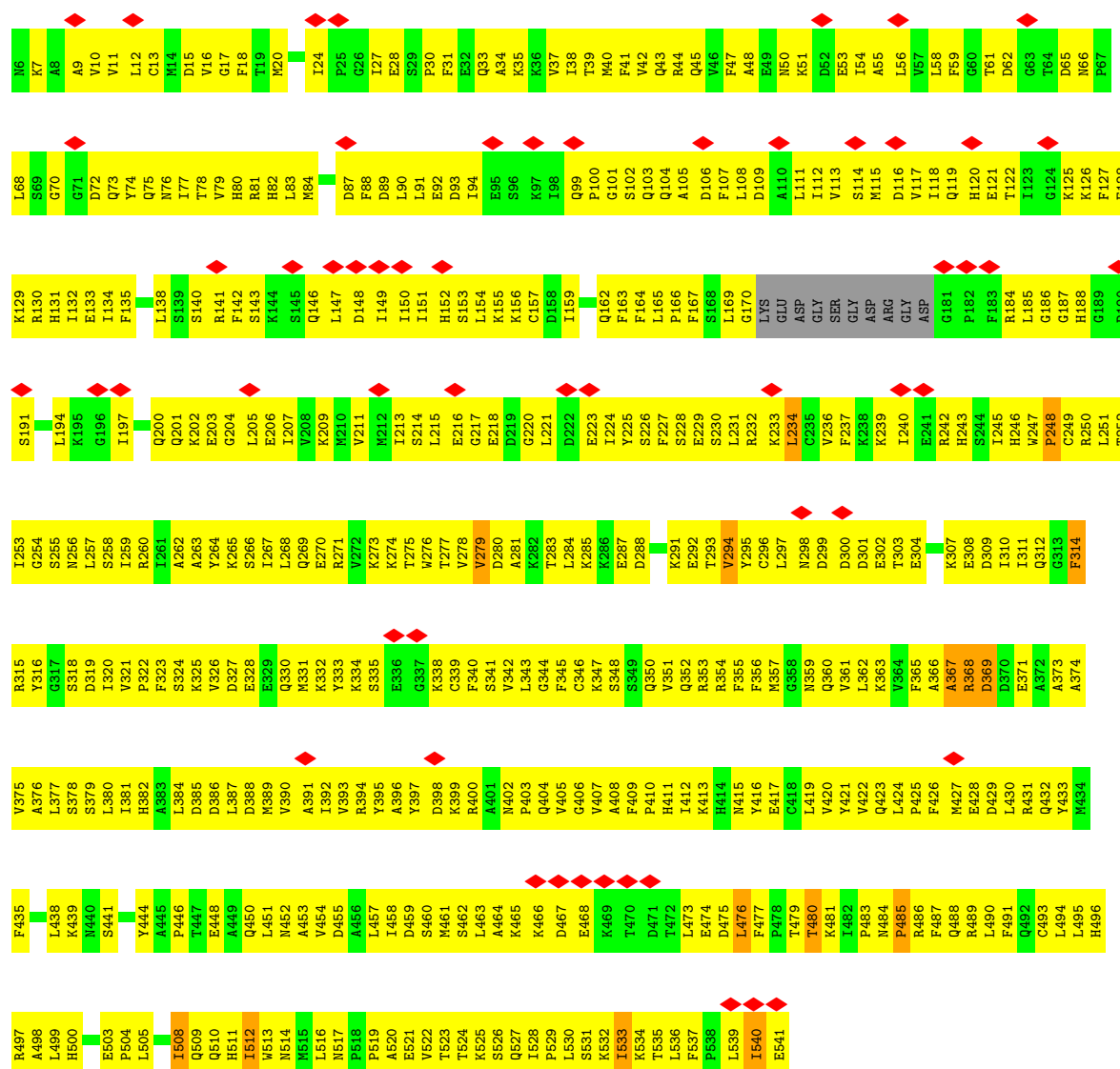
### 3 Residue-property plots

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.

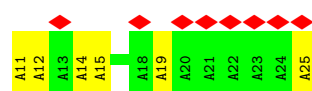
- Molecule 1: X-ray repair cross-complementing protein 6



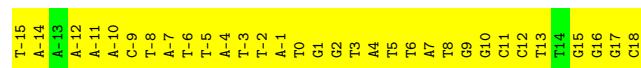
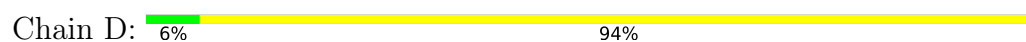
- Molecule 2: X-ray repair cross-complementing protein 5



• Molecule 3: PRKDC-Helix



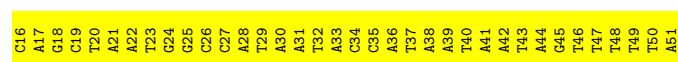
• Molecule 4: DNA (34-MER)



• Molecule 5: DNA (36-MER)

Chain E:

100%



- Molecule 6: DNA-dependent protein kinase catalytic subunit

Chain C:

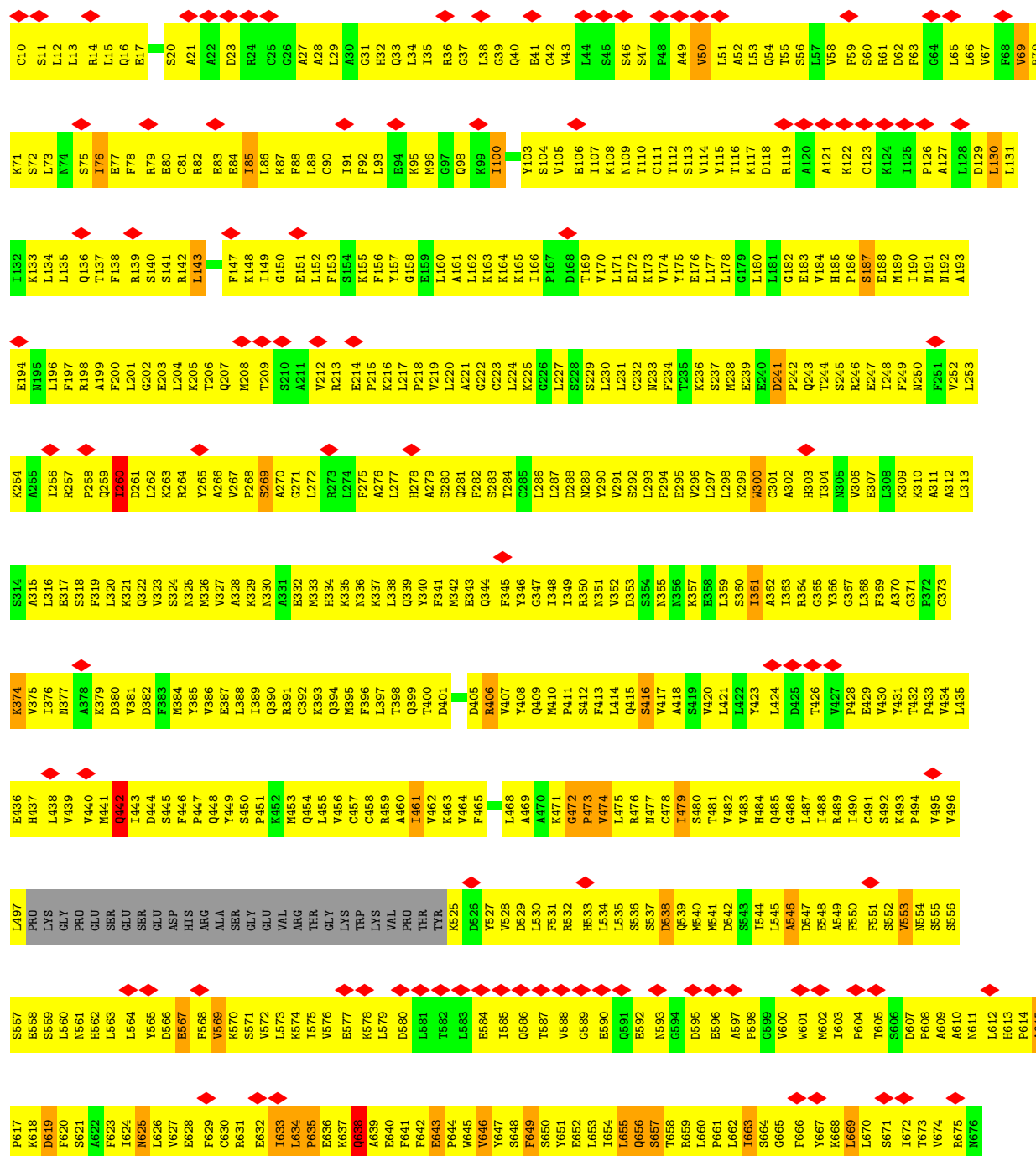
11%

11%

71%

5%

12%



|       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |      |      |      |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| A1405 | L1406 | L1407 | M1408 | S1409 | P1410 | Y1411 | K1412 | D1413 | P1414 | L1415 | E1416 | H1417 | H1418 | L1419 | R1420 | E1421 | K1422 | L1423 | T1424 | A1425 | Q1426 | S1427 | I1428 | E1429 | E1430 | L1431 | C1432 | A1433 | V1434 | N1435 | L1436 | Y1437 | G1438 | P1439 | D1440 | A1441 | Q1442 | V1443 | D1444 | R1445 | S1446 | R1447 | L1448 | S1453 | K1456 | Q1457 | L1458 | H1459 | L1460 | A1461 | G1462 | L1463 | L1464 | H1465 | N1466 | L1467 | L1468 |       |       |      |      |      |      |
| T1345 | T1346 | T1347 | L1348 | L1349 | M1350 | T1351 | S1352 | P1353 | E1354 | G1355 | W1356 | K1357 | L1358 | L1359 | K1360 | K1361 | D1362 | L1363 | L1364 | N1365 | T1366 | H1367 | L1368 | M1369 | R1370 | L1371 | L1372 | V1373 | Q1374 | T1375 | L1376 | C1377 | E1378 | P1379 | A1380 | S1381 | I1382 | S1323 | P1324 | Q1325 | E1326 | G1327 | E1328 | R1329 | Y1330 | M1331 | Y1332 | S1333 | K1334 | C1335 | T1336 | L1337 | V1338 | P1339 | L1340 | T1341 | M1342 | E1343 | F1344 |      |      |      |      |
| G1283 | T1284 | E1285 | A1286 | Q1287 | S1288 | L1291 | K1292 | A1295 | F1296 | F1297 | L1298 | E1299 | S1300 | T1301 | A1302 | M1303 | H1304 | D1305 | L1306 | I1307 | A1308 | ALA   | GLU   | LYS   | CYS   | PHE   | GLY   | THR   | GLY   | ALA   | L1257 | D1258 | L1259 | L1260 | L1261 | A1262 | A1263 | Q1325 | E1326 | G1327 | E1328 | R1329 | Y1330 | M1331 | Y1332 | S1333 | K1334 | C1335 | T1336 | L1337 | V1338 | P1339 | L1340 | T1341 | M1342 | E1343 | F1344 |       |       |      |      |      |      |
| F1219 | L1220 | I1221 | N1222 | T1223 | F1224 | G1227 | G1228 | C1229 | G1230 | Q1231 | P1232 | S1233 | G1234 | I1235 | A1236 | Q1237 | Q1238 | P1239 | T1240 | L1241 | L1242 | Y1243 | F1248 | S1249 | L1250 | Q1251 | A1252 | T1253 | L1254 | C1255 | W1256 | L1257 | D1258 | L1259 | L1260 | L1261 | A1262 | A1263 | Q1325 | E1326 | G1327 | E1328 | R1329 | Y1330 | M1331 | Y1332 | S1333 | K1334 | C1335 | T1336 | L1337 | V1338 | P1339 | L1340 | T1341 | M1342 | E1343 | F1344 |       |      |      |      |      |
| P1099 | V1100 | F1101 | E1102 | A1103 | I1104 | T1105 | I1106 | Y1107 | M1108 | E1109 | S1110 | L1111 | A1112 | L1113 | A1114 | H1115 | A1116 | E1117 | E1118 | K1119 | S1120 | L1121 | G1122 | T1123 | H1124 | Q1125 | Q1126 | C1127 | A1128 | L1129 | A1130 | I1131 | D1132 | H1133 | L1134 | C1135 | R1136 | I1137 | I1138 | E1139 | K1140 | K1141 | H1142 | V1143 | S1144 | L1145 | N1146 | K1147 | A1148 | K1149 | K1150 | R1151 | L1152 | L1153 | P1154 | L1155 | F1156 | F1157 | P1158 |      |      |      |      |
| W1039 | S1040 | I1041 | K1042 | Q1043 | I1044 | T1045 | P1046 | Q1047 | Q1048 | Q1049 | E1050 | K1051 | S1052 | P1053 | V1054 | N1055 | T1056 | K1057 | S1058 | L1059 | F1060 | K1061 | R1062 | L1063 | Y1064 | S1065 | L1066 | A1067 | L1068 | H1069 | P1070 | N1071 | A1072 | F1073 | K1074 | L1075 | L1076 | G1077 | A1078 | S1079 | L1080 | A1081 | F1082 | N1083 | I1085 | Y1086 | R1087 | E1088 | F1089 | ASP   | E1091 | L1092 | E1093 | S1094 | L1095 | V1096 | E1097 | Q1098 |       |      |      |      |      |
| V0979 | T980  | R981  | Q982  | L983  | Y984  | E985  | P986  | L987  | V988  | M989  | Q990  | L991  | I992  | H993  | W994  | T995  | T996  | N997  | N998  | K999  | K1000 | F1001 | E1002 | S1003 | Q1004 | D1005 | T1006 | V1007 | A1008 | L1009 | L1010 | E1011 | A1012 | I1013 | L1014 | D1015 | G1016 | I1017 | V1018 | D1019 | L1020 | M958  | A895  | V996  | P897  | F998  | R999  | E900  | M901  | K902  | P903  | V904  | I905  | F906  | L907  | E908  | V909  | F910  | P912  | R913 | V914 | T915 | E916 |
| L917  | A918  | L919  | T920  | A921  | S922  | D923  | R924  | Q925  | T926  | K927  | N928  | A929  | A930  | C931  | E932  | L933  | T934  | H935  | S936  | M937  | V938  | M939  | F940  | M941  | L942  | G943  | K944  | A945  | T946  | A885  | W886  | D887  | R888  | E950  | V889  | G952  | G953  | G954  | A955  | P956  | P957  | M958  | R964  | T965  | F966  | P967  | V968  | L969  | L970  | R971  | L972  | A973  | D977  | Q978  |       |       |       |       |       |      |      |      |      |
| Q857  | M858  | L859  | G860  | S861  | L862  | G863  | G864  | Q865  | I866  | N867  | K868  | N869  | L870  | L871  | T872  | V873  | T874  | S875  | S876  | D877  | E878  | M879  | H880  | K881  | S882  | Y883  | V884  | A885  | W886  | D887  | R888  | E950  | V889  | P897  | F998  | R999  | E900  | M901  | K902  | P903  | V904  | I905  | F906  | L907  | E908  | V909  | F910  | P912  | R913  | V914  | T915  | E916  |       |       |       |       |       |       |       |      |      |      |      |
| P737  | H738  | N739  | I740  | E741  | E742  | L743  | D744  | V745  | R746  | A747  | Y748  | V749  | P750  | SER   | L751  | L752  | Q753  | M754  | A755  | F756  | L757  | L758  | G759  | L760  | S761  | Y762  | C703  | L764  | A705  | L706  | F707  | W708  | K709  | F710  | G711  | K712  | E713  | L714  | A715  | L716  | K717  | M718  | K719  | Q720  | Y721  | K722  | D723  | E724  | L725  | L726  | A727  | S728  | C729  | L730  | D731  | F732  | L733  | L734  | S735  | L736 |      |      |      |
| A677  | K678  | K679  | L680  | K681  | Y682  | PHE   | GLU   | GLY   | VAL   | SER   | PRO   | LYS   | SER   | LEU   | LYS   | HIS   | SER   | PRO   | GLU   | ASP   | PRO   | GLU   | K700  | Y701  | S702  | C703  | L764  | A705  | L706  | F707  | W708  | K709  | F710  | G711  | K712  | E713  | L714  | A715  | L716  | K717  | M718  | K719  | Q720  | Y721  | K722  | D723  | E724  | L725  | L726  | A727  | S728  | C729  | L730  | D731  | F732  | L733  | L734  | S735  | L736  |      |      |      |      |





|       |       |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C3837 | E3838 | Y3717 | R3593 | F3533 | E3473 | A3412 | I3351 | S3290 | I3231 | R3167 | G3106 |
| E3839 | Y3839 | R3718 | E3595 | I3534 | R3474 | Y3413 | E3352 | Q3291 | I3231 | Y3168 | I3107 |
| K3840 | A3780 | R3719 | L3596 | I3535 | Y3475 | M3415 | D3353 | G3292 | S3232 | P3169 | Q3109 |
| D3841 | C3781 | D3658 | A3597 | S3536 | E3476 | T3416 | D3354 | C3293 | S3233 | K3172 | F3110 |
| S3782 | G3721 | F3659 | K3598 | S3537 | E3477 | A3417 | E3355 | S3294 | C3234 | M3173 | N3111 |
| Q3783 | F3722 | N3660 | K3599 | E3538 | E3478 | D3418 | A3556 | E3295 | K3235 | D3174 | Q3112 |
| R3784 | D3723 | D3661 | S3539 | S3539 | L3480 | F3419 | A3557 | Q3296 | F3236 | P3175 | N3113 |
| K3845 | E3724 | I3662 | Y3540 | S3541 | S3481 | C3420 | R3358 | V3297 | S3237 | M3176 | Y3114 |
| S3846 | T3663 | N3602 | V3601 | S3542 | L3482 | D3421 | I3359 | L3298 | M3238 | N3177 | S3115 |
| S3847 | K3664 | K3608 | K3609 | F3543 | M3483 | Q3422 | LEU   | K3240 | K3239 | S3178 | S3116 |
| S3848 | L3665 | K3603 | K3604 | D3544 | T3484 | Q3423 | LEU   | K3241 | K3241 | W3179 | I3117 |
| S3849 | L3666 | N3605 | T3545 | K3546 | T3484 | L3424 | LEU   | K3242 | K3242 | D3180 | D3118 |
| S3850 | L3667 | N3606 | T3546 | E3486 | K3485 | R3425 | GLY   | K3302 | I3243 | V3119 | V3119 |
| S3851 | L3668 | E3607 | T3547 | E3487 | E3486 | E3427 | SER   | S3305 | S3244 | I3182 | L3120 |
| S3852 | K3669 | K3608 | T3548 | I3487 | E3488 | E3428 | SER   | S3306 | S3245 | T3183 | H3122 |
| S3853 | M3670 | K3609 | H3549 | S3488 | S3489 |       | SER   | GLU   | R3247 | T3184 | Q3123 |
| S3854 | N3671 | Y3610 | K3550 | V3490 | V3491 |       | ASP   | L3307 | K3248 | R3186 | S3124 |
| S3855 | K3672 | E3611 | K3551 | Q3491 | C3492 | S3432 | ASP   | D3308 | Q3249 | R3189 | R3125 |
| S3856 | D3673 | M3612 | K3552 | W3493 | W3494 | Y3433 | GLY   | E3309 | K3250 | F3189 | T3126 |
| S3857 | K3675 | K3613 | E3553 | F3495 | F3496 | T3434 | LYS   | N3310 | N3251 | S3191 | T3127 |
| S3858 | P3676 | Y3614 | V3555 | F3496 | I3496 | D3435 | V3373 | N3311 | F3252 | K3192 | K3128 |
| S3859 | P3677 | A3615 | K3556 | S3497 | S3498 | S3436 | I3374 | V3312 | S3253 | I3193 | Q3130 |
| S3860 | G3678 | A3616 | R3557 | Q3498 | I3499 | A3437 | A3375 | V3313 | A3255 | S3131 | Q3131 |
| S3861 | N3679 | L3617 | T3558 | W3498 | W3499 | L3438 | G3376 | S3314 | K3256 | E3194 | Q3132 |
| S3862 | L3680 | K3681 | K3559 | I3499 | K3500 | Q3440 | Q3378 | Y3315 | L3258 | E3195 | Q3133 |
| S3863 | K3682 | E3621 | S3560 | H3501 | S3501 | A3441 | Y3378 | S3316 | L3259 | K3196 | A3134 |
| S3864 | C3683 | K3622 | K3561 | H3502 | M3502 | Y3442 | Q3379 | N3317 | K3260 | T3197 | L3135 |
| S3865 | S3684 | F3623 | L3562 | V3503 | V3503 | F3443 | A3380 | K3318 | E3261 | T3198 | T3136 |
| S3866 | K3685 | G3624 | Q3564 | A3504 | A3504 | A3444 | A3381 | L3320 | L3262 | P3199 | E3137 |
| S3867 | W3686 | G3624 | K3565 | L3505 | L3505 | L3445 | Q3382 | L3321 | H3263 | LEU   | I3138 |
| S3868 | M3687 | L3625 | G3566 | D3507 | D3507 | V3446 | Q3383 | A3322 | K3264 | PRU   | G3139 |
| S3869 | S3688 | G3626 | Y3567 | K3508 | K3508 | V3447 | H3384 | F3323 | E3265 | GLU   | E3140 |
| S3870 | E3627 | A3627 | L3568 | D3509 | D3509 | E3448 | L3385 | R3324 | E3266 | ASP   | F3141 |
| S3871 | F3628 | F3628 | Q3569 | Q3510 | Q3510 | K3449 | S3386 | D3325 | S3267 | ASN   | I3142 |
| S3872 | R3629 | R3629 | F3571 | Q3510 | Q3510 | L3451 | E3387 | Q3326 | K3267 | SER   | S3143 |
| S3873 | R3630 | R3630 | L3572 | V3512 | V3512 | K3452 | Q3388 | N3327 | S3268 | MET   | F3144 |
| S3874 | K3631 | K3631 | N3573 | A3513 | A3513 | L3453 | Q3389 | L3328 | T3269 | ASN   | I3145 |
| S3875 | F3632 | F3632 | A3574 | Q3514 | Q3514 | L3454 | A3391 | L3330 | D3270 | VAL   | S3146 |
| S3876 | L3633 | L3633 | L3575 | V3514 | V3514 | K3455 | A3392 | D3271 | D3271 | ASP   | Q3147 |
| S3877 | Q3634 | Q3634 | D3576 | Q3515 | Q3515 | L3456 | E3393 | L3273 | L3273 | GLY   | Q3148 |
| S3878 | F3636 | F3636 | Q3577 | H3516 | H3516 | N3457 | E3394 | V3274 | V3274 | ASP   | N3150 |
| S3879 | G3637 | G3637 | L3578 | S3517 | S3517 | S3458 | E3395 | S3275 | S3275 | GLY   | N3151 |
| S3880 | K3638 | K3638 | S3579 | V3518 | V3518 | N3459 | E3396 | W3276 | W3276 | PRU   | L3151 |
| S3881 | E3700 | E3700 | N3580 | E3519 | E3519 | E3460 | A3397 | Q3278 | Q3278 | SER   | S3152 |
| S3882 | L3639 | L3639 | P3581 | E3520 | E3520 | A3461 | Q3397 | Y3334 | S3277 | ASP   | S3153 |
| S3883 | P3702 | P3702 | E3582 | I3521 | I3521 | R3462 | P3398 | I3337 | S3279 | ARG   | Q3154 |
| S3884 | L3640 | L3640 | L3583 | T3522 | T3522 | L3463 | P3399 | A3338 | Y3280 | MET   | V3155 |
| S3885 | D3641 | D3641 | L3584 | D3523 | D3523 | K3464 | S3400 | N3339 | C3281 | GLU   | P3156 |
| S3886 | K3642 | K3642 | F3585 | N3524 | N3524 | F3465 | W3401 | A3340 | R3282 | VAL   | R3159 |
| S3887 | H3643 | H3643 | K3586 | F3466 | F3466 | P3466 | S3402 | L3341 | L3283 | GLN   | L3160 |
| S3888 | F3706 | F3706 | D3587 | V3525 | V3525 | L3467 | C3403 | S3342 | S3284 | GLN   | L3161 |
| S3889 | G3707 | G3707 | V3588 | P3526 | P3526 | L3468 | G3404 | S3343 | H3285 | GLU   | T3162 |
| S3890 | R3708 | R3708 | V3589 | A3528 | A3528 | L3469 | P3405 | E3344 | R3286 | GLU   | T3163 |
| S3891 | K3710 | K3710 | S3590 | I3529 | I3529 | Q3470 | G3408 | P3345 | C3287 | ASP   | T3164 |
| S3892 | P3711 | P3711 | N3591 | V3530 | V3530 | T3471 | I3409 | L3348 | R3288 | I3227 | T3165 |
| S3893 | E3714 | E3714 | F3592 | Y3531 | Y3531 | T3472 | D3411 | E3350 |       | S3228 | N3166 |
| S3894 | L3651 | L3651 | R3653 | P3654 | P3654 |       |       |       |       |       |       |
| S3895 | K3654 | K3654 |       |       |       |       |       |       |       |       |       |

|       |       |       |       |
|-------|-------|-------|-------|
| A4081 | L4021 | P3960 | L3898 |
| R4082 | K4022 | F3961 | A3899 |
| G4083 | K4023 | R3962 | L3900 |
| S4084 | G4024 | L3963 | R3901 |
| K4085 | G4025 | T3964 | S3902 |
| D4086 | S4026 | R3965 | H3903 |
| H4087 | W4027 | Q3966 | F3904 |
| N4088 | I4028 | F3967 | A3905 |
| I4089 | I4028 | I3968 | S3906 |
| R4090 | Q4029 | N3969 | S3907 |
| A4091 | E4030 | L3970 | H3908 |
| Q4092 | I4031 | M3971 | A3909 |
| E4093 | M4032 | L3972 | L3910 |
| P4094 | M4033 | P3973 | L3911 |
| E4095 | V4034 | M3974 | C3912 |
| S4096 | E4035 | K3975 | I3913 |
| G4097 | K4036 | E3976 | S3914 |
| L4098 | M4037 | T3977 | H3915 |
| S4099 | W4038 | G3978 | W3916 |
| E4100 | Y4039 | L3979 | I3917 |
| E4101 | P4040 | M3980 | L3918 |
| T4102 | R4041 | Y3981 | S3919 |
| Q4103 | Q4042 | S3982 | I3920 |
| V4104 | K4043 | I3983 | G3921 |
| K4105 | I4044 | M3984 | D3922 |
| C4106 | C4045 | V3985 | R3923 |
| L4107 | Y4046 | H3986 | H3924 |
| M4108 | A4047 | A3987 | L3925 |
| D4109 | K4048 | L3988 | N3926 |
| Q4110 | R4049 | R3989 | I3927 |
| A4111 | K4050 | A3990 | F3928 |
| T4112 | L4051 | F3991 | N3929 |
| D4113 | A4052 | R3992 | V3930 |
| P4114 | G4053 | S3993 | A3931 |
| N4115 | A4054 | D3994 | M3932 |
| I4116 | M4055 | L3997 | E3933 |
| L4117 | P4056 | L3998 | T3934 |
| G4118 | A4057 | T3999 | G3935 |
| R4119 | V4058 | N4000 | G3936 |
| T4120 | I4059 | T4001 | V3937 |
| W4121 | T4060 | M4002 | I3938 |
| E4122 | C4061 | D4003 | G3939 |
| G4123 | D4062 | V4004 | I3940 |
| W4124 | E4063 | F4005 | D3941 |
| E4125 | L4064 | V4006 | F3942 |
| P4126 | L4065 | K4007 | G3943 |
| W4127 | L4066 | E4008 | H3944 |
| M4128 | G4067 | P4009 | G3947 |
|       | H4068 | S4010 | S3948 |
|       | E4069 | F4011 | A3949 |
|       | K4070 | D4012 | T3950 |
|       | A4071 | W4013 | Q3951 |
|       | P4072 | K4014 | F3952 |
|       | A4073 | N4015 | V3955 |
|       | F4074 | F4016 | P3956 |
|       | R4075 | E4017 | E3957 |
|       | D4076 | Q4018 | L3958 |
|       | Y4077 | K4019 | R3959 |
|       | V4078 | M4020 |       |
|       | A4079 |       |       |
|       | V4080 |       |       |

## 4 Experimental information

| Property                             | Value                     | Source    |
|--------------------------------------|---------------------------|-----------|
| EM reconstruction method             | SINGLE PARTICLE           | Depositor |
| Imposed symmetry                     | POINT, Not provided       |           |
| Number of particles used             | 53451                     | Depositor |
| Resolution determination method      | FSC 0.143 CUT-OFF         | Depositor |
| CTF correction method                | NONE                      | Depositor |
| Microscope                           | FEI TITAN KRIOS           | Depositor |
| Voltage (kV)                         | 300                       | Depositor |
| Electron dose ( $e^-/\text{\AA}^2$ ) | 50                        | Depositor |
| Minimum defocus (nm)                 | 1700                      | Depositor |
| Maximum defocus (nm)                 | 4700                      | Depositor |
| Magnification                        | 18000                     | Depositor |
| Image detector                       | GATAN K2 SUMMIT (4k x 4k) | Depositor |
| Maximum map value                    | 0.139                     | Depositor |
| Minimum map value                    | -0.053                    | Depositor |
| Average map value                    | 0.000                     | Depositor |
| Map value standard deviation         | 0.004                     | Depositor |
| Recommended contour level            | 0.03                      | Depositor |
| Map size ( $\text{\AA}$ )            | 390.0, 390.0, 390.0       | wwPDB     |
| Map dimensions                       | 300, 300, 300             | wwPDB     |
| Map angles ( $^\circ$ )              | 90.0, 90.0, 90.0          | wwPDB     |
| Pixel spacing ( $\text{\AA}$ )       | 1.3, 1.3, 1.3             | Depositor |

## 5 Model quality

### 5.1 Standard geometry

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     | 0.50         | 0/4060      | 0.86        | 7/5468 (0.1%)   |
| 2   | B     | 0.41         | 0/4297      | 0.76        | 3/5798 (0.1%)   |
| 3   | K     | 0.25         | 0/74        | 0.38        | 0/102           |
| 4   | D     | 0.63         | 0/784       | 0.65        | 0/1209          |
| 5   | E     | 0.59         | 0/822       | 0.66        | 0/1266          |
| 6   | C     | 0.55         | 0/29665     | 0.87        | 26/40094 (0.1%) |
| All | All   | 0.54         | 0/39702     | 0.85        | 36/53937 (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                   | 12                  |
| 2   | B     | 0                   | 8                   |
| 6   | C     | 0                   | 89                  |
| All | All   | 0                   | 109                 |

There are no bond length outliers.

All (36) bond angle outliers are listed below:

| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 6   | C     | 472  | GLY  | CA-C-N  | 11.24 | 133.89      | 119.84   |
| 6   | C     | 472  | GLY  | C-N-CA  | 11.24 | 133.89      | 119.84   |
| 6   | C     | 2372 | PRO  | N-CA-C  | 9.93  | 122.82      | 110.70   |
| 1   | A     | 207  | LYS  | N-CA-C  | -8.26 | 98.18       | 110.24   |
| 6   | C     | 2372 | PRO  | CA-C-N  | -7.65 | 110.28      | 119.84   |
| 6   | C     | 2372 | PRO  | C-N-CA  | -7.65 | 110.28      | 119.84   |
| 2   | B     | 480  | THR  | CB-CA-C | -7.23 | 108.24      | 116.63   |
| 6   | C     | 1272 | GLY  | N-CA-C  | -7.07 | 102.66      | 112.13   |
| 1   | A     | 366  | LEU  | N-CA-C  | -6.48 | 102.17      | 110.53   |

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| Mol | Chain | Res  | Type | Atoms    | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|----------|-------|-------------|----------|
| 6   | C     | 2323 | LEU  | CA-CB-CG | -6.26 | 94.38       | 116.30   |
| 1   | A     | 210  | GLY  | CA-C-N   | 6.24  | 133.46      | 121.54   |
| 1   | A     | 210  | GLY  | C-N-CA   | 6.24  | 133.46      | 121.54   |
| 6   | C     | 3152 | SER  | CA-C-N   | 6.16  | 132.79      | 121.70   |
| 6   | C     | 3152 | SER  | C-N-CA   | 6.16  | 132.79      | 121.70   |
| 6   | C     | 734  | LEU  | CA-CB-CG | -6.07 | 95.05       | 116.30   |
| 1   | A     | 377  | GLY  | N-CA-C   | -5.97 | 106.25      | 114.67   |
| 6   | C     | 2441 | LYS  | CA-CB-CG | -5.89 | 102.31      | 114.10   |
| 6   | C     | 1257 | LEU  | CA-CB-CG | -5.61 | 96.68       | 116.30   |
| 6   | C     | 1092 | GLU  | N-CA-C   | 5.55  | 117.48      | 108.26   |
| 6   | C     | 633  | ILE  | CA-C-N   | -5.53 | 116.63      | 123.21   |
| 6   | C     | 633  | ILE  | C-N-CA   | -5.53 | 116.63      | 123.21   |
| 6   | C     | 2884 | LEU  | CA-CB-CG | -5.53 | 96.96       | 116.30   |
| 6   | C     | 1025 | LEU  | CA-CB-CG | -5.50 | 97.03       | 116.30   |
| 2   | B     | 367  | ALA  | CA-C-N   | 5.46  | 131.97      | 121.54   |
| 2   | B     | 367  | ALA  | C-N-CA   | 5.46  | 131.97      | 121.54   |
| 6   | C     | 779  | TYR  | CA-CB-CG | -5.43 | 104.12      | 113.90   |
| 1   | A     | 486  | HIS  | CA-C-N   | -5.26 | 110.76      | 121.18   |
| 1   | A     | 486  | HIS  | C-N-CA   | -5.26 | 110.76      | 121.18   |
| 6   | C     | 2549 | LYS  | CB-CG-CD | -5.25 | 99.23       | 111.30   |
| 6   | C     | 1094 | SER  | CB-CA-C  | -5.17 | 109.64      | 115.79   |
| 6   | C     | 932  | GLU  | CA-C-N   | -5.13 | 114.08      | 122.54   |
| 6   | C     | 932  | GLU  | C-N-CA   | -5.13 | 114.08      | 122.54   |
| 6   | C     | 2513 | GLU  | CA-C-N   | -5.07 | 113.50      | 119.78   |
| 6   | C     | 2513 | GLU  | C-N-CA   | -5.07 | 113.50      | 119.78   |
| 6   | C     | 788  | TYR  | CA-CB-CG | -5.03 | 104.86      | 113.90   |
| 6   | C     | 2504 | ASP  | N-CA-C   | -5.02 | 104.90      | 111.02   |

There are no chirality outliers.

All (109) planarity outliers are listed below:

| Mol | Chain | Res | Type | Group   |
|-----|-------|-----|------|---------|
| 1   | A     | 102 | ILE  | Peptide |
| 1   | A     | 109 | ASP  | Peptide |
| 1   | A     | 206 | LYS  | Peptide |
| 1   | A     | 268 | VAL  | Peptide |
| 1   | A     | 278 | GLN  | Peptide |
| 1   | A     | 282 | LYS  | Peptide |
| 1   | A     | 35  | ARG  | Peptide |
| 1   | A     | 359 | HIS  | Peptide |
| 1   | A     | 364 | PRO  | Peptide |
| 1   | A     | 365 | SER  | Peptide |

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| Mol | Chain | Res  | Type | Group   |
|-----|-------|------|------|---------|
| 1   | A     | 406  | ILE  | Peptide |
| 1   | A     | 504  | VAL  | Peptide |
| 2   | B     | 234  | LEU  | Peptide |
| 2   | B     | 248  | PRO  | Peptide |
| 2   | B     | 314  | PHE  | Peptide |
| 2   | B     | 367  | ALA  | Peptide |
| 2   | B     | 369  | ASP  | Peptide |
| 2   | B     | 476  | LEU  | Peptide |
| 2   | B     | 485  | PRO  | Peptide |
| 2   | B     | 508  | ILE  | Peptide |
| 6   | C     | 1013 | ILE  | Peptide |
| 6   | C     | 1043 | GLN  | Peptide |
| 6   | C     | 1051 | LYS  | Peptide |
| 6   | C     | 1092 | GLU  | Peptide |
| 6   | C     | 1134 | LEU  | Peptide |
| 6   | C     | 1172 | LEU  | Peptide |
| 6   | C     | 1250 | LEU  | Peptide |
| 6   | C     | 1256 | TRP  | Peptide |
| 6   | C     | 1273 | GLU  | Peptide |
| 6   | C     | 1374 | GLN  | Peptide |
| 6   | C     | 143  | LEU  | Peptide |
| 6   | C     | 156  | PHE  | Peptide |
| 6   | C     | 1561 | SER  | Peptide |
| 6   | C     | 1736 | PHE  | Peptide |
| 6   | C     | 1762 | MET  | Peptide |
| 6   | C     | 1810 | PRO  | Peptide |
| 6   | C     | 187  | SER  | Peptide |
| 6   | C     | 1874 | TYR  | Peptide |
| 6   | C     | 1926 | ASN  | Peptide |
| 6   | C     | 2002 | LYS  | Peptide |
| 6   | C     | 2008 | ARG  | Peptide |
| 6   | C     | 2029 | SER  | Peptide |
| 6   | C     | 2056 | SER  | Peptide |
| 6   | C     | 2137 | ILE  | Peptide |
| 6   | C     | 2152 | ASN  | Peptide |
| 6   | C     | 2153 | THR  | Peptide |
| 6   | C     | 2167 | PRO  | Peptide |
| 6   | C     | 2205 | VAL  | Peptide |
| 6   | C     | 2231 | PHE  | Peptide |
| 6   | C     | 2245 | TRP  | Peptide |
| 6   | C     | 2283 | ASN  | Peptide |
| 6   | C     | 2308 | SER  | Peptide |

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| Mol | Chain | Res  | Type | Group   |
|-----|-------|------|------|---------|
| 6   | C     | 2313 | LYS  | Peptide |
| 6   | C     | 2357 | GLU  | Peptide |
| 6   | C     | 2371 | PHE  | Peptide |
| 6   | C     | 2372 | PRO  | Peptide |
| 6   | C     | 2375 | ALA  | Peptide |
| 6   | C     | 2392 | VAL  | Peptide |
| 6   | C     | 2412 | TYR  | Peptide |
| 6   | C     | 2423 | VAL  | Peptide |
| 6   | C     | 2427 | ARG  | Peptide |
| 6   | C     | 2429 | ASP  | Peptide |
| 6   | C     | 260  | ILE  | Peptide |
| 6   | C     | 2884 | LEU  | Peptide |
| 6   | C     | 2936 | TYR  | Peptide |
| 6   | C     | 2939 | LEU  | Peptide |
| 6   | C     | 3031 | TRP  | Peptide |
| 6   | C     | 3036 | TYR  | Peptide |
| 6   | C     | 3083 | SER  | Peptide |
| 6   | C     | 3161 | LEU  | Peptide |
| 6   | C     | 3313 | SER  | Peptide |
| 6   | C     | 3314 | SER  | Peptide |
| 6   | C     | 3336 | ILE  | Peptide |
| 6   | C     | 3338 | ALA  | Peptide |
| 6   | C     | 3528 | ALA  | Peptide |
| 6   | C     | 3679 | ASN  | Peptide |
| 6   | C     | 3681 | LYS  | Peptide |
| 6   | C     | 3689 | ASP  | Peptide |
| 6   | C     | 3710 | LYS  | Peptide |
| 6   | C     | 374  | LYS  | Peptide |
| 6   | C     | 3875 | GLU  | Peptide |
| 6   | C     | 3924 | HIS  | Peptide |
| 6   | C     | 3971 | MET  | Peptide |
| 6   | C     | 3972 | LEU  | Peptide |
| 6   | C     | 4008 | GLU  | Peptide |
| 6   | C     | 4009 | PRO  | Peptide |
| 6   | C     | 4039 | TYR  | Peptide |
| 6   | C     | 406  | ARG  | Peptide |
| 6   | C     | 4082 | ARG  | Peptide |
| 6   | C     | 442  | GLN  | Peptide |
| 6   | C     | 474  | VAL  | Peptide |
| 6   | C     | 538  | ASP  | Peptide |
| 6   | C     | 567  | GLU  | Peptide |
| 6   | C     | 634  | LEU  | Peptide |

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| Mol | Chain | Res | Type | Group   |
|-----|-------|-----|------|---------|
| 6   | C     | 638 | GLN  | Peptide |
| 6   | C     | 643 | GLU  | Peptide |
| 6   | C     | 649 | PHE  | Peptide |
| 6   | C     | 655 | LEU  | Peptide |
| 6   | C     | 657 | SER  | Peptide |
| 6   | C     | 669 | LEU  | Peptide |
| 6   | C     | 708 | VAL  | Peptide |
| 6   | C     | 710 | PHE  | Peptide |
| 6   | C     | 787 | PRO  | Peptide |
| 6   | C     | 805 | LEU  | Peptide |
| 6   | C     | 867 | ASN  | Peptide |
| 6   | C     | 899 | ARG  | Peptide |
| 6   | C     | 919 | LEU  | Peptide |
| 6   | C     | 949 | PRO  | Peptide |
| 6   | C     | 955 | ALA  | Peptide |

## 5.2 Too-close contacts

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1   | A     | 3982  | 0        | 4064     | 925     | 0            |
| 2   | B     | 4210  | 0        | 4250     | 729     | 0            |
| 3   | K     | 75    | 0        | 74       | 5       | 0            |
| 4   | D     | 700   | 0        | 388      | 182     | 0            |
| 5   | E     | 733   | 0        | 410      | 214     | 0            |
| 6   | C     | 29066 | 0        | 29396    | 5491    | 0            |
| All | All   | 38766 | 0        | 38582    | 7198    | 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 93.

All (7198) 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) |
|-----------------|----------------|--------------------------|-------------------|
| 6:C:3809:THR:HA | 6:C:3930:VAL:O | 1.25                     | 1.32              |
| 6:C:3740:ILE:HB | 6:C:3748:HIS:O | 1.38                     | 1.22              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:378:SER:O     | 1:A:382:PHE:HB3   | 1.39                     | 1.21              |
| 6:C:700:LYS:N     | 6:C:703:CYS:HG    | 1.35                     | 1.21              |
| 2:B:264:TYR:HB2   | 2:B:363:LYS:O     | 1.43                     | 1.19              |
| 6:C:2397:CYS:O    | 6:C:2401:VAL:HB   | 1.43                     | 1.18              |
| 6:C:1549:SER:O    | 6:C:1553:PHE:HB2  | 1.45                     | 1.17              |
| 6:C:221:ALA:O     | 6:C:225:LYS:HB2   | 1.46                     | 1.16              |
| 6:C:1921:ASP:O    | 6:C:1925:GLU:HB2  | 1.44                     | 1.16              |
| 6:C:3144:PHE:O    | 6:C:3148:GLN:HB3  | 1.45                     | 1.15              |
| 6:C:572:VAL:O     | 6:C:576:VAL:HB    | 1.44                     | 1.15              |
| 6:C:738:HIS:HA    | 6:C:741:ILE:HG12  | 1.26                     | 1.14              |
| 6:C:2442:MET:HB3  | 6:C:2445:LYS:HB2  | 1.23                     | 1.14              |
| 6:C:2538:ARG:O    | 6:C:2542:LEU:HB2  | 1.44                     | 1.13              |
| 1:A:274:TYR:HB2   | 1:A:367:PHE:O     | 1.48                     | 1.13              |
| 2:B:362:LEU:O     | 2:B:420:VAL:HA    | 1.47                     | 1.12              |
| 6:C:3881:ASP:O    | 6:C:3885:ARG:HB2  | 1.49                     | 1.10              |
| 6:C:3068:ALA:O    | 6:C:3072:GLU:HB2  | 1.51                     | 1.10              |
| 6:C:1986:ARG:O    | 6:C:1990:PHE:HB2  | 1.50                     | 1.10              |
| 1:A:112:GLY:HA2   | 2:B:319:ASP:HB3   | 1.35                     | 1.09              |
| 6:C:3571:PHE:O    | 6:C:3575:LEU:HB2  | 1.50                     | 1.09              |
| 6:C:2962:ARG:HA   | 6:C:3003:ASN:HD21 | 1.09                     | 1.08              |
| 6:C:2931:ARG:O    | 6:C:2935:GLU:HB3  | 1.52                     | 1.07              |
| 6:C:2045:PHE:O    | 6:C:2049:VAL:HB   | 1.55                     | 1.06              |
| 4:D:9:DG:N2       | 5:E:27:DC:O2      | 1.89                     | 1.06              |
| 6:C:3883:LEU:O    | 6:C:3887:PHE:HB2  | 1.56                     | 1.06              |
| 1:A:350:PHE:HA    | 1:A:395:ALA:O     | 1.53                     | 1.06              |
| 4:D:11:DC:O2      | 5:E:25:DG:N2      | 1.90                     | 1.05              |
| 6:C:1107:TYR:O    | 6:C:1111:LEU:HB2  | 1.55                     | 1.05              |
| 6:C:4047:ALA:O    | 6:C:4051:LEU:HB2  | 1.56                     | 1.05              |
| 4:D:9:DG:N1       | 5:E:27:DC:C2      | 2.24                     | 1.05              |
| 6:C:867:ASN:HB2   | 6:C:868:LYS:HG3   | 1.39                     | 1.05              |
| 6:C:1340:ARG:HA   | 6:C:1343:GLU:HG2  | 1.38                     | 1.05              |
| 6:C:1070:PRO:HG2  | 6:C:1072:ALA:HB2  | 1.38                     | 1.05              |
| 6:C:2888:VAL:O    | 6:C:2891:ARG:HB3  | 1.55                     | 1.05              |
| 4:D:1:DG:N1       | 5:E:35:DC:N3      | 2.05                     | 1.04              |
| 6:C:17:GLU:HG2    | 6:C:65:LEU:HD11   | 1.36                     | 1.04              |
| 6:C:1640:GLU:O    | 6:C:1644:ALA:HB2  | 1.54                     | 1.04              |
| 6:C:2382:VAL:HA   | 6:C:2385:LEU:HB2  | 1.36                     | 1.04              |
| 6:C:1938:ARG:HD2  | 6:C:1986:ARG:HB3  | 1.39                     | 1.04              |
| 6:C:2912:GLY:O    | 6:C:2916:LEU:HB3  | 1.59                     | 1.03              |
| 6:C:3319:ASN:HB2  | 6:C:3399:PRO:HB2  | 1.40                     | 1.03              |
| 6:C:2427:ARG:HH22 | 6:C:2433:LYS:HA   | 1.21                     | 1.01              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3631:LYS:HG2  | 6:C:3686:TRP:HB2  | 1.39                     | 1.01              |
| 6:C:1260:LEU:O    | 6:C:1264:LEU:HB3  | 1.61                     | 1.00              |
| 6:C:2452:ARG:HH22 | 6:C:2497:GLU:HB2  | 1.21                     | 1.00              |
| 6:C:173:LYS:HA    | 6:C:176:GLU:HB2   | 1.42                     | 1.00              |
| 1:A:114:LYS:O     | 1:A:118:GLU:HB3   | 1.59                     | 0.99              |
| 6:C:3589:SER:O    | 6:C:3593:ARG:HB3  | 1.63                     | 0.99              |
| 6:C:2140:LEU:O    | 6:C:2143:ARG:HB2  | 1.62                     | 0.99              |
| 6:C:449:TYR:HB2   | 6:C:454:GLN:HE21  | 1.25                     | 0.98              |
| 6:C:1032:CYS:O    | 6:C:1035:GLU:HB3  | 1.63                     | 0.98              |
| 4:D:1:DG:N2       | 5:E:35:DC:O2      | 1.96                     | 0.98              |
| 6:C:1983:ASP:HA   | 6:C:1986:ARG:HB2  | 1.44                     | 0.98              |
| 6:C:3603:LYS:O    | 6:C:3607:GLU:HB2  | 1.62                     | 0.98              |
| 6:C:2781:PRO:HA   | 6:C:2784:GLN:HB3  | 1.45                     | 0.97              |
| 6:C:609:ALA:O     | 6:C:613:HIS:HB2   | 1.64                     | 0.97              |
| 1:A:232:HIS:HB3   | 1:A:425:ILE:HG23  | 1.42                     | 0.97              |
| 1:A:247:ARG:O     | 1:A:488:ARG:NH2   | 1.98                     | 0.97              |
| 6:C:964:ARG:NH1   | 6:C:964:ARG:O     | 1.98                     | 0.97              |
| 4:D:10:DG:N2      | 5:E:26:DC:O2      | 1.98                     | 0.97              |
| 6:C:1116:ALA:HA   | 6:C:1119:LYS:HD3  | 1.47                     | 0.97              |
| 6:C:3977:THR:O    | 6:C:3981:TYR:HB2  | 1.65                     | 0.97              |
| 6:C:620:PHE:O     | 6:C:659:ARG:NH1   | 1.96                     | 0.97              |
| 6:C:108:LYS:HB3   | 6:C:153:PHE:HE2   | 1.30                     | 0.96              |
| 6:C:70:ARG:HH22   | 6:C:75:SER:HA     | 1.31                     | 0.96              |
| 6:C:797:ASP:HB3   | 6:C:870:LEU:H     | 1.30                     | 0.96              |
| 4:D:9:DG:C2       | 5:E:27:DC:C2      | 2.54                     | 0.96              |
| 4:D:11:DC:N3      | 5:E:25:DG:N1      | 2.12                     | 0.96              |
| 6:C:1067:ALA:HA   | 6:C:1075:ARG:HE   | 1.29                     | 0.96              |
| 6:C:4080:VAL:HG12 | 6:C:4115:ASN:HD21 | 1.28                     | 0.96              |
| 6:C:2887:PRO:O    | 6:C:2890:ILE:HB   | 1.65                     | 0.95              |
| 4:D:10:DG:N1      | 5:E:26:DC:N3      | 2.13                     | 0.95              |
| 6:C:39:GLY:O      | 6:C:42:CYS:HB3    | 1.66                     | 0.95              |
| 6:C:2890:ILE:O    | 6:C:2893:LEU:HB3  | 1.66                     | 0.95              |
| 6:C:2991:LYS:O    | 6:C:2995:GLU:HB2  | 1.66                     | 0.95              |
| 6:C:852:ARG:HH22  | 6:C:3114:TYR:HB2  | 1.28                     | 0.95              |
| 4:D:2:DG:H2'      | 4:D:3:DT:C6       | 2.02                     | 0.94              |
| 6:C:2575:PRO:HB2  | 6:C:2787:HIS:HB2  | 1.46                     | 0.94              |
| 1:A:402:PRO:HD2   | 1:A:406:ILE:HG21  | 1.48                     | 0.94              |
| 6:C:979:VAL:O     | 6:C:983:LEU:HB2   | 1.66                     | 0.94              |
| 6:C:1503:LEU:O    | 6:C:1507:CYS:HB2  | 1.67                     | 0.94              |
| 6:C:2952:ILE:HG21 | 6:C:2969:ALA:HB2  | 1.49                     | 0.94              |
| 6:C:3319:ASN:HD21 | 6:C:3408:GLY:HA3  | 1.32                     | 0.94              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2386:LEU:HD13 | 6:C:2404:ARG:HD3  | 1.49                     | 0.94              |
| 6:C:788:TYR:O     | 6:C:791:ASP:HB2   | 1.67                     | 0.94              |
| 6:C:2225:HIS:O    | 6:C:2228:ARG:N    | 1.99                     | 0.94              |
| 6:C:2522:ARG:NH1  | 6:C:2526:SER:OG   | 1.98                     | 0.94              |
| 6:C:47:SER:H      | 6:C:51:LEU:HB2    | 1.32                     | 0.94              |
| 6:C:31:GLY:O      | 6:C:34:LEU:HB3    | 1.66                     | 0.94              |
| 6:C:2328:ARG:HH12 | 6:C:2370:SER:HB3  | 1.30                     | 0.94              |
| 1:A:403:ARG:NH2   | 5:E:36:DA:N3      | 2.15                     | 0.93              |
| 2:B:450:GLN:O     | 2:B:532:LYS:NZ    | 2.01                     | 0.93              |
| 6:C:2933:ILE:O    | 6:C:2937:ASP:HB2  | 1.68                     | 0.93              |
| 6:C:3003:ASN:HD22 | 6:C:3006:ALA:HB3  | 1.33                     | 0.93              |
| 6:C:3297:VAL:O    | 6:C:3301:LEU:HB3  | 1.66                     | 0.93              |
| 6:C:3152:SER:HB2  | 6:C:3153:SER:HB3  | 1.50                     | 0.93              |
| 6:C:3794:VAL:HB   | 6:C:3802:LEU:HB2  | 1.50                     | 0.93              |
| 6:C:986:PRO:HA    | 6:C:2776:ARG:HH22 | 1.34                     | 0.93              |
| 6:C:2242:VAL:O    | 6:C:2246:LYS:NZ   | 2.02                     | 0.93              |
| 6:C:3130:GLN:NE2  | 6:C:3181:ASP:OD2  | 2.02                     | 0.93              |
| 6:C:3469:LEU:HG   | 6:C:3473:GLU:HB2  | 1.48                     | 0.93              |
| 6:C:1069:HIS:HB3  | 6:C:3741:ARG:HE   | 1.30                     | 0.93              |
| 6:C:3860:LYS:HB3  | 6:C:3863:ASN:HB3  | 1.51                     | 0.93              |
| 6:C:3999:THR:O    | 6:C:4003:ASP:HB2  | 1.68                     | 0.93              |
| 2:B:489:ARG:NH1   | 2:B:493:CYS:SG    | 2.42                     | 0.93              |
| 6:C:1974:ASN:HD22 | 6:C:1984:LEU:HD13 | 1.32                     | 0.93              |
| 6:C:3813:LYS:HD3  | 6:C:3925:LEU:HD11 | 1.48                     | 0.93              |
| 2:B:494:LEU:O     | 2:B:498:ALA:HB3   | 1.69                     | 0.92              |
| 6:C:920:THR:HA    | 6:C:923:ASP:HB3   | 1.51                     | 0.92              |
| 6:C:2989:ALA:O    | 6:C:2993:PHE:N    | 2.02                     | 0.92              |
| 6:C:986:PRO:O     | 6:C:2776:ARG:NH1  | 2.02                     | 0.92              |
| 6:C:3833:ARG:HB3  | 6:C:3835:PRO:HD2  | 1.50                     | 0.92              |
| 1:A:318:ARG:HB3   | 2:B:276:TRP:HB3   | 1.52                     | 0.92              |
| 6:C:2434:VAL:O    | 6:C:2437:ASP:HB2  | 1.69                     | 0.92              |
| 6:C:759:GLY:HA3   | 6:C:773:LEU:HD11  | 1.49                     | 0.92              |
| 6:C:3283:LEU:O    | 6:C:3286:CYS:N    | 2.03                     | 0.92              |
| 2:B:343:LEU:N     | 2:B:392:ILE:O     | 2.01                     | 0.91              |
| 1:A:290:ARG:HA    | 2:B:311:ILE:HG23  | 1.52                     | 0.91              |
| 1:A:164:LYS:HD2   | 1:A:198:ILE:HG12  | 1.52                     | 0.91              |
| 6:C:2227:LYS:HG3  | 6:C:2232:ARG:HA   | 1.52                     | 0.91              |
| 6:C:434:VAL:O     | 6:C:438:LEU:HB2   | 1.70                     | 0.91              |
| 6:C:66:LEU:HD22   | 6:C:85:ILE:HG21   | 1.52                     | 0.91              |
| 6:C:364:ARG:O     | 6:C:368:LEU:N     | 2.04                     | 0.91              |
| 6:C:2211:LEU:HA   | 6:C:2214:ARG:HH21 | 1.33                     | 0.91              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:10:CYS:O      | 6:C:14:ARG:N      | 2.02                     | 0.90              |
| 6:C:1516:GLU:O    | 6:C:1520:ALA:HB2  | 1.70                     | 0.90              |
| 6:C:2235:LEU:O    | 6:C:2238:ILE:N    | 2.03                     | 0.90              |
| 1:A:410:PHE:HB3   | 1:A:437:LEU:HD12  | 1.53                     | 0.90              |
| 6:C:723:ASP:H     | 6:C:726:LEU:HB2   | 1.36                     | 0.90              |
| 6:C:2317:ALA:O    | 6:C:2321:GLU:N    | 2.04                     | 0.90              |
| 1:A:289:TYR:HD1   | 2:B:310:ILE:HG22  | 1.36                     | 0.90              |
| 6:C:654:ILE:HA    | 6:C:730:LEU:HD21  | 1.51                     | 0.90              |
| 6:C:357:LYS:HB3   | 6:C:360:SER:HB2   | 1.50                     | 0.90              |
| 6:C:3872:ARG:HH21 | 6:C:3873:LYS:HE3  | 1.34                     | 0.90              |
| 1:A:512:GLU:O     | 1:A:516:LYS:HB2   | 1.71                     | 0.90              |
| 6:C:2072:ARG:H    | 6:C:2075:THR:HG1  | 1.18                     | 0.90              |
| 6:C:1071:ASN:ND2  | 6:C:3742:GLY:O    | 2.04                     | 0.89              |
| 6:C:3581:PRO:HA   | 6:C:3584:LEU:HD13 | 1.54                     | 0.89              |
| 6:C:82:ARG:HD2    | 6:C:130:LEU:HG    | 1.55                     | 0.89              |
| 6:C:2965:TYR:O    | 6:C:2968:ALA:N    | 2.05                     | 0.89              |
| 6:C:1639:LEU:O    | 6:C:1643:MET:HB3  | 1.72                     | 0.89              |
| 6:C:2293:GLY:HA2  | 6:C:2297:SER:HA   | 1.54                     | 0.89              |
| 6:C:3279:SER:HA   | 6:C:3282:ARG:HD3  | 1.52                     | 0.89              |
| 6:C:277:LEU:N     | 6:C:280:SER:HB3   | 1.87                     | 0.89              |
| 6:C:1747:LEU:O    | 6:C:1751:GLU:HB2  | 1.73                     | 0.89              |
| 6:C:2396:LEU:O    | 6:C:2400:VAL:HB   | 1.72                     | 0.89              |
| 6:C:3500:SER:O    | 6:C:3759:ARG:NH1  | 2.05                     | 0.89              |
| 6:C:316:LEU:O     | 6:C:320:LEU:CB    | 2.21                     | 0.89              |
| 6:C:888:ARG:HH22  | 6:C:3892:THR:HA   | 1.38                     | 0.89              |
| 6:C:2523:ASN:O    | 6:C:2526:SER:N    | 2.04                     | 0.89              |
| 6:C:2554:PHE:HA   | 6:C:2557:LEU:HD12 | 1.54                     | 0.89              |
| 1:A:465:ILE:HG23  | 1:A:518:LEU:HD11  | 1.52                     | 0.89              |
| 6:C:2966:SER:O    | 6:C:2970:LYS:HB2  | 1.71                     | 0.89              |
| 6:C:2072:ARG:N    | 6:C:2075:THR:OG1  | 2.06                     | 0.88              |
| 6:C:2931:ARG:HE   | 6:C:2956:ALA:HB1  | 1.37                     | 0.88              |
| 1:A:101:ASN:ND2   | 1:A:139:SER:OG    | 2.05                     | 0.88              |
| 6:C:3904:PHE:O    | 6:C:3907:SER:OG   | 1.91                     | 0.88              |
| 4:D:-2:DT:H3      | 5:E:39:DA:H2      | 1.17                     | 0.88              |
| 4:D:1:DG:O6       | 5:E:35:DC:N4      | 2.05                     | 0.88              |
| 6:C:3298:LEU:O    | 6:C:3302:LYS:N    | 2.06                     | 0.88              |
| 6:C:277:LEU:HB2   | 6:C:280:SER:H     | 1.37                     | 0.88              |
| 6:C:2962:ARG:HA   | 6:C:3003:ASN:ND2  | 1.88                     | 0.88              |
| 4:D:-8:DT:H2'     | 4:D:-7:DA:C8      | 2.09                     | 0.88              |
| 6:C:399:GLN:NE2   | 6:C:406:ARG:O     | 2.06                     | 0.88              |
| 6:C:3923:ARG:HA   | 6:C:3927:ASN:HB2  | 1.55                     | 0.88              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 6:C:2515:PRO:HB2 | 6:C:2518:GLN:HG3  | 1.56                     | 0.88              |
| 6:C:3038:GLU:O   | 6:C:3041:LEU:HB3  | 1.74                     | 0.88              |
| 6:C:620:PHE:O    | 6:C:623:PHE:N     | 2.06                     | 0.88              |
| 6:C:1107:TYR:O   | 6:C:1111:LEU:CB   | 2.21                     | 0.88              |
| 1:A:204:HIS:HB3  | 1:A:237:SER:HB2   | 1.53                     | 0.87              |
| 6:C:11:SER:O     | 6:C:15:LEU:HB2    | 1.74                     | 0.87              |
| 6:C:2372:PRO:O   | 6:C:2374:LEU:N    | 2.07                     | 0.87              |
| 6:C:238:MET:HG3  | 6:C:239:GLU:HG3   | 1.56                     | 0.87              |
| 6:C:1067:ALA:HA  | 6:C:1075:ARG:NE   | 1.89                     | 0.87              |
| 6:C:1740:VAL:O   | 6:C:1744:LYS:HB2  | 1.73                     | 0.87              |
| 6:C:3569:GLN:O   | 6:C:3572:ILE:N    | 2.06                     | 0.87              |
| 1:A:94:LYS:O     | 1:A:104:VAL:N     | 2.08                     | 0.87              |
| 6:C:3121:LEU:H   | 6:C:3124:SER:HB2  | 1.37                     | 0.87              |
| 6:C:3703:GLY:H   | 6:C:3706:ASP:CG   | 1.82                     | 0.87              |
| 1:A:167:MET:HE1  | 1:A:203:MET:H     | 1.37                     | 0.87              |
| 1:A:377:GLY:O    | 1:A:381:LEU:N     | 2.07                     | 0.87              |
| 6:C:614:PRO:O    | 6:C:618:LYS:N     | 2.06                     | 0.87              |
| 6:C:458:CYS:SG   | 6:C:536:SER:OG    | 2.33                     | 0.87              |
| 6:C:1396:PRO:HA  | 6:C:1457:GLN:HE21 | 1.39                     | 0.87              |
| 6:C:1907:GLU:HA  | 6:C:1910:GLU:HB3  | 1.56                     | 0.87              |
| 1:A:277:VAL:HG13 | 1:A:279:LYS:H     | 1.39                     | 0.87              |
| 4:D:9:DG:C2      | 5:E:27:DC:O2      | 2.27                     | 0.87              |
| 6:C:399:GLN:HG2  | 6:C:405:ASP:HB2   | 1.55                     | 0.87              |
| 6:C:609:ALA:O    | 6:C:613:HIS:CB    | 2.23                     | 0.87              |
| 6:C:1325:GLN:NE2 | 6:C:1328:GLU:OE1  | 2.06                     | 0.87              |
| 6:C:3629:ARG:O   | 6:C:3686:TRP:NE1  | 2.07                     | 0.87              |
| 6:C:353:ASP:HA   | 6:C:1858:LEU:HD12 | 1.57                     | 0.87              |
| 6:C:443:ILE:O    | 6:C:449:TYR:OH    | 1.93                     | 0.87              |
| 6:C:1688:LEU:O   | 6:C:1692:ALA:HB2  | 1.73                     | 0.87              |
| 6:C:2364:LEU:O   | 6:C:2368:THR:OG1  | 1.91                     | 0.87              |
| 6:C:3571:PHE:O   | 6:C:3575:LEU:CB   | 2.22                     | 0.86              |
| 6:C:779:TYR:O    | 6:C:783:HIS:N     | 2.07                     | 0.86              |
| 6:C:1751:GLU:O   | 6:C:1755:SER:N    | 2.08                     | 0.86              |
| 6:C:2961:ALA:O   | 6:C:3003:ASN:ND2  | 2.08                     | 0.86              |
| 6:C:927:LYS:HE2  | 6:C:972:LEU:HD11  | 1.57                     | 0.86              |
| 6:C:3947:GLY:O   | 6:C:3951:GLN:HB2  | 1.74                     | 0.86              |
| 2:B:407:VAL:HG13 | 2:B:422:VAL:HG23  | 1.56                     | 0.86              |
| 6:C:746:ARG:H    | 6:C:748:TYR:HE2   | 1.19                     | 0.86              |
| 6:C:1100:VAL:O   | 6:C:1104:LEU:CB   | 2.24                     | 0.86              |
| 6:C:2962:ARG:NH2 | 6:C:3006:ALA:O    | 2.07                     | 0.86              |
| 6:C:3538:GLU:O   | 6:C:3541:SER:HB2  | 1.75                     | 0.86              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:462:VAL:HA    | 6:C:465:PHE:HD2   | 1.40                     | 0.86              |
| 6:C:933:LEU:O     | 6:C:937:MET:HB2   | 1.74                     | 0.86              |
| 6:C:1747:LEU:O    | 6:C:1751:GLU:CB   | 2.23                     | 0.86              |
| 6:C:3048:LYS:O    | 6:C:3052:LEU:N    | 2.08                     | 0.86              |
| 6:C:3480:LEU:O    | 6:C:3484:THR:HB   | 1.75                     | 0.86              |
| 6:C:902:LYS:O     | 6:C:2818:LYS:NZ   | 2.08                     | 0.86              |
| 6:C:2101:VAL:O    | 6:C:2105:HIS:CB   | 2.24                     | 0.86              |
| 6:C:3951:GLN:HE21 | 6:C:4068:HIS:HB2  | 1.41                     | 0.86              |
| 6:C:304:THR:O     | 6:C:309:LYS:NZ    | 2.08                     | 0.86              |
| 6:C:550:PHE:HB2   | 6:C:633:ILE:HD12  | 1.58                     | 0.86              |
| 6:C:2994:TRP:O    | 6:C:2998:SER:OG   | 1.94                     | 0.86              |
| 6:C:290:TYR:O     | 6:C:293:LEU:N     | 2.09                     | 0.86              |
| 1:A:94:LYS:HG2    | 1:A:104:VAL:HB    | 1.57                     | 0.85              |
| 6:C:2438:ILE:O    | 6:C:2441:LYS:NZ   | 2.09                     | 0.85              |
| 6:C:1100:VAL:O    | 6:C:1104:LEU:HB3  | 1.76                     | 0.85              |
| 6:C:3477:GLU:O    | 6:C:3481:SER:N    | 2.06                     | 0.85              |
| 6:C:148:LYS:HA    | 6:C:151:GLU:HB3   | 1.56                     | 0.85              |
| 6:C:2114:GLU:HG3  | 6:C:2116:ASP:H    | 1.41                     | 0.85              |
| 6:C:2325:LEU:HD23 | 6:C:2328:ARG:HD2  | 1.58                     | 0.85              |
| 6:C:3181:ASP:O    | 6:C:3184:THR:OG1  | 1.92                     | 0.85              |
| 6:C:2237:ILE:O    | 6:C:2240:THR:OG1  | 1.93                     | 0.85              |
| 6:C:1726:SER:HA   | 6:C:1866:GLN:HE22 | 1.41                     | 0.85              |
| 6:C:3449:LYS:O    | 6:C:3453:ALA:N    | 2.09                     | 0.85              |
| 6:C:629:PHE:O     | 6:C:631:ARG:NH1   | 2.08                     | 0.85              |
| 6:C:713:GLU:O     | 6:C:717:LYS:HB2   | 1.76                     | 0.85              |
| 1:A:379:SER:O     | 1:A:383:SER:HB3   | 1.76                     | 0.85              |
| 6:C:1102:GLU:HG3  | 6:C:1153:LEU:HD11 | 1.59                     | 0.85              |
| 6:C:3003:ASN:HA   | 6:C:3006:ALA:HB3  | 1.58                     | 0.85              |
| 1:A:46:LYS:NZ     | 1:A:137:HIS:O     | 2.10                     | 0.85              |
| 1:A:143:LEU:HD12  | 1:A:144:SER:H     | 1.40                     | 0.85              |
| 6:C:2342:CYS:O    | 6:C:2345:VAL:N    | 2.09                     | 0.85              |
| 6:C:3957:GLU:HG2  | 6:C:4120:THR:HG23 | 1.59                     | 0.85              |
| 6:C:700:LYS:N     | 6:C:703:CYS:SG    | 2.50                     | 0.85              |
| 6:C:2966:SER:O    | 6:C:2970:LYS:CB   | 2.25                     | 0.85              |
| 1:A:451:LYS:HD3   | 2:B:416:TYR:HA    | 1.59                     | 0.85              |
| 6:C:283:SER:O     | 6:C:287:LEU:N     | 2.09                     | 0.85              |
| 2:B:526:SER:O     | 2:B:530:LEU:N     | 2.09                     | 0.84              |
| 6:C:262:LEU:O     | 6:C:266:ALA:N     | 2.09                     | 0.84              |
| 6:C:2281:MET:O    | 6:C:2329:TYR:OH   | 1.95                     | 0.84              |
| 1:A:254:ARG:HE    | 4:D:0:DT:H4'      | 1.40                     | 0.84              |
| 6:C:135:LEU:HD22  | 6:C:176:GLU:HG2   | 1.58                     | 0.84              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:868:LYS:O     | 6:C:871:LEU:N     | 2.09                     | 0.84              |
| 6:C:1808:ASP:HA   | 6:C:1811:ARG:HE   | 1.42                     | 0.84              |
| 6:C:2188:GLU:HA   | 6:C:2191:ALA:HB3  | 1.60                     | 0.84              |
| 6:C:3451:LEU:O    | 6:C:3455:LYS:NZ   | 2.09                     | 0.84              |
| 6:C:17:GLU:O      | 6:C:21:ALA:HB2    | 1.75                     | 0.84              |
| 6:C:607:ASP:HA    | 6:C:610:ALA:HB3   | 1.58                     | 0.84              |
| 6:C:3793:VAL:HG12 | 6:C:3795:PRO:HD3  | 1.58                     | 0.84              |
| 2:B:532:LYS:HE3   | 2:B:536:LEU:HD12  | 1.57                     | 0.84              |
| 6:C:736:LEU:O     | 6:C:739:ASN:N     | 2.10                     | 0.84              |
| 6:C:2376:ASP:HA   | 6:C:2379:MET:HB3  | 1.60                     | 0.84              |
| 6:C:3160:LEU:O    | 6:C:3163:THR:N    | 2.09                     | 0.84              |
| 1:A:201:ASP:HA    | 1:A:221:ILE:HA    | 1.60                     | 0.84              |
| 6:C:1480:GLY:O    | 6:C:1484:LEU:CB   | 2.26                     | 0.84              |
| 6:C:3132:VAL:HA   | 6:C:3135:LEU:HD12 | 1.60                     | 0.84              |
| 6:C:3868:VAL:O    | 6:C:3872:ARG:HB3  | 1.76                     | 0.84              |
| 6:C:16:GLN:O      | 6:C:20:SER:OG     | 1.96                     | 0.84              |
| 6:C:1274:ARG:HA   | 6:C:1278:ALA:HB3  | 1.58                     | 0.84              |
| 6:C:2975:ALA:O    | 6:C:2978:LYS:NZ   | 2.09                     | 0.84              |
| 6:C:3276:TRP:HZ3  | 6:C:3303:THR:HB   | 1.43                     | 0.84              |
| 6:C:3232:ARG:NH2  | 6:C:3266:SER:O    | 2.11                     | 0.84              |
| 6:C:3435:ASP:O    | 6:C:3439:LEU:HB3  | 1.78                     | 0.84              |
| 1:A:124:GLY:O     | 1:A:128:GLN:N     | 2.11                     | 0.83              |
| 1:A:290:ARG:H     | 2:B:311:ILE:H     | 1.23                     | 0.83              |
| 6:C:1408:MET:H    | 6:C:1412:LYS:HZ3  | 1.22                     | 0.83              |
| 2:B:314:PHE:O     | 2:B:321:VAL:N     | 2.09                     | 0.83              |
| 6:C:1603:GLN:HG3  | 6:C:1606:ARG:HH22 | 1.42                     | 0.83              |
| 6:C:1985:LYS:HZ2  | 6:C:2036:LEU:HB2  | 1.42                     | 0.83              |
| 1:A:231:VAL:N     | 1:A:424:LYS:O     | 2.11                     | 0.83              |
| 6:C:204:LEU:HA    | 6:C:207:GLN:HG2   | 1.60                     | 0.83              |
| 6:C:1920:TYR:HA   | 6:C:1923:PHE:HB3  | 1.61                     | 0.83              |
| 6:C:3868:VAL:O    | 6:C:3872:ARG:CB   | 2.26                     | 0.83              |
| 2:B:184:ARG:NH2   | 2:B:517:ASN:O     | 2.12                     | 0.83              |
| 6:C:2865:HIS:HB2  | 6:C:2868:LEU:HB2  | 1.59                     | 0.83              |
| 1:A:412:ALA:N     | 1:A:435:VAL:O     | 2.11                     | 0.83              |
| 6:C:933:LEU:HD11  | 6:C:2791:ILE:HG23 | 1.60                     | 0.83              |
| 6:C:964:ARG:HH22  | 6:C:971:ARG:HH22  | 1.26                     | 0.83              |
| 6:C:1252:ALA:O    | 6:C:1256:TRP:N    | 2.12                     | 0.83              |
| 6:C:2433:LYS:HG3  | 6:C:2436:LEU:HD12 | 1.61                     | 0.83              |
| 6:C:2510:LEU:HA   | 6:C:2522:ARG:HG2  | 1.57                     | 0.83              |
| 6:C:3124:SER:O    | 6:C:3125:ARG:NH2  | 2.12                     | 0.83              |
| 4:D:-2:DT:N3      | 5:E:39:DA:H2      | 1.75                     | 0.83              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1078:ALA:O    | 6:C:1082:PHE:CB   | 2.26                     | 0.83              |
| 6:C:1165:LEU:O    | 6:C:1169:VAL:N    | 2.12                     | 0.83              |
| 6:C:2462:VAL:HG22 | 6:C:2470:ARG:HD3  | 1.58                     | 0.83              |
| 6:C:3923:ARG:O    | 6:C:4124:TRP:NE1  | 2.11                     | 0.83              |
| 1:A:127:GLY:HA2   | 1:A:130:ARG:HG2   | 1.60                     | 0.83              |
| 1:A:232:HIS:ND1   | 1:A:421:ASP:OD2   | 2.12                     | 0.83              |
| 6:C:3024:PRO:O    | 6:C:3027:LEU:N    | 2.12                     | 0.83              |
| 6:C:3042:PRO:O    | 6:C:3046:ARG:N    | 2.12                     | 0.83              |
| 6:C:1946:ASN:HA   | 6:C:1949:ILE:HG22 | 1.58                     | 0.83              |
| 6:C:2427:ARG:NH2  | 6:C:2435:CYS:SG   | 2.52                     | 0.83              |
| 6:C:3765:GLU:HA   | 6:C:3768:PHE:HD2  | 1.41                     | 0.83              |
| 6:C:4077:TYR:O    | 6:C:4081:ALA:N    | 2.12                     | 0.83              |
| 1:A:81:ASP:O      | 1:A:110:ASN:ND2   | 2.11                     | 0.83              |
| 1:A:94:LYS:H      | 1:A:103:TYR:HA    | 1.43                     | 0.83              |
| 1:A:410:PHE:HZ    | 2:B:516:LEU:HA    | 1.44                     | 0.83              |
| 1:A:414:VAL:HB    | 1:A:433:GLN:HB2   | 1.60                     | 0.83              |
| 1:A:468:LYS:HG3   | 1:A:517:ARG:HG2   | 1.59                     | 0.83              |
| 2:B:332:LYS:O     | 2:B:334:LYS:NZ    | 2.12                     | 0.83              |
| 6:C:2101:VAL:O    | 6:C:2105:HIS:HB2  | 1.78                     | 0.83              |
| 6:C:2944:THR:HG21 | 6:C:2987:THR:HA   | 1.61                     | 0.83              |
| 2:B:495:LEU:HG    | 2:B:499:LEU:HD12  | 1.61                     | 0.82              |
| 6:C:2532:PRO:O    | 6:C:2538:ARG:NH2  | 2.11                     | 0.82              |
| 6:C:3480:LEU:O    | 6:C:3484:THR:CB   | 2.27                     | 0.82              |
| 6:C:3813:LYS:HE3  | 6:C:3817:LEU:HD11 | 1.62                     | 0.82              |
| 6:C:2346:ALA:O    | 6:C:2349:LEU:N    | 2.13                     | 0.82              |
| 6:C:4084:SER:O    | 6:C:4087:HIS:N    | 2.11                     | 0.82              |
| 6:C:67:VAL:O      | 6:C:71:LYS:HB2    | 1.79                     | 0.82              |
| 6:C:1900:PHE:O    | 6:C:1904:CYS:N    | 2.10                     | 0.82              |
| 4:D:8:DT:H2"      | 4:D:9:DG:H8       | 1.45                     | 0.82              |
| 6:C:231:LEU:HB3   | 6:C:277:LEU:HD11  | 1.59                     | 0.82              |
| 6:C:741:ILE:O     | 6:C:745:VAL:N     | 2.11                     | 0.82              |
| 6:C:1065:SER:O    | 6:C:1068:LEU:N    | 2.12                     | 0.82              |
| 6:C:1750:LEU:O    | 6:C:1754:GLN:HB2  | 1.80                     | 0.82              |
| 6:C:4013:TRP:CE2  | 6:C:4040:PRO:HB2  | 2.15                     | 0.82              |
| 1:A:71:TYR:OH     | 1:A:109:ASP:OD2   | 1.96                     | 0.82              |
| 6:C:3005:LEU:O    | 6:C:3046:ARG:NH2  | 2.13                     | 0.82              |
| 1:A:151:ALA:O     | 1:A:154:PHE:N     | 2.13                     | 0.82              |
| 2:B:297:LEU:N     | 2:B:303:THR:O     | 2.12                     | 0.82              |
| 6:C:1078:ALA:O    | 6:C:1082:PHE:HB2  | 1.78                     | 0.82              |
| 6:C:1116:ALA:O    | 6:C:1119:LYS:NZ   | 2.13                     | 0.82              |
| 6:C:2086:ASP:O    | 6:C:2090:ARG:N    | 2.09                     | 0.82              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3579:SER:O    | 6:C:3630:ARG:NH1  | 2.13                     | 0.82              |
| 6:C:1039:TRP:HZ2  | 6:C:1049:GLN:HG2  | 1.44                     | 0.82              |
| 6:C:2398:LEU:O    | 6:C:2402:LEU:HB3  | 1.80                     | 0.82              |
| 6:C:3326:GLN:HA   | 6:C:3389:VAL:HG22 | 1.61                     | 0.82              |
| 6:C:3435:ASP:O    | 6:C:3439:LEU:CB   | 2.28                     | 0.82              |
| 6:C:3537:SER:O    | 6:C:3541:SER:OG   | 1.97                     | 0.82              |
| 1:A:201:ASP:OD1   | 1:A:222:SER:N     | 2.11                     | 0.81              |
| 6:C:534:LEU:O     | 6:C:537:SER:OG    | 1.98                     | 0.81              |
| 6:C:2845:ASN:ND2  | 6:C:3033:GLU:OE2  | 2.12                     | 0.81              |
| 6:C:1046:PRO:HA   | 6:C:1049:GLN:HB2  | 1.62                     | 0.81              |
| 1:A:278:GLN:HE22  | 4:D:2:DG:H8       | 1.25                     | 0.81              |
| 6:C:70:ARG:HD2    | 6:C:73:LEU:HB2    | 1.62                     | 0.81              |
| 6:C:318:SER:O     | 6:C:321:LYS:N     | 2.13                     | 0.81              |
| 6:C:1928:ALA:HA   | 6:C:1938:ARG:HH12 | 1.42                     | 0.81              |
| 6:C:2190:VAL:O    | 6:C:2193:ILE:N    | 2.13                     | 0.81              |
| 6:C:3064:PHE:HA   | 6:C:3067:LYS:HG2  | 1.60                     | 0.81              |
| 6:C:3998:LEU:HD12 | 6:C:4001:THR:HB   | 1.62                     | 0.81              |
| 2:B:529:PRO:HA    | 2:B:532:LYS:HG2   | 1.60                     | 0.81              |
| 6:C:316:LEU:O     | 6:C:320:LEU:HB3   | 1.79                     | 0.81              |
| 6:C:571:SER:HB2   | 6:C:605:THR:H     | 1.44                     | 0.81              |
| 6:C:2353:GLN:HG2  | 6:C:2361:ILE:HD13 | 1.63                     | 0.81              |
| 6:C:977:ASP:HB3   | 6:C:979:VAL:HG22  | 1.63                     | 0.81              |
| 6:C:2057:GLN:HB3  | 6:C:2059:PRO:HD2  | 1.63                     | 0.81              |
| 1:A:184:SER:O     | 1:A:188:THR:OG1   | 1.98                     | 0.81              |
| 6:C:13:LEU:HD21   | 6:C:58:VAL:HA     | 1.61                     | 0.81              |
| 6:C:2276:LEU:O    | 6:C:2279:ILE:N    | 2.13                     | 0.81              |
| 6:C:3731:SER:HB2  | 6:C:3734:ARG:H    | 1.43                     | 0.81              |
| 6:C:3985:VAL:O    | 6:C:3988:LEU:N    | 2.12                     | 0.81              |
| 6:C:198:ARG:HA    | 6:C:201:LEU:HD12  | 1.63                     | 0.81              |
| 6:C:805:LEU:HD11  | 6:C:3115:SER:HA   | 1.62                     | 0.81              |
| 6:C:956:PRO:O     | 6:C:960:GLN:HB2   | 1.81                     | 0.81              |
| 6:C:2078:ASP:HB2  | 6:C:2135:ASN:HD21 | 1.44                     | 0.81              |
| 6:C:376:ILE:HB    | 6:C:381:VAL:HG22  | 1.63                     | 0.81              |
| 6:C:881:LYS:HG3   | 6:C:883:TYR:HE2   | 1.46                     | 0.81              |
| 6:C:1077:GLY:HA2  | 6:C:1080:LEU:HG   | 1.62                     | 0.81              |
| 6:C:3068:ALA:O    | 6:C:3072:GLU:CB   | 2.28                     | 0.81              |
| 1:A:399:ARG:NH1   | 2:B:517:ASN:OD1   | 2.14                     | 0.81              |
| 1:A:403:ARG:NH1   | 5:E:37:DT:O4'     | 2.13                     | 0.81              |
| 4:D:-4:DA:N6      | 5:E:40:DT:O4      | 2.14                     | 0.81              |
| 6:C:52:ALA:O      | 6:C:55:THR:OG1    | 1.98                     | 0.81              |
| 6:C:559:SER:HA    | 6:C:562:HIS:CD2   | 2.16                     | 0.81              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1972:GLU:OE2  | 6:C:1987:ARG:NH2  | 2.14                     | 0.80              |
| 6:C:3502:MET:HA   | 6:C:3505:LEU:HB3  | 1.63                     | 0.80              |
| 6:C:495:VAL:HG22  | 6:C:527:TYR:HD2   | 1.45                     | 0.80              |
| 6:C:2152:ASN:HB3  | 6:C:2153:THR:HA   | 1.62                     | 0.80              |
| 6:C:437:HIS:HB2   | 6:C:1814:PHE:HB3  | 1.63                     | 0.80              |
| 6:C:1232:PRO:HB2  | 6:C:1291:LEU:HB3  | 1.63                     | 0.80              |
| 6:C:2236:GLU:N    | 6:C:2236:GLU:OE1  | 2.11                     | 0.80              |
| 6:C:2531:LEU:HD22 | 6:C:2538:ARG:HG3  | 1.63                     | 0.80              |
| 4:D:5:DT:H2'      | 4:D:6:DT:C6       | 2.17                     | 0.80              |
| 6:C:86:LEU:HD23   | 6:C:89:LEU:HD12   | 1.62                     | 0.80              |
| 6:C:3629:ARG:HH11 | 6:C:3638:LYS:HZ1  | 1.30                     | 0.80              |
| 6:C:3672:LYS:HA   | 6:C:3675:LYS:HE2  | 1.62                     | 0.80              |
| 6:C:3533:PHE:O    | 6:C:3537:SER:N    | 2.12                     | 0.80              |
| 1:A:351:LYS:O     | 1:A:394:VAL:HA    | 1.80                     | 0.80              |
| 6:C:365:GLY:O     | 6:C:369:PHE:N     | 2.13                     | 0.80              |
| 6:C:483:VAL:O     | 6:C:487:LEU:HB2   | 1.80                     | 0.80              |
| 6:C:2186:VAL:HA   | 6:C:2189:ILE:HB   | 1.64                     | 0.80              |
| 6:C:4066:LEU:O    | 6:C:4075:ARG:NH2  | 2.14                     | 0.80              |
| 6:C:55:THR:O      | 6:C:58:VAL:N      | 2.15                     | 0.80              |
| 6:C:67:VAL:O      | 6:C:71:LYS:CB     | 2.30                     | 0.80              |
| 6:C:741:ILE:HG13  | 6:C:745:VAL:HG22  | 1.64                     | 0.80              |
| 6:C:863:GLY:HA2   | 6:C:866:ILE:HD13  | 1.62                     | 0.80              |
| 6:C:1413:ASP:HA   | 6:C:1416:GLU:HB2  | 1.64                     | 0.80              |
| 6:C:1973:LYS:HE2  | 6:C:1975:LEU:HD12 | 1.64                     | 0.80              |
| 6:C:2094:MET:O    | 6:C:2097:LEU:N    | 2.15                     | 0.80              |
| 6:C:3847:SER:HA   | 6:C:3857:LEU:HD12 | 1.63                     | 0.80              |
| 4:D:3:DT:H3'      | 4:D:4:DA:H8       | 1.47                     | 0.80              |
| 6:C:50:VAL:O      | 6:C:54:GLN:HB2    | 1.81                     | 0.80              |
| 1:A:420:LEU:HB2   | 2:B:439:LYS:HZ2   | 1.47                     | 0.80              |
| 4:D:6:DT:H2'      | 4:D:7:DA:C8       | 2.17                     | 0.80              |
| 6:C:620:PHE:C     | 6:C:659:ARG:HH12  | 1.90                     | 0.80              |
| 6:C:643:GLU:O     | 6:C:646:VAL:N     | 2.15                     | 0.80              |
| 6:C:907:LEU:N     | 6:C:2807:GLN:HE22 | 1.80                     | 0.80              |
| 6:C:3663:THR:HA   | 6:C:3666:LEU:HB3  | 1.61                     | 0.80              |
| 1:A:302:THR:HG22  | 2:B:291:LYS:HA    | 1.63                     | 0.80              |
| 1:A:427:VAL:HG23  | 1:A:428:THR:HG23  | 1.61                     | 0.80              |
| 2:B:264:TYR:O     | 2:B:362:LEU:HA    | 1.81                     | 0.80              |
| 6:C:2056:SER:HA   | 6:C:2060:ARG:HH11 | 1.47                     | 0.80              |
| 6:C:3931:ALA:O    | 6:C:3935:GLY:N    | 2.15                     | 0.80              |
| 6:C:2813:PHE:O    | 6:C:2817:LEU:N    | 2.14                     | 0.79              |
| 6:C:2885:GLN:OE1  | 6:C:2885:GLN:N    | 2.13                     | 0.79              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3467:ARG:HD3  | 6:C:4004:VAL:HB   | 1.64                     | 0.79              |
| 1:A:378:SER:HA    | 1:A:381:LEU:HB3   | 1.64                     | 0.79              |
| 6:C:139:ARG:O     | 6:C:142:ARG:N     | 2.14                     | 0.79              |
| 6:C:1133:HIS:HB3  | 6:C:1136:ARG:HH12 | 1.48                     | 0.79              |
| 6:C:3329:LEU:O    | 6:C:3333:THR:OG1  | 2.00                     | 0.79              |
| 6:C:3485:LYS:O    | 6:C:3489:SER:HB3  | 1.82                     | 0.79              |
| 6:C:100:ILE:O     | 6:C:104:SER:N     | 2.14                     | 0.79              |
| 6:C:643:GLU:HB3   | 6:C:647:TYR:CE2   | 2.17                     | 0.79              |
| 6:C:2383:PHE:HA   | 6:C:2404:ARG:NH2  | 1.97                     | 0.79              |
| 6:C:3043:TYR:O    | 6:C:3047:SER:N    | 2.15                     | 0.79              |
| 6:C:410:MET:O     | 6:C:413:PHE:N     | 2.16                     | 0.79              |
| 6:C:2348:GLN:HG2  | 6:C:2352:HIS:CE1  | 2.17                     | 0.79              |
| 6:C:3411:ASP:O    | 6:C:3415:THR:OG1  | 1.99                     | 0.79              |
| 6:C:888:ARG:NH1   | 6:C:3891:SER:O    | 2.16                     | 0.79              |
| 6:C:1591:LYS:O    | 6:C:1683:LYS:NZ   | 2.15                     | 0.79              |
| 6:C:4001:THR:O    | 6:C:4005:PHE:HB2  | 1.82                     | 0.79              |
| 1:A:478:PHE:O     | 2:B:427:MET:N     | 2.14                     | 0.79              |
| 5:E:28:DA:H2'     | 5:E:29:DT:O4'     | 1.82                     | 0.79              |
| 6:C:361:ILE:O     | 6:C:364:ARG:HG2   | 1.81                     | 0.79              |
| 6:C:495:VAL:HG13  | 6:C:527:TYR:HB3   | 1.65                     | 0.79              |
| 2:B:226:SER:O     | 2:B:230:SER:OG    | 2.00                     | 0.79              |
| 6:C:287:LEU:O     | 6:C:290:TYR:N     | 2.15                     | 0.79              |
| 6:C:1168:LEU:O    | 6:C:1171:TRP:HB3  | 1.83                     | 0.79              |
| 6:C:1740:VAL:O    | 6:C:1744:LYS:CB   | 2.30                     | 0.79              |
| 6:C:1876:ILE:HG23 | 6:C:1877:LEU:HG   | 1.62                     | 0.79              |
| 6:C:3661:ASP:HA   | 6:C:3664:ASN:HD22 | 1.46                     | 0.79              |
| 6:C:3862:ALA:O    | 6:C:3865:THR:OG1  | 2.01                     | 0.79              |
| 6:C:3881:ASP:O    | 6:C:3885:ARG:CB   | 2.29                     | 0.79              |
| 1:A:512:GLU:O     | 1:A:516:LYS:CB    | 2.31                     | 0.79              |
| 2:B:524:THR:HA    | 2:B:527:GLN:HG2   | 1.62                     | 0.79              |
| 5:E:37:DT:H2''    | 5:E:38:DA:C5      | 2.18                     | 0.79              |
| 6:C:471:LYS:NZ    | 6:C:474:VAL:H     | 1.81                     | 0.79              |
| 6:C:993:HIS:CD2   | 6:C:1038:LYS:HD3  | 2.18                     | 0.79              |
| 6:C:2869:LEU:HD13 | 6:C:2889:GLY:HA2  | 1.65                     | 0.79              |
| 6:C:2955:SER:HB3  | 6:C:2960:GLU:HB3  | 1.65                     | 0.79              |
| 6:C:2160:TYR:HA   | 6:C:2163:HIS:CD2  | 2.17                     | 0.79              |
| 6:C:3538:GLU:HA   | 6:C:3797:THR:HA   | 1.65                     | 0.79              |
| 6:C:3865:THR:HG22 | 6:C:4115:ASN:HB2  | 1.65                     | 0.79              |
| 6:C:1980:ASN:O    | 6:C:1984:LEU:HB2  | 1.83                     | 0.79              |
| 6:C:2493:ASN:OD1  | 6:C:2494:ASP:N    | 2.16                     | 0.79              |
| 2:B:509:GLN:HB2   | 2:B:511:HIS:CE1   | 2.18                     | 0.78              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:50:VAL:O      | 6:C:54:GLN:CB     | 2.31                     | 0.78              |
| 6:C:1142:HIS:HB2  | 6:C:1145:LEU:HB2  | 1.63                     | 0.78              |
| 6:C:1356:TRP:HA   | 6:C:1359:LEU:HB2  | 1.64                     | 0.78              |
| 6:C:2095:ALA:O    | 6:C:2098:THR:OG1  | 2.00                     | 0.78              |
| 6:C:3240:MET:HA   | 6:C:3243:ILE:HD12 | 1.65                     | 0.78              |
| 6:C:310:LYS:HA    | 6:C:313:LEU:HD12  | 1.64                     | 0.78              |
| 1:A:352:PRO:HB2   | 1:A:355:LEU:HB2   | 1.66                     | 0.78              |
| 6:C:850:GLU:HB3   | 6:C:854:ARG:HH12  | 1.45                     | 0.78              |
| 6:C:3121:LEU:O    | 6:C:3125:ARG:N    | 2.16                     | 0.78              |
| 6:C:3543:LYS:HZ3  | 6:C:3545:THR:HA   | 1.47                     | 0.78              |
| 1:A:204:HIS:O     | 1:A:238:LYS:NZ    | 2.13                     | 0.78              |
| 2:B:82:HIS:HB2    | 2:B:84:MET:HE3    | 1.65                     | 0.78              |
| 6:C:621:SER:O     | 6:C:659:ARG:NH2   | 2.17                     | 0.78              |
| 6:C:1135:CYS:HG   | 6:C:1171:TRP:HH2  | 1.31                     | 0.78              |
| 6:C:2427:ARG:HH22 | 6:C:2433:LYS:CA   | 1.96                     | 0.78              |
| 6:C:2828:GLU:OE1  | 6:C:2831:ASN:ND2  | 2.14                     | 0.78              |
| 6:C:3622:ALA:O    | 6:C:3626:GLY:N    | 2.16                     | 0.78              |
| 1:A:194:ARG:NH2   | 1:A:221:ILE:O     | 2.17                     | 0.78              |
| 1:A:354:VAL:N     | 1:A:393:GLU:OE2   | 2.16                     | 0.78              |
| 6:C:2371:PHE:HE2  | 6:C:2378:PHE:HE2  | 1.29                     | 0.78              |
| 1:A:128:GLN:HE21  | 1:A:132:GLN:HE21  | 1.32                     | 0.78              |
| 1:A:484:GLN:HE21  | 1:A:488:ARG:HH21  | 1.32                     | 0.78              |
| 6:C:262:LEU:HD11  | 6:C:307:GLU:HB2   | 1.66                     | 0.78              |
| 6:C:3767:LEU:HD13 | 6:C:4001:THR:HG21 | 1.64                     | 0.78              |
| 2:B:56:LEU:HD23   | 2:B:80:HIS:HB3    | 1.66                     | 0.78              |
| 6:C:385:TYR:H     | 6:C:388:LEU:HB3   | 1.49                     | 0.78              |
| 6:C:1480:GLY:O    | 6:C:1484:LEU:HB2  | 1.83                     | 0.78              |
| 6:C:2352:HIS:HB2  | 6:C:2364:LEU:HD11 | 1.64                     | 0.78              |
| 6:C:3631:LYS:HZ2  | 6:C:3686:TRP:HD1  | 1.31                     | 0.78              |
| 1:A:85:VAL:HB     | 1:A:105:LEU:HD23  | 1.65                     | 0.78              |
| 2:B:167:PHE:O     | 2:B:226:SER:OG    | 2.01                     | 0.78              |
| 6:C:1755:SER:HB3  | 6:C:1863:PHE:CD1  | 2.19                     | 0.78              |
| 6:C:1946:ASN:OD1  | 6:C:1950:SER:OG   | 2.01                     | 0.78              |
| 6:C:3066:ASP:O    | 6:C:3069:MET:N    | 2.16                     | 0.78              |
| 6:C:3740:ILE:CB   | 6:C:3748:HIS:O    | 2.29                     | 0.78              |
| 2:B:20:MET:HA     | 2:B:30:PRO:HB2    | 1.64                     | 0.78              |
| 6:C:2427:ARG:NH1  | 6:C:2429:ASP:O    | 2.14                     | 0.78              |
| 6:C:3284:SER:HA   | 6:C:3287:ARG:HB3  | 1.66                     | 0.78              |
| 6:C:4090:ARG:NH1  | 6:C:4113:ASP:OD2  | 2.17                     | 0.78              |
| 6:C:336:ASN:O     | 6:C:339:GLN:N     | 2.16                     | 0.78              |
| 6:C:859:LEU:HB3   | 6:C:866:ILE:HD12  | 1.66                     | 0.78              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1034:ARG:HH21 | 6:C:2776:ARG:HG3  | 1.49                     | 0.78              |
| 6:C:1458:LEU:O    | 6:C:1462:GLY:N    | 2.17                     | 0.78              |
| 6:C:1702:LEU:O    | 6:C:1706:SER:N    | 2.15                     | 0.78              |
| 6:C:3495:PHE:CE2  | 6:C:3499:ILE:HA   | 2.18                     | 0.78              |
| 1:A:522:VAL:HG21  | 2:B:256:ASN:HB3   | 1.66                     | 0.77              |
| 6:C:628:GLU:HG2   | 6:C:637:LYS:HD3   | 1.66                     | 0.77              |
| 6:C:1006:THR:HG23 | 6:C:1009:LEU:HD23 | 1.63                     | 0.77              |
| 6:C:1760:GLU:N    | 6:C:1893:GLU:O    | 2.17                     | 0.77              |
| 6:C:1987:ARG:O    | 6:C:1991:PRO:HD3  | 1.84                     | 0.77              |
| 6:C:2886:GLN:HG2  | 6:C:2921:LEU:HD13 | 1.66                     | 0.77              |
| 6:C:3691:LYS:HB2  | 6:C:3696:ARG:HH11 | 1.49                     | 0.77              |
| 2:B:454:VAL:HG23  | 2:B:457:LEU:HD23  | 1.64                     | 0.77              |
| 6:C:883:TYR:O     | 6:C:887:ASP:N     | 2.17                     | 0.77              |
| 6:C:1575:LEU:HB3  | 6:C:1632:TRP:CZ3  | 2.19                     | 0.77              |
| 2:B:359:ASN:OD1   | 2:B:360:GLN:N     | 2.18                     | 0.77              |
| 6:C:2305:ASN:O    | 6:C:2308:SER:OG   | 2.00                     | 0.77              |
| 1:A:147:LEU:HB3   | 1:A:189:LYS:HZ2   | 1.48                     | 0.77              |
| 6:C:981:ARG:NE    | 6:C:985:GLU:OE2   | 2.17                     | 0.77              |
| 6:C:1387:GLY:HA2  | 6:C:1391:VAL:HB   | 1.64                     | 0.77              |
| 6:C:1683:LYS:O    | 6:C:1686:LEU:N    | 2.18                     | 0.77              |
| 6:C:2042:GLN:HE22 | 6:C:2045:PHE:HB2  | 1.50                     | 0.77              |
| 6:C:3122:HIS:O    | 6:C:3126:LEU:N    | 2.17                     | 0.77              |
| 6:C:3585:PHE:HB3  | 6:C:3670:MET:HE2  | 1.66                     | 0.77              |
| 6:C:4062:ASP:O    | 6:C:4066:LEU:HB2  | 1.85                     | 0.77              |
| 4:D:1:DG:H2'      | 4:D:2:DG:C8       | 2.18                     | 0.77              |
| 5:E:46:DT:H2'     | 5:E:47:DT:C6      | 2.20                     | 0.77              |
| 6:C:93:LEU:HD11   | 6:C:137:THR:HA    | 1.66                     | 0.77              |
| 6:C:342:MET:HE2   | 6:C:379:LYS:HE2   | 1.67                     | 0.77              |
| 6:C:445:SER:O     | 6:C:525:LYS:NZ    | 2.17                     | 0.77              |
| 6:C:870:LEU:O     | 6:C:874:THR:HB    | 1.85                     | 0.77              |
| 6:C:3426:LYS:NZ   | 6:C:3427:GLU:OE2  | 2.17                     | 0.77              |
| 2:B:301:ASP:HA    | 6:C:119:ARG:HH21  | 1.47                     | 0.77              |
| 6:C:481:THR:HA    | 6:C:484:HIS:ND1   | 1.99                     | 0.77              |
| 6:C:723:ASP:HB3   | 6:C:726:LEU:H     | 1.49                     | 0.77              |
| 6:C:785:MET:O     | 6:C:788:TYR:N     | 2.17                     | 0.77              |
| 6:C:1093:GLU:N    | 6:C:1097:GLU:OE2  | 2.18                     | 0.77              |
| 6:C:1693:VAL:HA   | 6:C:1696:LEU:HG   | 1.67                     | 0.77              |
| 6:C:2118:VAL:HG13 | 6:C:2122:LEU:HD13 | 1.65                     | 0.77              |
| 6:C:3043:TYR:O    | 6:C:3046:ARG:HB3  | 1.83                     | 0.77              |
| 1:A:314:SER:N     | 6:C:203:GLU:OE2   | 2.17                     | 0.77              |
| 6:C:1174:ALA:N    | 6:C:1267:TYR:OH   | 2.15                     | 0.77              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2328:ARG:HA   | 6:C:2331:MET:HE2  | 1.67                     | 0.77              |
| 6:C:3142:ILE:O    | 6:C:3145:ILE:N    | 2.17                     | 0.77              |
| 6:C:4055:ASN:HD21 | 6:C:4058:VAL:H    | 1.33                     | 0.77              |
| 4:D:9:DG:H1'      | 5:E:28:DA:H2      | 1.50                     | 0.77              |
| 6:C:476:ARG:HG3   | 6:C:477:ASN:H     | 1.49                     | 0.77              |
| 6:C:913:ARG:HH21  | 6:C:933:LEU:HB3   | 1.47                     | 0.77              |
| 6:C:1217:VAL:O    | 6:C:1274:ARG:NH1  | 2.17                     | 0.77              |
| 6:C:2070:GLU:OE2  | 6:C:2072:ARG:NH2  | 2.18                     | 0.77              |
| 6:C:2427:ARG:NH2  | 6:C:2433:LYS:HA   | 1.99                     | 0.77              |
| 6:C:3593:ARG:HH12 | 6:C:3667:LEU:HD22 | 1.48                     | 0.77              |
| 6:C:483:VAL:O     | 6:C:487:LEU:CB    | 2.32                     | 0.77              |
| 1:A:86:VAL:HG22   | 1:A:104:VAL:HA    | 1.65                     | 0.77              |
| 2:B:44:ARG:HA     | 2:B:47:PHE:HB2    | 1.67                     | 0.77              |
| 2:B:460:SER:HB2   | 2:B:525:LYS:HB3   | 1.67                     | 0.77              |
| 6:C:252:VAL:HG21  | 6:C:268:PRO:HD3   | 1.67                     | 0.77              |
| 1:A:429:PRO:HD2   | 2:B:354:ARG:HH12  | 1.49                     | 0.76              |
| 6:C:752:LEU:HA    | 6:C:755:ALA:HB3   | 1.66                     | 0.76              |
| 6:C:767:GLU:HA    | 6:C:770:LEU:HD22  | 1.66                     | 0.76              |
| 6:C:923:ASP:HA    | 6:C:927:LYS:H     | 1.50                     | 0.76              |
| 6:C:1139:GLU:OE1  | 6:C:1141:LYS:NZ   | 2.18                     | 0.76              |
| 6:C:1598:ASN:HA   | 6:C:1601:LEU:HG   | 1.67                     | 0.76              |
| 6:C:2215:LEU:HG   | 6:C:2219:LEU:HD11 | 1.66                     | 0.76              |
| 1:A:93:ASP:HA     | 1:A:102:ILE:O     | 1.84                     | 0.76              |
| 2:B:43:GLN:HB3    | 2:B:47:PHE:CE2    | 2.19                     | 0.76              |
| 2:B:343:LEU:HB2   | 2:B:392:ILE:HG22  | 1.67                     | 0.76              |
| 6:C:316:LEU:O     | 6:C:320:LEU:HB2   | 1.86                     | 0.76              |
| 6:C:981:ARG:CZ    | 6:C:1026:ARG:HH22 | 1.98                     | 0.76              |
| 6:C:1653:LEU:O    | 6:C:1657:SER:HB3  | 1.85                     | 0.76              |
| 6:C:2117:SER:HB2  | 6:C:2158:ARG:H    | 1.49                     | 0.76              |
| 6:C:3255:ALA:O    | 6:C:3258:LEU:N    | 2.19                     | 0.76              |
| 6:C:3287:ARG:NH2  | 6:C:3327:ASN:O    | 2.17                     | 0.76              |
| 1:A:91:GLU:O      | 1:A:100:LYS:NZ    | 2.15                     | 0.76              |
| 6:C:1699:PHE:O    | 6:C:1703:THR:OG1  | 2.03                     | 0.76              |
| 6:C:3535:ILE:O    | 6:C:3539:SER:N    | 2.15                     | 0.76              |
| 2:B:283:THR:O     | 2:B:285:LYS:NZ    | 2.18                     | 0.76              |
| 6:C:2991:LYS:O    | 6:C:2995:GLU:CB   | 2.33                     | 0.76              |
| 6:C:3031:TRP:CZ2  | 6:C:3038:GLU:HB2  | 2.20                     | 0.76              |
| 6:C:681:LYS:HE2   | 6:C:744:ASP:HA    | 1.67                     | 0.76              |
| 6:C:1076:LEU:HD22 | 6:C:1124:ILE:HA   | 1.67                     | 0.76              |
| 6:C:1648:LEU:HG   | 6:C:1652:ILE:HD11 | 1.68                     | 0.76              |
| 6:C:1861:SER:O    | 6:C:1865:THR:OG1  | 2.04                     | 0.76              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 4:D:11:DC:C2      | 5:E:25:DG:N2      | 2.53                     | 0.76              |
| 6:C:957:PRO:O     | 6:C:960:GLN:HB3   | 1.85                     | 0.76              |
| 6:C:1501:PRO:O    | 6:C:1505:LEU:CB   | 2.33                     | 0.76              |
| 6:C:1807:LYS:O    | 6:C:1811:ARG:NH2  | 2.18                     | 0.76              |
| 6:C:2406:GLU:O    | 6:C:2409:THR:OG1  | 2.02                     | 0.76              |
| 6:C:2936:TYR:HE1  | 6:C:2946:GLU:HA   | 1.50                     | 0.76              |
| 6:C:3457:ASN:OD1  | 6:C:3458:SER:N    | 2.19                     | 0.76              |
| 6:C:3961:PHE:HE1  | 6:C:3963:LEU:HB2  | 1.49                     | 0.76              |
| 1:A:171:ASN:HB3   | 1:A:207:LYS:HD3   | 1.68                     | 0.76              |
| 1:A:316:THR:OG1   | 2:B:278:VAL:O     | 2.04                     | 0.76              |
| 1:A:319:SER:OG    | 1:A:326:GLN:OE1   | 2.03                     | 0.76              |
| 2:B:342:VAL:HA    | 2:B:393:VAL:HG22  | 1.67                     | 0.76              |
| 4:D:-5:DT:H2'     | 4:D:-4:DA:H8      | 1.50                     | 0.76              |
| 4:D:15:DG:N2      | 5:E:20:DT:O2      | 2.16                     | 0.76              |
| 6:C:330:ASN:HB2   | 6:C:334:HIS:HD2   | 1.50                     | 0.76              |
| 6:C:624:ILE:HA    | 6:C:627:VAL:HB    | 1.68                     | 0.76              |
| 6:C:706:LEU:O     | 6:C:709:LYS:N     | 2.19                     | 0.76              |
| 6:C:2820:MET:HA   | 6:C:2823:PHE:CD2  | 2.20                     | 0.76              |
| 6:C:2946:GLU:HG3  | 6:C:2947:ILE:HG13 | 1.68                     | 0.76              |
| 6:C:3141:PHE:HA   | 6:C:3144:PHE:CZ   | 2.20                     | 0.76              |
| 6:C:3161:LEU:HD22 | 6:C:3164:TRP:CE2  | 2.21                     | 0.76              |
| 6:C:3661:ASP:O    | 6:C:3664:ASN:HB2  | 1.86                     | 0.76              |
| 6:C:3916:TRP:CZ2  | 6:C:4051:LEU:HG   | 2.20                     | 0.76              |
| 2:B:485:PRO:O     | 2:B:488:GLN:N     | 2.18                     | 0.76              |
| 6:C:366:TYR:O     | 6:C:370:ALA:N     | 2.17                     | 0.76              |
| 6:C:628:GLU:HG3   | 6:C:634:LEU:HD22  | 1.66                     | 0.76              |
| 6:C:995:PHE:HA    | 6:C:998:ASN:HB2   | 1.66                     | 0.76              |
| 2:B:251:LEU:HD11  | 2:B:342:VAL:HG23  | 1.66                     | 0.76              |
| 6:C:723:ASP:OD1   | 6:C:724:GLU:N     | 2.19                     | 0.76              |
| 6:C:788:TYR:O     | 6:C:792:ILE:N     | 2.18                     | 0.76              |
| 6:C:973:ALA:O     | 6:C:977:ASP:N     | 2.18                     | 0.76              |
| 6:C:3353:GLU:OE2  | 6:C:3357:ARG:NH1  | 2.19                     | 0.76              |
| 1:A:182:LYS:HG2   | 1:A:185:ARG:HH12  | 1.51                     | 0.76              |
| 6:C:727:ALA:O     | 6:C:730:LEU:N     | 2.19                     | 0.76              |
| 6:C:3440:GLN:O    | 6:C:3474:ARG:NE   | 2.19                     | 0.76              |
| 6:C:3908:HIS:HA   | 6:C:3911:ILE:HD12 | 1.66                     | 0.76              |
| 2:B:77:ILE:HG21   | 2:B:113:VAL:HG21  | 1.66                     | 0.75              |
| 6:C:1639:LEU:O    | 6:C:1643:MET:CB   | 2.34                     | 0.75              |
| 6:C:2215:LEU:O    | 6:C:2219:LEU:HG   | 1.86                     | 0.75              |
| 6:C:2330:VAL:HG22 | 6:C:2335:ASN:HA   | 1.68                     | 0.75              |
| 6:C:3850:HIS:CE1  | 6:C:3853:GLY:H    | 2.04                     | 0.75              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3860:LYS:O    | 6:C:3864:ARG:N    | 2.18                     | 0.75              |
| 1:A:319:SER:HB2   | 1:A:328:ILE:HD12  | 1.66                     | 0.75              |
| 2:B:292:GLU:HB3   | 2:B:294:VAL:HG23  | 1.66                     | 0.75              |
| 6:C:259:GLN:O     | 6:C:263:LYS:HB3   | 1.86                     | 0.75              |
| 6:C:1705:GLY:O    | 6:C:1711:ARG:NH2  | 2.18                     | 0.75              |
| 6:C:2498:ILE:O    | 6:C:2501:LEU:N    | 2.19                     | 0.75              |
| 6:C:2898:LEU:HB3  | 6:C:2902:PRO:HD3  | 1.67                     | 0.75              |
| 6:C:3297:VAL:O    | 6:C:3301:LEU:CB   | 2.34                     | 0.75              |
| 6:C:3534:ILE:O    | 6:C:3537:SER:HB2  | 1.86                     | 0.75              |
| 6:C:3836:PRO:HB3  | 6:C:4127:TRP:CZ3  | 2.22                     | 0.75              |
| 6:C:484:HIS:HE1   | 6:C:555:SER:HB2   | 1.50                     | 0.75              |
| 6:C:776:TRP:CE2   | 6:C:780:ILE:HG13  | 2.21                     | 0.75              |
| 6:C:2190:VAL:HA   | 6:C:2193:ILE:HG12 | 1.66                     | 0.75              |
| 1:A:492:ALA:O     | 1:A:496:ASP:N     | 2.19                     | 0.75              |
| 2:B:184:ARG:O     | 2:B:232:ARG:NH2   | 2.19                     | 0.75              |
| 2:B:399:LYS:HG3   | 4:D:11:DC:H4'     | 1.67                     | 0.75              |
| 6:C:2320:ALA:HB2  | 6:C:2367:VAL:HA   | 1.69                     | 0.75              |
| 6:C:3095:ASP:HB3  | 6:C:3098:ARG:CZ   | 2.16                     | 0.75              |
| 6:C:3182:ILE:HG13 | 6:C:3183:ILE:H    | 1.51                     | 0.75              |
| 6:C:360:SER:O     | 6:C:363:ILE:HB    | 1.84                     | 0.75              |
| 6:C:751:ALA:O     | 6:C:755:ALA:CB    | 2.35                     | 0.75              |
| 6:C:1033:ILE:HD13 | 6:C:1085:ILE:HG23 | 1.69                     | 0.75              |
| 6:C:1039:TRP:CZ2  | 6:C:1049:GLN:HG2  | 2.21                     | 0.75              |
| 6:C:1952:ILE:HG12 | 6:C:1953:CYS:H    | 1.51                     | 0.75              |
| 6:C:1985:LYS:HA   | 6:C:1988:TYR:CE2  | 2.21                     | 0.75              |
| 6:C:2000:ARG:NH1  | 6:C:2050:GLN:O    | 2.19                     | 0.75              |
| 1:A:254:ARG:NH2   | 4:D:1:DG:H4'      | 2.02                     | 0.75              |
| 2:B:391:ALA:HB3   | 2:B:408:ALA:O     | 1.87                     | 0.75              |
| 4:D:5:DT:H2'      | 4:D:6:DT:H6       | 1.51                     | 0.75              |
| 6:C:2405:VAL:HA   | 6:C:2408:MET:HG2  | 1.69                     | 0.75              |
| 6:C:2556:SER:O    | 6:C:2559:THR:OG1  | 2.05                     | 0.75              |
| 6:C:3293:CYS:HA   | 6:C:3335:ARG:CZ   | 2.16                     | 0.75              |
| 6:C:3589:SER:OG   | 6:C:3670:MET:SD   | 2.44                     | 0.75              |
| 6:C:3980:MET:HG2  | 6:C:3984:MET:HE2  | 1.69                     | 0.75              |
| 6:C:2446:LEU:O    | 6:C:2451:LEU:HB2  | 1.86                     | 0.75              |
| 6:C:3484:THR:OG1  | 6:C:3516:HIS:ND1  | 2.19                     | 0.75              |
| 6:C:3805:TRP:NE1  | 6:C:3807:GLU:OE2  | 2.18                     | 0.75              |
| 1:A:115:ARG:O     | 1:A:118:GLU:HG2   | 1.86                     | 0.75              |
| 1:A:132:GLN:O     | 1:A:136:GLY:N     | 2.20                     | 0.75              |
| 6:C:580:ASP:OD2   | 6:C:593:ASN:ND2   | 2.20                     | 0.75              |
| 6:C:2418:LYS:O    | 6:C:2421:VAL:HG12 | 1.87                     | 0.75              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2930:TYR:O    | 6:C:2933:ILE:N    | 2.18                     | 0.75              |
| 1:A:90:THR:O      | 1:A:101:ASN:ND2   | 2.15                     | 0.75              |
| 6:C:199:ALA:O     | 6:C:202:GLY:N     | 2.20                     | 0.75              |
| 6:C:4114:PRO:HA   | 6:C:4117:LEU:HB2  | 1.68                     | 0.75              |
| 1:A:254:ARG:H     | 2:B:431:ARG:HH21  | 1.35                     | 0.74              |
| 2:B:448:GLU:O     | 2:B:451:LEU:N     | 2.19                     | 0.74              |
| 6:C:634:LEU:O     | 6:C:638:GLN:NE2   | 2.19                     | 0.74              |
| 6:C:885:ALA:HB3   | 6:C:888:ARG:HA    | 1.69                     | 0.74              |
| 6:C:1026:ARG:NH2  | 6:C:1027:ASP:OD1  | 2.20                     | 0.74              |
| 6:C:1501:PRO:O    | 6:C:1505:LEU:HB3  | 1.87                     | 0.74              |
| 2:B:530:LEU:O     | 2:B:534:LYS:NZ    | 2.19                     | 0.74              |
| 6:C:1594:SER:HB3  | 6:C:1683:LYS:HZ2  | 1.52                     | 0.74              |
| 6:C:1602:ASP:HA   | 6:C:1605:PHE:HB3  | 1.69                     | 0.74              |
| 1:A:301:ARG:O     | 2:B:292:GLU:N     | 2.20                     | 0.74              |
| 1:A:421:ASP:OD1   | 1:A:424:LYS:N     | 2.19                     | 0.74              |
| 1:A:471:PHE:HE2   | 2:B:344:GLY:HA3   | 1.50                     | 0.74              |
| 6:C:1036:PHE:HA   | 6:C:1039:TRP:HB3  | 1.68                     | 0.74              |
| 6:C:2480:ILE:HG13 | 6:C:2484:TYR:CE2  | 2.22                     | 0.74              |
| 6:C:3645:GLY:O    | 6:C:3649:SER:OG   | 2.05                     | 0.74              |
| 6:C:3883:LEU:HB3  | 6:C:3970:LEU:HD22 | 1.68                     | 0.74              |
| 1:A:411:VAL:HG12  | 1:A:436:PHE:HA    | 1.68                     | 0.74              |
| 6:C:36:ARG:O      | 6:C:40:GLN:N      | 2.14                     | 0.74              |
| 6:C:47:SER:N      | 6:C:51:LEU:HB2    | 2.02                     | 0.74              |
| 6:C:942:LEU:HA    | 6:C:945:ALA:HB3   | 1.69                     | 0.74              |
| 1:A:278:GLN:O     | 1:A:279:LYS:HG2   | 1.87                     | 0.74              |
| 1:A:303:PHE:HA    | 1:A:310:LEU:HA    | 1.69                     | 0.74              |
| 6:C:1481:THR:O    | 6:C:1485:SER:OG   | 2.03                     | 0.74              |
| 1:A:362:LEU:HD13  | 2:B:268:LEU:HA    | 1.68                     | 0.74              |
| 2:B:307:LYS:NZ    | 2:B:309:ASP:OD2   | 2.18                     | 0.74              |
| 6:C:576:VAL:HG13  | 6:C:601:TRP:H     | 1.53                     | 0.74              |
| 6:C:1638:PRO:O    | 6:C:1642:LYS:NZ   | 2.20                     | 0.74              |
| 6:C:1956:PHE:HB3  | 6:C:1959:LEU:HD23 | 1.70                     | 0.74              |
| 2:B:431:ARG:NH1   | 2:B:432:GLN:O     | 2.21                     | 0.74              |
| 6:C:566:ASP:HB3   | 6:C:1799:GLU:HB3  | 1.70                     | 0.74              |
| 6:C:649:PHE:HA    | 6:C:656:GLN:HE21  | 1.52                     | 0.74              |
| 6:C:703:CYS:O     | 6:C:707:PHE:HB2   | 1.87                     | 0.74              |
| 6:C:750:PRO:HA    | 6:C:753:GLN:HB3   | 1.69                     | 0.74              |
| 6:C:870:LEU:O     | 6:C:874:THR:CB    | 2.35                     | 0.74              |
| 6:C:1029:CYS:HA   | 6:C:1032:CYS:HB2  | 1.68                     | 0.74              |
| 6:C:2808:LEU:O    | 6:C:2811:SER:OG   | 2.04                     | 0.74              |
| 6:C:3974:MET:HA   | 6:C:3975:LYS:HB3  | 1.70                     | 0.74              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:349:GLY:O     | 1:A:396:ALA:HA    | 1.88                     | 0.74              |
| 2:B:532:LYS:HE2   | 2:B:537:PHE:HE2   | 1.52                     | 0.74              |
| 6:C:2830:ASN:O    | 6:C:2833:THR:OG1  | 2.03                     | 0.74              |
| 6:C:3172:LYS:HE3  | 6:C:3241:LYS:HB3  | 1.70                     | 0.74              |
| 6:C:3325:ASP:HA   | 6:C:3328:ILE:HD12 | 1.70                     | 0.74              |
| 1:A:419:GLU:H     | 1:A:426:GLN:HE22  | 1.36                     | 0.74              |
| 1:A:484:GLN:HG3   | 1:A:487:PHE:CE1   | 2.23                     | 0.74              |
| 6:C:1962:TYR:O    | 6:C:1966:LEU:N    | 2.21                     | 0.74              |
| 6:C:3298:LEU:HA   | 6:C:3301:LEU:HB3  | 1.67                     | 0.74              |
| 1:A:481:PRO:O     | 1:A:484:GLN:N     | 2.21                     | 0.74              |
| 6:C:1596:VAL:HG12 | 6:C:1600:MET:HE3  | 1.70                     | 0.74              |
| 6:C:2323:LEU:O    | 6:C:2326:ILE:HG22 | 1.88                     | 0.74              |
| 6:C:2954:GLN:O    | 6:C:2958:LEU:N    | 2.16                     | 0.74              |
| 1:A:330:GLU:N     | 1:A:333:GLU:OE1   | 2.19                     | 0.73              |
| 5:E:25:DG:H2''    | 5:E:26:DC:H5'     | 1.70                     | 0.73              |
| 6:C:429:GLU:O     | 6:C:431:TYR:N     | 2.20                     | 0.73              |
| 6:C:434:VAL:HA    | 6:C:437:HIS:CE1   | 2.23                     | 0.73              |
| 6:C:2035:THR:OG1  | 6:C:2036:LEU:N    | 2.16                     | 0.73              |
| 6:C:2472:GLN:NE2  | 6:C:2476:ILE:HG23 | 2.03                     | 0.73              |
| 6:C:2962:ARG:NH1  | 6:C:3008:TRP:HB3  | 2.03                     | 0.73              |
| 6:C:3309:GLU:HA   | 6:C:3312:VAL:HG13 | 1.69                     | 0.73              |
| 6:C:3480:LEU:HD22 | 6:C:3516:HIS:HB2  | 1.67                     | 0.73              |
| 1:A:449:THR:HG22  | 1:A:450:GLU:H     | 1.53                     | 0.73              |
| 6:C:345:PHE:HZ    | 6:C:364:ARG:HA    | 1.53                     | 0.73              |
| 6:C:407:VAL:O     | 6:C:410:MET:N     | 2.20                     | 0.73              |
| 6:C:2371:PHE:HE2  | 6:C:2378:PHE:CE2  | 2.06                     | 0.73              |
| 6:C:2886:GLN:HB3  | 6:C:2887:PRO:HD3  | 1.67                     | 0.73              |
| 6:C:2886:GLN:NE2  | 6:C:2925:GLU:HG2  | 2.03                     | 0.73              |
| 4:D:-4:DA:H3'     | 4:D:-3:DT:H71     | 1.71                     | 0.73              |
| 6:C:731:THR:O     | 6:C:734:LEU:N     | 2.20                     | 0.73              |
| 6:C:1379:PRO:HA   | 6:C:1384:PHE:HB2  | 1.70                     | 0.73              |
| 6:C:1925:GLU:OE2  | 6:C:1963:GLN:NE2  | 2.21                     | 0.73              |
| 6:C:2304:VAL:O    | 6:C:2348:GLN:NE2  | 2.19                     | 0.73              |
| 6:C:3124:SER:O    | 6:C:3128:LYS:NZ   | 2.19                     | 0.73              |
| 6:C:3304:VAL:HG13 | 6:C:3305:SER:H    | 1.53                     | 0.73              |
| 6:C:723:ASP:N     | 6:C:727:ALA:H     | 1.86                     | 0.73              |
| 6:C:1097:GLU:HB3  | 6:C:1101:PHE:CZ   | 2.24                     | 0.73              |
| 6:C:1678:LEU:O    | 6:C:1682:THR:OG1  | 2.04                     | 0.73              |
| 6:C:1865:THR:O    | 6:C:1869:LYS:HG2  | 1.87                     | 0.73              |
| 6:C:3256:MET:SD   | 6:C:3282:ARG:NH1  | 2.61                     | 0.73              |
| 6:C:3259:LEU:HD22 | 6:C:3282:ARG:HH11 | 1.52                     | 0.73              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:85:ILE:O      | 6:C:88:PHE:N      | 2.21                     | 0.73              |
| 6:C:365:GLY:HA2   | 6:C:368:LEU:HB2   | 1.69                     | 0.73              |
| 6:C:468:LEU:HA    | 6:C:471:LYS:HE3   | 1.68                     | 0.73              |
| 6:C:789:TYR:HA    | 6:C:792:ILE:HB    | 1.71                     | 0.73              |
| 6:C:1890:HIS:NE2  | 6:C:1940:TYR:HB2  | 2.04                     | 0.73              |
| 6:C:1938:ARG:HD2  | 6:C:1986:ARG:CB   | 2.17                     | 0.73              |
| 6:C:2500:LYS:O    | 6:C:2503:LYS:N    | 2.21                     | 0.73              |
| 1:A:289:TYR:HA    | 2:B:310:ILE:HB    | 1.70                     | 0.73              |
| 1:A:392:LYS:NZ    | 2:B:462:SER:OG    | 2.21                     | 0.73              |
| 6:C:663:ILE:HB    | 6:C:667:TYR:CE2   | 2.24                     | 0.73              |
| 6:C:1597:LEU:O    | 6:C:1600:MET:HB2  | 1.88                     | 0.73              |
| 6:C:2028:LEU:O    | 6:C:2034:SER:OG   | 2.07                     | 0.73              |
| 6:C:2866:ALA:HB1  | 6:C:2897:LEU:HA   | 1.69                     | 0.73              |
| 6:C:3312:VAL:HB   | 6:C:3315:TYR:CG   | 2.24                     | 0.73              |
| 1:A:360:HIS:HA    | 2:B:267:ILE:HG13  | 1.70                     | 0.73              |
| 2:B:250:ARG:HA    | 2:B:259:ILE:O     | 1.89                     | 0.73              |
| 2:B:494:LEU:O     | 2:B:498:ALA:CB    | 2.37                     | 0.73              |
| 6:C:287:LEU:HA    | 6:C:290:TYR:HB3   | 1.70                     | 0.73              |
| 6:C:1640:GLU:O    | 6:C:1644:ALA:CB   | 2.34                     | 0.73              |
| 6:C:2796:ALA:O    | 6:C:2800:ARG:N    | 2.21                     | 0.73              |
| 6:C:3112:GLN:HE21 | 6:C:3116:SER:HB3  | 1.53                     | 0.73              |
| 6:C:3976:GLU:HA   | 6:C:3979:LEU:HB2  | 1.71                     | 0.73              |
| 1:A:301:ARG:H     | 2:B:292:GLU:HB2   | 1.53                     | 0.73              |
| 2:B:13:CYS:HB3    | 2:B:134:ILE:HA    | 1.69                     | 0.73              |
| 4:D:15:DG:N1      | 5:E:20:DT:OP2     | 2.20                     | 0.73              |
| 6:C:707:PHE:HA    | 6:C:710:PHE:HE2   | 1.53                     | 0.73              |
| 6:C:955:ALA:O     | 6:C:958:MET:N     | 2.21                     | 0.73              |
| 6:C:1425:ALA:O    | 6:C:1429:GLU:HB2  | 1.89                     | 0.73              |
| 6:C:1598:ASN:HD22 | 6:C:1601:LEU:HD11 | 1.53                     | 0.73              |
| 6:C:2010:GLU:HG2  | 6:C:2011:ALA:H    | 1.54                     | 0.73              |
| 6:C:2888:VAL:O    | 6:C:2891:ARG:CB   | 2.37                     | 0.73              |
| 6:C:3681:LYS:HA   | 6:C:3684:SER:HB2  | 1.71                     | 0.73              |
| 1:A:88:TYR:HA     | 1:A:102:ILE:HA    | 1.69                     | 0.73              |
| 6:C:1476:HIS:ND1  | 6:C:1507:CYS:O    | 2.21                     | 0.73              |
| 6:C:1957:ASN:H    | 6:C:1960:LYS:HE3  | 1.54                     | 0.73              |
| 6:C:4055:ASN:ND2  | 6:C:4058:VAL:H    | 1.86                     | 0.73              |
| 1:A:43:ASP:HA     | 1:A:88:TYR:CE2    | 2.24                     | 0.73              |
| 1:A:133:ASP:OD1   | 1:A:134:MET:N     | 2.21                     | 0.73              |
| 1:A:350:PHE:HB2   | 2:B:462:SER:HA    | 1.71                     | 0.73              |
| 1:A:445:LYS:HE2   | 2:B:243:HIS:HA    | 1.71                     | 0.73              |
| 2:B:314:PHE:HB2   | 2:B:321:VAL:HB    | 1.71                     | 0.73              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:461:ILE:O     | 6:C:464:VAL:HG12  | 1.88                     | 0.73              |
| 6:C:669:LEU:HB3   | 6:C:672:ILE:HG12  | 1.70                     | 0.73              |
| 6:C:963:LYS:HD3   | 6:C:1009:LEU:HB2  | 1.71                     | 0.73              |
| 6:C:1036:PHE:O    | 6:C:1040:SER:N    | 2.17                     | 0.73              |
| 6:C:2018:ASP:HA   | 6:C:2044:ASP:HB3  | 1.71                     | 0.73              |
| 6:C:2187:VAL:O    | 6:C:2191:ALA:CB   | 2.37                     | 0.73              |
| 6:C:3571:PHE:HZ   | 6:C:3690:PHE:H    | 1.34                     | 0.73              |
| 6:C:3815:LEU:HD23 | 6:C:3818:ASN:HD21 | 1.54                     | 0.73              |
| 1:A:447:PRO:HG3   | 2:B:243:HIS:HB3   | 1.71                     | 0.72              |
| 6:C:964:ARG:NH2   | 6:C:971:ARG:HH22  | 1.87                     | 0.72              |
| 6:C:1875:LYS:HD2  | 6:C:1903:SER:HA   | 1.71                     | 0.72              |
| 6:C:2928:LYS:HD2  | 6:C:2931:ARG:HH22 | 1.54                     | 0.72              |
| 6:C:3660:ASN:O    | 6:C:3664:ASN:ND2  | 2.22                     | 0.72              |
| 6:C:3765:GLU:HA   | 6:C:3768:PHE:CD2  | 2.24                     | 0.72              |
| 6:C:3909:ALA:HA   | 6:C:3984:MET:HE1  | 1.71                     | 0.72              |
| 1:A:89:GLY:N      | 1:A:101:ASN:O     | 2.22                     | 0.72              |
| 4:D:4:DA:H2'      | 4:D:5:DT:H71      | 1.70                     | 0.72              |
| 6:C:439:VAL:O     | 6:C:442:GLN:HB3   | 1.88                     | 0.72              |
| 6:C:2180:GLU:OE1  | 6:C:2184:TYR:OH   | 2.03                     | 0.72              |
| 6:C:3425:ARG:NH2  | 6:C:4003:ASP:OD2  | 2.21                     | 0.72              |
| 4:D:10:DG:O6      | 5:E:26:DC:N4      | 2.22                     | 0.72              |
| 6:C:126:PRO:O     | 6:C:129:ASP:N     | 2.22                     | 0.72              |
| 6:C:2080:VAL:HG23 | 6:C:2081:LEU:HG   | 1.71                     | 0.72              |
| 6:C:2245:TRP:HB2  | 6:C:2246:LYS:HG3  | 1.71                     | 0.72              |
| 6:C:2452:ARG:NH2  | 6:C:2494:ASP:O    | 2.22                     | 0.72              |
| 6:C:2970:LYS:O    | 6:C:2974:GLU:CB   | 2.37                     | 0.72              |
| 6:C:3428:GLU:OE1  | 6:C:4049:ARG:NH2  | 2.22                     | 0.72              |
| 6:C:3471:ILE:HG23 | 6:C:3472:ILE:HG12 | 1.70                     | 0.72              |
| 6:C:3590:ASN:O    | 6:C:3594:ALA:HB2  | 1.89                     | 0.72              |
| 6:C:1063:LEU:O    | 6:C:1067:ALA:HB2  | 1.90                     | 0.72              |
| 6:C:1758:LEU:HD13 | 6:C:1761:LEU:HD23 | 1.71                     | 0.72              |
| 6:C:3276:TRP:CZ3  | 6:C:3303:THR:HB   | 2.23                     | 0.72              |
| 1:A:75:ILE:O      | 1:A:78:SER:OG     | 2.05                     | 0.72              |
| 1:A:101:ASN:ND2   | 1:A:139:SER:HG    | 1.86                     | 0.72              |
| 4:D:-6:DT:H2'     | 4:D:-5:DT:C6      | 2.25                     | 0.72              |
| 6:C:313:LEU:HA    | 6:C:316:LEU:HD23  | 1.72                     | 0.72              |
| 6:C:1857:LYS:O    | 6:C:1861:SER:N    | 2.22                     | 0.72              |
| 6:C:1934:LEU:HG   | 6:C:1937:ARG:HB2  | 1.70                     | 0.72              |
| 6:C:2361:ILE:HA   | 6:C:2364:LEU:HD12 | 1.71                     | 0.72              |
| 6:C:2890:ILE:HG13 | 6:C:2921:LEU:HD21 | 1.71                     | 0.72              |
| 6:C:2894:GLU:HA   | 6:C:2898:LEU:HD22 | 1.72                     | 0.72              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:320:GLN:HA    | 2:B:274:LYS:HD2   | 1.70                     | 0.72              |
| 6:C:1458:LEU:HD13 | 6:C:1464:LEU:HA   | 1.71                     | 0.72              |
| 6:C:2028:LEU:HD13 | 6:C:2033:ASP:HB3  | 1.70                     | 0.72              |
| 6:C:2032:ALA:O    | 6:C:2036:LEU:N    | 2.22                     | 0.72              |
| 6:C:2245:TRP:HB2  | 6:C:2246:LYS:HZ3  | 1.53                     | 0.72              |
| 6:C:3977:THR:O    | 6:C:3981:TYR:CB   | 2.38                     | 0.72              |
| 6:C:4084:SER:O    | 6:C:4088:ASN:N    | 2.21                     | 0.72              |
| 1:A:95:ASN:OD1    | 1:A:98:ASN:N      | 2.14                     | 0.72              |
| 1:A:143:LEU:HG    | 1:A:185:ARG:HH21  | 1.53                     | 0.72              |
| 1:A:166:ILE:HG22  | 1:A:200:LEU:HD12  | 1.71                     | 0.72              |
| 2:B:249:CYS:HB2   | 2:B:338:LYS:HD2   | 1.72                     | 0.72              |
| 6:C:532:ARG:HA    | 6:C:535:LEU:HD12  | 1.71                     | 0.72              |
| 6:C:625:ASN:HB3   | 6:C:659:ARG:HH21  | 1.55                     | 0.72              |
| 6:C:1260:LEU:O    | 6:C:1264:LEU:CB   | 2.36                     | 0.72              |
| 6:C:1412:LYS:O    | 6:C:1415:LEU:HB2  | 1.90                     | 0.72              |
| 6:C:1688:LEU:O    | 6:C:1692:ALA:CB   | 2.38                     | 0.72              |
| 6:C:1941:HIS:O    | 6:C:1945:TYR:HB2  | 1.90                     | 0.72              |
| 6:C:3179:TRP:CG   | 6:C:3249:GLN:HE22 | 2.07                     | 0.72              |
| 2:B:89:ASP:OD1    | 2:B:90:LEU:N      | 2.23                     | 0.72              |
| 6:C:66:LEU:HD12   | 6:C:69:VAL:HB     | 1.72                     | 0.72              |
| 6:C:1125:GLN:HA   | 6:C:1128:CYS:HB3  | 1.71                     | 0.72              |
| 6:C:1721:HIS:O    | 6:C:1725:GLN:HB2  | 1.89                     | 0.72              |
| 6:C:2803:ILE:HG23 | 6:C:2804:ILE:H    | 1.55                     | 0.72              |
| 6:C:3625:LEU:O    | 6:C:3629:ARG:N    | 2.18                     | 0.72              |
| 6:C:3737:ARG:NH1  | 6:C:3807:GLU:OE2  | 2.22                     | 0.72              |
| 2:B:457:LEU:HB2   | 2:B:529:PRO:HB3   | 1.72                     | 0.72              |
| 6:C:464:VAL:O     | 6:C:468:LEU:HG    | 1.88                     | 0.72              |
| 6:C:1958:GLU:O    | 6:C:1962:TYR:N    | 2.15                     | 0.72              |
| 6:C:432:THR:HG23  | 6:C:475:LEU:HD22  | 1.70                     | 0.71              |
| 6:C:979:VAL:O     | 6:C:983:LEU:CB    | 2.37                     | 0.71              |
| 6:C:1416:GLU:O    | 6:C:1420:ARG:N    | 2.23                     | 0.71              |
| 6:C:1634:ALA:O    | 6:C:1637:SER:N    | 2.19                     | 0.71              |
| 6:C:1941:HIS:O    | 6:C:1945:TYR:CB   | 2.38                     | 0.71              |
| 6:C:2404:ARG:O    | 6:C:2407:GLY:N    | 2.22                     | 0.71              |
| 6:C:2543:ASN:HA   | 6:C:2546:TYR:CD2  | 2.25                     | 0.71              |
| 1:A:275:ASN:ND2   | 4:D:2:DG:OP1      | 2.24                     | 0.71              |
| 6:C:413:PHE:O     | 6:C:416:SER:OG    | 2.07                     | 0.71              |
| 6:C:701:TYR:HA    | 6:C:704:PHE:CD2   | 2.25                     | 0.71              |
| 6:C:1075:ARG:O    | 6:C:1079:SER:N    | 2.21                     | 0.71              |
| 6:C:1557:GLU:HB3  | 6:C:1562:LEU:HB3  | 1.72                     | 0.71              |
| 6:C:3019:ILE:HD11 | 6:C:3027:LEU:HB3  | 1.72                     | 0.71              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3276:TRP:HB3  | 6:C:3280:TYR:CZ   | 2.25                     | 0.71              |
| 6:C:3471:ILE:HG12 | 6:C:3472:ILE:HG23 | 1.71                     | 0.71              |
| 6:C:3603:LYS:O    | 6:C:3607:GLU:CB   | 2.37                     | 0.71              |
| 1:A:148:TRP:HA    | 1:A:151:ALA:HB3   | 1.73                     | 0.71              |
| 1:A:485:GLN:NE2   | 2:B:333:TYR:O     | 2.15                     | 0.71              |
| 6:C:118:ASP:OD2   | 6:C:122:LYS:NZ    | 2.23                     | 0.71              |
| 6:C:1999:GLU:OE1  | 6:C:2001:LYS:NZ   | 2.22                     | 0.71              |
| 6:C:2286:PRO:HD3  | 6:C:2329:TYR:CE1  | 2.26                     | 0.71              |
| 6:C:2901:LEU:HG   | 6:C:2910:VAL:HG21 | 1.72                     | 0.71              |
| 6:C:3083:SER:OG   | 6:C:3085:GLU:OE1  | 2.04                     | 0.71              |
| 6:C:865:GLN:O     | 6:C:868:LYS:NZ    | 2.23                     | 0.71              |
| 6:C:887:ASP:HB3   | 6:C:3889:ARG:HH21 | 1.55                     | 0.71              |
| 6:C:1328:GLU:O    | 6:C:1332:TYR:HB3  | 1.91                     | 0.71              |
| 6:C:1978:PHE:O    | 6:C:1982:ILE:N    | 2.23                     | 0.71              |
| 6:C:3901:ARG:HA   | 6:C:3904:PHE:HB3  | 1.72                     | 0.71              |
| 6:C:4102:THR:O    | 6:C:4105:LYS:N    | 2.24                     | 0.71              |
| 1:A:466:VAL:O     | 1:A:470:ARG:N     | 2.22                     | 0.71              |
| 6:C:407:VAL:HG23  | 6:C:408:TYR:H     | 1.54                     | 0.71              |
| 6:C:723:ASP:O     | 6:C:727:ALA:N     | 2.22                     | 0.71              |
| 6:C:2575:PRO:HA   | 6:C:2789:SER:HB3  | 1.73                     | 0.71              |
| 6:C:2851:PHE:O    | 6:C:2854:PHE:N    | 2.23                     | 0.71              |
| 6:C:3095:ASP:OD2  | 6:C:3098:ARG:HG3  | 1.91                     | 0.71              |
| 6:C:3144:PHE:O    | 6:C:3148:GLN:CB   | 2.33                     | 0.71              |
| 6:C:3167:ARG:HA   | 6:C:3186:ARG:NH2  | 2.06                     | 0.71              |
| 6:C:3589:SER:O    | 6:C:3593:ARG:CB   | 2.38                     | 0.71              |
| 6:C:3824:GLU:OE2  | 6:C:3825:LYS:NZ   | 2.23                     | 0.71              |
| 1:A:465:ILE:HG13  | 1:A:525:PHE:CZ    | 2.25                     | 0.71              |
| 6:C:862:LEU:HA    | 6:C:3169:PRO:HB2  | 1.73                     | 0.71              |
| 6:C:1083:ASN:HA   | 6:C:1086:TYR:CD2  | 2.25                     | 0.71              |
| 6:C:3167:ARG:HH22 | 6:C:3190:LEU:HD11 | 1.55                     | 0.71              |
| 6:C:4080:VAL:HG12 | 6:C:4115:ASN:ND2  | 2.04                     | 0.71              |
| 1:A:58:THR:HG23   | 1:A:61:ASP:H      | 1.55                     | 0.71              |
| 1:A:303:PHE:HD2   | 2:B:292:GLU:HG2   | 1.54                     | 0.71              |
| 1:A:399:ARG:NH1   | 2:B:516:LEU:O     | 2.24                     | 0.71              |
| 1:A:420:LEU:HB3   | 1:A:424:LYS:HG3   | 1.71                     | 0.71              |
| 2:B:533:ILE:HA    | 2:B:537:PHE:HD2   | 1.56                     | 0.71              |
| 6:C:1163:LEU:H    | 6:C:1257:LEU:HD21 | 1.54                     | 0.71              |
| 6:C:2157:PHE:HA   | 6:C:2160:TYR:CD2  | 2.26                     | 0.71              |
| 6:C:2319:ALA:O    | 6:C:2322:VAL:HB   | 1.91                     | 0.71              |
| 6:C:3296:GLN:HE21 | 6:C:3300:VAL:HG22 | 1.56                     | 0.71              |
| 6:C:3890:MET:HE3  | 6:C:3900:LEU:HD13 | 1.73                     | 0.71              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3901:ARG:HH22 | 6:C:3972:LEU:HG   | 1.55                     | 0.71              |
| 6:C:4050:LYS:O    | 6:C:4053:GLY:N    | 2.23                     | 0.71              |
| 1:A:388:LYS:NZ    | 2:B:448:GLU:OE2   | 2.24                     | 0.71              |
| 6:C:532:ARG:O     | 6:C:536:SER:N     | 2.16                     | 0.71              |
| 6:C:1458:LEU:HB3  | 6:C:1464:LEU:HB3  | 1.73                     | 0.71              |
| 6:C:2842:ARG:O    | 6:C:2845:ASN:N    | 2.23                     | 0.71              |
| 6:C:3009:LYS:NZ   | 6:C:3012:GLU:OE1  | 2.14                     | 0.71              |
| 6:C:3176:MET:HA   | 6:C:3179:TRP:HB3  | 1.73                     | 0.71              |
| 6:C:3644:PHE:CZ   | 6:C:3670:MET:HA   | 2.26                     | 0.71              |
| 6:C:3820:MET:O    | 6:C:3824:GLU:N    | 2.19                     | 0.71              |
| 1:A:116:ILE:HD13  | 1:A:494:ALA:HB1   | 1.73                     | 0.71              |
| 6:C:540:MET:HG3   | 6:C:541:MET:HG2   | 1.72                     | 0.71              |
| 6:C:2813:PHE:HB3  | 6:C:2817:LEU:HD12 | 1.71                     | 0.71              |
| 6:C:3004:HIS:HA   | 6:C:3011:LEU:HD13 | 1.73                     | 0.71              |
| 6:C:3125:ARG:O    | 6:C:3128:LYS:N    | 2.23                     | 0.71              |
| 6:C:3312:VAL:HG23 | 6:C:3314:SER:H    | 1.54                     | 0.71              |
| 6:C:3328:ILE:O    | 6:C:3331:GLY:N    | 2.24                     | 0.71              |
| 6:C:3487:ILE:HG13 | 6:C:3495:PHE:HB2  | 1.71                     | 0.71              |
| 6:C:3840:LYS:HA   | 6:C:3843:LEU:HD12 | 1.72                     | 0.71              |
| 6:C:39:GLY:O      | 6:C:42:CYS:CB     | 2.38                     | 0.70              |
| 6:C:1023:SER:O    | 6:C:1026:ARG:HB3  | 1.90                     | 0.70              |
| 6:C:1921:ASP:O    | 6:C:1925:GLU:CB   | 2.33                     | 0.70              |
| 6:C:2139:PRO:HA   | 6:C:2142:ILE:HB   | 1.73                     | 0.70              |
| 6:C:2911:ARG:HB3  | 6:C:2913:LYS:HG2  | 1.73                     | 0.70              |
| 6:C:4125:GLU:HA   | 6:C:4127:TRP:CD1  | 2.26                     | 0.70              |
| 1:A:273:ILE:HA    | 1:A:368:VAL:HG22  | 1.73                     | 0.70              |
| 1:A:304:ASN:ND2   | 1:A:307:THR:OG1   | 2.23                     | 0.70              |
| 2:B:34:ALA:O      | 2:B:38:ILE:HB     | 1.91                     | 0.70              |
| 6:C:785:MET:HA    | 6:C:788:TYR:HD2   | 1.56                     | 0.70              |
| 6:C:925:GLN:HG3   | 6:C:926:THR:HG23  | 1.73                     | 0.70              |
| 6:C:1115:HIS:O    | 6:C:1117:ASP:N    | 2.24                     | 0.70              |
| 6:C:1253:THR:HA   | 6:C:1257:LEU:HB2  | 1.73                     | 0.70              |
| 6:C:2319:ALA:O    | 6:C:2323:LEU:N    | 2.20                     | 0.70              |
| 6:C:3117:ILE:HG12 | 6:C:3125:ARG:HH22 | 1.55                     | 0.70              |
| 6:C:713:GLU:O     | 6:C:717:LYS:CB    | 2.39                     | 0.70              |
| 6:C:774:GLU:O     | 6:C:778:ILE:HG13  | 1.91                     | 0.70              |
| 6:C:1033:ILE:HA   | 6:C:1036:PHE:CD2  | 2.26                     | 0.70              |
| 6:C:3387:GLU:O    | 6:C:3391:ALA:HB2  | 1.91                     | 0.70              |
| 6:C:243:GLN:OE1   | 6:C:243:GLN:N     | 2.23                     | 0.70              |
| 6:C:703:CYS:O     | 6:C:707:PHE:CB    | 2.40                     | 0.70              |
| 6:C:1329:ARG:O    | 6:C:1333:SER:HB3  | 1.91                     | 0.70              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1582:LEU:HD22 | 6:C:1639:LEU:HD13 | 1.74                     | 0.70              |
| 6:C:1601:LEU:O    | 6:C:1604:SER:OG   | 2.08                     | 0.70              |
| 6:C:2132:LYS:HB3  | 6:C:2133:LEU:HG   | 1.72                     | 0.70              |
| 6:C:3425:ARG:NH1  | 6:C:3428:GLU:OE2  | 2.25                     | 0.70              |
| 1:A:142:SER:OG    | 1:A:185:ARG:NH2   | 2.24                     | 0.70              |
| 1:A:143:LEU:HG    | 1:A:185:ARG:NH2   | 2.07                     | 0.70              |
| 2:B:187:GLY:N     | 2:B:232:ARG:HG2   | 2.07                     | 0.70              |
| 6:C:1480:GLY:O    | 6:C:1484:LEU:HB3  | 1.91                     | 0.70              |
| 6:C:3172:LYS:NZ   | 6:C:3241:LYS:HE2  | 2.07                     | 0.70              |
| 6:C:3272:TRP:O    | 6:C:3275:SER:N    | 2.23                     | 0.70              |
| 6:C:3886:ALA:HA   | 6:C:3889:ARG:HG2  | 1.73                     | 0.70              |
| 2:B:496:HIS:HE1   | 2:B:503:GLU:HG3   | 1.56                     | 0.70              |
| 6:C:978:GLN:NE2   | 6:C:982:GLN:OE1   | 2.24                     | 0.70              |
| 6:C:1594:SER:O    | 6:C:1598:ASN:N    | 2.22                     | 0.70              |
| 6:C:1966:LEU:O    | 6:C:1969:GLU:HB3  | 1.92                     | 0.70              |
| 6:C:2539:LEU:HA   | 6:C:2542:LEU:HD22 | 1.71                     | 0.70              |
| 6:C:2885:GLN:H    | 6:C:2885:GLN:CD   | 1.99                     | 0.70              |
| 6:C:3011:LEU:HD21 | 6:C:3046:ARG:HG3  | 1.73                     | 0.70              |
| 6:C:461:ILE:O     | 6:C:464:VAL:N     | 2.24                     | 0.70              |
| 6:C:786:GLN:O     | 6:C:789:TYR:HE2   | 1.74                     | 0.70              |
| 6:C:887:ASP:O     | 6:C:3889:ARG:NE   | 2.25                     | 0.70              |
| 6:C:3313:SER:H    | 6:C:3315:TYR:HB2  | 1.56                     | 0.70              |
| 6:C:3590:ASN:OD1  | 6:C:3593:ARG:NH2  | 2.25                     | 0.70              |
| 6:C:3880:ALA:HB1  | 6:C:3884:LYS:HZ1  | 1.57                     | 0.70              |
| 6:C:4101:GLU:O    | 6:C:4105:LYS:HG3  | 1.92                     | 0.70              |
| 1:A:254:ARG:O     | 2:B:433:TYR:OH    | 2.04                     | 0.70              |
| 1:A:410:PHE:HB2   | 1:A:439:PHE:HZ    | 1.56                     | 0.70              |
| 1:A:479:GLU:HA    | 2:B:426:PHE:HB3   | 1.71                     | 0.70              |
| 4:D:-3:DT:H2'     | 4:D:-2:DT:C6      | 2.27                     | 0.70              |
| 6:C:913:ARG:O     | 6:C:917:LEU:HG    | 1.91                     | 0.70              |
| 6:C:1273:GLU:O    | 6:C:1276:VAL:N    | 2.20                     | 0.70              |
| 6:C:1503:LEU:O    | 6:C:1507:CYS:CB   | 2.39                     | 0.70              |
| 6:C:2410:GLU:HG3  | 6:C:2411:LEU:HB2  | 1.73                     | 0.70              |
| 6:C:3480:LEU:HA   | 6:C:3516:HIS:ND1  | 2.06                     | 0.70              |
| 6:C:3811:THR:HG22 | 6:C:3929:MET:HE2  | 1.73                     | 0.70              |
| 1:A:418:GLU:HB2   | 1:A:430:PRO:HB3   | 1.73                     | 0.70              |
| 6:C:166:ILE:HD13  | 6:C:173:LYS:HE3   | 1.74                     | 0.70              |
| 6:C:590:GLU:OE2   | 6:C:1088:GLU:N    | 2.25                     | 0.70              |
| 6:C:1080:LEU:HD12 | 6:C:1081:ALA:H    | 1.56                     | 0.70              |
| 6:C:1266:CYS:HA   | 6:C:1347:THR:HG21 | 1.74                     | 0.70              |
| 6:C:2352:HIS:ND1  | 6:C:2364:LEU:HD21 | 2.07                     | 0.70              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2435:CYS:SG   | 6:C:2436:LEU:N    | 2.65                     | 0.70              |
| 6:C:2550:ILE:HA   | 6:C:2847:THR:HG22 | 1.73                     | 0.70              |
| 6:C:3888:VAL:O    | 6:C:3891:SER:N    | 2.25                     | 0.70              |
| 1:A:88:TYR:O      | 1:A:90:THR:OG1    | 2.10                     | 0.70              |
| 2:B:497:ARG:NH2   | 2:B:504:PRO:O     | 2.22                     | 0.70              |
| 6:C:55:THR:HA     | 6:C:58:VAL:HB     | 1.72                     | 0.70              |
| 6:C:416:SER:OG    | 6:C:417:VAL:N     | 2.23                     | 0.70              |
| 6:C:678:LYS:O     | 6:C:682:TYR:N     | 2.24                     | 0.70              |
| 6:C:1372:LEU:HD22 | 6:C:1402:LEU:HD23 | 1.74                     | 0.70              |
| 6:C:1471:GLN:HB3  | 6:C:1475:LEU:HD22 | 1.74                     | 0.70              |
| 6:C:2433:LYS:HD3  | 6:C:2461:PHE:CD1  | 2.27                     | 0.70              |
| 6:C:3056:GLU:HG2  | 6:C:3092:LEU:HB3  | 1.74                     | 0.70              |
| 6:C:3281:CYS:SG   | 6:C:3285:HIS:NE2  | 2.65                     | 0.70              |
| 2:B:185:LEU:HG    | 2:B:231:LEU:HD12  | 1.74                     | 0.69              |
| 2:B:397:TYR:OH    | 5:E:28:DA:OP1     | 2.10                     | 0.69              |
| 2:B:412:ILE:HA    | 2:B:417:GLU:HG2   | 1.73                     | 0.69              |
| 2:B:523:THR:O     | 2:B:526:SER:OG    | 2.07                     | 0.69              |
| 6:C:2442:MET:CB   | 6:C:2445:LYS:HB2  | 2.13                     | 0.69              |
| 6:C:3095:ASP:OD2  | 6:C:3099:ALA:N    | 2.25                     | 0.69              |
| 1:A:335:GLU:O     | 1:A:339:ARG:NH1   | 2.25                     | 0.69              |
| 6:C:1756:PRO:HD2  | 6:C:1863:PHE:HB2  | 1.74                     | 0.69              |
| 6:C:2072:ARG:HH12 | 6:C:2128:PHE:HZ   | 1.39                     | 0.69              |
| 6:C:2238:ILE:O    | 6:C:2241:LEU:N    | 2.25                     | 0.69              |
| 6:C:2302:ALA:O    | 6:C:2306:ASN:HB2  | 1.92                     | 0.69              |
| 6:C:2365:ASN:O    | 6:C:2368:THR:N    | 2.25                     | 0.69              |
| 6:C:2958:LEU:HA   | 6:C:3989:ARG:HH12 | 1.57                     | 0.69              |
| 6:C:3922:ASP:CG   | 6:C:3941:ASP:HB3  | 2.16                     | 0.69              |
| 1:A:69:SER:O      | 1:A:73:SER:HB3    | 1.91                     | 0.69              |
| 2:B:362:LEU:HD12  | 2:B:421:TYR:HB3   | 1.74                     | 0.69              |
| 6:C:400:THR:HB    | 6:C:1817:GLN:NE2  | 2.07                     | 0.69              |
| 6:C:538:ASP:HB2   | 6:C:539:GLN:NE2   | 2.07                     | 0.69              |
| 6:C:914:VAL:O     | 6:C:917:LEU:N     | 2.24                     | 0.69              |
| 6:C:3247:ARG:HB2  | 6:C:3278:GLN:HE22 | 1.57                     | 0.69              |
| 2:B:247:TRP:HB3   | 2:B:263:ALA:HB3   | 1.73                     | 0.69              |
| 6:C:223:CYS:O     | 6:C:227:LEU:HB2   | 1.92                     | 0.69              |
| 6:C:352:VAL:N     | 6:C:357:LYS:HZ2   | 1.90                     | 0.69              |
| 6:C:2002:LYS:H    | 6:C:2005:ILE:HG23 | 1.58                     | 0.69              |
| 6:C:2891:ARG:HH22 | 6:C:3897:PHE:HB3  | 1.57                     | 0.69              |
| 6:C:3780:ALA:HB1  | 6:C:3784:ARG:HH12 | 1.57                     | 0.69              |
| 6:C:2349:LEU:HG   | 6:C:2364:LEU:HD13 | 1.74                     | 0.69              |
| 6:C:3694:PHE:HB2  | 6:C:3697:ASN:HA   | 1.74                     | 0.69              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:132:GLN:HB3   | 1:A:137:HIS:CG    | 2.28                     | 0.69              |
| 6:C:400:THR:HB    | 6:C:1817:GLN:HE22 | 1.56                     | 0.69              |
| 6:C:997:ASN:O     | 6:C:1042:LYS:NZ   | 2.25                     | 0.69              |
| 6:C:2307:MET:HE2  | 6:C:2348:GLN:CD   | 2.16                     | 0.69              |
| 6:C:2336:ILE:HG13 | 6:C:2337:LEU:HG   | 1.74                     | 0.69              |
| 6:C:3792:SER:HB2  | 6:C:3804:GLU:HB2  | 1.74                     | 0.69              |
| 1:A:261:LEU:HD12  | 1:A:345:LEU:HB3   | 1.74                     | 0.69              |
| 1:A:289:TYR:CD1   | 2:B:310:ILE:HG22  | 2.24                     | 0.69              |
| 6:C:850:GLU:HB3   | 6:C:854:ARG:HH22  | 1.58                     | 0.69              |
| 6:C:1024:THR:O    | 6:C:1027:ASP:HB2  | 1.92                     | 0.69              |
| 6:C:1516:GLU:O    | 6:C:1520:ALA:CB   | 2.40                     | 0.69              |
| 6:C:2912:GLY:O    | 6:C:2916:LEU:CB   | 2.38                     | 0.69              |
| 6:C:3003:ASN:O    | 6:C:3007:GLU:N    | 2.25                     | 0.69              |
| 6:C:3485:LYS:O    | 6:C:3489:SER:CB   | 2.40                     | 0.69              |
| 1:A:382:PHE:HA    | 1:A:385:LEU:HD12  | 1.73                     | 0.69              |
| 1:A:428:THR:HA    | 2:B:354:ARG:HH12  | 1.57                     | 0.69              |
| 2:B:142:PHE:HE2   | 2:B:200:GLN:HE21  | 1.38                     | 0.69              |
| 6:C:197:PHE:HA    | 6:C:200:PHE:HD2   | 1.58                     | 0.69              |
| 6:C:321:LYS:O     | 6:C:324:SER:N     | 2.26                     | 0.69              |
| 6:C:632:GLU:HG3   | 6:C:633:ILE:HG23  | 1.72                     | 0.69              |
| 6:C:674:VAL:HG22  | 6:C:740:ILE:O     | 1.93                     | 0.69              |
| 6:C:751:ALA:O     | 6:C:755:ALA:HB2   | 1.93                     | 0.69              |
| 6:C:1016:GLY:O    | 6:C:1022:ASP:HA   | 1.93                     | 0.69              |
| 6:C:1268:ASN:HD22 | 6:C:1279:LEU:HD11 | 1.57                     | 0.69              |
| 6:C:1493:PRO:O    | 6:C:1497:ARG:N    | 2.24                     | 0.69              |
| 6:C:2322:VAL:O    | 6:C:2326:ILE:N    | 2.26                     | 0.69              |
| 6:C:2379:MET:HA   | 6:C:2382:VAL:HG22 | 1.75                     | 0.69              |
| 6:C:2476:ILE:HG22 | 6:C:2479:TRP:CD2  | 2.28                     | 0.69              |
| 6:C:4009:PRO:HB2  | 6:C:4012:ASP:H    | 1.58                     | 0.69              |
| 1:A:458:GLN:HG3   | 1:A:528:LEU:HD13  | 1.75                     | 0.69              |
| 2:B:268:LEU:HD12  | 2:B:269:GLN:H     | 1.58                     | 0.69              |
| 6:C:1080:LEU:HD12 | 6:C:1081:ALA:N    | 2.08                     | 0.69              |
| 6:C:1593:VAL:O    | 6:C:1597:LEU:N    | 2.17                     | 0.69              |
| 6:C:2233:HIS:HA   | 6:C:2236:GLU:CD   | 2.18                     | 0.69              |
| 6:C:2386:LEU:HB3  | 6:C:2387:PRO:HD3  | 1.74                     | 0.69              |
| 6:C:3190:LEU:HG   | 6:C:3231:ILE:HD11 | 1.75                     | 0.69              |
| 6:C:3320:ILE:O    | 6:C:3324:ARG:HG2  | 1.93                     | 0.69              |
| 1:A:82:LEU:HG     | 1:A:109:ASP:C     | 2.18                     | 0.69              |
| 6:C:367:GLY:HA2   | 6:C:370:ALA:HB3   | 1.75                     | 0.69              |
| 6:C:393:LYS:O     | 6:C:396:PHE:N     | 2.26                     | 0.69              |
| 6:C:568:PHE:CD1   | 6:C:610:ALA:HA    | 2.28                     | 0.69              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:734:LEU:HA    | 6:C:737:PRO:HG2   | 1.75                     | 0.69              |
| 6:C:797:ASP:CB    | 6:C:870:LEU:H     | 2.06                     | 0.69              |
| 6:C:1493:PRO:HB2  | 6:C:1495:ASP:HB2  | 1.74                     | 0.69              |
| 6:C:1992:VAL:HA   | 6:C:1995:GLU:HB3  | 1.75                     | 0.69              |
| 6:C:2808:LEU:HB2  | 6:C:2809:PHE:CD1  | 2.27                     | 0.69              |
| 6:C:658:THR:HA    | 6:C:733:LEU:HD22  | 1.74                     | 0.68              |
| 6:C:2068:ARG:NH2  | 6:C:2128:PHE:O    | 2.26                     | 0.68              |
| 6:C:2152:ASN:O    | 6:C:2155:GLU:HB2  | 1.93                     | 0.68              |
| 6:C:2382:VAL:O    | 6:C:2404:ARG:NH1  | 2.26                     | 0.68              |
| 6:C:3156:PRO:HA   | 6:C:3160:LEU:H    | 1.56                     | 0.68              |
| 6:C:3524:ASN:HA   | 6:C:3527:GLN:HB2  | 1.74                     | 0.68              |
| 6:C:4002:MET:HA   | 6:C:4005:PHE:HB3  | 1.75                     | 0.68              |
| 1:A:368:VAL:H     | 1:A:434:LEU:HD11  | 1.57                     | 0.68              |
| 4:D:-14:DA:H61    | 5:E:51:DA:H2      | 1.40                     | 0.68              |
| 5:E:50:DT:H2''    | 5:E:51:DA:C8      | 2.28                     | 0.68              |
| 6:C:616:LYS:HB3   | 6:C:617:PRO:HD3   | 1.74                     | 0.68              |
| 6:C:796:LEU:O     | 6:C:800:LEU:N     | 2.26                     | 0.68              |
| 6:C:1141:LYS:HG3  | 6:C:1179:PRO:HB3  | 1.75                     | 0.68              |
| 6:C:1903:SER:O    | 6:C:1906:THR:OG1  | 2.10                     | 0.68              |
| 6:C:2037:SER:O    | 6:C:2041:SER:HB3  | 1.93                     | 0.68              |
| 6:C:2307:MET:HA   | 6:C:2315:VAL:HB   | 1.74                     | 0.68              |
| 6:C:3475:TYR:HB3  | 6:C:3478:GLU:HB3  | 1.75                     | 0.68              |
| 6:C:3558:ILE:HA   | 6:C:3561:LYS:HD3  | 1.75                     | 0.68              |
| 1:A:419:GLU:O     | 1:A:426:GLN:NE2   | 2.27                     | 0.68              |
| 2:B:368:ARG:HB2   | 2:B:371:GLU:HG3   | 1.73                     | 0.68              |
| 6:C:158:GLY:O     | 6:C:162:LEU:HB2   | 1.92                     | 0.68              |
| 6:C:220:LEU:HD13  | 6:C:248:ILE:HG23  | 1.76                     | 0.68              |
| 6:C:2537:ASP:O    | 6:C:2540:LEU:N    | 2.27                     | 0.68              |
| 6:C:3107:ILE:HA   | 6:C:3110:PHE:CE2  | 2.28                     | 0.68              |
| 6:C:3521:ILE:HG12 | 6:C:3525:TYR:CE2  | 2.29                     | 0.68              |
| 6:C:3630:ARG:H    | 6:C:3633:ILE:HD12 | 1.58                     | 0.68              |
| 1:A:396:ALA:O     | 1:A:413:LEU:HB2   | 1.94                     | 0.68              |
| 6:C:716:VAL:O     | 6:C:719:LYS:N     | 2.26                     | 0.68              |
| 6:C:901:MET:HG3   | 6:C:903:PRO:HD3   | 1.75                     | 0.68              |
| 6:C:1681:ASP:OD1  | 6:C:1682:THR:N    | 2.26                     | 0.68              |
| 6:C:2270:ASN:OD1  | 6:C:2271:SER:N    | 2.26                     | 0.68              |
| 6:C:4113:ASP:CG   | 6:C:4115:ASN:HB3  | 2.18                     | 0.68              |
| 1:A:414:VAL:HG23  | 1:A:435:VAL:HG21  | 1.76                     | 0.68              |
| 2:B:247:TRP:HE1   | 2:B:398:ASP:H     | 1.41                     | 0.68              |
| 2:B:264:TYR:CB    | 2:B:363:LYS:O     | 2.34                     | 0.68              |
| 2:B:402:ASN:ND2   | 5:E:29:DT:O3'     | 2.27                     | 0.68              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 6:C:2025:MET:HB3 | 6:C:2028:LEU:HD12 | 1.75                     | 0.68              |
| 6:C:3118:ASP:OD1 | 6:C:3119:VAL:N    | 2.25                     | 0.68              |
| 6:C:90:CYS:SG    | 6:C:136:GLN:NE2   | 2.65                     | 0.68              |
| 6:C:1453:SER:HA  | 6:C:1456:LYS:HE2  | 1.76                     | 0.68              |
| 6:C:3024:PRO:HA  | 6:C:3027:LEU:HB2  | 1.75                     | 0.68              |
| 6:C:3759:ARG:HD3 | 6:C:4011:PHE:HE2  | 1.57                     | 0.68              |
| 1:A:243:LEU:O    | 1:A:247:ARG:NH1   | 2.27                     | 0.68              |
| 6:C:553:VAL:O    | 6:C:556:SER:OG    | 2.06                     | 0.68              |
| 6:C:850:GLU:O    | 6:C:853:ILE:HB    | 1.93                     | 0.68              |
| 6:C:1979:GLU:HA  | 6:C:1982:ILE:HB   | 1.75                     | 0.68              |
| 6:C:2398:LEU:HB2 | 6:C:2432:GLN:HG2  | 1.73                     | 0.68              |
| 6:C:3179:TRP:HE1 | 6:C:3245:SER:HB3  | 1.59                     | 0.68              |
| 6:C:3681:LYS:HZ1 | 6:C:3725:ARG:HG2  | 1.58                     | 0.68              |
| 1:A:74:LYS:HG3   | 1:A:83:LEU:HD11   | 1.76                     | 0.68              |
| 1:A:290:ARG:NH2  | 2:B:307:LYS:O     | 2.25                     | 0.68              |
| 2:B:400:ARG:HD2  | 4:D:9:DG:H2'      | 1.75                     | 0.68              |
| 6:C:339:GLN:HA   | 6:C:342:MET:HB2   | 1.75                     | 0.68              |
| 6:C:2887:PRO:HB3 | 6:C:2922:ARG:HH11 | 1.59                     | 0.68              |
| 6:C:3277:VAL:HA  | 6:C:3280:TYR:CD2  | 2.28                     | 0.68              |
| 6:C:3348:LEU:O   | 6:C:3351:ILE:N    | 2.27                     | 0.68              |
| 6:C:3413:TYR:HB3 | 6:C:3449:LYS:HG2  | 1.76                     | 0.68              |
| 6:C:4020:MET:HE3 | 6:C:4031:ILE:HG22 | 1.76                     | 0.68              |
| 1:A:416:GLN:OE1  | 1:A:417:GLU:N     | 2.27                     | 0.68              |
| 5:E:47:DT:C6     | 5:E:48:DT:H72     | 2.28                     | 0.68              |
| 6:C:462:VAL:HA   | 6:C:465:PHE:CD2   | 2.26                     | 0.68              |
| 6:C:1724:MET:O   | 6:C:1727:ARG:N    | 2.27                     | 0.68              |
| 6:C:1808:ASP:HB2 | 6:C:1812:LEU:HD12 | 1.76                     | 0.68              |
| 6:C:2207:LYS:C   | 6:C:2209:GLU:H    | 1.99                     | 0.68              |
| 6:C:2242:VAL:HA  | 6:C:2245:TRP:CD1  | 2.29                     | 0.68              |
| 6:C:2314:GLU:HA  | 6:C:2316:TYR:HE2  | 1.59                     | 0.68              |
| 6:C:3751:LEU:HG  | 6:C:3752:VAL:H    | 1.57                     | 0.68              |
| 1:A:71:TYR:HA    | 1:A:83:LEU:HD13   | 1.76                     | 0.68              |
| 1:A:109:ASP:OD2  | 1:A:115:ARG:NH2   | 2.27                     | 0.68              |
| 1:A:350:PHE:H    | 2:B:463:LEU:HG    | 1.59                     | 0.68              |
| 4:D:-4:DA:O3'    | 6:C:169:THR:HG21  | 1.94                     | 0.68              |
| 6:C:938:VAL:O    | 6:C:941:MET:HG2   | 1.94                     | 0.68              |
| 6:C:1637:SER:HB2 | 6:C:1638:PRO:HD3  | 1.76                     | 0.68              |
| 6:C:2462:VAL:O   | 6:C:2470:ARG:NE   | 2.27                     | 0.68              |
| 6:C:3480:LEU:HA  | 6:C:3516:HIS:HD1  | 1.59                     | 0.68              |
| 6:C:108:LYS:HB3  | 6:C:153:PHE:CE2   | 2.22                     | 0.67              |
| 6:C:770:LEU:HA   | 6:C:773:LEU:HG    | 1.76                     | 0.67              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1006:THR:O    | 6:C:1009:LEU:HB3  | 1.94                     | 0.67              |
| 6:C:1148:ALA:O    | 6:C:1151:ARG:N    | 2.27                     | 0.67              |
| 6:C:3001:CYS:HA   | 6:C:3004:HIS:HB3  | 1.77                     | 0.67              |
| 6:C:3498:TRP:HB2  | 6:C:3501:HIS:CD2  | 2.29                     | 0.67              |
| 6:C:4038:TRP:CZ3  | 6:C:4040:PRO:HG3  | 2.29                     | 0.67              |
| 2:B:369:ASP:H     | 2:B:371:GLU:HG3   | 1.58                     | 0.67              |
| 6:C:414:LEU:HD23  | 6:C:460:ALA:HB1   | 1.75                     | 0.67              |
| 6:C:969:LEU:HB3   | 6:C:970:LEU:HD12  | 1.77                     | 0.67              |
| 6:C:1677:SER:O    | 6:C:1680:ALA:N    | 2.26                     | 0.67              |
| 6:C:1725:GLN:NE2  | 6:C:1754:GLN:OE1  | 2.26                     | 0.67              |
| 6:C:2122:LEU:HG   | 6:C:2127:LYS:HD2  | 1.76                     | 0.67              |
| 6:C:3085:GLU:HA   | 6:C:3088:LEU:HB2  | 1.76                     | 0.67              |
| 2:B:44:ARG:O      | 2:B:48:ALA:N      | 2.27                     | 0.67              |
| 4:D:13:DT:O4'     | 5:E:24:DG:N2      | 2.27                     | 0.67              |
| 6:C:137:THR:O     | 6:C:141:SER:OG    | 2.08                     | 0.67              |
| 6:C:347:GLY:O     | 6:C:351:ASN:HB2   | 1.95                     | 0.67              |
| 6:C:670:LEU:O     | 6:C:674:VAL:N     | 2.23                     | 0.67              |
| 6:C:1049:GLN:HB3  | 6:C:1056:THR:HG21 | 1.76                     | 0.67              |
| 6:C:1358:LEU:HD22 | 6:C:1361:LYS:HE2  | 1.76                     | 0.67              |
| 6:C:2070:GLU:HA   | 6:C:2071:GLN:C    | 2.17                     | 0.67              |
| 6:C:3447:VAL:HA   | 6:C:3465:PHE:CZ   | 2.30                     | 0.67              |
| 6:C:3500:SER:HB2  | 6:C:3762:GLN:NE2  | 2.08                     | 0.67              |
| 6:C:3634:GLN:HA   | 6:C:3638:LYS:HE2  | 1.76                     | 0.67              |
| 6:C:3778:ASP:OD2  | 6:C:3781:CYS:N    | 2.26                     | 0.67              |
| 6:C:4104:VAL:O    | 6:C:4108:MET:HG2  | 1.94                     | 0.67              |
| 6:C:4127:TRP:CZ3  | 6:C:4128:MET:HB2  | 2.29                     | 0.67              |
| 1:A:89:GLY:HA2    | 1:A:141:TYR:HB3   | 1.77                     | 0.67              |
| 1:A:317:LYS:HG3   | 1:A:330:GLU:HA    | 1.75                     | 0.67              |
| 2:B:299:ASP:OD1   | 2:B:300:ASP:N     | 2.28                     | 0.67              |
| 4:D:-6:DT:C2      | 4:D:-5:DT:N3      | 2.63                     | 0.67              |
| 6:C:205:LYS:HA    | 6:C:208:MET:HE2   | 1.74                     | 0.67              |
| 6:C:1153:LEU:HB2  | 6:C:1154:PRO:HD3  | 1.77                     | 0.67              |
| 6:C:2101:VAL:O    | 6:C:2105:HIS:HB3  | 1.94                     | 0.67              |
| 6:C:2114:GLU:HB3  | 6:C:2155:GLU:HG2  | 1.75                     | 0.67              |
| 6:C:2196:TRP:CG   | 6:C:2199:LEU:HB2  | 2.30                     | 0.67              |
| 6:C:2459:VAL:HA   | 6:C:2462:VAL:HG12 | 1.74                     | 0.67              |
| 6:C:2791:ILE:O    | 6:C:2795:GLN:HG3  | 1.95                     | 0.67              |
| 1:A:302:THR:O     | 1:A:311:LEU:N     | 2.28                     | 0.67              |
| 1:A:405:ASN:CG    | 1:A:406:ILE:H     | 2.03                     | 0.67              |
| 6:C:153:PHE:HB3   | 6:C:157:TYR:CE2   | 2.30                     | 0.67              |
| 6:C:1342:MET:HA   | 6:C:1345:THR:HB   | 1.76                     | 0.67              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2276:LEU:HD11 | 6:C:2280:VAL:HG23 | 1.77                     | 0.67              |
| 6:C:2361:ILE:O    | 6:C:2364:LEU:N    | 2.28                     | 0.67              |
| 6:C:2943:PHE:CZ   | 6:C:2986:PRO:HG2  | 2.29                     | 0.67              |
| 6:C:3467:ARG:NH2  | 6:C:4000:ASN:OD1  | 2.27                     | 0.67              |
| 1:A:318:ARG:CZ    | 2:B:278:VAL:HG13  | 2.25                     | 0.67              |
| 2:B:316:TYR:O     | 2:B:319:ASP:N     | 2.27                     | 0.67              |
| 6:C:1165:LEU:HB3  | 6:C:1169:VAL:HG23 | 1.76                     | 0.67              |
| 6:C:1352:SER:O    | 6:C:1354:GLU:N    | 2.27                     | 0.67              |
| 6:C:2117:SER:HB2  | 6:C:2157:PHE:HB3  | 1.76                     | 0.67              |
| 6:C:3110:PHE:HA   | 6:C:3113:ASN:CG   | 2.19                     | 0.67              |
| 6:C:3141:PHE:O    | 6:C:3145:ILE:HG12 | 1.95                     | 0.67              |
| 2:B:465:LYS:O     | 2:B:473:LEU:HA    | 1.95                     | 0.67              |
| 6:C:2395:THR:O    | 6:C:2399:GLU:N    | 2.13                     | 0.67              |
| 6:C:3084:GLN:OE1  | 6:C:3087:SER:OG   | 2.05                     | 0.67              |
| 6:C:3301:LEU:HD13 | 6:C:3328:ILE:HG21 | 1.76                     | 0.67              |
| 6:C:3581:PRO:O    | 6:C:3584:LEU:N    | 2.28                     | 0.67              |
| 1:A:353:LEU:HB2   | 1:A:393:GLU:HG2   | 1.76                     | 0.67              |
| 6:C:533:HIS:O     | 6:C:537:SER:N     | 2.25                     | 0.67              |
| 6:C:910:PHE:O     | 6:C:913:ARG:N     | 2.28                     | 0.67              |
| 6:C:1072:ALA:HB3  | 6:C:1075:ARG:HG2  | 1.76                     | 0.67              |
| 6:C:1329:ARG:O    | 6:C:1333:SER:CB   | 2.42                     | 0.67              |
| 6:C:1814:PHE:CZ   | 6:C:1818:SER:HA   | 2.30                     | 0.67              |
| 6:C:2097:LEU:O    | 6:C:2100:LEU:HB3  | 1.94                     | 0.67              |
| 6:C:3336:ILE:HG23 | 6:C:3339:ASN:H    | 1.60                     | 0.67              |
| 6:C:4069:GLU:HB3  | 6:C:4070:LYS:HG3  | 1.76                     | 0.67              |
| 1:A:40:PHE:CD2    | 1:A:67:ILE:HG23   | 2.29                     | 0.67              |
| 6:C:152:LEU:HA    | 6:C:155:LYS:HE2   | 1.75                     | 0.67              |
| 6:C:1871:MET:HE3  | 6:C:1885:PRO:HD3  | 1.76                     | 0.67              |
| 6:C:2060:ARG:HB3  | 6:C:2061:PRO:HD3  | 1.75                     | 0.67              |
| 6:C:2458:VAL:HG12 | 6:C:2459:VAL:HG23 | 1.77                     | 0.67              |
| 6:C:2553:HIS:O    | 6:C:2556:SER:OG   | 2.10                     | 0.67              |
| 6:C:3192:LYS:HA   | 6:C:3195:GLU:HG2  | 1.76                     | 0.67              |
| 2:B:31:PHE:CZ     | 2:B:100:PRO:HB3   | 2.30                     | 0.67              |
| 2:B:249:CYS:SG    | 2:B:250:ARG:N     | 2.66                     | 0.67              |
| 6:C:1403:MET:HA   | 6:C:1406:LEU:HD12 | 1.75                     | 0.67              |
| 6:C:2538:ARG:NH1  | 6:C:2565:MET:SD   | 2.68                     | 0.67              |
| 6:C:2933:ILE:C    | 6:C:2937:ASP:HB2  | 2.20                     | 0.67              |
| 6:C:3004:HIS:O    | 6:C:3046:ARG:NE   | 2.28                     | 0.67              |
| 6:C:3141:PHE:HA   | 6:C:3144:PHE:CE2  | 2.30                     | 0.67              |
| 6:C:3420:CYS:O    | 6:C:3423:GLN:N    | 2.28                     | 0.67              |
| 6:C:3493:TRP:CH2  | 6:C:3714:GLU:HB2  | 2.30                     | 0.67              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 6:C:3498:TRP:O   | 6:C:3501:HIS:HB2  | 1.94                     | 0.67              |
| 2:B:453:ALA:HB3  | 2:B:532:LYS:HZ2   | 1.59                     | 0.66              |
| 6:C:1265:GLU:HA  | 6:C:1268:ASN:ND2  | 2.11                     | 0.66              |
| 6:C:1566:THR:OG1 | 6:C:1570:GLU:OE2  | 2.10                     | 0.66              |
| 6:C:1890:HIS:CG  | 6:C:1937:ARG:HA   | 2.30                     | 0.66              |
| 6:C:2916:LEU:O   | 6:C:2919:ASP:N    | 2.28                     | 0.66              |
| 1:A:143:LEU:HD12 | 1:A:144:SER:N     | 2.10                     | 0.66              |
| 5:E:45:DG:H5'    | 6:C:260:ILE:HD12  | 1.76                     | 0.66              |
| 6:C:377:ASN:ND2  | 6:C:423:TYR:OH    | 2.28                     | 0.66              |
| 6:C:560:LEU:HD22 | 6:C:616:LYS:HE2   | 1.77                     | 0.66              |
| 6:C:566:ASP:OD1  | 6:C:1806:ARG:NH2  | 2.27                     | 0.66              |
| 6:C:1963:GLN:O   | 6:C:1967:PHE:N    | 2.29                     | 0.66              |
| 6:C:2314:GLU:HA  | 6:C:2316:TYR:CE2  | 2.30                     | 0.66              |
| 6:C:2371:PHE:CD2 | 6:C:2372:PRO:HA   | 2.30                     | 0.66              |
| 6:C:3104:GLN:HA  | 6:C:3107:ILE:HD12 | 1.77                     | 0.66              |
| 6:C:3502:MET:O   | 6:C:3506:LEU:N    | 2.27                     | 0.66              |
| 6:C:3613:MET:O   | 6:C:3617:LEU:N    | 2.22                     | 0.66              |
| 2:B:533:ILE:HA   | 2:B:537:PHE:CD2   | 2.30                     | 0.66              |
| 4:D:8:DT:H2''    | 4:D:9:DG:C8       | 2.30                     | 0.66              |
| 6:C:263:LYS:HE2  | 6:C:264:ARG:HH12  | 1.59                     | 0.66              |
| 6:C:559:SER:HA   | 6:C:562:HIS:HD2   | 1.59                     | 0.66              |
| 6:C:640:GLU:O    | 6:C:644:PRO:HD3   | 1.95                     | 0.66              |
| 6:C:2139:PRO:O   | 6:C:2143:ARG:HG3  | 1.95                     | 0.66              |
| 6:C:3084:GLN:O   | 6:C:3088:LEU:N    | 2.27                     | 0.66              |
| 6:C:3708:ARG:NH2 | 6:C:3792:SER:OG   | 2.28                     | 0.66              |
| 6:C:3866:GLU:O   | 6:C:3869:THR:OG1  | 2.13                     | 0.66              |
| 6:C:4041:ARG:O   | 6:C:4045:CYS:N    | 2.25                     | 0.66              |
| 1:A:317:LYS:HG2  | 1:A:318:ARG:H     | 1.61                     | 0.66              |
| 6:C:1135:CYS:HA  | 6:C:1138:ILE:HB   | 1.77                     | 0.66              |
| 5:E:31:DA:H3'    | 5:E:32:DT:H71     | 1.77                     | 0.66              |
| 6:C:28:ALA:O     | 6:C:32:HIS:ND1    | 2.28                     | 0.66              |
| 6:C:655:LEU:O    | 6:C:658:THR:OG1   | 2.13                     | 0.66              |
| 6:C:1052:SER:OG  | 6:C:1055:ASN:HB2  | 1.96                     | 0.66              |
| 6:C:1963:GLN:HA  | 6:C:1966:LEU:HB2  | 1.78                     | 0.66              |
| 6:C:2073:ASP:HA  | 6:C:2076:VAL:HG22 | 1.75                     | 0.66              |
| 6:C:2251:ILE:HA  | 6:C:2253:TYR:CE2  | 2.30                     | 0.66              |
| 6:C:2526:SER:HA  | 6:C:2530:ARG:HB2  | 1.77                     | 0.66              |
| 6:C:3268:THR:H   | 6:C:3271:ASP:HB2  | 1.60                     | 0.66              |
| 1:A:40:PHE:HE2   | 1:A:71:TYR:HB2    | 1.61                     | 0.66              |
| 2:B:385:ASP:OD1  | 2:B:386:ASP:N     | 2.29                     | 0.66              |
| 2:B:484:ASN:H    | 2:B:487:PHE:HZ    | 1.43                     | 0.66              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 4:D:-5:DT:C2      | 4:D:-4:DA:C8      | 2.83                     | 0.66              |
| 6:C:16:GLN:O      | 6:C:20:SER:CB     | 2.43                     | 0.66              |
| 6:C:82:ARG:NH1    | 6:C:114:VAL:HG13  | 2.11                     | 0.66              |
| 6:C:2507:ILE:HA   | 6:C:2522:ARG:HH21 | 1.59                     | 0.66              |
| 6:C:2960:GLU:OE2  | 6:C:2963:SER:N    | 2.22                     | 0.66              |
| 6:C:2998:SER:HB3  | 6:C:3002:TYR:OH   | 1.95                     | 0.66              |
| 6:C:3584:LEU:HB3  | 6:C:3617:LEU:HD11 | 1.77                     | 0.66              |
| 6:C:3842:TRP:CE2  | 6:C:3867:THR:HG21 | 2.30                     | 0.66              |
| 6:C:3864:ARG:HH12 | 6:C:4077:TYR:HB2  | 1.60                     | 0.66              |
| 1:A:80:ARG:NH1    | 4:D:-1:DA:O3'     | 2.28                     | 0.66              |
| 6:C:1083:ASN:HA   | 6:C:1086:TYR:HD2  | 1.60                     | 0.66              |
| 6:C:1100:VAL:O    | 6:C:1104:LEU:HB2  | 1.96                     | 0.66              |
| 6:C:1457:GLN:O    | 6:C:1461:ALA:HB3  | 1.96                     | 0.66              |
| 6:C:2482:ASP:OD1  | 6:C:2485:ARG:NH2  | 2.29                     | 0.66              |
| 6:C:2484:TYR:CZ   | 6:C:2498:ILE:HG21 | 2.30                     | 0.66              |
| 6:C:3493:TRP:HE1  | 6:C:3710:LYS:N    | 1.93                     | 0.66              |
| 6:C:3495:PHE:HA   | 6:C:3498:TRP:CH2  | 2.31                     | 0.66              |
| 6:C:3500:SER:O    | 6:C:3503:VAL:HG12 | 1.95                     | 0.66              |
| 6:C:3983:ILE:HA   | 6:C:3986:HIS:ND1  | 2.11                     | 0.66              |
| 6:C:4095:GLU:HG3  | 6:C:4098:LEU:H    | 1.61                     | 0.66              |
| 1:A:35:ARG:HD2    | 1:A:80:ARG:HB2    | 1.78                     | 0.66              |
| 1:A:127:GLY:O     | 1:A:131:PHE:CB    | 2.44                     | 0.66              |
| 1:A:244:ARG:NH2   | 1:A:505:ASP:OD1   | 2.29                     | 0.66              |
| 6:C:1121:LEU:HG   | 6:C:1122:GLY:H    | 1.60                     | 0.66              |
| 6:C:1238:GLN:HA   | 6:C:1298:LEU:HD21 | 1.78                     | 0.66              |
| 6:C:3160:LEU:HD11 | 6:C:3193:ILE:HD13 | 1.78                     | 0.66              |
| 6:C:3649:SER:O    | 6:C:3653:ARG:HG2  | 1.95                     | 0.66              |
| 6:C:3733:ARG:HH22 | 6:C:3756:GLU:HB3  | 1.61                     | 0.66              |
| 6:C:3929:MET:C    | 6:C:3937:VAL:HA   | 2.20                     | 0.66              |
| 6:C:4001:THR:O    | 6:C:4005:PHE:CB   | 2.43                     | 0.66              |
| 6:C:4109:ASP:O    | 6:C:4112:THR:HG22 | 1.95                     | 0.66              |
| 2:B:315:ARG:HA    | 2:B:320:ILE:HA    | 1.78                     | 0.66              |
| 2:B:510:GLN:O     | 2:B:514:ASN:N     | 2.17                     | 0.66              |
| 6:C:246:ARG:CZ    | 6:C:286:LEU:HD12  | 2.26                     | 0.66              |
| 6:C:994:TRP:O     | 6:C:998:ASN:ND2   | 2.27                     | 0.66              |
| 6:C:1170:LYS:HG2  | 6:C:1267:TYR:HB2  | 1.77                     | 0.66              |
| 6:C:1228:GLY:H    | 6:C:1287:GLN:NE2  | 1.93                     | 0.66              |
| 6:C:1869:LYS:HA   | 6:C:1873:TYR:CE2  | 2.30                     | 0.66              |
| 6:C:2052:TYR:HA   | 6:C:2055:SER:OG   | 1.95                     | 0.66              |
| 6:C:2940:ARG:HD2  | 6:C:3975:LYS:HD3  | 1.77                     | 0.66              |
| 6:C:2962:ARG:CA   | 6:C:3003:ASN:HD21 | 1.99                     | 0.66              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3700:GLU:HG3  | 6:C:3718:ARG:HG2  | 1.77                     | 0.66              |
| 1:A:50:GLU:OE1    | 1:A:50:GLU:N      | 2.23                     | 0.66              |
| 1:A:239:LEU:HD12  | 1:A:242:LEU:HB2   | 1.77                     | 0.66              |
| 2:B:384:LEU:HA    | 2:B:389:MET:HB2   | 1.78                     | 0.66              |
| 4:D:-5:DT:H2'     | 4:D:-4:DA:C8      | 2.29                     | 0.66              |
| 6:C:886:TRP:NE1   | 6:C:889:GLU:HB2   | 2.10                     | 0.66              |
| 6:C:1977:ILE:HB   | 6:C:1980:ASN:HB2  | 1.77                     | 0.66              |
| 6:C:2341:LEU:HD12 | 6:C:2344:LEU:HD12 | 1.78                     | 0.66              |
| 6:C:3078:LEU:HA   | 6:C:3081:HIS:ND1  | 2.10                     | 0.66              |
| 6:C:3298:LEU:HG   | 6:C:3302:LYS:HG3  | 1.77                     | 0.66              |
| 6:C:3818:ASN:OD1  | 6:C:3819:THR:N    | 2.29                     | 0.66              |
| 6:C:856:VAL:HA    | 6:C:859:LEU:HD12  | 1.78                     | 0.65              |
| 6:C:1072:ALA:HB1  | 6:C:1074:LYS:HG3  | 1.78                     | 0.65              |
| 6:C:2208:ASP:O    | 6:C:2211:LEU:N    | 2.28                     | 0.65              |
| 6:C:2861:ILE:HG21 | 6:C:2888:VAL:HG23 | 1.77                     | 0.65              |
| 6:C:3619:ASP:HB3  | 6:C:3622:ALA:HB2  | 1.78                     | 0.65              |
| 6:C:3813:LYS:HD2  | 6:C:3816:LEU:HD23 | 1.78                     | 0.65              |
| 6:C:4113:ASP:O    | 6:C:4117:LEU:N    | 2.29                     | 0.65              |
| 1:A:65:GLN:HG3    | 1:A:123:LYS:HE2   | 1.77                     | 0.65              |
| 1:A:168:LEU:HB2   | 1:A:200:LEU:HD11  | 1.77                     | 0.65              |
| 1:A:202:LEU:H     | 1:A:221:ILE:HG22  | 1.60                     | 0.65              |
| 1:A:352:PRO:HD2   | 2:B:464:ALA:HB3   | 1.78                     | 0.65              |
| 6:C:78:PHE:HA     | 6:C:81:CYS:HB2    | 1.77                     | 0.65              |
| 6:C:90:CYS:HB2    | 6:C:136:GLN:HG3   | 1.79                     | 0.65              |
| 6:C:429:GLU:C     | 6:C:431:TYR:H     | 2.03                     | 0.65              |
| 6:C:441:MET:O     | 6:C:445:SER:HB2   | 1.95                     | 0.65              |
| 6:C:1001:PHE:CE1  | 6:C:1002:GLU:HG3  | 2.32                     | 0.65              |
| 6:C:1062:ARG:HG3  | 6:C:1063:LEU:HG   | 1.79                     | 0.65              |
| 6:C:1172:LEU:O    | 6:C:1176:CYS:N    | 2.28                     | 0.65              |
| 6:C:2047:THR:O    | 6:C:2050:GLN:N    | 2.28                     | 0.65              |
| 6:C:2121:ASP:HA   | 6:C:2126:MET:HB2  | 1.77                     | 0.65              |
| 6:C:2317:ALA:HA   | 6:C:2320:ALA:HB3  | 1.78                     | 0.65              |
| 6:C:2379:MET:O    | 6:C:2382:VAL:N    | 2.29                     | 0.65              |
| 6:C:3297:VAL:HG13 | 6:C:3298:LEU:H    | 1.61                     | 0.65              |
| 6:C:3480:LEU:O    | 6:C:3484:THR:OG1  | 2.15                     | 0.65              |
| 1:A:254:ARG:HH22  | 4:D:1:DG:H4'      | 1.61                     | 0.65              |
| 2:B:253:ILE:N     | 2:B:257:LEU:O     | 2.29                     | 0.65              |
| 6:C:373:CYS:H     | 6:C:375:VAL:HG23  | 1.61                     | 0.65              |
| 6:C:1010:LEU:HA   | 6:C:1013:ILE:HG12 | 1.78                     | 0.65              |
| 6:C:1340:ARG:HA   | 6:C:1343:GLU:CG   | 2.22                     | 0.65              |
| 6:C:3008:TRP:CD1  | 6:C:3009:LYS:H    | 2.13                     | 0.65              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3592:VAL:HG22 | 6:C:3606:ILE:HG23 | 1.78                     | 0.65              |
| 6:C:4030:GLU:O    | 6:C:4034:ALA:HB2  | 1.95                     | 0.65              |
| 1:A:254:ARG:NE    | 4:D:0:DT:O3'      | 2.29                     | 0.65              |
| 1:A:361:TYR:CD1   | 1:A:436:PHE:HZ    | 2.14                     | 0.65              |
| 6:C:70:ARG:HE     | 6:C:82:ARG:HE     | 1.44                     | 0.65              |
| 6:C:967:PRO:C     | 6:C:971:ARG:HE    | 2.04                     | 0.65              |
| 6:C:2140:LEU:HA   | 6:C:2143:ARG:HD2  | 1.79                     | 0.65              |
| 6:C:2185:MET:O    | 6:C:2189:ILE:HG12 | 1.97                     | 0.65              |
| 6:C:2446:LEU:HB2  | 6:C:2451:LEU:HD12 | 1.78                     | 0.65              |
| 6:C:2833:THR:HA   | 6:C:2836:LEU:HD12 | 1.77                     | 0.65              |
| 6:C:2837:LEU:HD22 | 6:C:2868:LEU:HA   | 1.78                     | 0.65              |
| 6:C:3462:ARG:HG3  | 6:C:3463:LEU:HG   | 1.78                     | 0.65              |
| 6:C:3772:ASN:HA   | 6:C:3775:LEU:HG   | 1.77                     | 0.65              |
| 1:A:194:ARG:NE    | 1:A:222:SER:HA    | 2.12                     | 0.65              |
| 1:A:343:PRO:HG3   | 1:A:405:ASN:H     | 1.61                     | 0.65              |
| 1:A:430:PRO:HB2   | 2:B:438:LEU:HD12  | 1.78                     | 0.65              |
| 2:B:184:ARG:HD3   | 2:B:514:ASN:HB3   | 1.79                     | 0.65              |
| 6:C:249:PHE:CE1   | 6:C:272:LEU:HG    | 2.32                     | 0.65              |
| 6:C:3121:LEU:N    | 6:C:3124:SER:HB2  | 2.11                     | 0.65              |
| 6:C:3808:ASN:HB3  | 6:C:3932:MET:HG2  | 1.77                     | 0.65              |
| 6:C:3999:THR:O    | 6:C:4003:ASP:CB   | 2.44                     | 0.65              |
| 1:A:398:CYS:SG    | 1:A:399:ARG:N     | 2.70                     | 0.65              |
| 6:C:891:ARG:NH1   | 6:C:893:SER:HA    | 2.11                     | 0.65              |
| 6:C:993:HIS:HD2   | 6:C:1034:ARG:HH22 | 1.44                     | 0.65              |
| 6:C:1974:ASN:HB2  | 6:C:1984:LEU:HD22 | 1.78                     | 0.65              |
| 6:C:3631:LYS:HZ2  | 6:C:3686:TRP:CD1  | 2.14                     | 0.65              |
| 2:B:107:PHE:HE2   | 2:B:140:SER:HB2   | 1.61                     | 0.65              |
| 5:E:44:DA:H2'     | 5:E:45:DG:C8      | 2.32                     | 0.65              |
| 6:C:87:LYS:HG2    | 6:C:133:LYS:HE3   | 1.76                     | 0.65              |
| 6:C:177:LEU:HD23  | 6:C:180:LEU:HD12  | 1.79                     | 0.65              |
| 6:C:355:ASN:HD21  | 6:C:357:LYS:HE3   | 1.61                     | 0.65              |
| 6:C:913:ARG:NH2   | 6:C:929:ALA:O     | 2.30                     | 0.65              |
| 6:C:2022:PRO:HG3  | 6:C:2041:SER:O    | 1.97                     | 0.65              |
| 6:C:2841:ASN:HA   | 6:C:2844:LEU:HD12 | 1.79                     | 0.65              |
| 2:B:7:LYS:HA      | 2:B:51:LYS:O      | 1.96                     | 0.65              |
| 2:B:251:LEU:HD13  | 2:B:340:PHE:CD2   | 2.32                     | 0.65              |
| 3:K:15:ALA:O      | 3:K:19:ALA:HB2    | 1.97                     | 0.65              |
| 6:C:82:ARG:O      | 6:C:86:LEU:HB2    | 1.97                     | 0.65              |
| 6:C:131:LEU:O     | 6:C:135:LEU:HG    | 1.97                     | 0.65              |
| 6:C:175:TYR:HE1   | 6:C:200:PHE:HB3   | 1.62                     | 0.65              |
| 6:C:963:LYS:NZ    | 6:C:1006:THR:OG1  | 2.17                     | 0.65              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 6:C:2943:PHE:HZ  | 6:C:2986:PRO:HG2  | 1.62                     | 0.65              |
| 6:C:3768:PHE:HB3 | 6:C:3788:LEU:HD21 | 1.77                     | 0.65              |
| 1:A:114:LYS:HA   | 1:A:117:LEU:HB2   | 1.79                     | 0.65              |
| 1:A:317:LYS:HD2  | 1:A:328:ILE:HG13  | 1.79                     | 0.65              |
| 1:A:319:SER:N    | 2:B:277:THR:O     | 2.29                     | 0.65              |
| 6:C:1747:LEU:O   | 6:C:1751:GLU:HB3  | 1.97                     | 0.65              |
| 6:C:1906:THR:O   | 6:C:1910:GLU:N    | 2.29                     | 0.65              |
| 6:C:2139:PRO:O   | 6:C:2143:ARG:N    | 2.29                     | 0.65              |
| 6:C:2340:SER:HA  | 6:C:2343:GLU:CD   | 2.22                     | 0.65              |
| 6:C:2514:ASN:HB2 | 6:C:2515:PRO:HD3  | 1.79                     | 0.65              |
| 6:C:2568:MET:HG3 | 6:C:2569:SER:H    | 1.62                     | 0.65              |
| 1:A:115:ARG:NE   | 1:A:118:GLU:OE2   | 2.27                     | 0.65              |
| 1:A:340:PHE:HE2  | 2:B:485:PRO:HB3   | 1.62                     | 0.65              |
| 2:B:435:PHE:HZ   | 2:B:438:LEU:HG    | 1.62                     | 0.65              |
| 2:B:519:PRO:HB2  | 2:B:521:GLU:OE1   | 1.96                     | 0.65              |
| 5:E:38:DA:H2"    | 5:E:39:DA:C8      | 2.31                     | 0.65              |
| 6:C:69:VAL:O     | 6:C:72:SER:OG     | 2.15                     | 0.65              |
| 6:C:624:ILE:HG22 | 6:C:659:ARG:NH1   | 2.12                     | 0.65              |
| 6:C:649:PHE:HD1  | 6:C:656:GLN:HG3   | 1.60                     | 0.65              |
| 6:C:907:LEU:O    | 6:C:910:PHE:HE2   | 1.80                     | 0.65              |
| 6:C:1045:THR:O   | 6:C:1049:GLN:HG3  | 1.97                     | 0.65              |
| 6:C:1086:TYR:O   | 6:C:1090:ARG:N    | 2.16                     | 0.65              |
| 6:C:1135:CYS:O   | 6:C:1139:GLU:N    | 2.30                     | 0.65              |
| 6:C:2013:GLU:O   | 6:C:2016:ASN:ND2  | 2.30                     | 0.65              |
| 6:C:2242:VAL:HA  | 6:C:2245:TRP:HD1  | 1.60                     | 0.65              |
| 6:C:2806:LYS:O   | 6:C:2809:PHE:N    | 2.17                     | 0.65              |
| 6:C:3114:TYR:O   | 6:C:3117:ILE:HG22 | 1.96                     | 0.65              |
| 6:C:3159:ARG:HE  | 6:C:3162:ASN:CG   | 2.04                     | 0.65              |
| 6:C:3988:LEU:HA  | 6:C:3991:PHE:CD2  | 2.32                     | 0.65              |
| 1:A:302:THR:HB   | 1:A:311:LEU:HD12  | 1.78                     | 0.64              |
| 2:B:293:THR:HG23 | 2:B:294:VAL:H     | 1.62                     | 0.64              |
| 6:C:32:HIS:HA    | 6:C:35:ILE:HD12   | 1.79                     | 0.64              |
| 6:C:1180:GLN:HG3 | 6:C:1219:PHE:HZ   | 1.60                     | 0.64              |
| 6:C:1459:HIS:CD2 | 6:C:1464:LEU:HD22 | 2.32                     | 0.64              |
| 6:C:2072:ARG:N   | 6:C:2075:THR:HG1  | 1.91                     | 0.64              |
| 6:C:2878:ALA:HB3 | 6:C:2882:ALA:HB2  | 1.79                     | 0.64              |
| 6:C:3008:TRP:CG  | 6:C:3009:LYS:H    | 2.14                     | 0.64              |
| 6:C:3681:LYS:HG2 | 6:C:3724:GLU:HB3  | 1.78                     | 0.64              |
| 1:A:301:ARG:HB3  | 6:C:163:LYS:HD2   | 1.79                     | 0.64              |
| 1:A:471:PHE:CE2  | 2:B:344:GLY:HA3   | 2.32                     | 0.64              |
| 6:C:888:ARG:NH2  | 6:C:3892:THR:HA   | 2.11                     | 0.64              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:959:TYR:CE2   | 6:C:963:LYS:HE3   | 2.32                     | 0.64              |
| 6:C:1058:SER:HA   | 6:C:1061:LYS:HB3  | 1.78                     | 0.64              |
| 6:C:1459:HIS:HD2  | 6:C:1464:LEU:HD22 | 1.62                     | 0.64              |
| 6:C:2893:LEU:HA   | 6:C:2897:LEU:HB3  | 1.79                     | 0.64              |
| 6:C:3309:GLU:OE1  | 6:C:3312:VAL:HG21 | 1.96                     | 0.64              |
| 6:C:3454:LEU:HD21 | 6:C:3494:GLN:HB3  | 1.79                     | 0.64              |
| 1:A:85:VAL:O      | 1:A:105:LEU:HB3   | 1.98                     | 0.64              |
| 1:A:126:GLN:OE1   | 1:A:126:GLN:N     | 2.30                     | 0.64              |
| 6:C:127:ALA:HA    | 6:C:130:LEU:HD13  | 1.78                     | 0.64              |
| 6:C:992:ILE:HD11  | 6:C:1034:ARG:HG3  | 1.78                     | 0.64              |
| 6:C:1426:GLN:HE21 | 6:C:1430:GLU:CD   | 2.05                     | 0.64              |
| 6:C:1746:PHE:HA   | 6:C:1750:LEU:HD13 | 1.79                     | 0.64              |
| 6:C:2363:CYS:O    | 6:C:2365:ASN:N    | 2.31                     | 0.64              |
| 6:C:2398:LEU:H    | 6:C:2432:GLN:NE2  | 1.95                     | 0.64              |
| 6:C:2886:GLN:NE2  | 6:C:2921:LEU:O    | 2.29                     | 0.64              |
| 6:C:3239:LYS:HG3  | 6:C:3243:ILE:HD11 | 1.79                     | 0.64              |
| 6:C:3949:ALA:HA   | 6:C:3952:PHE:CE2  | 2.33                     | 0.64              |
| 1:A:90:THR:HG22   | 1:A:91:GLU:H      | 1.61                     | 0.64              |
| 6:C:649:PHE:CE1   | 6:C:652:GLU:HA    | 2.32                     | 0.64              |
| 6:C:962:TYR:O     | 6:C:965:THR:OG1   | 2.11                     | 0.64              |
| 6:C:963:LYS:HB3   | 6:C:1009:LEU:HD13 | 1.78                     | 0.64              |
| 6:C:2062:ALA:HA   | 6:C:2125:TRP:HB2  | 1.80                     | 0.64              |
| 6:C:2299:TYR:O    | 6:C:2303:LEU:HG   | 1.97                     | 0.64              |
| 6:C:2462:VAL:HG11 | 6:C:2473:MET:HE1  | 1.78                     | 0.64              |
| 6:C:3167:ARG:O    | 6:C:3241:LYS:NZ   | 2.29                     | 0.64              |
| 6:C:4095:GLU:O    | 6:C:4099:SER:OG   | 2.15                     | 0.64              |
| 1:A:144:SER:HB2   | 1:A:185:ARG:HG2   | 1.80                     | 0.64              |
| 2:B:402:ASN:HD21  | 5:E:30:DA:P       | 2.21                     | 0.64              |
| 2:B:495:LEU:O     | 2:B:499:LEU:HB2   | 1.96                     | 0.64              |
| 6:C:445:SER:OG    | 6:C:1821:ASP:OD2  | 2.16                     | 0.64              |
| 6:C:1064:TYR:O    | 6:C:1067:ALA:HB3  | 1.98                     | 0.64              |
| 6:C:1129:ASP:O    | 6:C:1133:HIS:ND1  | 2.31                     | 0.64              |
| 6:C:1282:LEU:HB3  | 6:C:1287:GLN:HB2  | 1.78                     | 0.64              |
| 6:C:2510:LEU:HB2  | 6:C:2522:ARG:NH2  | 2.12                     | 0.64              |
| 6:C:3045:ILE:O    | 6:C:3048:LYS:NZ   | 2.23                     | 0.64              |
| 6:C:3108:GLN:O    | 6:C:3111:MET:HB2  | 1.96                     | 0.64              |
| 6:C:3532:PRO:HA   | 6:C:3535:ILE:HD11 | 1.78                     | 0.64              |
| 6:C:3611:GLU:O    | 6:C:3615:ALA:CB   | 2.44                     | 0.64              |
| 1:A:113:ALA:HA    | 1:A:116:ILE:HD12  | 1.80                     | 0.64              |
| 2:B:441:SER:O     | 2:B:444:TYR:N     | 2.24                     | 0.64              |
| 6:C:348:ILE:HA    | 6:C:351:ASN:HB3   | 1.80                     | 0.64              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:471:LYS:HZ3   | 6:C:474:VAL:H     | 1.45                     | 0.64              |
| 6:C:484:HIS:O     | 6:C:487:LEU:HB3   | 1.98                     | 0.64              |
| 6:C:960:GLN:HG2   | 6:C:961:LEU:HD12  | 1.79                     | 0.64              |
| 6:C:1759:LEU:HD23 | 6:C:1936:ARG:HH12 | 1.62                     | 0.64              |
| 6:C:2122:LEU:HA   | 6:C:2127:LYS:HD2  | 1.80                     | 0.64              |
| 6:C:2386:LEU:CD1  | 6:C:2401:VAL:HA   | 2.28                     | 0.64              |
| 6:C:2780:LEU:O    | 6:C:2784:GLN:N    | 2.31                     | 0.64              |
| 1:A:370:PRO:HG2   | 1:A:382:PHE:CE1   | 2.33                     | 0.64              |
| 3:K:25:ALA:HB1    | 6:C:2194:LEU:HD23 | 1.80                     | 0.64              |
| 6:C:716:VAL:HA    | 6:C:719:LYS:HD2   | 1.80                     | 0.64              |
| 6:C:1329:ARG:HD3  | 6:C:1332:TYR:CD2  | 2.33                     | 0.64              |
| 6:C:1418:HIS:O    | 6:C:1421:GLU:HB2  | 1.98                     | 0.64              |
| 6:C:1935:GLU:HB3  | 6:C:1986:ARG:NH1  | 2.12                     | 0.64              |
| 6:C:2470:ARG:HD2  | 6:C:2474:TYR:HE2  | 1.62                     | 0.64              |
| 6:C:2979:GLN:OE1  | 6:C:2979:GLN:N    | 2.29                     | 0.64              |
| 6:C:3923:ARG:NH2  | 6:C:3941:ASP:H    | 1.95                     | 0.64              |
| 6:C:4019:LYS:O    | 6:C:4022:LYS:N    | 2.31                     | 0.64              |
| 3:K:15:ALA:O      | 3:K:19:ALA:CB     | 2.46                     | 0.64              |
| 6:C:1105:VAL:O    | 6:C:1108:MET:N    | 2.31                     | 0.64              |
| 6:C:1135:CYS:HB2  | 6:C:1175:HIS:NE2  | 2.13                     | 0.64              |
| 6:C:2280:VAL:O    | 6:C:2283:ASN:ND2  | 2.27                     | 0.64              |
| 6:C:3316:LEU:HD21 | 6:C:3403:CYS:HA   | 1.78                     | 0.64              |
| 6:C:3322:ALA:O    | 6:C:3325:ASP:HB3  | 1.98                     | 0.64              |
| 6:C:3748:HIS:HB3  | 6:C:3750:PHE:CE2  | 2.32                     | 0.64              |
| 6:C:3821:SER:OG   | 6:C:3829:LEU:N    | 2.30                     | 0.64              |
| 4:D:1:DG:C2       | 5:E:36:DA:C2      | 2.86                     | 0.64              |
| 4:D:6:DT:H2'      | 4:D:7:DA:H8       | 1.63                     | 0.64              |
| 6:C:249:PHE:O     | 6:C:252:VAL:HG12  | 1.98                     | 0.64              |
| 6:C:850:GLU:HB3   | 6:C:854:ARG:NH1   | 2.13                     | 0.64              |
| 6:C:1549:SER:HA   | 6:C:1553:PHE:HD2  | 1.63                     | 0.64              |
| 6:C:1569:THR:HA   | 6:C:1572:LEU:HD12 | 1.79                     | 0.64              |
| 6:C:1693:VAL:HG13 | 6:C:1696:LEU:HD12 | 1.79                     | 0.64              |
| 6:C:1934:LEU:H    | 6:C:1937:ARG:HD3  | 1.62                     | 0.64              |
| 6:C:2180:GLU:HB2  | 6:C:2184:TYR:CZ   | 2.33                     | 0.64              |
| 6:C:2383:PHE:HA   | 6:C:2404:ARG:CZ   | 2.28                     | 0.64              |
| 6:C:2430:GLU:O    | 6:C:2433:LYS:N    | 2.31                     | 0.64              |
| 6:C:2515:PRO:HD2  | 6:C:2518:GLN:NE2  | 2.13                     | 0.64              |
| 6:C:3569:GLN:O    | 6:C:3796:MET:HE1  | 1.97                     | 0.64              |
| 1:A:39:ILE:HA     | 1:A:84:ALA:HB3    | 1.80                     | 0.64              |
| 1:A:304:ASN:N     | 1:A:309:GLY:O     | 2.31                     | 0.64              |
| 2:B:65:ASP:H      | 2:B:78:THR:HA     | 1.63                     | 0.64              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:467:ASP:OD1   | 2:B:468:GLU:N     | 2.31                     | 0.64              |
| 6:C:175:TYR:CE1   | 6:C:200:PHE:HB3   | 2.32                     | 0.64              |
| 6:C:746:ARG:N     | 6:C:748:TYR:HE2   | 1.93                     | 0.64              |
| 6:C:1224:PHE:CD2  | 6:C:1278:ALA:HB1  | 2.33                     | 0.64              |
| 6:C:2148:LYS:HA   | 6:C:2151:ILE:HB   | 1.80                     | 0.64              |
| 6:C:2222:HIS:CE1  | 6:C:2226:PRO:HG2  | 2.33                     | 0.64              |
| 6:C:2397:CYS:HA   | 6:C:2401:VAL:HG23 | 1.79                     | 0.64              |
| 6:C:3610:TYR:OH   | 6:C:3651:LEU:O    | 2.16                     | 0.64              |
| 6:C:3763:ARG:NH1  | 6:C:4005:PHE:O    | 2.32                     | 0.64              |
| 1:A:68:GLN:O      | 1:A:72:ILE:HB     | 1.98                     | 0.63              |
| 1:A:392:LYS:NZ    | 2:B:458:ILE:HG22  | 2.13                     | 0.63              |
| 1:A:441:ASP:CG    | 2:B:270:GLU:HB2   | 2.23                     | 0.63              |
| 6:C:337:LYS:HA    | 6:C:340:TYR:CD2   | 2.33                     | 0.63              |
| 6:C:399:GLN:HG2   | 6:C:405:ASP:CB    | 2.27                     | 0.63              |
| 6:C:584:GLU:HG2   | 6:C:586:GLN:H     | 1.63                     | 0.63              |
| 6:C:2066:PHE:HE1  | 6:C:2128:PHE:HD1  | 1.43                     | 0.63              |
| 6:C:2146:LEU:O    | 6:C:2149:LEU:HB2  | 1.97                     | 0.63              |
| 6:C:2156:VAL:HG23 | 6:C:2160:TYR:CZ   | 2.33                     | 0.63              |
| 6:C:2415:LEU:O    | 6:C:2418:LYS:N    | 2.27                     | 0.63              |
| 6:C:2510:LEU:HD12 | 6:C:2522:ARG:HG3  | 1.78                     | 0.63              |
| 6:C:3086:LEU:HD21 | 6:C:3102:TYR:HD1  | 1.61                     | 0.63              |
| 6:C:3947:GLY:O    | 6:C:3951:GLN:CB   | 2.46                     | 0.63              |
| 1:A:103:TYR:OH    | 1:A:135:MET:O     | 2.07                     | 0.63              |
| 2:B:409:PHE:CD1   | 2:B:410:PRO:HD2   | 2.34                     | 0.63              |
| 6:C:480:SER:O     | 6:C:483:VAL:HG22  | 1.98                     | 0.63              |
| 6:C:741:ILE:O     | 6:C:744:ASP:N     | 2.32                     | 0.63              |
| 6:C:741:ILE:HG13  | 6:C:745:VAL:CG2   | 2.28                     | 0.63              |
| 6:C:772:ALA:O     | 6:C:775:GLU:N     | 2.31                     | 0.63              |
| 6:C:1135:CYS:HB2  | 6:C:1175:HIS:CD2  | 2.33                     | 0.63              |
| 6:C:1597:LEU:HA   | 6:C:1600:MET:SD   | 2.38                     | 0.63              |
| 6:C:2463:SER:HA   | 6:C:2470:ARG:NH2  | 2.13                     | 0.63              |
| 6:C:3061:LEU:O    | 6:C:3065:ILE:HB   | 1.98                     | 0.63              |
| 6:C:3815:LEU:O    | 6:C:3819:THR:HG22 | 1.97                     | 0.63              |
| 1:A:325:ARG:HH22  | 2:B:498:ALA:HB1   | 1.63                     | 0.63              |
| 1:A:447:PRO:HA    | 2:B:243:HIS:HD2   | 1.62                     | 0.63              |
| 6:C:789:TYR:OH    | 6:C:790:LYS:HE3   | 1.99                     | 0.63              |
| 6:C:1482:GLU:O    | 6:C:1485:SER:N    | 2.32                     | 0.63              |
| 6:C:1602:ASP:OD1  | 6:C:1605:PHE:HD2  | 1.81                     | 0.63              |
| 6:C:1870:LYS:NZ   | 6:C:1888:ASP:OD2  | 2.31                     | 0.63              |
| 6:C:2160:TYR:HA   | 6:C:2163:HIS:HD2  | 1.59                     | 0.63              |
| 6:C:2962:ARG:HH21 | 6:C:3254:LEU:HG   | 1.62                     | 0.63              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2975:ALA:O    | 6:C:2978:LYS:HG2  | 1.98                     | 0.63              |
| 6:C:3897:PHE:O    | 6:C:3900:LEU:HB2  | 1.99                     | 0.63              |
| 6:C:3978:GLY:O    | 6:C:3981:TYR:N    | 2.32                     | 0.63              |
| 1:A:410:PHE:HB2   | 1:A:439:PHE:CZ    | 2.33                     | 0.63              |
| 1:A:413:LEU:HD23  | 1:A:434:LEU:HA    | 1.80                     | 0.63              |
| 6:C:114:VAL:HG12  | 6:C:134:LEU:HD11  | 1.81                     | 0.63              |
| 6:C:321:LYS:HG2   | 6:C:325:ASN:HD21  | 1.63                     | 0.63              |
| 6:C:760:LEU:HD23  | 6:C:764:PRO:HA    | 1.79                     | 0.63              |
| 6:C:987:LEU:O     | 6:C:990:GLN:HG2   | 1.99                     | 0.63              |
| 6:C:2243:GLU:O    | 6:C:2246:LYS:NZ   | 2.24                     | 0.63              |
| 6:C:2381:ALA:C    | 6:C:2385:LEU:HD13 | 2.24                     | 0.63              |
| 6:C:2970:LYS:O    | 6:C:2974:GLU:HB3  | 1.99                     | 0.63              |
| 1:A:353:LEU:N     | 1:A:393:GLU:O     | 2.23                     | 0.63              |
| 2:B:202:LYS:HG3   | 2:B:205:LEU:HD23  | 1.80                     | 0.63              |
| 2:B:467:ASP:HB3   | 2:B:474:GLU:HG2   | 1.80                     | 0.63              |
| 6:C:492:SER:HA    | 6:C:494:PRO:HD3   | 1.81                     | 0.63              |
| 6:C:705:ALA:O     | 6:C:708:VAL:HB    | 1.97                     | 0.63              |
| 6:C:959:TYR:HE2   | 6:C:963:LYS:HE3   | 1.63                     | 0.63              |
| 6:C:1406:LEU:HD22 | 6:C:1414:ILE:HG21 | 1.81                     | 0.63              |
| 6:C:2187:VAL:O    | 6:C:2191:ALA:HB2  | 1.96                     | 0.63              |
| 6:C:2361:ILE:HG12 | 6:C:2385:LEU:HD23 | 1.80                     | 0.63              |
| 6:C:3309:GLU:O    | 6:C:3312:VAL:HG22 | 1.97                     | 0.63              |
| 6:C:3571:PHE:CE1  | 6:C:3691:LYS:HE3  | 2.33                     | 0.63              |
| 6:C:3631:LYS:HA   | 6:C:3634:GLN:HB3  | 1.81                     | 0.63              |
| 6:C:3812:LEU:HD12 | 6:C:3813:LYS:N    | 2.14                     | 0.63              |
| 6:C:3868:VAL:O    | 6:C:3872:ARG:HB2  | 1.98                     | 0.63              |
| 1:A:367:PHE:CZ    | 1:A:431:GLY:HA3   | 2.33                     | 0.63              |
| 2:B:400:ARG:HH11  | 4:D:9:DG:H5"      | 1.63                     | 0.63              |
| 6:C:495:VAL:HG22  | 6:C:527:TYR:CD2   | 2.31                     | 0.63              |
| 6:C:649:PHE:O     | 6:C:651:TYR:N     | 2.31                     | 0.63              |
| 6:C:963:LYS:O     | 6:C:967:PRO:HD2   | 1.99                     | 0.63              |
| 6:C:1141:LYS:HE3  | 6:C:1179:PRO:HB3  | 1.81                     | 0.63              |
| 6:C:1458:LEU:HD11 | 6:C:1467:ILE:HD12 | 1.80                     | 0.63              |
| 6:C:2022:PRO:O    | 6:C:2069:ARG:NE   | 2.31                     | 0.63              |
| 6:C:2252:PRO:O    | 6:C:2256:ILE:HG13 | 1.98                     | 0.63              |
| 6:C:2307:MET:HB3  | 6:C:2348:GLN:HE22 | 1.63                     | 0.63              |
| 6:C:3134:ALA:HA   | 6:C:3137:GLU:OE1  | 1.99                     | 0.63              |
| 6:C:3882:LEU:HA   | 6:C:3885:ARG:HB3  | 1.80                     | 0.63              |
| 6:C:3984:MET:O    | 6:C:3987:ALA:HB3  | 1.99                     | 0.63              |
| 6:C:4005:PHE:HD2  | 6:C:4006:VAL:HG13 | 1.63                     | 0.63              |
| 1:A:51:SER:HA     | 1:A:58:THR:HA     | 1.80                     | 0.63              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:37:VAL:HG11   | 2:B:230:SER:HB3   | 1.79                     | 0.63              |
| 2:B:351:VAL:HG12  | 2:B:356:PHE:HE1   | 1.64                     | 0.63              |
| 5:E:32:DT:H2'     | 5:E:33:DA:C8      | 2.34                     | 0.63              |
| 6:C:59:PHE:HB3    | 6:C:63:PHE:CZ     | 2.34                     | 0.63              |
| 6:C:346:TYR:CD1   | 6:C:349:ILE:HD12  | 2.33                     | 0.63              |
| 6:C:1033:ILE:HD12 | 6:C:1036:PHE:HB2  | 1.81                     | 0.63              |
| 6:C:1082:PHE:O    | 6:C:1085:ILE:HB   | 1.98                     | 0.63              |
| 6:C:1549:SER:O    | 6:C:1553:PHE:CB   | 2.37                     | 0.63              |
| 6:C:1561:SER:O    | 6:C:1564:SER:N    | 2.32                     | 0.63              |
| 6:C:1652:ILE:HG23 | 6:C:1717:LEU:HD21 | 1.81                     | 0.63              |
| 6:C:2315:VAL:O    | 6:C:2319:ALA:N    | 2.26                     | 0.63              |
| 6:C:2412:TYR:O    | 6:C:2414:GLN:N    | 2.31                     | 0.63              |
| 6:C:2890:ILE:HD11 | 6:C:2921:LEU:HD11 | 1.78                     | 0.63              |
| 6:C:3183:ILE:HG13 | 6:C:3238:MET:SD   | 2.39                     | 0.63              |
| 6:C:3250:ASN:HA   | 6:C:3285:HIS:CE1  | 2.32                     | 0.63              |
| 6:C:3483:MET:HA   | 6:C:3486:GLU:HG3  | 1.81                     | 0.63              |
| 6:C:3528:ALA:O    | 6:C:3715:TYR:OH   | 2.14                     | 0.63              |
| 1:A:403:ARG:HH21  | 5:E:36:DA:C1'     | 2.12                     | 0.63              |
| 2:B:348:SER:N     | 2:B:388:ASP:O     | 2.32                     | 0.63              |
| 6:C:17:GLU:O      | 6:C:21:ALA:CB     | 2.45                     | 0.63              |
| 6:C:994:TRP:HZ3   | 6:C:2780:LEU:HG   | 1.63                     | 0.63              |
| 6:C:1017:ILE:HG23 | 6:C:1018:VAL:H    | 1.64                     | 0.63              |
| 6:C:1468:LEU:HA   | 6:C:1471:GLN:HB2  | 1.78                     | 0.63              |
| 6:C:2382:VAL:CA   | 6:C:2385:LEU:HB2  | 2.22                     | 0.63              |
| 6:C:2875:ALA:HA   | 6:C:2878:ALA:O    | 1.99                     | 0.63              |
| 6:C:3011:LEU:O    | 6:C:3015:SER:OG   | 2.14                     | 0.63              |
| 6:C:3813:LYS:O    | 6:C:3817:LEU:HG   | 1.98                     | 0.63              |
| 6:C:3916:TRP:HE3  | 6:C:3917:ILE:HD13 | 1.64                     | 0.63              |
| 1:A:420:LEU:HD22  | 1:A:424:LYS:HB3   | 1.81                     | 0.63              |
| 2:B:65:ASP:N      | 2:B:77:ILE:O      | 2.32                     | 0.63              |
| 6:C:944:LYS:O     | 6:C:947:GLN:NE2   | 2.31                     | 0.63              |
| 6:C:1078:ALA:O    | 6:C:1082:PHE:HB3  | 1.99                     | 0.63              |
| 6:C:1648:LEU:HD12 | 6:C:1684:LEU:HD22 | 1.79                     | 0.63              |
| 6:C:2036:LEU:HD23 | 6:C:2039:GLU:OE1  | 1.99                     | 0.63              |
| 6:C:2042:GLN:NE2  | 6:C:2045:PHE:HB2  | 2.13                     | 0.63              |
| 6:C:2255:LEU:O    | 6:C:2259:LYS:HG3  | 1.99                     | 0.63              |
| 6:C:2911:ARG:HB3  | 6:C:2913:LYS:CG   | 2.28                     | 0.63              |
| 6:C:2970:LYS:O    | 6:C:2974:GLU:HB2  | 1.99                     | 0.63              |
| 6:C:3172:LYS:HZ2  | 6:C:3241:LYS:HE2  | 1.60                     | 0.63              |
| 6:C:3596:LEU:HD22 | 6:C:3657:SER:HA   | 1.80                     | 0.63              |
| 1:A:79:ASP:O      | 1:A:110:ASN:ND2   | 2.31                     | 0.62              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:484:GLN:HA    | 1:A:487:PHE:CE2   | 2.34                     | 0.62              |
| 2:B:27:ILE:HB     | 2:B:185:LEU:HD13  | 1.80                     | 0.62              |
| 6:C:557:SER:HB3   | 6:C:645:TRP:HZ2   | 1.63                     | 0.62              |
| 6:C:670:LEU:HD13  | 6:C:740:ILE:HG13  | 1.80                     | 0.62              |
| 6:C:715:ALA:O     | 6:C:719:LYS:HG3   | 1.99                     | 0.62              |
| 6:C:1457:GLN:O    | 6:C:1461:ALA:CB   | 2.47                     | 0.62              |
| 6:C:2260:PHE:HD1  | 6:C:2273:GLY:HA3  | 1.64                     | 0.62              |
| 6:C:2412:TYR:OH   | 6:C:2419:ASP:OD2  | 2.09                     | 0.62              |
| 6:C:2560:ASN:HA   | 6:C:2563:LEU:HD12 | 1.81                     | 0.62              |
| 6:C:2954:GLN:HA   | 6:C:2957:LEU:HB2  | 1.81                     | 0.62              |
| 6:C:3112:GLN:O    | 6:C:3116:SER:N    | 2.31                     | 0.62              |
| 6:C:3916:TRP:CE3  | 6:C:3917:ILE:HD13 | 2.34                     | 0.62              |
| 1:A:274:TYR:HD2   | 1:A:369:TYR:H     | 1.46                     | 0.62              |
| 4:D:13:DT:O4      | 5:E:22:DA:N6      | 2.32                     | 0.62              |
| 6:C:82:ARG:HH11   | 6:C:114:VAL:HG13  | 1.64                     | 0.62              |
| 6:C:175:TYR:HA    | 6:C:178:LEU:HD12  | 1.80                     | 0.62              |
| 6:C:1125:GLN:NE2  | 6:C:1167:ASP:OD2  | 2.21                     | 0.62              |
| 6:C:2240:THR:OG1  | 6:C:2241:LEU:N    | 2.32                     | 0.62              |
| 6:C:2894:GLU:HB3  | 6:C:3973:PRO:HG2  | 1.80                     | 0.62              |
| 6:C:3644:PHE:HE1  | 6:C:3669:LYS:HG2  | 1.63                     | 0.62              |
| 1:A:43:ASP:HB2    | 1:A:168:LEU:HD11  | 1.81                     | 0.62              |
| 1:A:291:GLU:N     | 1:A:291:GLU:OE1   | 2.33                     | 0.62              |
| 1:A:351:LYS:HZ2   | 1:A:355:LEU:HD13  | 1.64                     | 0.62              |
| 2:B:242:ARG:NH2   | 2:B:245:ILE:HG13  | 2.14                     | 0.62              |
| 4:D:10:DG:N2      | 5:E:25:DG:H22     | 1.98                     | 0.62              |
| 6:C:28:ALA:N      | 6:C:77:GLU:OE1    | 2.31                     | 0.62              |
| 6:C:615:ALA:O     | 6:C:619:ASP:N     | 2.20                     | 0.62              |
| 6:C:870:LEU:O     | 6:C:874:THR:OG1   | 2.18                     | 0.62              |
| 6:C:1163:LEU:HD22 | 6:C:1256:TRP:CD1  | 2.34                     | 0.62              |
| 6:C:1514:LEU:O    | 6:C:1517:LEU:N    | 2.31                     | 0.62              |
| 6:C:2153:THR:O    | 6:C:2160:TYR:OH   | 2.14                     | 0.62              |
| 6:C:2955:SER:O    | 6:C:2960:GLU:N    | 2.27                     | 0.62              |
| 6:C:3469:LEU:HD12 | 6:C:3479:THR:HG21 | 1.80                     | 0.62              |
| 6:C:3820:MET:SD   | 6:C:3829:LEU:HB3  | 2.39                     | 0.62              |
| 6:C:3978:GLY:HA2  | 6:C:3981:TYR:HB3  | 1.81                     | 0.62              |
| 6:C:4015:ASN:O    | 6:C:4019:LYS:HG3  | 1.99                     | 0.62              |
| 1:A:478:PHE:H     | 2:B:427:MET:HB2   | 1.65                     | 0.62              |
| 2:B:457:LEU:HD13  | 2:B:529:PRO:HB2   | 1.81                     | 0.62              |
| 6:C:82:ARG:HH22   | 6:C:117:LYS:HE2   | 1.64                     | 0.62              |
| 6:C:434:VAL:O     | 6:C:438:LEU:CB    | 2.43                     | 0.62              |
| 6:C:441:MET:HB2   | 6:C:1814:PHE:CE1  | 2.35                     | 0.62              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:487:LEU:HD12  | 6:C:530:LEU:HD23  | 1.82                     | 0.62              |
| 6:C:793:LEU:HD23  | 6:C:796:LEU:HD12  | 1.82                     | 0.62              |
| 6:C:908:ASP:HA    | 6:C:910:PHE:CD2   | 2.34                     | 0.62              |
| 6:C:912:PRO:O     | 6:C:915:THR:OG1   | 2.16                     | 0.62              |
| 6:C:4104:VAL:HA   | 6:C:4108:MET:HE3  | 1.79                     | 0.62              |
| 1:A:241:ASP:O     | 1:A:245:LYS:HB3   | 1.99                     | 0.62              |
| 1:A:350:PHE:O     | 2:B:463:LEU:N     | 2.30                     | 0.62              |
| 1:A:412:ALA:HB3   | 1:A:435:VAL:HB    | 1.80                     | 0.62              |
| 2:B:303:THR:OG1   | 2:B:304:GLU:OE1   | 2.16                     | 0.62              |
| 6:C:297:LEU:HG    | 6:C:300:TRP:CE3   | 2.34                     | 0.62              |
| 6:C:784:VAL:HG12  | 6:C:788:TYR:HE2   | 1.64                     | 0.62              |
| 6:C:788:TYR:C     | 6:C:792:ILE:HG12  | 2.24                     | 0.62              |
| 6:C:973:ALA:HB1   | 6:C:981:ARG:H     | 1.64                     | 0.62              |
| 6:C:1256:TRP:O    | 6:C:1259:LEU:N    | 2.31                     | 0.62              |
| 6:C:2809:PHE:CD1  | 6:C:2809:PHE:N    | 2.65                     | 0.62              |
| 6:C:2914:ALA:O    | 6:C:2918:PRO:HD2  | 2.00                     | 0.62              |
| 6:C:2957:LEU:O    | 6:C:3989:ARG:NH1  | 2.32                     | 0.62              |
| 6:C:3007:GLU:CD   | 6:C:3049:LEU:HB2  | 2.23                     | 0.62              |
| 6:C:3281:CYS:HB2  | 6:C:3324:ARG:HH12 | 1.65                     | 0.62              |
| 6:C:3703:GLY:N    | 6:C:3706:ASP:OD2  | 2.31                     | 0.62              |
| 6:C:3721:GLY:C    | 6:C:3741:ARG:HB2  | 2.24                     | 0.62              |
| 1:A:276:LEU:HG    | 2:B:430:LEU:HA    | 1.81                     | 0.62              |
| 1:A:406:ILE:HG23  | 1:A:407:PRO:C     | 2.25                     | 0.62              |
| 6:C:203:GLU:O     | 6:C:206:THR:OG1   | 2.17                     | 0.62              |
| 6:C:491:CYS:HA    | 6:C:527:TYR:CD1   | 2.34                     | 0.62              |
| 6:C:970:LEU:HD23  | 6:C:985:GLU:HG3   | 1.81                     | 0.62              |
| 6:C:1680:ALA:O    | 6:C:1683:LYS:N    | 2.32                     | 0.62              |
| 6:C:2099:ALA:HA   | 6:C:2102:LYS:HB3  | 1.80                     | 0.62              |
| 6:C:2254:ARG:O    | 6:C:2257:PHE:HB2  | 1.99                     | 0.62              |
| 6:C:2350:LYS:HZ1  | 6:C:2377:ARG:HD2  | 1.64                     | 0.62              |
| 6:C:3179:TRP:HE1  | 6:C:3245:SER:CB   | 2.13                     | 0.62              |
| 6:C:3309:GLU:OE1  | 6:C:3318:LYS:NZ   | 2.25                     | 0.62              |
| 6:C:3855:TYR:HA   | 6:C:3858:MET:HE2  | 1.82                     | 0.62              |
| 1:A:278:GLN:NE2   | 4:D:2:DG:O5'      | 2.33                     | 0.62              |
| 1:A:428:THR:HA    | 2:B:354:ARG:NH1   | 2.15                     | 0.62              |
| 2:B:301:ASP:OD1   | 6:C:119:ARG:NH2   | 2.32                     | 0.62              |
| 6:C:147:PHE:CE1   | 6:C:186:PRO:HG3   | 2.35                     | 0.62              |
| 6:C:887:ASP:OD2   | 6:C:3889:ARG:NE   | 2.33                     | 0.62              |
| 6:C:1448:LEU:HD22 | 6:C:1503:LEU:HD21 | 1.82                     | 0.62              |
| 6:C:2025:MET:HB2  | 6:C:2038:GLU:OE2  | 1.99                     | 0.62              |
| 6:C:2273:GLY:O    | 6:C:2277:LEU:HG   | 1.99                     | 0.62              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2443:MET:HE2  | 6:C:2483:ASN:HD21 | 1.63                     | 0.62              |
| 6:C:2790:LEU:O    | 6:C:2794:LEU:HG   | 1.99                     | 0.62              |
| 6:C:2946:GLU:HG3  | 6:C:2947:ILE:N    | 2.14                     | 0.62              |
| 6:C:3117:ILE:HG21 | 6:C:3125:ARG:HH22 | 1.64                     | 0.62              |
| 6:C:3706:ASP:HB2  | 6:C:3715:TYR:HB3  | 1.81                     | 0.62              |
| 6:C:3913:ILE:O    | 6:C:3917:ILE:HG12 | 2.00                     | 0.62              |
| 2:B:55:ALA:HB3    | 2:B:117:VAL:HG13  | 1.81                     | 0.62              |
| 2:B:280:ASP:OD2   | 2:B:283:THR:OG1   | 2.12                     | 0.62              |
| 6:C:98:GLN:HG2    | 6:C:143:LEU:HD11  | 1.82                     | 0.62              |
| 6:C:570:LYS:HA    | 6:C:573:LEU:HD12  | 1.81                     | 0.62              |
| 6:C:873:VAL:O     | 6:C:876:SER:N     | 2.29                     | 0.62              |
| 6:C:988:VAL:O     | 6:C:991:LEU:HB3   | 2.00                     | 0.62              |
| 6:C:1722:PHE:HE1  | 6:C:1866:GLN:HB2  | 1.63                     | 0.62              |
| 6:C:2035:THR:O    | 6:C:2039:GLU:N    | 2.25                     | 0.62              |
| 6:C:2254:ARG:HG3  | 6:C:2255:LEU:N    | 2.14                     | 0.62              |
| 6:C:3065:ILE:HG12 | 6:C:3069:MET:HE3  | 1.81                     | 0.62              |
| 6:C:3183:ILE:HD12 | 6:C:3242:MET:HG3  | 1.81                     | 0.62              |
| 6:C:4042:GLN:O    | 6:C:4045:CYS:HB3  | 2.00                     | 0.62              |
| 1:A:40:PHE:CE1    | 1:A:70:VAL:HB     | 2.35                     | 0.62              |
| 1:A:426:GLN:HE21  | 1:A:428:THR:H     | 1.47                     | 0.62              |
| 6:C:317:GLU:HA    | 6:C:320:LEU:HD23  | 1.81                     | 0.62              |
| 6:C:624:ILE:HG22  | 6:C:659:ARG:HH11  | 1.65                     | 0.62              |
| 6:C:1029:CYS:O    | 6:C:1033:ILE:N    | 2.24                     | 0.62              |
| 6:C:1058:SER:O    | 6:C:1062:ARG:HG2  | 1.99                     | 0.62              |
| 6:C:2142:ILE:HA   | 6:C:2145:PHE:CZ   | 2.34                     | 0.62              |
| 6:C:2954:GLN:HA   | 6:C:2957:LEU:HD12 | 1.81                     | 0.62              |
| 6:C:3084:GLN:HA   | 6:C:3086:LEU:HB3  | 1.82                     | 0.62              |
| 6:C:3173:MET:HG3  | 6:C:3174:ASP:H    | 1.64                     | 0.62              |
| 1:A:95:ASN:CG     | 1:A:98:ASN:H      | 2.06                     | 0.62              |
| 1:A:374:LEU:HD23  | 1:A:375:VAL:HG23  | 1.81                     | 0.62              |
| 1:A:418:GLU:HG3   | 1:A:430:PRO:HD3   | 1.81                     | 0.62              |
| 2:B:229:GLU:OE1   | 2:B:232:ARG:HD2   | 2.00                     | 0.62              |
| 2:B:395:TYR:HB3   | 2:B:421:TYR:CZ    | 2.34                     | 0.62              |
| 4:D:-15:DT:H2'    | 4:D:-14:DA:C4     | 2.35                     | 0.62              |
| 6:C:104:SER:O     | 6:C:108:LYS:HG3   | 2.00                     | 0.62              |
| 6:C:385:TYR:N     | 6:C:388:LEU:HB3   | 2.14                     | 0.62              |
| 6:C:1103:ALA:O    | 6:C:1107:TYR:CB   | 2.47                     | 0.62              |
| 6:C:1579:VAL:C    | 6:C:1581:GLU:H    | 2.08                     | 0.62              |
| 6:C:1640:GLU:OE2  | 6:C:1648:LEU:HB2  | 2.00                     | 0.62              |
| 6:C:1957:ASN:O    | 6:C:1960:LYS:HG2  | 2.00                     | 0.62              |
| 6:C:2485:ARG:HA   | 6:C:2499:PHE:CE1  | 2.34                     | 0.62              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2787:HIS:HE2  | 6:C:2790:LEU:HG   | 1.65                     | 0.62              |
| 6:C:2994:TRP:O    | 6:C:2998:SER:CB   | 2.48                     | 0.62              |
| 6:C:3466:PRO:O    | 6:C:3470:GLN:HG3  | 1.99                     | 0.62              |
| 6:C:3554:PHE:O    | 6:C:3557:ARG:HB3  | 2.00                     | 0.62              |
| 6:C:3771:MET:O    | 6:C:3774:ILE:N    | 2.30                     | 0.62              |
| 6:C:4062:ASP:O    | 6:C:4066:LEU:CB   | 2.48                     | 0.62              |
| 2:B:378:SER:HA    | 2:B:381:ILE:HD12  | 1.81                     | 0.61              |
| 4:D:3:DT:C2       | 4:D:4:DA:C8       | 2.87                     | 0.61              |
| 6:C:449:TYR:HB2   | 6:C:454:GLN:NE2   | 2.07                     | 0.61              |
| 6:C:592:GLU:HB3   | 6:C:601:TRP:HZ2   | 1.65                     | 0.61              |
| 6:C:643:GLU:HB3   | 6:C:647:TYR:HE2   | 1.65                     | 0.61              |
| 6:C:805:LEU:HD22  | 6:C:808:GLU:H     | 1.65                     | 0.61              |
| 6:C:1074:LYS:HG3  | 6:C:1075:ARG:NH1  | 2.15                     | 0.61              |
| 6:C:1095:LEU:O    | 6:C:1098:GLN:N    | 2.28                     | 0.61              |
| 6:C:1709:GLU:OE1  | 6:C:1716:GLN:NE2  | 2.33                     | 0.61              |
| 6:C:2165:LEU:HD12 | 6:C:2168:LEU:HD12 | 1.82                     | 0.61              |
| 6:C:3244:ASP:OD1  | 6:C:3247:ARG:NH1  | 2.22                     | 0.61              |
| 6:C:3247:ARG:HG3  | 6:C:3281:CYS:SG   | 2.39                     | 0.61              |
| 6:C:3811:THR:HA   | 6:C:3929:MET:HG2  | 1.82                     | 0.61              |
| 1:A:484:GLN:HG3   | 1:A:487:PHE:CZ    | 2.36                     | 0.61              |
| 1:A:512:GLU:OE1   | 1:A:512:GLU:N     | 2.31                     | 0.61              |
| 6:C:710:PHE:HB3   | 6:C:714:VAL:HG21  | 1.81                     | 0.61              |
| 6:C:994:TRP:CZ3   | 6:C:2780:LEU:HG   | 2.35                     | 0.61              |
| 6:C:1044:ILE:O    | 6:C:1048:GLN:HB2  | 2.00                     | 0.61              |
| 6:C:1575:LEU:HD22 | 6:C:1604:SER:HB3  | 1.81                     | 0.61              |
| 6:C:1683:LYS:HB3  | 6:C:1687:HIS:CE1  | 2.35                     | 0.61              |
| 6:C:2271:SER:O    | 6:C:2274:ILE:HG13 | 1.99                     | 0.61              |
| 6:C:2920:VAL:HA   | 6:C:2923:TRP:CD1  | 2.35                     | 0.61              |
| 6:C:4068:HIS:CG   | 6:C:4069:GLU:H    | 2.18                     | 0.61              |
| 1:A:316:THR:OG1   | 2:B:279:VAL:O     | 2.18                     | 0.61              |
| 1:A:392:LYS:HZ3   | 2:B:458:ILE:HG22  | 1.64                     | 0.61              |
| 2:B:377:LEU:O     | 2:B:380:LEU:HG    | 2.01                     | 0.61              |
| 5:E:35:DC:H1'     | 5:E:36:DA:H5'     | 1.83                     | 0.61              |
| 5:E:37:DT:H2''    | 5:E:38:DA:N7      | 2.16                     | 0.61              |
| 6:C:652:GLU:HG2   | 6:C:717:LYS:NZ    | 2.16                     | 0.61              |
| 6:C:769:GLY:O     | 6:C:772:ALA:N     | 2.32                     | 0.61              |
| 6:C:994:TRP:C     | 6:C:998:ASN:HD22  | 2.07                     | 0.61              |
| 6:C:2494:ASP:HA   | 6:C:2497:GLU:CD   | 2.26                     | 0.61              |
| 6:C:2503:LYS:HA   | 6:C:2506:LEU:HD12 | 1.82                     | 0.61              |
| 6:C:2884:LEU:C    | 6:C:2886:GLN:H    | 2.08                     | 0.61              |
| 6:C:3493:TRP:HE1  | 6:C:3709:GLY:C    | 2.08                     | 0.61              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 6:C:4078:VAL:O   | 6:C:4082:ARG:NH1  | 2.34                     | 0.61              |
| 2:B:297:LEU:HD12 | 2:B:303:THR:HG22  | 1.82                     | 0.61              |
| 2:B:509:GLN:HB2  | 2:B:511:HIS:HE1   | 1.66                     | 0.61              |
| 4:D:11:DC:N4     | 5:E:25:DG:O6      | 2.33                     | 0.61              |
| 5:E:38:DA:H2"    | 5:E:39:DA:N7      | 2.16                     | 0.61              |
| 6:C:66:LEU:HG    | 6:C:66:LEU:O      | 2.00                     | 0.61              |
| 6:C:107:ILE:HA   | 6:C:110:THR:HB    | 1.82                     | 0.61              |
| 6:C:997:ASN:HA   | 6:C:1042:LYS:HD3  | 1.82                     | 0.61              |
| 6:C:2065:ARG:HG3 | 6:C:2125:TRP:CD1  | 2.35                     | 0.61              |
| 6:C:2077:HIS:NE2 | 6:C:2087:GLU:OE2  | 2.28                     | 0.61              |
| 6:C:2375:ALA:O   | 6:C:2377:ARG:N    | 2.33                     | 0.61              |
| 6:C:2864:GLN:O   | 6:C:2865:HIS:CG   | 2.53                     | 0.61              |
| 6:C:3122:HIS:HB2 | 6:C:3126:LEU:HD12 | 1.82                     | 0.61              |
| 6:C:3274:VAL:HA  | 6:C:3277:VAL:HG22 | 1.83                     | 0.61              |
| 6:C:3465:PHE:HB3 | 6:C:3483:MET:SD   | 2.40                     | 0.61              |
| 1:A:36:ASP:HA    | 1:A:161:MET:HB2   | 1.83                     | 0.61              |
| 6:C:69:VAL:O     | 6:C:73:LEU:HG     | 2.00                     | 0.61              |
| 6:C:906:PHE:N    | 6:C:2807:GLN:OE1  | 2.34                     | 0.61              |
| 6:C:955:ALA:HA   | 6:C:958:MET:HE2   | 1.81                     | 0.61              |
| 6:C:1755:SER:HB3 | 6:C:1863:PHE:HD1  | 1.61                     | 0.61              |
| 6:C:2313:LYS:O   | 6:C:2316:TYR:HD2  | 1.83                     | 0.61              |
| 6:C:2397:CYS:HA  | 6:C:2401:VAL:CG2  | 2.30                     | 0.61              |
| 6:C:2435:CYS:O   | 6:C:2439:ILE:HG22 | 2.00                     | 0.61              |
| 6:C:2894:GLU:OE2 | 6:C:3974:MET:HE2  | 1.99                     | 0.61              |
| 6:C:3901:ARG:NH2 | 6:C:3972:LEU:HG   | 2.16                     | 0.61              |
| 1:A:218:ARG:NH1  | 1:A:222:SER:O     | 2.33                     | 0.61              |
| 1:A:279:LYS:HG3  | 1:A:279:LYS:O     | 1.98                     | 0.61              |
| 1:A:353:LEU:HG   | 1:A:393:GLU:C     | 2.25                     | 0.61              |
| 2:B:532:LYS:HE2  | 2:B:537:PHE:CE2   | 2.34                     | 0.61              |
| 6:C:407:VAL:O    | 6:C:411:PRO:HD2   | 2.01                     | 0.61              |
| 6:C:442:GLN:CD   | 6:C:443:ILE:HG12  | 2.25                     | 0.61              |
| 6:C:926:THR:O    | 6:C:929:ALA:N     | 2.34                     | 0.61              |
| 6:C:1034:ARG:NH2 | 6:C:2776:ARG:HG3  | 2.16                     | 0.61              |
| 6:C:1418:HIS:HA  | 6:C:1421:GLU:CD   | 2.25                     | 0.61              |
| 6:C:2254:ARG:HD2 | 6:C:2295:GLN:HG2  | 1.83                     | 0.61              |
| 6:C:2453:GLU:O   | 6:C:2456:ASN:ND2  | 2.34                     | 0.61              |
| 6:C:3382:PHE:HA  | 6:C:3385:LEU:HD12 | 1.82                     | 0.61              |
| 6:C:3728:VAL:HA  | 6:C:3735:PRO:O    | 2.00                     | 0.61              |
| 1:A:240:GLU:HA   | 1:A:243:LEU:HD12  | 1.82                     | 0.61              |
| 1:A:445:LYS:O    | 1:A:446:MET:HG3   | 2.01                     | 0.61              |
| 6:C:115:TYR:HA   | 6:C:131:LEU:HD21  | 1.81                     | 0.61              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1088:GLU:HG3  | 6:C:1089:PHE:H    | 1.65                     | 0.61              |
| 6:C:1877:LEU:O    | 6:C:1920:TYR:OH   | 2.18                     | 0.61              |
| 6:C:2181:GLY:O    | 6:C:2184:TYR:N    | 2.34                     | 0.61              |
| 6:C:2351:GLN:O    | 6:C:2354:ASN:N    | 2.34                     | 0.61              |
| 6:C:2816:ILE:O    | 6:C:2819:GLU:N    | 2.34                     | 0.61              |
| 6:C:2885:GLN:O    | 6:C:2888:VAL:HG22 | 2.00                     | 0.61              |
| 6:C:2965:TYR:CE2  | 6:C:3002:TYR:HE2  | 2.18                     | 0.61              |
| 6:C:3438:GLU:HB3  | 6:C:3442:TYR:CE2  | 2.36                     | 0.61              |
| 1:A:92:LYS:HG2    | 1:A:93:ASP:H      | 1.65                     | 0.61              |
| 1:A:105:LEU:HD21  | 1:A:119:LEU:HD22  | 1.80                     | 0.61              |
| 1:A:145:GLU:O     | 1:A:149:VAL:HG23  | 2.01                     | 0.61              |
| 1:A:470:ARG:HG3   | 2:B:346:CYS:HA    | 1.82                     | 0.61              |
| 1:A:485:GLN:O     | 1:A:488:ARG:HB2   | 2.00                     | 0.61              |
| 2:B:332:LYS:HE3   | 2:B:334:LYS:HD3   | 1.83                     | 0.61              |
| 2:B:341:SER:C     | 2:B:393:VAL:HG13  | 2.25                     | 0.61              |
| 2:B:400:ARG:NH2   | 5:E:26:DC:N3      | 2.48                     | 0.61              |
| 6:C:673:THR:HB    | 6:C:707:PHE:CE2   | 2.36                     | 0.61              |
| 6:C:1587:VAL:HG22 | 6:C:1647:ALA:HB2  | 1.82                     | 0.61              |
| 6:C:1647:ALA:HB1  | 6:C:1651:LYS:HZ3  | 1.66                     | 0.61              |
| 6:C:1649:LEU:HA   | 6:C:1652:ILE:HD12 | 1.82                     | 0.61              |
| 6:C:2046:SER:OG   | 6:C:2047:THR:N    | 2.31                     | 0.61              |
| 6:C:2895:GLU:HG3  | 6:C:2896:ALA:N    | 2.15                     | 0.61              |
| 6:C:2915:ARG:NH1  | 6:C:2941:GLY:O    | 2.32                     | 0.61              |
| 6:C:3484:THR:N    | 6:C:3516:HIS:CE1  | 2.69                     | 0.61              |
| 6:C:3923:ARG:CZ   | 6:C:3941:ASP:HB2  | 2.31                     | 0.61              |
| 1:A:359:HIS:H     | 1:A:360:HIS:CD2   | 2.18                     | 0.61              |
| 2:B:10:VAL:HB     | 2:B:54:ILE:HG13   | 1.83                     | 0.61              |
| 6:C:67:VAL:HG22   | 6:C:110:THR:HG21  | 1.83                     | 0.61              |
| 6:C:387:GLU:O     | 6:C:390:GLN:HB3   | 2.00                     | 0.61              |
| 6:C:413:PHE:C     | 6:C:416:SER:HG    | 2.08                     | 0.61              |
| 6:C:723:ASP:H     | 6:C:727:ALA:H     | 1.49                     | 0.61              |
| 6:C:1513:GLY:O    | 6:C:1516:GLU:HB3  | 2.01                     | 0.61              |
| 6:C:3059:GLN:NE2  | 6:C:3063:THR:HG21 | 2.16                     | 0.61              |
| 6:C:3137:GLU:O    | 6:C:3140:GLU:HB2  | 2.01                     | 0.61              |
| 1:A:301:ARG:HD3   | 6:C:164:LYS:H     | 1.65                     | 0.61              |
| 1:A:356:LEU:HB3   | 1:A:360:HIS:NE2   | 2.16                     | 0.61              |
| 4:D:8:DT:O2       | 4:D:9:DG:C8       | 2.54                     | 0.61              |
| 5:E:45:DG:H2'     | 5:E:46:DT:C2      | 2.36                     | 0.61              |
| 6:C:33:GLN:HE22   | 6:C:2427:ARG:HA   | 1.65                     | 0.61              |
| 6:C:532:ARG:HH11  | 6:C:535:LEU:HD13  | 1.66                     | 0.61              |
| 6:C:1870:LYS:HG2  | 6:C:1871:MET:HG2  | 1.82                     | 0.61              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 6:C:2275:GLN:O   | 6:C:2279:ILE:HG12 | 2.00                     | 0.61              |
| 6:C:2417:SER:O   | 6:C:2421:VAL:HB   | 2.00                     | 0.61              |
| 6:C:2526:SER:O   | 6:C:2531:LEU:N    | 2.34                     | 0.61              |
| 6:C:2546:TYR:HB3 | 6:C:2549:LYS:HZ1  | 1.66                     | 0.61              |
| 6:C:2869:LEU:O   | 6:C:2872:ASP:N    | 2.17                     | 0.61              |
| 6:C:3524:ASN:O   | 6:C:3529:ILE:N    | 2.34                     | 0.61              |
| 6:C:3620:PRO:HD3 | 6:C:3641:ASP:OD2  | 2.01                     | 0.61              |
| 6:C:3789:ARG:HG2 | 6:C:3938:ILE:HB   | 1.82                     | 0.61              |
| 6:C:4069:GLU:HB3 | 6:C:4070:LYS:CG   | 2.31                     | 0.61              |
| 1:A:274:TYR:CB   | 1:A:367:PHE:O     | 2.38                     | 0.60              |
| 4:D:-9:DC:C6     | 4:D:-8:DT:H72     | 2.35                     | 0.60              |
| 4:D:3:DT:H2'     | 4:D:4:DA:O4'      | 2.01                     | 0.60              |
| 6:C:142:ARG:NH1  | 6:C:180:LEU:HD22  | 2.16                     | 0.60              |
| 6:C:563:LEU:HD21 | 6:C:609:ALA:HA    | 1.83                     | 0.60              |
| 6:C:797:ASP:HB2  | 6:C:869:ASN:HB2   | 1.83                     | 0.60              |
| 6:C:1108:MET:O   | 6:C:1111:LEU:HB3  | 2.01                     | 0.60              |
| 6:C:1927:MET:O   | 6:C:1933:LEU:HD11 | 2.01                     | 0.60              |
| 6:C:2379:MET:O   | 6:C:2382:VAL:HG22 | 2.00                     | 0.60              |
| 6:C:2929:LEU:O   | 6:C:2933:ILE:N    | 2.34                     | 0.60              |
| 6:C:3883:LEU:O   | 6:C:3887:PHE:CB   | 2.42                     | 0.60              |
| 1:A:302:THR:OG1  | 1:A:311:LEU:HB2   | 2.02                     | 0.60              |
| 6:C:88:PHE:HD1   | 6:C:91:ILE:HD11   | 1.66                     | 0.60              |
| 6:C:258:PRO:HA   | 6:C:264:ARG:HG3   | 1.84                     | 0.60              |
| 6:C:442:GLN:HG2  | 6:C:443:ILE:HA    | 1.83                     | 0.60              |
| 6:C:797:ASP:OD2  | 6:C:868:LYS:N     | 2.26                     | 0.60              |
| 6:C:852:ARG:NH2  | 6:C:3114:TYR:HB2  | 2.08                     | 0.60              |
| 6:C:913:ARG:O    | 6:C:916:GLU:HB2   | 2.02                     | 0.60              |
| 6:C:933:LEU:HD13 | 6:C:2794:LEU:HB2  | 1.83                     | 0.60              |
| 6:C:989:MET:HA   | 6:C:992:ILE:HG12  | 1.83                     | 0.60              |
| 6:C:1144:SER:HA  | 6:C:1147:LYS:HB3  | 1.83                     | 0.60              |
| 6:C:1459:HIS:HE1 | 6:C:1509:GLN:HG3  | 1.66                     | 0.60              |
| 6:C:2251:ILE:HA  | 6:C:2253:TYR:CZ   | 2.36                     | 0.60              |
| 6:C:2260:PHE:CD2 | 6:C:2277:LEU:HD11 | 2.36                     | 0.60              |
| 6:C:3031:TRP:CE2 | 6:C:3034:PRO:HB3  | 2.36                     | 0.60              |
| 6:C:3595:GLU:HB2 | 6:C:3606:ILE:HD11 | 1.83                     | 0.60              |
| 6:C:3621:LYS:HZ2 | 6:C:3638:LYS:HB3  | 1.66                     | 0.60              |
| 1:A:339:ARG:HH11 | 1:A:405:ASN:HD22  | 1.49                     | 0.60              |
| 1:A:353:LEU:HD22 | 1:A:414:VAL:HG13  | 1.83                     | 0.60              |
| 1:A:442:ASP:HB3  | 2:B:267:ILE:HG23  | 1.82                     | 0.60              |
| 2:B:361:VAL:HG22 | 2:B:422:VAL:HG12  | 1.83                     | 0.60              |
| 6:C:671:SER:HB3  | 6:C:675:ARG:HH12  | 1.65                     | 0.60              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:800:LEU:O     | 6:C:803:SER:HB2   | 2.01                     | 0.60              |
| 6:C:1064:TYR:O    | 6:C:1068:LEU:HG   | 2.01                     | 0.60              |
| 6:C:1135:CYS:SG   | 6:C:1171:TRP:HH2  | 2.23                     | 0.60              |
| 6:C:2559:THR:HG21 | 6:C:2808:LEU:HD22 | 1.81                     | 0.60              |
| 6:C:3031:TRP:HE3  | 6:C:3032:SER:C    | 2.08                     | 0.60              |
| 6:C:3238:MET:O    | 6:C:3242:MET:HG2  | 2.01                     | 0.60              |
| 6:C:3399:PRO:HA   | 6:C:3402:SER:HB2  | 1.83                     | 0.60              |
| 1:A:256:LEU:HD11  | 5:E:38:DA:C2      | 2.36                     | 0.60              |
| 1:A:339:ARG:HD3   | 1:A:405:ASN:ND2   | 2.16                     | 0.60              |
| 6:C:204:LEU:HD22  | 6:C:207:GLN:CD    | 2.27                     | 0.60              |
| 6:C:1425:ALA:O    | 6:C:1429:GLU:CB   | 2.49                     | 0.60              |
| 6:C:2887:PRO:HG3  | 6:C:2922:ARG:HE   | 1.65                     | 0.60              |
| 6:C:2969:ALA:HB1  | 6:C:2995:GLU:OE2  | 2.02                     | 0.60              |
| 6:C:3632:PHE:HZ   | 6:C:3680:LEU:H    | 1.47                     | 0.60              |
| 6:C:3761:ASP:HA   | 6:C:3764:VAL:CG2  | 2.32                     | 0.60              |
| 6:C:4079:ALA:HA   | 6:C:4082:ARG:HH11 | 1.65                     | 0.60              |
| 1:A:74:LYS:HA     | 1:A:77:SER:OG     | 2.00                     | 0.60              |
| 1:A:470:ARG:NH2   | 1:A:472:THR:HA    | 2.17                     | 0.60              |
| 6:C:131:LEU:HD23  | 6:C:134:LEU:HD12  | 1.82                     | 0.60              |
| 6:C:322:GLN:HA    | 6:C:325:ASN:ND2   | 2.16                     | 0.60              |
| 6:C:439:VAL:HG13  | 6:C:442:GLN:OE1   | 2.01                     | 0.60              |
| 6:C:1059:LEU:O    | 6:C:1063:LEU:HG   | 2.02                     | 0.60              |
| 6:C:2239:LYS:O    | 6:C:2242:VAL:HB   | 2.02                     | 0.60              |
| 6:C:2295:GLN:HB3  | 6:C:2299:TYR:HE2  | 1.66                     | 0.60              |
| 6:C:2395:THR:HA   | 6:C:2432:GLN:HE21 | 1.67                     | 0.60              |
| 6:C:2480:ILE:HD12 | 6:C:2483:ASN:HB2  | 1.82                     | 0.60              |
| 6:C:2884:LEU:HD23 | 6:C:2886:GLN:HB3  | 1.82                     | 0.60              |
| 6:C:2916:LEU:HD12 | 6:C:2919:ASP:HB2  | 1.83                     | 0.60              |
| 6:C:2935:GLU:HG3  | 6:C:2953:THR:HG22 | 1.83                     | 0.60              |
| 6:C:3004:HIS:CE1  | 6:C:3043:TYR:HD1  | 2.19                     | 0.60              |
| 6:C:3151:LEU:HG   | 6:C:3155:VAL:HB   | 1.83                     | 0.60              |
| 6:C:3298:LEU:HD12 | 6:C:3301:LEU:HG   | 1.83                     | 0.60              |
| 6:C:3354:ASP:HB3  | 6:C:3358:ARG:HH22 | 1.65                     | 0.60              |
| 6:C:3462:ARG:NH1  | 6:C:3463:LEU:HD21 | 2.17                     | 0.60              |
| 6:C:3610:TYR:CZ   | 6:C:3652:LEU:HA   | 2.37                     | 0.60              |
| 6:C:4011:PHE:HA   | 6:C:4015:ASN:OD1  | 2.01                     | 0.60              |
| 1:A:130:ARG:O     | 1:A:134:MET:HB2   | 1.99                     | 0.60              |
| 1:A:493:LEU:HA    | 1:A:496:ASP:OD1   | 2.02                     | 0.60              |
| 5:E:33:DA:H2'     | 5:E:34:DC:C6      | 2.37                     | 0.60              |
| 6:C:98:GLN:HG2    | 6:C:143:LEU:CD1   | 2.31                     | 0.60              |
| 6:C:640:GLU:O     | 6:C:643:GLU:N     | 2.34                     | 0.60              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:794:PRO:HA    | 6:C:869:ASN:CG    | 2.25                     | 0.60              |
| 6:C:2156:VAL:HG23 | 6:C:2160:TYR:OH   | 2.02                     | 0.60              |
| 6:C:2524:PHE:HA   | 6:C:2527:HIS:ND1  | 2.17                     | 0.60              |
| 6:C:2886:GLN:CD   | 6:C:2925:GLU:HG2  | 2.27                     | 0.60              |
| 6:C:3050:LYS:HG3  | 6:C:3051:LEU:N    | 2.17                     | 0.60              |
| 6:C:3184:THR:OG1  | 6:C:3185:ASN:N    | 2.35                     | 0.60              |
| 6:C:3486:GLU:O    | 6:C:3490:VAL:N    | 2.33                     | 0.60              |
| 6:C:3534:ILE:HG23 | 6:C:3796:MET:HG2  | 1.81                     | 0.60              |
| 6:C:4033:VAL:O    | 6:C:4036:LYS:HE3  | 2.02                     | 0.60              |
| 1:A:115:ARG:HA    | 1:A:118:GLU:CD    | 2.27                     | 0.60              |
| 1:A:410:PHE:CZ    | 2:B:516:LEU:HA    | 2.32                     | 0.60              |
| 6:C:789:TYR:O     | 6:C:793:LEU:N     | 2.34                     | 0.60              |
| 6:C:867:ASN:HD22  | 6:C:868:LYS:NZ    | 2.00                     | 0.60              |
| 6:C:929:ALA:HA    | 6:C:932:GLU:OE1   | 2.01                     | 0.60              |
| 6:C:957:PRO:HA    | 6:C:960:GLN:OE1   | 2.02                     | 0.60              |
| 6:C:970:LEU:HB3   | 6:C:981:ARG:HG3   | 1.82                     | 0.60              |
| 6:C:1501:PRO:O    | 6:C:1505:LEU:HB2  | 2.01                     | 0.60              |
| 6:C:2231:PHE:O    | 6:C:2234:ASN:ND2  | 2.33                     | 0.60              |
| 6:C:2844:LEU:HD13 | 6:C:2876:VAL:HG12 | 1.84                     | 0.60              |
| 6:C:2922:ARG:HD2  | 6:C:2930:TYR:CD1  | 2.36                     | 0.60              |
| 6:C:3048:LYS:HB2  | 6:C:3052:LEU:HD13 | 1.83                     | 0.60              |
| 6:C:3764:VAL:HG12 | 6:C:3768:PHE:CE2  | 2.37                     | 0.60              |
| 1:A:445:LYS:CE    | 2:B:243:HIS:HA    | 2.32                     | 0.60              |
| 2:B:247:TRP:CZ3   | 2:B:249:CYS:HB3   | 2.35                     | 0.60              |
| 2:B:265:LYS:HZ2   | 5:E:28:DA:P       | 2.23                     | 0.60              |
| 2:B:339:CYS:N     | 2:B:396:ALA:HB3   | 2.17                     | 0.60              |
| 6:C:848:LEU:HA    | 6:C:851:ILE:HG12  | 1.83                     | 0.60              |
| 6:C:2462:VAL:CG2  | 6:C:2470:ARG:HD3  | 2.30                     | 0.60              |
| 6:C:2963:SER:O    | 6:C:2966:SER:N    | 2.35                     | 0.60              |
| 6:C:3106:GLY:O    | 6:C:3109:SER:HB3  | 2.02                     | 0.60              |
| 6:C:3701:ILE:HG13 | 6:C:3719:ILE:H    | 1.64                     | 0.60              |
| 1:A:127:GLY:O     | 1:A:131:PHE:HB2   | 2.02                     | 0.60              |
| 2:B:338:LYS:HB3   | 2:B:398:ASP:HA    | 1.82                     | 0.60              |
| 2:B:491:PHE:HD1   | 2:B:494:LEU:HD12  | 1.67                     | 0.60              |
| 4:D:-6:DT:H2'     | 4:D:-5:DT:N1      | 2.17                     | 0.60              |
| 6:C:346:TYR:HA    | 6:C:349:ILE:HG13  | 1.84                     | 0.60              |
| 6:C:535:LEU:O     | 6:C:539:GLN:HG2   | 2.01                     | 0.60              |
| 6:C:936:SER:HB3   | 6:C:2791:ILE:HG12 | 1.83                     | 0.60              |
| 6:C:952:GLY:O     | 6:C:956:PRO:HD3   | 2.01                     | 0.60              |
| 6:C:959:TYR:HA    | 6:C:962:TYR:HB3   | 1.83                     | 0.60              |
| 6:C:965:THR:OG1   | 6:C:966:PHE:N     | 2.33                     | 0.60              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1090:ARG:HH12 | 6:C:1100:VAL:HG11 | 1.65                     | 0.60              |
| 6:C:2036:LEU:O    | 6:C:2040:MET:HG2  | 2.02                     | 0.60              |
| 6:C:2139:PRO:O    | 6:C:2142:ILE:HB   | 2.02                     | 0.60              |
| 6:C:2425:ARG:HH22 | 6:C:2456:ASN:HB2  | 1.66                     | 0.60              |
| 6:C:2499:PHE:O    | 6:C:2503:LYS:HG3  | 2.02                     | 0.60              |
| 6:C:3350:GLU:OE1  | 6:C:3350:GLU:N    | 2.20                     | 0.60              |
| 6:C:3533:PHE:CE1  | 6:C:3562:LEU:HB2  | 2.36                     | 0.60              |
| 1:A:42:VAL:HA     | 1:A:169:PHE:HB2   | 1.82                     | 0.60              |
| 6:C:397:LEU:O     | 6:C:400:THR:N     | 2.25                     | 0.60              |
| 6:C:922:SER:O     | 6:C:925:GLN:N     | 2.35                     | 0.60              |
| 6:C:1220:LEU:HD12 | 6:C:1271:ILE:HG21 | 1.84                     | 0.60              |
| 6:C:1221:ILE:HA   | 6:C:1224:PHE:HD2  | 1.66                     | 0.60              |
| 6:C:1718:ILE:HG12 | 6:C:1728:GLU:CD   | 2.27                     | 0.60              |
| 6:C:2325:LEU:O    | 6:C:2329:TYR:N    | 2.19                     | 0.60              |
| 6:C:2470:ARG:HB3  | 6:C:2474:TYR:CE2  | 2.36                     | 0.60              |
| 6:C:2951:GLN:OE1  | 6:C:2972:TYR:OH   | 2.18                     | 0.60              |
| 6:C:3183:ILE:HB   | 6:C:3242:MET:HE3  | 1.83                     | 0.60              |
| 6:C:3534:ILE:HG23 | 6:C:3796:MET:HA   | 1.84                     | 0.60              |
| 6:C:3612:ARG:O    | 6:C:3616:ALA:CB   | 2.50                     | 0.60              |
| 6:C:3924:HIS:O    | 6:C:3962:ARG:NH2  | 2.35                     | 0.60              |
| 1:A:36:ASP:CG     | 1:A:162:SER:H     | 2.10                     | 0.59              |
| 1:A:147:LEU:HB3   | 1:A:189:LYS:NZ    | 2.15                     | 0.59              |
| 1:A:318:ARG:NH2   | 1:A:331:LYS:HD2   | 2.17                     | 0.59              |
| 1:A:319:SER:OG    | 1:A:327:ILE:O     | 2.21                     | 0.59              |
| 6:C:645:TRP:CD1   | 6:C:645:TRP:H     | 2.19                     | 0.59              |
| 6:C:645:TRP:O     | 6:C:648:SER:N     | 2.35                     | 0.59              |
| 6:C:756:PHE:HA    | 6:C:773:LEU:HD22  | 1.84                     | 0.59              |
| 6:C:763:THR:HB    | 6:C:766:ALA:HB3   | 1.82                     | 0.59              |
| 6:C:776:TRP:CH2   | 6:C:780:ILE:HG21  | 2.37                     | 0.59              |
| 6:C:1879:VAL:HA   | 6:C:1882:SER:HB3  | 1.82                     | 0.59              |
| 6:C:1967:PHE:O    | 6:C:1971:PRO:HD2  | 2.01                     | 0.59              |
| 6:C:2793:PRO:O    | 6:C:2797:VAL:HG22 | 2.01                     | 0.59              |
| 6:C:2865:HIS:HB2  | 6:C:2868:LEU:HD13 | 1.83                     | 0.59              |
| 6:C:3496:ILE:HA   | 6:C:3499:ILE:HG23 | 1.84                     | 0.59              |
| 6:C:3568:ILE:O    | 6:C:3571:PHE:HB3  | 2.02                     | 0.59              |
| 1:A:368:VAL:HG23  | 1:A:434:LEU:HD21  | 1.83                     | 0.59              |
| 2:B:246:HIS:CD2   | 2:B:262:ALA:HB2   | 2.37                     | 0.59              |
| 6:C:67:VAL:O      | 6:C:71:LYS:HB3    | 2.02                     | 0.59              |
| 6:C:557:SER:HA    | 6:C:616:LYS:NZ    | 2.16                     | 0.59              |
| 6:C:928:VAL:O     | 6:C:932:GLU:HG3   | 2.02                     | 0.59              |
| 6:C:1760:GLU:OE2  | 6:C:1893:GLU:HG2  | 2.03                     | 0.59              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1871:MET:HG3  | 6:C:1885:PRO:HG3  | 1.84                     | 0.59              |
| 6:C:2468:THR:HA   | 6:C:2471:GLU:CD   | 2.26                     | 0.59              |
| 6:C:2792:THR:HA   | 6:C:2795:GLN:CD   | 2.27                     | 0.59              |
| 6:C:2828:GLU:HA   | 6:C:2831:ASN:ND2  | 2.17                     | 0.59              |
| 6:C:2886:GLN:HE21 | 6:C:2921:LEU:C    | 2.09                     | 0.59              |
| 6:C:3760:GLN:CD   | 6:C:3760:GLN:H    | 2.10                     | 0.59              |
| 1:A:63:SER:HB3    | 1:A:169:PHE:CD2   | 2.37                     | 0.59              |
| 1:A:326:GLN:OE1   | 1:A:327:ILE:N     | 2.34                     | 0.59              |
| 1:A:524:GLU:O     | 1:A:528:LEU:HG    | 2.02                     | 0.59              |
| 2:B:38:ILE:O      | 2:B:41:PHE:HB3    | 2.03                     | 0.59              |
| 2:B:148:ASP:O     | 2:B:152:HIS:ND1   | 2.35                     | 0.59              |
| 4:D:15:DG:N2      | 5:E:19:DC:O3'     | 2.28                     | 0.59              |
| 6:C:33:GLN:OE1    | 6:C:2427:ARG:HA   | 2.02                     | 0.59              |
| 6:C:50:VAL:O      | 6:C:54:GLN:HB3    | 2.02                     | 0.59              |
| 6:C:187:SER:O     | 6:C:190:ILE:N     | 2.35                     | 0.59              |
| 6:C:389:ILE:HG21  | 6:C:431:TYR:HD1   | 1.67                     | 0.59              |
| 6:C:659:ARG:HD2   | 6:C:663:ILE:HG23  | 1.83                     | 0.59              |
| 6:C:1444:ASP:O    | 6:C:1447:ARG:N    | 2.36                     | 0.59              |
| 6:C:1457:GLN:N    | 6:C:1460:ARG:HH21 | 2.01                     | 0.59              |
| 6:C:2022:PRO:HG2  | 6:C:2045:PHE:CD2  | 2.37                     | 0.59              |
| 6:C:2929:LEU:O    | 6:C:2932:SER:OG   | 2.11                     | 0.59              |
| 6:C:2999:LEU:HA   | 6:C:3002:TYR:CE2  | 2.37                     | 0.59              |
| 6:C:3007:GLU:HG2  | 6:C:3046:ARG:NH2  | 2.17                     | 0.59              |
| 1:A:303:PHE:CD2   | 2:B:292:GLU:HG2   | 2.37                     | 0.59              |
| 1:A:362:LEU:HG    | 1:A:363:ARG:H     | 1.67                     | 0.59              |
| 2:B:76:ASN:ND2    | 2:B:103:GLN:O     | 2.36                     | 0.59              |
| 2:B:154:LEU:HA    | 2:B:157:CYS:HB2   | 1.84                     | 0.59              |
| 2:B:187:GLY:H     | 2:B:232:ARG:HG2   | 1.66                     | 0.59              |
| 4:D:-7:DA:H2'     | 4:D:-6:DT:C6      | 2.37                     | 0.59              |
| 4:D:10:DG:H22     | 5:E:25:DG:N2      | 2.00                     | 0.59              |
| 6:C:545:LEU:HA    | 6:C:548:GLU:OE1   | 2.01                     | 0.59              |
| 6:C:572:VAL:O     | 6:C:576:VAL:CB    | 2.36                     | 0.59              |
| 6:C:1032:CYS:HA   | 6:C:1035:GLU:OE1  | 2.01                     | 0.59              |
| 6:C:2134:GLY:O    | 6:C:2137:ILE:HB   | 2.02                     | 0.59              |
| 6:C:2211:LEU:HA   | 6:C:2214:ARG:NH2  | 2.13                     | 0.59              |
| 6:C:2851:PHE:HA   | 6:C:2854:PHE:CG   | 2.37                     | 0.59              |
| 6:C:2918:PRO:HA   | 6:C:2921:LEU:HG   | 1.83                     | 0.59              |
| 6:C:3027:LEU:O    | 6:C:3040:TYR:OH   | 2.21                     | 0.59              |
| 6:C:3114:TYR:CZ   | 6:C:3128:LYS:HB3  | 2.37                     | 0.59              |
| 6:C:4060:THR:HA   | 6:C:4063:GLU:CD   | 2.26                     | 0.59              |
| 1:A:264:ASN:OD1   | 1:A:267:ILE:N     | 2.35                     | 0.59              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:973:ALA:HB1   | 6:C:980:THR:HB    | 1.85                     | 0.59              |
| 6:C:2065:ARG:HG3  | 6:C:2125:TRP:NE1  | 2.17                     | 0.59              |
| 6:C:2419:ASP:N    | 6:C:2419:ASP:OD1  | 2.35                     | 0.59              |
| 6:C:2420:PHE:CE1  | 6:C:2424:MET:HB2  | 2.37                     | 0.59              |
| 6:C:2934:GLY:C    | 6:C:2937:ASP:H    | 2.09                     | 0.59              |
| 6:C:2949:THR:O    | 6:C:2953:THR:HG23 | 2.02                     | 0.59              |
| 6:C:3294:SER:OG   | 6:C:3295:GLU:OE2  | 2.16                     | 0.59              |
| 6:C:3858:MET:O    | 6:C:3864:ARG:NH2  | 2.35                     | 0.59              |
| 1:A:239:LEU:O     | 1:A:242:LEU:HB2   | 2.03                     | 0.59              |
| 1:A:278:GLN:OE1   | 4:D:1:DG:H5"      | 2.02                     | 0.59              |
| 1:A:330:GLU:HG3   | 1:A:332:GLU:H     | 1.68                     | 0.59              |
| 2:B:35:LYS:O      | 2:B:39:THR:OG1    | 2.20                     | 0.59              |
| 5:E:40:DT:H2'     | 5:E:41:DA:C8      | 2.37                     | 0.59              |
| 6:C:223:CYS:O     | 6:C:227:LEU:CB    | 2.50                     | 0.59              |
| 6:C:415:GLN:CG    | 6:C:460:ALA:HA    | 2.33                     | 0.59              |
| 6:C:612:LEU:HA    | 6:C:615:ALA:HB2   | 1.84                     | 0.59              |
| 6:C:1063:LEU:HD23 | 6:C:1066:LEU:HD23 | 1.85                     | 0.59              |
| 6:C:1073:PHE:O    | 6:C:1076:LEU:HG   | 2.02                     | 0.59              |
| 6:C:1632:TRP:CD1  | 6:C:1635:LYS:HZ3  | 2.20                     | 0.59              |
| 6:C:2251:ILE:HG23 | 6:C:2253:TYR:CD2  | 2.36                     | 0.59              |
| 6:C:2313:LYS:O    | 6:C:2315:VAL:N    | 2.36                     | 0.59              |
| 6:C:2965:TYR:CZ   | 6:C:2969:ALA:HB3  | 2.38                     | 0.59              |
| 6:C:3125:ARG:O    | 6:C:3129:LEU:HG   | 2.02                     | 0.59              |
| 6:C:3809:THR:CA   | 6:C:3930:VAL:O    | 2.21                     | 0.59              |
| 1:A:75:ILE:HG23   | 2:B:316:TYR:CZ    | 2.38                     | 0.59              |
| 2:B:151:ILE:HD11  | 2:B:211:VAL:HA    | 1.85                     | 0.59              |
| 2:B:151:ILE:HD13  | 2:B:214:SER:HB2   | 1.85                     | 0.59              |
| 5:E:21:DA:H2"     | 5:E:22:DA:O4'     | 2.02                     | 0.59              |
| 6:C:302:ALA:O     | 6:C:309:LYS:NZ    | 2.27                     | 0.59              |
| 6:C:530:LEU:O     | 6:C:534:LEU:HG    | 2.02                     | 0.59              |
| 6:C:1000:LYS:HE3  | 6:C:1052:SER:HB3  | 1.84                     | 0.59              |
| 6:C:1142:HIS:CG   | 6:C:1145:LEU:HD12 | 2.38                     | 0.59              |
| 6:C:1412:LYS:O    | 6:C:1416:GLU:N    | 2.36                     | 0.59              |
| 6:C:1945:TYR:CE2  | 6:C:1994:VAL:HG21 | 2.37                     | 0.59              |
| 6:C:2109:GLY:O    | 6:C:2112:GLN:N    | 2.36                     | 0.59              |
| 6:C:2256:ILE:HA   | 6:C:2259:LYS:HD2  | 1.84                     | 0.59              |
| 6:C:2257:PHE:O    | 6:C:2261:SER:N    | 2.19                     | 0.59              |
| 6:C:2434:VAL:O    | 6:C:2438:ILE:N    | 2.23                     | 0.59              |
| 6:C:3244:ASP:O    | 6:C:3247:ARG:HB3  | 2.02                     | 0.59              |
| 6:C:3721:GLY:O    | 6:C:3741:ARG:N    | 2.32                     | 0.59              |
| 6:C:3770:VAL:O    | 6:C:3773:GLY:N    | 2.36                     | 0.59              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3872:ARG:NH2  | 6:C:3873:LYS:HE3  | 2.14                     | 0.59              |
| 6:C:4100:GLU:HG3  | 6:C:4101:GLU:H    | 1.68                     | 0.59              |
| 1:A:145:GLU:HA    | 1:A:148:TRP:CZ2   | 2.37                     | 0.59              |
| 1:A:259:LEU:HD13  | 1:A:273:ILE:HG13  | 1.85                     | 0.59              |
| 1:A:264:ASN:HD21  | 1:A:266:ASP:HB2   | 1.68                     | 0.59              |
| 1:A:286:ILE:HB    | 2:B:314:PHE:HA    | 1.85                     | 0.59              |
| 2:B:129:LYS:HG2   | 2:B:240:ILE:HA    | 1.85                     | 0.59              |
| 6:C:349:ILE:HG23  | 6:C:391:ARG:HH12  | 1.68                     | 0.59              |
| 6:C:742:GLU:HB3   | 6:C:783:HIS:CG    | 2.38                     | 0.59              |
| 6:C:1441:ALA:O    | 6:C:1445:ARG:CB   | 2.50                     | 0.59              |
| 6:C:1990:PHE:O    | 6:C:1993:GLU:HB3  | 2.03                     | 0.59              |
| 6:C:2004:TYR:O    | 6:C:2007:ILE:HG12 | 2.03                     | 0.59              |
| 6:C:2045:PHE:O    | 6:C:2049:VAL:CB   | 2.42                     | 0.59              |
| 6:C:2181:GLY:HA2  | 6:C:2184:TYR:CD2  | 2.38                     | 0.59              |
| 6:C:2522:ARG:NH1  | 6:C:2526:SER:HG   | 2.00                     | 0.59              |
| 6:C:2884:LEU:C    | 6:C:2886:GLN:N    | 2.57                     | 0.59              |
| 1:A:95:ASN:HA     | 1:A:104:VAL:HG23  | 1.85                     | 0.59              |
| 1:A:241:ASP:N     | 1:A:241:ASP:OD1   | 2.34                     | 0.59              |
| 1:A:259:LEU:HD22  | 1:A:400:TYR:CE1   | 2.38                     | 0.59              |
| 1:A:348:MET:HG3   | 1:A:399:ARG:HG3   | 1.85                     | 0.59              |
| 1:A:479:GLU:HA    | 2:B:426:PHE:CG    | 2.37                     | 0.59              |
| 2:B:58:LEU:HB2    | 2:B:78:THR:HB     | 1.84                     | 0.59              |
| 2:B:266:SER:HB3   | 2:B:363:LYS:H     | 1.66                     | 0.59              |
| 6:C:330:ASN:HB2   | 6:C:334:HIS:CD2   | 2.33                     | 0.59              |
| 6:C:486:GLY:O     | 6:C:490:ILE:N     | 2.29                     | 0.59              |
| 6:C:854:ARG:HG2   | 6:C:857:GLN:OE1   | 2.03                     | 0.59              |
| 6:C:1434:VAL:HG21 | 6:C:1448:LEU:HD11 | 1.85                     | 0.59              |
| 6:C:2130:HIS:H    | 6:C:2140:LEU:HD13 | 1.67                     | 0.59              |
| 6:C:2492:ASP:O    | 6:C:2495:SER:OG   | 2.20                     | 0.59              |
| 6:C:2874:ALA:HB1  | 6:C:2921:LEU:HB3  | 1.85                     | 0.59              |
| 6:C:3327:ASN:O    | 6:C:3330:LEU:HB3  | 2.02                     | 0.59              |
| 6:C:3759:ARG:O    | 6:C:3762:GLN:HB3  | 2.02                     | 0.59              |
| 6:C:3791:TYR:CE2  | 6:C:3942:PHE:HE2  | 2.21                     | 0.59              |
| 1:A:128:GLN:HE21  | 1:A:132:GLN:NE2   | 1.99                     | 0.59              |
| 1:A:321:ILE:O     | 2:B:274:LYS:NZ    | 2.35                     | 0.59              |
| 1:A:472:THR:O     | 2:B:350:GLN:NE2   | 2.36                     | 0.59              |
| 6:C:546:ALA:HB1   | 6:C:633:ILE:HD13  | 1.84                     | 0.59              |
| 6:C:722:LYS:C     | 6:C:727:ALA:HB2   | 2.27                     | 0.59              |
| 6:C:985:GLU:HA    | 6:C:988:VAL:HG22  | 1.85                     | 0.59              |
| 6:C:1049:GLN:O    | 6:C:1052:SER:OG   | 2.18                     | 0.59              |
| 6:C:1280:GLN:HE22 | 6:C:1357:LYS:HB3  | 1.67                     | 0.59              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2022:PRO:HG2  | 6:C:2045:PHE:HD2  | 1.68                     | 0.59              |
| 6:C:2234:ASN:HA   | 6:C:2237:ILE:HD12 | 1.85                     | 0.59              |
| 6:C:3070:HIS:O    | 6:C:3073:LEU:N    | 2.36                     | 0.59              |
| 6:C:3130:GLN:CD   | 6:C:3178:ILE:HG12 | 2.28                     | 0.59              |
| 6:C:3757:ASP:HB2  | 6:C:3800:LEU:N    | 2.17                     | 0.59              |
| 6:C:3880:ALA:HB2  | 6:C:3966:GLN:HA   | 1.83                     | 0.59              |
| 1:A:144:SER:O     | 1:A:147:LEU:HB2   | 2.03                     | 0.58              |
| 1:A:388:LYS:O     | 1:A:392:LYS:N     | 2.31                     | 0.58              |
| 2:B:264:TYR:HE2   | 2:B:365:PHE:HB3   | 1.67                     | 0.58              |
| 6:C:558:GLU:O     | 6:C:561:ASN:HB2   | 2.01                     | 0.58              |
| 6:C:561:ASN:HB3   | 6:C:565:TYR:CE2   | 2.37                     | 0.58              |
| 6:C:620:PHE:HA    | 6:C:623:PHE:HB3   | 1.85                     | 0.58              |
| 6:C:930:ALA:O     | 6:C:934:LEU:HD13  | 2.03                     | 0.58              |
| 6:C:1180:GLN:HB2  | 6:C:1213:LYS:N    | 2.18                     | 0.58              |
| 6:C:1259:LEU:CD2  | 6:C:1340:ARG:HG3  | 2.33                     | 0.58              |
| 6:C:3994:ASP:HB3  | 6:C:3997:LEU:HD11 | 1.85                     | 0.58              |
| 1:A:126:GLN:HB2   | 1:A:130:ARG:HH21  | 1.68                     | 0.58              |
| 1:A:232:HIS:CG    | 1:A:423:GLN:HB2   | 2.37                     | 0.58              |
| 1:A:257:SER:HA    | 5:E:38:DA:P       | 2.43                     | 0.58              |
| 4:D:-15:DT:H2'    | 4:D:-14:DA:C5     | 2.38                     | 0.58              |
| 4:D:-10:DA:H2'    | 4:D:-9:DC:C4      | 2.38                     | 0.58              |
| 6:C:104:SER:OG    | 6:C:105:VAL:N     | 2.36                     | 0.58              |
| 6:C:189:MET:HA    | 6:C:192:ASN:ND2   | 2.17                     | 0.58              |
| 6:C:335:LYS:O     | 6:C:338:LEU:HB3   | 2.03                     | 0.58              |
| 6:C:396:PHE:CD2   | 6:C:397:LEU:HD12  | 2.39                     | 0.58              |
| 6:C:1065:SER:HA   | 6:C:1068:LEU:HD12 | 1.84                     | 0.58              |
| 6:C:1572:LEU:HD23 | 6:C:1575:LEU:HD12 | 1.85                     | 0.58              |
| 6:C:1956:PHE:HB2  | 6:C:1960:LYS:HD3  | 1.85                     | 0.58              |
| 6:C:1970:LYS:NZ   | 6:C:2044:ASP:OD1  | 2.35                     | 0.58              |
| 6:C:2816:ILE:HG23 | 6:C:2817:LEU:H    | 1.68                     | 0.58              |
| 6:C:2916:LEU:HA   | 6:C:2919:ASP:CG   | 2.28                     | 0.58              |
| 6:C:2936:TYR:CE1  | 6:C:2946:GLU:HA   | 2.36                     | 0.58              |
| 6:C:2989:ALA:HB1  | 6:C:2993:PHE:CE1  | 2.38                     | 0.58              |
| 6:C:3759:ARG:NH1  | 6:C:4008:GLU:OE2  | 2.31                     | 0.58              |
| 6:C:3815:LEU:HA   | 6:C:3818:ASN:ND2  | 2.18                     | 0.58              |
| 6:C:3817:LEU:HB3  | 6:C:3829:LEU:HD21 | 1.85                     | 0.58              |
| 2:B:454:VAL:H     | 2:B:532:LYS:HZ2   | 1.50                     | 0.58              |
| 2:B:455:ASP:O     | 2:B:458:ILE:N     | 2.36                     | 0.58              |
| 2:B:491:PHE:HA    | 2:B:494:LEU:HD12  | 1.85                     | 0.58              |
| 4:D:-2:DT:H2''    | 4:D:-1:DA:H5'     | 1.85                     | 0.58              |
| 5:E:38:DA:H2''    | 5:E:39:DA:C5      | 2.38                     | 0.58              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:241:ASP:N     | 6:C:241:ASP:OD1   | 2.32                     | 0.58              |
| 6:C:956:PRO:O     | 6:C:960:GLN:CB    | 2.50                     | 0.58              |
| 6:C:1630:ASP:HA   | 6:C:1633:TRP:CD2  | 2.38                     | 0.58              |
| 6:C:2012:ARG:NH2  | 6:C:2013:GLU:OE2  | 2.36                     | 0.58              |
| 6:C:2989:ALA:HB1  | 6:C:2993:PHE:CZ   | 2.38                     | 0.58              |
| 6:C:3197:LEU:HD13 | 6:C:3227:ILE:HG22 | 1.85                     | 0.58              |
| 6:C:3254:LEU:O    | 6:C:3257:LYS:HB3  | 2.03                     | 0.58              |
| 6:C:3502:MET:SD   | 6:C:3510:GLN:NE2  | 2.76                     | 0.58              |
| 6:C:4113:ASP:O    | 6:C:4116:ILE:HG22 | 2.03                     | 0.58              |
| 2:B:62:ASP:HA     | 2:B:103:GLN:HB3   | 1.86                     | 0.58              |
| 6:C:665:GLY:HA2   | 6:C:670:LEU:HD11  | 1.84                     | 0.58              |
| 6:C:1630:ASP:HA   | 6:C:1633:TRP:CE3  | 2.37                     | 0.58              |
| 6:C:1917:LYS:HZ3  | 6:C:1956:PHE:HA   | 1.68                     | 0.58              |
| 6:C:2260:PHE:CD1  | 6:C:2273:GLY:HA3  | 2.38                     | 0.58              |
| 6:C:2524:PHE:HA   | 6:C:2527:HIS:CG   | 2.39                     | 0.58              |
| 6:C:2536:LEU:O    | 6:C:2539:LEU:HB3  | 2.03                     | 0.58              |
| 6:C:2995:GLU:O    | 6:C:2998:SER:HB2  | 2.03                     | 0.58              |
| 6:C:3028:ASN:C    | 6:C:3030:ILE:H    | 2.11                     | 0.58              |
| 1:A:264:ASN:ND2   | 1:A:266:ASP:HB2   | 2.19                     | 0.58              |
| 1:A:380:THR:HG21  | 2:B:446:PRO:HG3   | 1.85                     | 0.58              |
| 2:B:35:LYS:O      | 2:B:39:THR:CB     | 2.52                     | 0.58              |
| 2:B:118:ILE:O     | 2:B:122:THR:OG1   | 2.17                     | 0.58              |
| 2:B:251:LEU:HB2   | 2:B:340:PHE:HD2   | 1.68                     | 0.58              |
| 5:E:45:DG:H2'     | 5:E:46:DT:C4      | 2.39                     | 0.58              |
| 6:C:385:TYR:O     | 6:C:389:ILE:HG12  | 2.03                     | 0.58              |
| 6:C:396:PHE:HZ    | 6:C:1814:PHE:HB2  | 1.67                     | 0.58              |
| 6:C:444:ASP:HA    | 6:C:446:PHE:CE2   | 2.39                     | 0.58              |
| 6:C:481:THR:O     | 6:C:484:HIS:HB2   | 2.03                     | 0.58              |
| 6:C:1012:ALA:O    | 6:C:1015:ASP:N    | 2.29                     | 0.58              |
| 6:C:1217:VAL:HG13 | 6:C:1271:ILE:HG22 | 1.85                     | 0.58              |
| 6:C:1329:ARG:HD3  | 6:C:1332:TYR:HD2  | 1.67                     | 0.58              |
| 6:C:1477:HIS:O    | 6:C:1480:GLY:N    | 2.36                     | 0.58              |
| 6:C:1557:GLU:HG2  | 6:C:1561:SER:HB2  | 1.85                     | 0.58              |
| 6:C:1942:CYS:HB2  | 6:C:1990:PHE:CE1  | 2.39                     | 0.58              |
| 6:C:2182:ILE:HD12 | 6:C:2182:ILE:H    | 1.67                     | 0.58              |
| 6:C:3590:ASN:O    | 6:C:3594:ALA:CB   | 2.51                     | 0.58              |
| 6:C:3877:LYS:HE3  | 6:C:3965:ARG:HH21 | 1.67                     | 0.58              |
| 6:C:3897:PHE:HD2  | 6:C:3898:LEU:HG   | 1.69                     | 0.58              |
| 6:C:4055:ASN:CG   | 6:C:4058:VAL:H    | 2.11                     | 0.58              |
| 1:A:117:LEU:HD12  | 1:A:494:ALA:O     | 2.03                     | 0.58              |
| 1:A:128:GLN:O     | 1:A:132:GLN:HG3   | 2.04                     | 0.58              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:179:ASP:OD2   | 1:A:182:LYS:HG3   | 2.02                     | 0.58              |
| 1:A:192:ASP:O     | 1:A:196:THR:N     | 2.37                     | 0.58              |
| 1:A:484:GLN:HE21  | 1:A:488:ARG:NH2   | 1.99                     | 0.58              |
| 2:B:287:GLU:OE1   | 2:B:287:GLU:N     | 2.33                     | 0.58              |
| 2:B:423:GLN:OE1   | 2:B:424:LEU:N     | 2.36                     | 0.58              |
| 2:B:454:VAL:O     | 2:B:457:LEU:HB3   | 2.04                     | 0.58              |
| 4:D:-4:DA:H5''    | 4:D:-3:DT:C7      | 2.33                     | 0.58              |
| 5:E:44:DA:C2      | 5:E:45:DG:C4      | 2.92                     | 0.58              |
| 6:C:194:GLU:OE2   | 6:C:233:ASN:HB2   | 2.02                     | 0.58              |
| 6:C:639:ALA:O     | 6:C:642:PHE:HB3   | 2.04                     | 0.58              |
| 6:C:2028:LEU:HA   | 6:C:2030:TYR:CE2  | 2.38                     | 0.58              |
| 6:C:3249:GLN:HB3  | 6:C:3251:ASN:OD1  | 2.04                     | 0.58              |
| 6:C:3884:LYS:HZ2  | 6:C:3970:LEU:HA   | 1.69                     | 0.58              |
| 1:A:272:GLY:N     | 1:A:371:GLU:HG3   | 2.19                     | 0.58              |
| 1:A:325:ARG:HE    | 2:B:88:PHE:HB3    | 1.69                     | 0.58              |
| 1:A:416:GLN:HA    | 1:A:433:GLN:HE22  | 1.68                     | 0.58              |
| 2:B:520:ALA:HA    | 2:B:523:THR:HB    | 1.86                     | 0.58              |
| 6:C:139:ARG:HA    | 6:C:142:ARG:HE    | 1.67                     | 0.58              |
| 6:C:384:MET:C     | 6:C:386:VAL:H     | 2.11                     | 0.58              |
| 6:C:433:PRO:O     | 6:C:437:HIS:ND1   | 2.36                     | 0.58              |
| 6:C:749:VAL:HG23  | 6:C:750:PRO:HD3   | 1.85                     | 0.58              |
| 6:C:968:VAL:N     | 6:C:971:ARG:HH21  | 2.01                     | 0.58              |
| 6:C:1633:TRP:O    | 6:C:1694:THR:OG1  | 2.18                     | 0.58              |
| 6:C:1981:LEU:HD12 | 6:C:1984:LEU:HD23 | 1.85                     | 0.58              |
| 6:C:2245:TRP:CB   | 6:C:2246:LYS:HG3  | 2.33                     | 0.58              |
| 6:C:2432:GLN:O    | 6:C:2434:VAL:N    | 2.36                     | 0.58              |
| 6:C:3329:LEU:HB2  | 6:C:3389:VAL:HG23 | 1.86                     | 0.58              |
| 6:C:3493:TRP:HH2  | 6:C:3707:GLY:HA3  | 1.69                     | 0.58              |
| 6:C:3611:GLU:O    | 6:C:3615:ALA:HB2  | 2.02                     | 0.58              |
| 6:C:3746:ARG:HB3  | 6:C:3748:HIS:NE2  | 2.18                     | 0.58              |
| 6:C:4005:PHE:CD2  | 6:C:4006:VAL:HG13 | 2.37                     | 0.58              |
| 2:B:513:TRP:CD2   | 2:B:516:LEU:HD12  | 2.39                     | 0.58              |
| 2:B:523:THR:HG22  | 2:B:527:GLN:NE2   | 2.18                     | 0.58              |
| 5:E:43:DT:O5'     | 5:E:43:DT:H6      | 1.86                     | 0.58              |
| 6:C:153:PHE:HB3   | 6:C:157:TYR:CZ    | 2.37                     | 0.58              |
| 6:C:620:PHE:C     | 6:C:623:PHE:H     | 2.11                     | 0.58              |
| 6:C:970:LEU:HB3   | 6:C:981:ARG:NH1   | 2.19                     | 0.58              |
| 6:C:1562:LEU:O    | 6:C:1565:GLU:HB3  | 2.04                     | 0.58              |
| 6:C:1565:GLU:C    | 6:C:1567:ILE:H    | 2.10                     | 0.58              |
| 6:C:1636:ASP:OD1  | 6:C:1637:SER:N    | 2.37                     | 0.58              |
| 6:C:1718:ILE:HG21 | 6:C:1746:PHE:HB3  | 1.84                     | 0.58              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2056:SER:HA   | 6:C:2060:ARG:NH1  | 2.18                     | 0.58              |
| 6:C:2348:GLN:HG2  | 6:C:2352:HIS:NE2  | 2.19                     | 0.58              |
| 6:C:2931:ARG:O    | 6:C:2935:GLU:CB   | 2.41                     | 0.58              |
| 6:C:3469:LEU:HD11 | 6:C:3512:VAL:HG11 | 1.86                     | 0.58              |
| 6:C:3558:ILE:HG22 | 6:C:3562:LEU:HD23 | 1.85                     | 0.58              |
| 6:C:3630:ARG:O    | 6:C:3634:GLN:N    | 2.31                     | 0.58              |
| 6:C:3663:THR:O    | 6:C:3667:LEU:N    | 2.28                     | 0.58              |
| 6:C:3808:ASN:HB3  | 6:C:3932:MET:H    | 1.68                     | 0.58              |
| 6:C:3869:THR:HG22 | 6:C:3872:ARG:NH2  | 2.19                     | 0.58              |
| 6:C:3982:SER:O    | 6:C:3985:VAL:HB   | 2.04                     | 0.58              |
| 6:C:4077:TYR:HA   | 6:C:4080:VAL:HB   | 1.86                     | 0.58              |
| 2:B:118:ILE:HG21  | 2:B:157:CYS:HB3   | 1.85                     | 0.58              |
| 2:B:335:SER:HB3   | 2:B:403:PRO:HB3   | 1.84                     | 0.58              |
| 2:B:405:VAL:HG23  | 2:B:426:PHE:CZ    | 2.38                     | 0.58              |
| 6:C:221:ALA:O     | 6:C:225:LYS:CB    | 2.37                     | 0.58              |
| 6:C:625:ASN:OD1   | 6:C:626:LEU:N     | 2.35                     | 0.58              |
| 6:C:872:THR:O     | 6:C:875:SER:HB2   | 2.03                     | 0.58              |
| 6:C:2348:GLN:O    | 6:C:2351:GLN:HB2  | 2.04                     | 0.58              |
| 6:C:2378:PHE:O    | 6:C:2382:VAL:HG13 | 2.04                     | 0.58              |
| 6:C:3145:ILE:HA   | 6:C:3148:GLN:CD   | 2.28                     | 0.58              |
| 6:C:3159:ARG:C    | 6:C:3161:LEU:H    | 2.11                     | 0.58              |
| 6:C:3378:TYR:CD2  | 6:C:3379:GLN:HG3  | 2.39                     | 0.58              |
| 6:C:3435:ASP:O    | 6:C:3439:LEU:HB2  | 2.02                     | 0.58              |
| 6:C:3702:PRO:O    | 6:C:3719:ILE:HB   | 2.03                     | 0.58              |
| 6:C:3915:HIS:HA   | 6:C:3918:LEU:O    | 2.04                     | 0.58              |
| 1:A:43:ASP:HA     | 1:A:88:TYR:CZ     | 2.39                     | 0.58              |
| 1:A:348:MET:HG2   | 1:A:398:CYS:HA    | 1.86                     | 0.58              |
| 1:A:365:SER:HB2   | 1:A:434:LEU:O     | 2.03                     | 0.58              |
| 2:B:80:HIS:CD2    | 2:B:81:ARG:HB2    | 2.38                     | 0.58              |
| 2:B:453:ALA:HB3   | 2:B:532:LYS:NZ    | 2.19                     | 0.58              |
| 6:C:362:ALA:HB2   | 6:C:408:TYR:CD1   | 2.39                     | 0.58              |
| 6:C:385:TYR:H     | 6:C:388:LEU:CB    | 2.17                     | 0.58              |
| 6:C:532:ARG:O     | 6:C:535:LEU:HB2   | 2.02                     | 0.58              |
| 6:C:579:LEU:HB2   | 6:C:601:TRP:CH2   | 2.39                     | 0.58              |
| 6:C:617:PRO:HG2   | 6:C:655:LEU:HG    | 1.86                     | 0.58              |
| 6:C:678:LYS:HA    | 6:C:681:LYS:HB3   | 1.86                     | 0.58              |
| 6:C:727:ALA:O     | 6:C:728:SER:C     | 2.45                     | 0.58              |
| 6:C:864:GLY:O     | 6:C:867:ASN:ND2   | 2.20                     | 0.58              |
| 6:C:871:LEU:O     | 6:C:875:SER:OG    | 2.11                     | 0.58              |
| 6:C:934:LEU:HD23  | 6:C:969:LEU:HD12  | 1.85                     | 0.58              |
| 6:C:1387:GLY:CA   | 6:C:1392:MET:H    | 2.16                     | 0.58              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2146:LEU:HA   | 6:C:2149:LEU:HG   | 1.85                     | 0.58              |
| 6:C:3194:GLU:HA   | 6:C:3197:LEU:HG   | 1.86                     | 0.58              |
| 6:C:3763:ARG:NH1  | 6:C:4012:ASP:OD2  | 2.37                     | 0.58              |
| 6:C:3794:VAL:HG12 | 6:C:3794:VAL:O    | 2.02                     | 0.58              |
| 6:C:4077:TYR:HE1  | 6:C:4115:ASN:CG   | 2.12                     | 0.58              |
| 6:C:4089:ILE:HB   | 6:C:4093:GLU:CD   | 2.29                     | 0.58              |
| 1:A:43:ASP:OD1    | 1:A:44:ALA:N      | 2.37                     | 0.57              |
| 1:A:296:VAL:HG11  | 2:B:295:TYR:HD1   | 1.69                     | 0.57              |
| 1:A:334:THR:HA    | 1:A:337:LEU:HD23  | 1.85                     | 0.57              |
| 2:B:234:LEU:HB3   | 2:B:237:PHE:CD2   | 2.39                     | 0.57              |
| 2:B:320:ILE:HG22  | 2:B:322:PRO:HD3   | 1.86                     | 0.57              |
| 2:B:452:ASN:O     | 2:B:455:ASP:HB2   | 2.04                     | 0.57              |
| 6:C:396:PHE:HD2   | 6:C:397:LEU:HD12  | 1.68                     | 0.57              |
| 6:C:411:PRO:C     | 6:C:414:LEU:H     | 2.11                     | 0.57              |
| 6:C:965:THR:O     | 6:C:968:VAL:HG12  | 2.04                     | 0.57              |
| 6:C:1108:MET:HA   | 6:C:1111:LEU:HD23 | 1.86                     | 0.57              |
| 6:C:1160:SER:O    | 6:C:1162:SER:OG   | 2.17                     | 0.57              |
| 6:C:1231:GLN:HE21 | 6:C:1264:LEU:HD11 | 1.67                     | 0.57              |
| 6:C:1332:TYR:O    | 6:C:1336:THR:OG1  | 2.12                     | 0.57              |
| 6:C:1407:LYS:NZ   | 6:C:1463:LEU:HD12 | 2.18                     | 0.57              |
| 6:C:2950:LYS:O    | 6:C:2953:THR:OG1  | 2.15                     | 0.57              |
| 6:C:3156:PRO:HA   | 6:C:3159:ARG:HB3  | 1.86                     | 0.57              |
| 6:C:4091:ALA:C    | 6:C:4094:PRO:HD2  | 2.29                     | 0.57              |
| 1:A:301:ARG:CB    | 6:C:163:LYS:HD2   | 2.34                     | 0.57              |
| 1:A:474:ARG:HG3   | 1:A:476:ASP:H     | 1.68                     | 0.57              |
| 1:A:480:ASN:ND2   | 2:B:404:GLN:OE1   | 2.37                     | 0.57              |
| 2:B:202:LYS:O     | 2:B:205:LEU:HB3   | 2.03                     | 0.57              |
| 6:C:283:SER:O     | 6:C:286:LEU:N     | 2.37                     | 0.57              |
| 6:C:295:GLU:C     | 6:C:299:LYS:HZ3   | 2.11                     | 0.57              |
| 6:C:748:TYR:HB3   | 6:C:751:ALA:HB2   | 1.87                     | 0.57              |
| 6:C:1010:LEU:HB2  | 6:C:1028:PHE:CE1  | 2.39                     | 0.57              |
| 6:C:1061:LYS:O    | 6:C:1065:SER:OG   | 2.21                     | 0.57              |
| 6:C:1215:GLU:OE2  | 6:C:1271:ILE:HA   | 2.04                     | 0.57              |
| 6:C:2153:THR:OG1  | 6:C:2154:GLU:N    | 2.37                     | 0.57              |
| 6:C:2433:LYS:HD3  | 6:C:2461:PHE:HD1  | 1.69                     | 0.57              |
| 6:C:3008:TRP:O    | 6:C:3050:LYS:HD3  | 2.03                     | 0.57              |
| 6:C:3156:PRO:HB3  | 6:C:3160:LEU:HA   | 1.86                     | 0.57              |
| 6:C:3516:HIS:O    | 6:C:3519:GLU:HB2  | 2.04                     | 0.57              |
| 6:C:3750:PHE:HA   | 6:C:3805:TRP:HB3  | 1.86                     | 0.57              |
| 1:A:310:LEU:HD21  | 6:C:163:LYS:HD3   | 1.85                     | 0.57              |
| 1:A:321:ILE:H     | 2:B:274:LYS:NZ    | 2.03                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:528:VAL:HG13  | 6:C:531:PHE:CD2   | 2.39                     | 0.57              |
| 6:C:737:PRO:O     | 6:C:741:ILE:HG23  | 2.04                     | 0.57              |
| 6:C:1161:ALA:N    | 6:C:1165:LEU:HD11 | 2.18                     | 0.57              |
| 6:C:1326:GLU:O    | 6:C:1330:TYR:HB2  | 2.05                     | 0.57              |
| 6:C:1340:ARG:O    | 6:C:1343:GLU:N    | 2.37                     | 0.57              |
| 6:C:1980:ASN:O    | 6:C:1984:LEU:CB   | 2.51                     | 0.57              |
| 6:C:2363:CYS:C    | 6:C:2365:ASN:H    | 2.12                     | 0.57              |
| 6:C:2400:VAL:O    | 6:C:2403:CYS:N    | 2.37                     | 0.57              |
| 6:C:2428:ASP:OD1  | 6:C:2429:ASP:N    | 2.38                     | 0.57              |
| 6:C:2833:THR:O    | 6:C:2837:LEU:HG   | 2.05                     | 0.57              |
| 6:C:3469:LEU:HA   | 6:C:3472:ILE:O    | 2.04                     | 0.57              |
| 6:C:3486:GLU:O    | 6:C:3490:VAL:HG22 | 2.05                     | 0.57              |
| 6:C:3500:SER:C    | 6:C:3759:ARG:HH11 | 2.09                     | 0.57              |
| 6:C:3706:ASP:CB   | 6:C:3715:TYR:HB3  | 2.34                     | 0.57              |
| 6:C:3723:ASP:H    | 6:C:3739:ILE:HB   | 1.69                     | 0.57              |
| 1:A:91:GLU:CD     | 1:A:137:HIS:H     | 2.12                     | 0.57              |
| 1:A:258:ARG:HH12  | 5:E:38:DA:H3'     | 1.70                     | 0.57              |
| 1:A:338:LYS:HD2   | 1:A:406:ILE:HA    | 1.86                     | 0.57              |
| 2:B:490:LEU:O     | 2:B:493:CYS:N     | 2.36                     | 0.57              |
| 5:E:30:DA:H2'     | 5:E:31:DA:C8      | 2.39                     | 0.57              |
| 6:C:98:GLN:HE21   | 6:C:143:LEU:HD22  | 1.69                     | 0.57              |
| 6:C:317:GLU:C     | 6:C:320:LEU:HB3   | 2.29                     | 0.57              |
| 6:C:657:SER:O     | 6:C:661:PRO:HD2   | 2.04                     | 0.57              |
| 6:C:708:VAL:O     | 6:C:710:PHE:N     | 2.37                     | 0.57              |
| 6:C:751:ALA:O     | 6:C:755:ALA:HB3   | 2.04                     | 0.57              |
| 6:C:908:ASP:OD1   | 6:C:910:PHE:N     | 2.27                     | 0.57              |
| 6:C:2002:LYS:HA   | 6:C:2005:ILE:HG12 | 1.86                     | 0.57              |
| 6:C:2144:LEU:HA   | 6:C:2147:ALA:HB3  | 1.85                     | 0.57              |
| 6:C:2361:ILE:CD1  | 6:C:2365:ASN:HD21 | 2.17                     | 0.57              |
| 6:C:2890:ILE:CG1  | 6:C:2921:LEU:HD21 | 2.35                     | 0.57              |
| 6:C:2952:ILE:HD13 | 6:C:2972:TYR:HE2  | 1.68                     | 0.57              |
| 6:C:3459:ASN:HB3  | 6:C:3462:ARG:HE   | 1.70                     | 0.57              |
| 6:C:3535:ILE:HG13 | 6:C:3536:SER:H    | 1.69                     | 0.57              |
| 1:A:189:LYS:HZ3   | 1:A:193:LEU:HB2   | 1.70                     | 0.57              |
| 1:A:368:VAL:H     | 1:A:434:LEU:CD1   | 2.17                     | 0.57              |
| 2:B:234:LEU:HD21  | 2:B:483:PRO:HG3   | 1.86                     | 0.57              |
| 2:B:435:PHE:CZ    | 2:B:438:LEU:HG    | 2.40                     | 0.57              |
| 2:B:454:VAL:O     | 2:B:458:ILE:HG13  | 2.05                     | 0.57              |
| 6:C:568:PHE:HE1   | 6:C:604:PRO:HB3   | 1.69                     | 0.57              |
| 6:C:922:SER:O     | 6:C:926:THR:N     | 2.36                     | 0.57              |
| 6:C:1133:HIS:O    | 6:C:1136:ARG:NH1  | 2.37                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1424:THR:O    | 6:C:1428:ILE:HG22 | 2.05                     | 0.57              |
| 6:C:2146:LEU:HD22 | 6:C:2149:LEU:HD11 | 1.86                     | 0.57              |
| 6:C:3167:ARG:NH2  | 6:C:3186:ARG:HD2  | 2.20                     | 0.57              |
| 6:C:3289:ARG:HD2  | 6:C:3291:GLN:HB3  | 1.85                     | 0.57              |
| 6:C:3321:LEU:O    | 6:C:3324:ARG:N    | 2.37                     | 0.57              |
| 6:C:3529:ILE:HD12 | 6:C:3530:VAL:H    | 1.69                     | 0.57              |
| 6:C:3550:LYS:HZ2  | 6:C:3554:PHE:HE2  | 1.50                     | 0.57              |
| 6:C:3726:VAL:HA   | 6:C:3737:ARG:O    | 2.04                     | 0.57              |
| 6:C:3962:ARG:HD2  | 6:C:4124:TRP:HB3  | 1.86                     | 0.57              |
| 6:C:3980:MET:O    | 6:C:3983:ILE:HB   | 2.05                     | 0.57              |
| 6:C:4063:GLU:O    | 6:C:4066:LEU:HB3  | 2.04                     | 0.57              |
| 2:B:348:SER:HB2   | 2:B:388:ASP:HB2   | 1.86                     | 0.57              |
| 2:B:454:VAL:N     | 2:B:532:LYS:HZ2   | 2.02                     | 0.57              |
| 6:C:224:LEU:HA    | 6:C:227:LEU:HB3   | 1.87                     | 0.57              |
| 6:C:437:HIS:HB3   | 6:C:1812:LEU:HB3  | 1.86                     | 0.57              |
| 6:C:1029:CYS:HB3  | 6:C:1085:ILE:HD11 | 1.86                     | 0.57              |
| 6:C:1076:LEU:HB3  | 6:C:1127:CYS:SG   | 2.44                     | 0.57              |
| 6:C:1276:VAL:HG13 | 6:C:1357:LYS:HD3  | 1.85                     | 0.57              |
| 6:C:1593:VAL:HA   | 6:C:1596:VAL:HB   | 1.85                     | 0.57              |
| 6:C:1861:SER:O    | 6:C:1865:THR:CB   | 2.53                     | 0.57              |
| 6:C:2401:VAL:O    | 6:C:2405:VAL:HG13 | 2.04                     | 0.57              |
| 6:C:2470:ARG:HD2  | 6:C:2474:TYR:CE2  | 2.39                     | 0.57              |
| 6:C:2840:PHE:O    | 6:C:2843:PHE:HB3  | 2.05                     | 0.57              |
| 6:C:3812:LEU:HD23 | 6:C:3937:VAL:HG11 | 1.86                     | 0.57              |
| 6:C:3921:GLY:HA3  | 6:C:3944:HIS:HD2  | 1.70                     | 0.57              |
| 6:C:4077:TYR:CD1  | 6:C:4080:VAL:HB   | 2.40                     | 0.57              |
| 1:A:41:LEU:HD11   | 1:A:88:TYR:HD2    | 1.69                     | 0.57              |
| 1:A:388:LYS:HA    | 1:A:391:GLU:HB2   | 1.85                     | 0.57              |
| 2:B:11:VAL:O      | 2:B:133:GLU:HG2   | 2.05                     | 0.57              |
| 2:B:15:ASP:HB2    | 2:B:59:PHE:CE1    | 2.40                     | 0.57              |
| 6:C:297:LEU:O     | 6:C:300:TRP:HB3   | 2.04                     | 0.57              |
| 6:C:392:CYS:HA    | 6:C:413:PHE:CZ    | 2.39                     | 0.57              |
| 6:C:568:PHE:HD1   | 6:C:610:ALA:HA    | 1.68                     | 0.57              |
| 6:C:602:MET:SD    | 6:C:725:LEU:HD12  | 2.44                     | 0.57              |
| 6:C:625:ASN:CG    | 6:C:626:LEU:H     | 2.12                     | 0.57              |
| 6:C:1007:VAL:O    | 6:C:1011:GLU:HG2  | 2.05                     | 0.57              |
| 6:C:1156:GLY:O    | 6:C:1160:SER:N    | 2.38                     | 0.57              |
| 6:C:1759:LEU:HG   | 6:C:1892:LYS:HA   | 1.87                     | 0.57              |
| 6:C:2171:LEU:O    | 6:C:2175:GLU:N    | 2.38                     | 0.57              |
| 6:C:2240:THR:O    | 6:C:2243:GLU:N    | 2.37                     | 0.57              |
| 6:C:2398:LEU:O    | 6:C:2402:LEU:CB   | 2.52                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2473:MET:HE3  | 6:C:2474:TYR:CE1  | 2.40                     | 0.57              |
| 6:C:2791:ILE:HG22 | 6:C:2795:GLN:HE21 | 1.70                     | 0.57              |
| 6:C:2861:ILE:O    | 6:C:2892:LEU:HD11 | 2.04                     | 0.57              |
| 6:C:3069:MET:HA   | 6:C:3072:GLU:OE1  | 2.03                     | 0.57              |
| 6:C:3758:LEU:HA   | 6:C:3760:GLN:NE2  | 2.20                     | 0.57              |
| 6:C:4017:GLU:CB   | 6:C:4031:ILE:HB   | 2.34                     | 0.57              |
| 1:A:94:LYS:NZ     | 1:A:105:LEU:O     | 2.36                     | 0.57              |
| 1:A:344:GLY:C     | 1:A:345:LEU:HD12  | 2.30                     | 0.57              |
| 1:A:416:GLN:HE21  | 2:B:354:ARG:HD3   | 1.69                     | 0.57              |
| 2:B:17:GLY:HA2    | 2:B:102:SER:HA    | 1.87                     | 0.57              |
| 2:B:332:LYS:HE3   | 2:B:334:LYS:HZ2   | 1.70                     | 0.57              |
| 2:B:490:LEU:HD12  | 2:B:493:CYS:HB2   | 1.85                     | 0.57              |
| 5:E:28:DA:H8      | 5:E:28:DA:H5''    | 1.68                     | 0.57              |
| 6:C:456:VAL:HG13  | 6:C:459:ARG:HH21  | 1.68                     | 0.57              |
| 6:C:1038:LYS:HA   | 6:C:1041:ILE:HB   | 1.87                     | 0.57              |
| 6:C:1362:ASP:HB2  | 6:C:1364:CYS:SG   | 2.44                     | 0.57              |
| 6:C:1364:CYS:HA   | 6:C:1367:HIS:ND1  | 2.20                     | 0.57              |
| 6:C:2163:HIS:O    | 6:C:2167:PRO:HD3  | 2.05                     | 0.57              |
| 6:C:2955:SER:O    | 6:C:2959:ALA:N    | 2.38                     | 0.57              |
| 6:C:3239:LYS:HG2  | 6:C:3262:LEU:HD13 | 1.87                     | 0.57              |
| 6:C:3357:ARG:HD3  | 6:C:3380:ARG:HH12 | 1.70                     | 0.57              |
| 6:C:3433:VAL:O    | 6:C:3436:SER:OG   | 2.19                     | 0.57              |
| 6:C:3450:MET:HA   | 6:C:3453:ALA:HB3  | 1.86                     | 0.57              |
| 6:C:3492:CYS:SG   | 6:C:3529:ILE:HB   | 2.44                     | 0.57              |
| 6:C:3493:TRP:HZ2  | 6:C:3709:GLY:H    | 1.53                     | 0.57              |
| 6:C:3529:ILE:HA   | 6:C:3715:TYR:OH   | 2.05                     | 0.57              |
| 1:A:534:TYR:OH    | 2:B:260:ARG:N     | 2.37                     | 0.57              |
| 2:B:404:GLN:NE2   | 5:E:30:DA:OP1     | 2.37                     | 0.57              |
| 5:E:24:DG:C6      | 5:E:25:DG:C5      | 2.93                     | 0.57              |
| 6:C:16:GLN:HG3    | 6:C:17:GLU:N      | 2.19                     | 0.57              |
| 6:C:157:TYR:O     | 6:C:160:LEU:N     | 2.38                     | 0.57              |
| 6:C:557:SER:HB3   | 6:C:645:TRP:CZ2   | 2.40                     | 0.57              |
| 6:C:598:PRO:HB2   | 6:C:1022:ASP:HB2  | 1.87                     | 0.57              |
| 6:C:653:LEU:O     | 6:C:656:GLN:HG2   | 2.04                     | 0.57              |
| 6:C:809:THR:HG21  | 6:C:2803:ILE:HG21 | 1.85                     | 0.57              |
| 6:C:882:SER:OG    | 6:C:3890:MET:O    | 2.12                     | 0.57              |
| 6:C:963:LYS:HZ2   | 6:C:1006:THR:N    | 2.03                     | 0.57              |
| 6:C:1736:PHE:HB3  | 6:C:1737:ASN:CG   | 2.30                     | 0.57              |
| 6:C:1744:LYS:HD3  | 6:C:1883:ARG:HH21 | 1.70                     | 0.57              |
| 6:C:3118:ASP:CG   | 6:C:3119:VAL:H    | 2.11                     | 0.57              |
| 6:C:3765:GLU:O    | 6:C:3768:PHE:N    | 2.38                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3923:ARG:HB2  | 6:C:3962:ARG:HH22 | 1.70                     | 0.57              |
| 6:C:4106:CYS:O    | 6:C:4108:MET:N    | 2.38                     | 0.57              |
| 1:A:36:ASP:OD1    | 1:A:162:SER:N     | 2.38                     | 0.57              |
| 1:A:256:LEU:CD2   | 5:E:37:DT:H1'     | 2.35                     | 0.57              |
| 6:C:23:ASP:HB3    | 6:C:27:ALA:HB2    | 1.87                     | 0.57              |
| 6:C:665:GLY:HA3   | 6:C:739:ASN:ND2   | 2.20                     | 0.57              |
| 6:C:1001:PHE:O    | 6:C:1004:GLN:HB3  | 2.05                     | 0.57              |
| 6:C:1032:CYS:C    | 6:C:1035:GLU:HB3  | 2.30                     | 0.57              |
| 6:C:1330:TYR:O    | 6:C:1333:SER:OG   | 2.21                     | 0.57              |
| 6:C:1356:TRP:NE1  | 6:C:1409:SER:OG   | 2.38                     | 0.57              |
| 6:C:1441:ALA:O    | 6:C:1445:ARG:HB3  | 2.05                     | 0.57              |
| 6:C:2248:CYS:SG   | 6:C:2249:LEU:N    | 2.74                     | 0.57              |
| 6:C:2316:TYR:CD1  | 6:C:2317:ALA:N    | 2.70                     | 0.57              |
| 6:C:2328:ARG:HH22 | 6:C:2370:SER:HA   | 1.68                     | 0.57              |
| 6:C:2385:LEU:HB3  | 6:C:2389:PHE:CE2  | 2.39                     | 0.57              |
| 6:C:2386:LEU:HD11 | 6:C:2401:VAL:HA   | 1.87                     | 0.57              |
| 6:C:2925:GLU:HB3  | 6:C:2930:TYR:CG   | 2.40                     | 0.57              |
| 6:C:3011:LEU:O    | 6:C:3015:SER:CB   | 2.53                     | 0.57              |
| 6:C:3121:LEU:O    | 6:C:3125:ARG:HG2  | 2.05                     | 0.57              |
| 6:C:3612:ARG:HA   | 6:C:3615:ALA:HB3  | 1.85                     | 0.57              |
| 2:B:452:ASN:N     | 2:B:452:ASN:OD1   | 2.37                     | 0.56              |
| 4:D:11:DC:N3      | 5:E:25:DG:C2      | 2.72                     | 0.56              |
| 6:C:444:ASP:HB3   | 6:C:530:LEU:HG    | 1.85                     | 0.56              |
| 6:C:796:LEU:HD22  | 6:C:800:LEU:HD11  | 1.86                     | 0.56              |
| 6:C:1233:SER:O    | 6:C:1291:LEU:HA   | 2.04                     | 0.56              |
| 6:C:1411:TYR:CE1  | 6:C:1414:ILE:HG13 | 2.40                     | 0.56              |
| 6:C:1603:GLN:HG3  | 6:C:1606:ARG:NH2  | 2.16                     | 0.56              |
| 6:C:2052:TYR:O    | 6:C:2056:SER:N    | 2.38                     | 0.56              |
| 6:C:2404:ARG:O    | 6:C:2407:GLY:CA   | 2.53                     | 0.56              |
| 6:C:2472:GLN:HE21 | 6:C:2476:ILE:HG23 | 1.70                     | 0.56              |
| 6:C:2811:SER:O    | 6:C:2815:GLY:N    | 2.35                     | 0.56              |
| 6:C:3156:PRO:CA   | 6:C:3160:LEU:H    | 2.18                     | 0.56              |
| 6:C:3931:ALA:O    | 6:C:3935:GLY:CA   | 2.53                     | 0.56              |
| 1:A:310:LEU:HD11  | 6:C:163:LYS:HD3   | 1.87                     | 0.56              |
| 2:B:56:LEU:HD21   | 2:B:58:LEU:HD21   | 1.87                     | 0.56              |
| 2:B:187:GLY:H     | 2:B:232:ARG:HA    | 1.69                     | 0.56              |
| 4:D:-5:DT:H4'     | 6:C:259:GLN:HE21  | 1.70                     | 0.56              |
| 4:D:-4:DA:H4'     | 6:C:169:THR:HG22  | 1.86                     | 0.56              |
| 6:C:858:MET:O     | 6:C:861:SER:OG    | 2.19                     | 0.56              |
| 6:C:1876:ILE:HG12 | 6:C:1911:LEU:HD13 | 1.86                     | 0.56              |
| 6:C:2122:LEU:HA   | 6:C:2127:LYS:HB2  | 1.87                     | 0.56              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2560:ASN:OD1  | 6:C:2800:ARG:HG3  | 2.05                     | 0.56              |
| 6:C:2572:TYR:HE1  | 6:C:2790:LEU:HD23 | 1.70                     | 0.56              |
| 6:C:2781:PRO:O    | 6:C:2785:ILE:N    | 2.38                     | 0.56              |
| 6:C:2891:ARG:NH2  | 6:C:3897:PHE:HB3  | 2.20                     | 0.56              |
| 6:C:4013:TRP:O    | 6:C:4017:GLU:N    | 2.21                     | 0.56              |
| 6:C:4030:GLU:O    | 6:C:4034:ALA:CB   | 2.52                     | 0.56              |
| 6:C:4077:TYR:O    | 6:C:4080:VAL:N    | 2.38                     | 0.56              |
| 1:A:40:PHE:CZ     | 1:A:70:VAL:HB     | 2.40                     | 0.56              |
| 1:A:158:GLN:OE1   | 1:A:158:GLN:N     | 2.34                     | 0.56              |
| 1:A:189:LYS:NZ    | 1:A:193:LEU:HB2   | 2.20                     | 0.56              |
| 1:A:244:ARG:HA    | 1:A:247:ARG:HG2   | 1.88                     | 0.56              |
| 1:A:389:CYS:HA    | 1:A:394:VAL:HG12  | 1.86                     | 0.56              |
| 1:A:487:PHE:O     | 1:A:491:GLU:HG3   | 2.04                     | 0.56              |
| 1:A:514:MET:SD    | 2:B:254:GLY:HA2   | 2.46                     | 0.56              |
| 2:B:88:PHE:HA     | 2:B:91:LEU:HG     | 1.87                     | 0.56              |
| 2:B:107:PHE:CZ    | 2:B:138:LEU:HA    | 2.39                     | 0.56              |
| 2:B:353:ARG:HH11  | 2:B:356:PHE:HD2   | 1.51                     | 0.56              |
| 2:B:513:TRP:HA    | 2:B:516:LEU:HB2   | 1.86                     | 0.56              |
| 6:C:35:ILE:HG21   | 6:C:85:ILE:HG13   | 1.87                     | 0.56              |
| 6:C:106:GLU:O     | 6:C:110:THR:OG1   | 2.16                     | 0.56              |
| 6:C:113:SER:HA    | 6:C:116:THR:HB    | 1.87                     | 0.56              |
| 6:C:295:GLU:HA    | 6:C:298:LEU:HD12  | 1.85                     | 0.56              |
| 6:C:349:ILE:O     | 6:C:352:VAL:HG12  | 2.06                     | 0.56              |
| 6:C:620:PHE:HD1   | 6:C:623:PHE:CD2   | 2.23                     | 0.56              |
| 6:C:635:PRO:HA    | 6:C:638:GLN:CD    | 2.30                     | 0.56              |
| 6:C:776:TRP:CD2   | 6:C:780:ILE:HG13  | 2.40                     | 0.56              |
| 6:C:1034:ARG:HH12 | 6:C:1038:LYS:HB2  | 1.71                     | 0.56              |
| 6:C:1119:LYS:HB3  | 6:C:1124:ILE:HG21 | 1.87                     | 0.56              |
| 6:C:1227:GLY:HA2  | 6:C:1287:GLN:NE2  | 2.20                     | 0.56              |
| 6:C:1394:HIS:ND1  | 6:C:1397:ASP:OD2  | 2.38                     | 0.56              |
| 6:C:1700:THR:HG21 | 6:C:1733:THR:H    | 1.69                     | 0.56              |
| 6:C:2088:LEU:HD21 | 6:C:2145:PHE:CD2  | 2.39                     | 0.56              |
| 6:C:2147:ALA:O    | 6:C:2151:ILE:HG13 | 2.05                     | 0.56              |
| 6:C:2171:LEU:HD12 | 6:C:2174:SER:OG   | 2.06                     | 0.56              |
| 6:C:2254:ARG:HH11 | 6:C:2295:GLN:NE2  | 2.03                     | 0.56              |
| 6:C:2336:ILE:HG13 | 6:C:2337:LEU:N    | 2.21                     | 0.56              |
| 6:C:2350:LYS:HA   | 6:C:2353:GLN:OE1  | 2.04                     | 0.56              |
| 6:C:2534:ASN:HD22 | 6:C:2537:ASP:HB2  | 1.70                     | 0.56              |
| 6:C:2856:SER:HA   | 6:C:2859:GLN:CD   | 2.31                     | 0.56              |
| 6:C:2942:ILE:HG22 | 6:C:2945:SER:H    | 1.69                     | 0.56              |
| 6:C:3324:ARG:O    | 6:C:3327:ASN:HB3  | 2.04                     | 0.56              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 6:C:3377:LEU:HA  | 6:C:3381:ALA:HB2  | 1.87                     | 0.56              |
| 6:C:4089:ILE:HB  | 6:C:4093:GLU:OE2  | 2.05                     | 0.56              |
| 1:A:91:GLU:OE1   | 1:A:137:HIS:N     | 2.33                     | 0.56              |
| 1:A:299:LYS:O    | 2:B:294:VAL:HB    | 2.05                     | 0.56              |
| 1:A:400:TYR:CD2  | 1:A:402:PRO:HD3   | 2.41                     | 0.56              |
| 1:A:456:PRO:HA   | 1:A:459:VAL:HG12  | 1.86                     | 0.56              |
| 4:D:10:DG:H22    | 5:E:25:DG:H22     | 1.49                     | 0.56              |
| 6:C:847:SER:HB2  | 6:C:850:GLU:CG    | 2.35                     | 0.56              |
| 6:C:908:ASP:HA   | 6:C:910:PHE:CE2   | 2.40                     | 0.56              |
| 6:C:1038:LYS:HA  | 6:C:1041:ILE:HD12 | 1.88                     | 0.56              |
| 6:C:1340:ARG:C   | 6:C:1343:GLU:H    | 2.13                     | 0.56              |
| 6:C:1579:VAL:O   | 6:C:1581:GLU:HG3  | 2.05                     | 0.56              |
| 6:C:3029:LYS:HZ3 | 6:C:3067:LYS:HB2  | 1.71                     | 0.56              |
| 6:C:3031:TRP:CD1 | 6:C:3037:GLN:HB2  | 2.40                     | 0.56              |
| 6:C:3459:ASN:O   | 6:C:3462:ARG:HG2  | 2.04                     | 0.56              |
| 6:C:3493:TRP:CH2 | 6:C:3707:GLY:HA3  | 2.41                     | 0.56              |
| 6:C:3758:LEU:HG  | 6:C:3760:GLN:NE2  | 2.19                     | 0.56              |
| 6:C:3864:ARG:HD2 | 6:C:4115:ASN:OD1  | 2.06                     | 0.56              |
| 6:C:4002:MET:C   | 6:C:4005:PHE:HB3  | 2.30                     | 0.56              |
| 1:A:121:GLN:NE2  | 1:A:134:MET:HE1   | 2.20                     | 0.56              |
| 1:A:194:ARG:NH2  | 1:A:218:ARG:O     | 2.39                     | 0.56              |
| 1:A:351:LYS:HE3  | 1:A:355:LEU:HB3   | 1.86                     | 0.56              |
| 1:A:378:SER:O    | 1:A:382:PHE:CB    | 2.33                     | 0.56              |
| 1:A:471:PHE:HE1  | 1:A:473:TYR:HD1   | 1.51                     | 0.56              |
| 5:E:50:DT:H2'    | 5:E:50:DT:OP2     | 2.06                     | 0.56              |
| 6:C:416:SER:HG   | 6:C:417:VAL:H     | 1.53                     | 0.56              |
| 6:C:886:TRP:HE1  | 6:C:889:GLU:HB2   | 1.70                     | 0.56              |
| 6:C:923:ASP:OD1  | 6:C:924:ARG:N     | 2.36                     | 0.56              |
| 6:C:929:ALA:HB1  | 6:C:2798:ALA:HB1  | 1.88                     | 0.56              |
| 6:C:1162:SER:O   | 6:C:1165:LEU:HG   | 2.05                     | 0.56              |
| 6:C:1275:THR:HA  | 6:C:1279:LEU:HD12 | 1.88                     | 0.56              |
| 6:C:1366:THR:OG1 | 6:C:1370:ARG:NH2  | 2.38                     | 0.56              |
| 6:C:1472:SER:HA  | 6:C:1476:HIS:HD2  | 1.70                     | 0.56              |
| 6:C:1956:PHE:O   | 6:C:1959:LEU:HB3  | 2.05                     | 0.56              |
| 6:C:2349:LEU:O   | 6:C:2352:HIS:N    | 2.38                     | 0.56              |
| 6:C:3603:LYS:HA  | 6:C:3655:LYS:HD3  | 1.87                     | 0.56              |
| 6:C:3974:MET:C   | 6:C:3976:GLU:H    | 2.14                     | 0.56              |
| 6:C:4076:ASP:O   | 6:C:4080:VAL:HG23 | 2.06                     | 0.56              |
| 1:A:362:LEU:CG   | 1:A:363:ARG:H     | 2.18                     | 0.56              |
| 2:B:206:GLU:HA   | 2:B:209:LYS:HD2   | 1.88                     | 0.56              |
| 2:B:357:MET:SD   | 2:B:425:PRO:HA    | 2.46                     | 0.56              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:382:HIS:HA    | 2:B:385:ASP:CG    | 2.31                     | 0.56              |
| 6:C:33:GLN:NE2    | 6:C:2427:ARG:HA   | 2.19                     | 0.56              |
| 6:C:298:LEU:O     | 6:C:302:ALA:CB    | 2.54                     | 0.56              |
| 6:C:348:ILE:O     | 6:C:357:LYS:NZ    | 2.38                     | 0.56              |
| 6:C:914:VAL:HA    | 6:C:917:LEU:HD12  | 1.85                     | 0.56              |
| 6:C:1917:LYS:NZ   | 6:C:1956:PHE:HA   | 2.20                     | 0.56              |
| 6:C:2263:LYS:HZ3  | 6:C:2269:ASP:C    | 2.13                     | 0.56              |
| 6:C:2380:ASN:O    | 6:C:2383:PHE:HB3  | 2.06                     | 0.56              |
| 6:C:2434:VAL:HG12 | 6:C:2438:ILE:HD11 | 1.87                     | 0.56              |
| 6:C:2474:TYR:CD1  | 6:C:2477:LEU:HD12 | 2.41                     | 0.56              |
| 6:C:2890:ILE:CD1  | 6:C:2921:LEU:HD11 | 2.35                     | 0.56              |
| 6:C:2972:TYR:HA   | 6:C:2980:ASP:OD2  | 2.06                     | 0.56              |
| 6:C:3019:ILE:HG12 | 6:C:3020:ASP:N    | 2.20                     | 0.56              |
| 6:C:4055:ASN:ND2  | 6:C:4107:LEU:HD11 | 2.20                     | 0.56              |
| 1:A:151:ALA:C     | 6:C:2384:PHE:HZ   | 2.14                     | 0.56              |
| 1:A:254:ARG:H     | 2:B:431:ARG:NH2   | 2.00                     | 0.56              |
| 1:A:282:LYS:HE2   | 1:A:284:PRO:HA    | 1.87                     | 0.56              |
| 1:A:368:VAL:HB    | 1:A:434:LEU:HD11  | 1.87                     | 0.56              |
| 5:E:33:DA:C2      | 5:E:34:DC:C2      | 2.94                     | 0.56              |
| 6:C:249:PHE:HD1   | 6:C:268:PRO:HB3   | 1.71                     | 0.56              |
| 6:C:275:PHE:CZ    | 6:C:280:SER:HA    | 2.40                     | 0.56              |
| 6:C:417:VAL:O     | 6:C:420:VAL:HB    | 2.05                     | 0.56              |
| 6:C:700:LYS:O     | 6:C:703:CYS:HB2   | 2.06                     | 0.56              |
| 6:C:756:PHE:N     | 6:C:756:PHE:CD1   | 2.73                     | 0.56              |
| 6:C:993:HIS:HA    | 6:C:1038:LYS:HG2  | 1.88                     | 0.56              |
| 6:C:1079:SER:O    | 6:C:1082:PHE:HB3  | 2.06                     | 0.56              |
| 6:C:1151:ARG:O    | 6:C:1154:PRO:HD2  | 2.05                     | 0.56              |
| 6:C:1554:SER:HB3  | 6:C:1558:TYR:CZ   | 2.40                     | 0.56              |
| 6:C:3075:LYS:HE2  | 6:C:3077:ILE:HD11 | 1.88                     | 0.56              |
| 6:C:3444:ALA:HB2  | 6:C:3475:TYR:CE2  | 2.41                     | 0.56              |
| 6:C:3510:GLN:HE22 | 6:C:3517:SER:HB2  | 1.71                     | 0.56              |
| 6:C:3950:THR:O    | 6:C:3956:PRO:HA   | 2.05                     | 0.56              |
| 6:C:4018:GLN:O    | 6:C:4021:LEU:HB3  | 2.05                     | 0.56              |
| 6:C:4127:TRP:CE3  | 6:C:4128:MET:HB2  | 2.41                     | 0.56              |
| 1:A:488:ARG:NH1   | 1:A:491:GLU:OE2   | 2.39                     | 0.56              |
| 2:B:360:GLN:N     | 2:B:360:GLN:OE1   | 2.36                     | 0.56              |
| 2:B:426:PHE:O     | 2:B:429:ASP:N     | 2.25                     | 0.56              |
| 6:C:724:GLU:HA    | 6:C:728:SER:OG    | 2.06                     | 0.56              |
| 6:C:738:HIS:HA    | 6:C:741:ILE:CG1   | 2.18                     | 0.56              |
| 6:C:850:GLU:HA    | 6:C:853:ILE:HD12  | 1.87                     | 0.56              |
| 6:C:1126:GLN:O    | 6:C:1130:ALA:HB2  | 2.06                     | 0.56              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1356:TRP:CZ2  | 6:C:1410:PRO:HA   | 2.41                     | 0.56              |
| 6:C:2808:LEU:HB2  | 6:C:2809:PHE:HD1  | 1.71                     | 0.56              |
| 6:C:2851:PHE:CD1  | 6:C:2852:PRO:HD3  | 2.40                     | 0.56              |
| 6:C:2865:HIS:N    | 6:C:2868:LEU:HD22 | 2.20                     | 0.56              |
| 6:C:3130:GLN:HE22 | 6:C:3177:ASN:HB3  | 1.71                     | 0.56              |
| 6:C:3172:LYS:HD2  | 6:C:3179:TRP:CD1  | 2.40                     | 0.56              |
| 6:C:3815:LEU:HD23 | 6:C:3818:ASN:ND2  | 2.21                     | 0.56              |
| 6:C:3951:GLN:NE2  | 6:C:4064:LEU:O    | 2.39                     | 0.56              |
| 2:B:302:GLU:OE2   | 6:C:116:THR:HG23  | 2.05                     | 0.56              |
| 4:D:16:DG:H1      | 5:E:19:DC:H2'     | 1.70                     | 0.56              |
| 6:C:661:PRO:HB3   | 6:C:737:PRO:HD3   | 1.88                     | 0.56              |
| 6:C:913:ARG:HA    | 6:C:916:GLU:OE1   | 2.06                     | 0.56              |
| 6:C:973:ALA:HB3   | 6:C:981:ARG:HB2   | 1.86                     | 0.56              |
| 6:C:1605:PHE:O    | 6:C:1609:ALA:N    | 2.38                     | 0.56              |
| 6:C:1752:LEU:HD23 | 6:C:1892:LYS:HE2  | 1.87                     | 0.56              |
| 6:C:1800:SER:O    | 6:C:1803:GLU:HG2  | 2.05                     | 0.56              |
| 6:C:2327:LEU:HD12 | 6:C:2330:VAL:HG12 | 1.88                     | 0.56              |
| 6:C:2397:CYS:HB3  | 6:C:2432:GLN:NE2  | 2.20                     | 0.56              |
| 6:C:3572:ILE:HA   | 6:C:3575:LEU:HB3  | 1.88                     | 0.56              |
| 1:A:142:SER:O     | 1:A:146:VAL:HG23  | 2.05                     | 0.56              |
| 1:A:150:CYS:HA    | 1:A:153:LEU:HD12  | 1.88                     | 0.56              |
| 1:A:367:PHE:CE2   | 1:A:369:TYR:HB2   | 2.40                     | 0.56              |
| 1:A:419:GLU:N     | 1:A:426:GLN:HE22  | 2.01                     | 0.56              |
| 2:B:446:PRO:HG2   | 2:B:451:LEU:HD11  | 1.87                     | 0.56              |
| 2:B:448:GLU:CD    | 2:B:451:LEU:HB2   | 2.30                     | 0.56              |
| 4:D:3:DT:H3'      | 4:D:4:DA:C8       | 2.34                     | 0.56              |
| 6:C:185:HIS:N     | 6:C:186:PRO:HD2   | 2.21                     | 0.56              |
| 6:C:340:TYR:O     | 6:C:344:GLN:HG2   | 2.05                     | 0.56              |
| 6:C:608:PRO:O     | 6:C:612:LEU:HB2   | 2.06                     | 0.56              |
| 6:C:1103:ALA:O    | 6:C:1107:TYR:HB3  | 2.06                     | 0.56              |
| 6:C:1133:HIS:HB3  | 6:C:1136:ARG:NH1  | 2.19                     | 0.56              |
| 6:C:1330:TYR:O    | 6:C:1334:LYS:HD3  | 2.05                     | 0.56              |
| 6:C:2114:GLU:HB2  | 6:C:2120:ARG:CZ   | 2.36                     | 0.56              |
| 6:C:2142:ILE:HA   | 6:C:2145:PHE:CE1  | 2.41                     | 0.56              |
| 6:C:2463:SER:C    | 6:C:2470:ARG:HH21 | 2.14                     | 0.56              |
| 6:C:2829:LYS:O    | 6:C:2833:THR:HG23 | 2.06                     | 0.56              |
| 6:C:3247:ARG:NE   | 6:C:3324:ARG:HH22 | 2.04                     | 0.56              |
| 6:C:3821:SER:HB3  | 6:C:3826:ALA:O    | 2.05                     | 0.56              |
| 1:A:404:ARG:CD    | 5:E:36:DA:H3'     | 2.36                     | 0.55              |
| 2:B:138:LEU:HB3   | 2:B:204:GLY:HA3   | 1.87                     | 0.55              |
| 2:B:520:ALA:O     | 2:B:524:THR:OG1   | 2.18                     | 0.55              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 4:D:-7:DA:H2'     | 4:D:-6:DT:H6      | 1.71                     | 0.55              |
| 6:C:442:GLN:HE22  | 6:C:461:ILE:CG1   | 2.20                     | 0.55              |
| 6:C:451:PRO:HA    | 6:C:454:GLN:CD    | 2.31                     | 0.55              |
| 6:C:752:LEU:HB3   | 6:C:756:PHE:CE2   | 2.41                     | 0.55              |
| 6:C:928:VAL:HG23  | 6:C:929:ALA:N     | 2.21                     | 0.55              |
| 6:C:1039:TRP:CH2  | 6:C:1049:GLN:HA   | 2.41                     | 0.55              |
| 6:C:1158:PRO:C    | 6:C:1231:GLN:HE22 | 2.14                     | 0.55              |
| 6:C:1514:LEU:HD21 | 6:C:1581:GLU:HB3  | 1.88                     | 0.55              |
| 6:C:1632:TRP:CD1  | 6:C:1635:LYS:HD2  | 2.41                     | 0.55              |
| 6:C:1687:HIS:O    | 6:C:1691:GLN:HB3  | 2.06                     | 0.55              |
| 6:C:2242:VAL:CA   | 6:C:2245:TRP:HD1  | 2.18                     | 0.55              |
| 6:C:2260:PHE:CG   | 6:C:2277:LEU:HD11 | 2.41                     | 0.55              |
| 6:C:2286:PRO:O    | 6:C:2333:ARG:NH1  | 2.30                     | 0.55              |
| 6:C:2375:ALA:HA   | 6:C:2378:PHE:CZ   | 2.41                     | 0.55              |
| 6:C:2510:LEU:O    | 6:C:2519:LEU:HD13 | 2.06                     | 0.55              |
| 6:C:2851:PHE:CG   | 6:C:2852:PRO:HD3  | 2.41                     | 0.55              |
| 6:C:3008:TRP:C    | 6:C:3050:LYS:HD3  | 2.31                     | 0.55              |
| 6:C:3025:PRO:HA   | 6:C:3067:LYS:HD2  | 1.88                     | 0.55              |
| 6:C:3062:LEU:HA   | 6:C:3065:ILE:HG22 | 1.88                     | 0.55              |
| 6:C:3296:GLN:HA   | 6:C:3299:THR:HB   | 1.87                     | 0.55              |
| 6:C:3791:TYR:HB3  | 6:C:3940:ILE:HG13 | 1.87                     | 0.55              |
| 6:C:4103:GLN:O    | 6:C:4107:LEU:HB2  | 2.07                     | 0.55              |
| 1:A:321:ILE:H     | 2:B:274:LYS:HZ3   | 1.55                     | 0.55              |
| 1:A:445:LYS:HD2   | 1:A:446:MET:H     | 1.71                     | 0.55              |
| 2:B:149:ILE:HA    | 2:B:152:HIS:CE1   | 2.42                     | 0.55              |
| 6:C:277:LEU:O     | 6:C:281:GLN:HG3   | 2.06                     | 0.55              |
| 6:C:333:MET:O     | 6:C:337:LYS:HB2   | 2.05                     | 0.55              |
| 6:C:1000:LYS:HE3  | 6:C:1052:SER:CB   | 2.36                     | 0.55              |
| 6:C:1229:CYS:HB3  | 6:C:1287:GLN:HG2  | 1.87                     | 0.55              |
| 6:C:1682:THR:O    | 6:C:1685:ASP:HB2  | 2.05                     | 0.55              |
| 6:C:2047:THR:O    | 6:C:2050:GLN:HG2  | 2.06                     | 0.55              |
| 6:C:2068:ARG:HD3  | 6:C:2070:GLU:CD   | 2.32                     | 0.55              |
| 6:C:2966:SER:O    | 6:C:2970:LYS:HB3  | 2.04                     | 0.55              |
| 6:C:3026:ASP:OD1  | 6:C:3029:LYS:HD2  | 2.06                     | 0.55              |
| 6:C:3166:ASN:HB3  | 6:C:3186:ARG:HH12 | 1.71                     | 0.55              |
| 6:C:3721:GLY:N    | 6:C:3741:ARG:O    | 2.39                     | 0.55              |
| 6:C:4002:MET:CA   | 6:C:4005:PHE:HB3  | 2.36                     | 0.55              |
| 1:A:127:GLY:O     | 1:A:131:PHE:HB3   | 2.06                     | 0.55              |
| 1:A:166:ILE:O     | 1:A:200:LEU:HA    | 2.06                     | 0.55              |
| 2:B:66:ASN:HD21   | 2:B:74:TYR:HB3    | 1.72                     | 0.55              |
| 2:B:316:TYR:N     | 2:B:319:ASP:O     | 2.36                     | 0.55              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:E:35:DC:C2      | 5:E:36:DA:C5      | 2.95                     | 0.55              |
| 6:C:625:ASN:HA    | 6:C:659:ARG:HD2   | 1.88                     | 0.55              |
| 6:C:1976:LEU:HB3  | 6:C:1981:LEU:HD22 | 1.88                     | 0.55              |
| 6:C:2549:LYS:HG2  | 6:C:2551:GLU:HB3  | 1.88                     | 0.55              |
| 6:C:3117:ILE:HG12 | 6:C:3125:ARG:NH2  | 2.22                     | 0.55              |
| 6:C:3538:GLU:N    | 6:C:3796:MET:O    | 2.40                     | 0.55              |
| 6:C:4015:ASN:O    | 6:C:4018:GLN:HB3  | 2.06                     | 0.55              |
| 6:C:4087:HIS:HB3  | 6:C:4090:ARG:HD3  | 1.88                     | 0.55              |
| 1:A:90:THR:CG2    | 1:A:138:GLY:H     | 2.19                     | 0.55              |
| 1:A:352:PRO:CD    | 2:B:464:ALA:HB3   | 2.36                     | 0.55              |
| 1:A:427:VAL:O     | 2:B:354:ARG:NH2   | 2.39                     | 0.55              |
| 6:C:224:LEU:HD21  | 6:C:271:GLY:HA3   | 1.87                     | 0.55              |
| 6:C:386:VAL:HG22  | 6:C:431:TYR:OH    | 2.07                     | 0.55              |
| 6:C:569:VAL:HG13  | 6:C:570:LYS:H     | 1.70                     | 0.55              |
| 6:C:611:ASN:HA    | 6:C:614:PRO:HG2   | 1.87                     | 0.55              |
| 6:C:763:THR:HB    | 6:C:766:ALA:H     | 1.72                     | 0.55              |
| 6:C:980:THR:O     | 6:C:984:TYR:HD2   | 1.88                     | 0.55              |
| 6:C:1296:PHE:O    | 6:C:1299:GLU:N    | 2.39                     | 0.55              |
| 6:C:1683:LYS:HB3  | 6:C:1687:HIS:NE2  | 2.21                     | 0.55              |
| 6:C:1904:CYS:SG   | 6:C:1944:ALA:HB1  | 2.47                     | 0.55              |
| 6:C:1940:TYR:HA   | 6:C:1943:ALA:HB3  | 1.88                     | 0.55              |
| 6:C:2423:VAL:HG22 | 6:C:2424:MET:HA   | 1.89                     | 0.55              |
| 6:C:2833:THR:O    | 6:C:2836:LEU:N    | 2.39                     | 0.55              |
| 6:C:2920:VAL:O    | 6:C:2923:TRP:HB2  | 2.07                     | 0.55              |
| 6:C:2945:SER:OG   | 6:C:2991:LYS:HD3  | 2.07                     | 0.55              |
| 6:C:2971:GLN:HA   | 6:C:2974:GLU:HB3  | 1.88                     | 0.55              |
| 6:C:3326:GLN:NE2  | 6:C:3389:VAL:O    | 2.26                     | 0.55              |
| 6:C:3760:GLN:HG2  | 6:C:3761:ASP:H    | 1.70                     | 0.55              |
| 1:A:63:SER:O      | 1:A:67:ILE:HD12   | 2.07                     | 0.55              |
| 1:A:232:HIS:CD2   | 1:A:423:GLN:HB2   | 2.41                     | 0.55              |
| 1:A:403:ARG:NE    | 5:E:36:DA:O3'     | 2.40                     | 0.55              |
| 1:A:418:GLU:OE2   | 2:B:438:LEU:N     | 2.40                     | 0.55              |
| 6:C:772:ALA:HA    | 6:C:775:GLU:CD    | 2.31                     | 0.55              |
| 6:C:1959:LEU:O    | 6:C:1963:GLN:HG2  | 2.07                     | 0.55              |
| 6:C:2384:PHE:C    | 6:C:2387:PRO:HD2  | 2.31                     | 0.55              |
| 6:C:2559:THR:OG1  | 6:C:2560:ASN:N    | 2.39                     | 0.55              |
| 6:C:3350:GLU:HA   | 6:C:3373:VAL:N    | 2.21                     | 0.55              |
| 6:C:3466:PRO:HB2  | 6:C:3470:GLN:NE2  | 2.21                     | 0.55              |
| 6:C:3495:PHE:HE2  | 6:C:3499:ILE:HA   | 1.67                     | 0.55              |
| 6:C:3632:PHE:CE1  | 6:C:3682:GLU:HB2  | 2.42                     | 0.55              |
| 6:C:3692:VAL:HA   | 6:C:3696:ARG:HG2  | 1.86                     | 0.55              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3988:LEU:O    | 6:C:3991:PHE:N    | 2.38                     | 0.55              |
| 1:A:58:THR:O      | 1:A:61:ASP:N      | 2.39                     | 0.55              |
| 1:A:65:GLN:CG     | 1:A:123:LYS:HE2   | 2.37                     | 0.55              |
| 1:A:146:VAL:O     | 1:A:149:VAL:HB    | 2.07                     | 0.55              |
| 1:A:260:LYS:HA    | 1:A:270:SER:HA    | 1.88                     | 0.55              |
| 1:A:267:ILE:HG13  | 2:B:539:LEU:HD21  | 1.89                     | 0.55              |
| 2:B:18:PHE:CD1    | 2:B:102:SER:HB3   | 2.42                     | 0.55              |
| 2:B:107:PHE:O     | 2:B:111:LEU:HD13  | 2.06                     | 0.55              |
| 2:B:186:GLY:HA2   | 2:B:232:ARG:HG2   | 1.87                     | 0.55              |
| 2:B:412:ILE:HA    | 2:B:417:GLU:CG    | 2.37                     | 0.55              |
| 5:E:23:DT:C4      | 5:E:24:DG:C5      | 2.95                     | 0.55              |
| 6:C:215:PRO:HG3   | 6:C:220:LEU:HD11  | 1.88                     | 0.55              |
| 6:C:355:ASN:C     | 6:C:1856:THR:HG23 | 2.31                     | 0.55              |
| 6:C:359:LEU:HD12  | 6:C:408:TYR:CZ    | 2.41                     | 0.55              |
| 6:C:604:PRO:HB2   | 6:C:610:ALA:HB2   | 1.87                     | 0.55              |
| 6:C:759:GLY:O     | 6:C:770:LEU:HD11  | 2.07                     | 0.55              |
| 6:C:988:VAL:HG21  | 6:C:1031:ARG:NE   | 2.22                     | 0.55              |
| 6:C:1390:GLN:HA   | 6:C:1393:ALA:HB3  | 1.89                     | 0.55              |
| 6:C:1876:ILE:O    | 6:C:1911:LEU:HD13 | 2.07                     | 0.55              |
| 6:C:2343:GLU:O    | 6:C:2346:ALA:HB3  | 2.07                     | 0.55              |
| 6:C:2472:GLN:OE1  | 6:C:2475:ASN:ND2  | 2.29                     | 0.55              |
| 6:C:2525:TRP:O    | 6:C:2529:THR:OG1  | 2.12                     | 0.55              |
| 6:C:2833:THR:O    | 6:C:2834:GLN:C    | 2.48                     | 0.55              |
| 6:C:3258:LEU:HA   | 6:C:3261:GLU:HB3  | 1.89                     | 0.55              |
| 6:C:3454:LEU:HD23 | 6:C:3454:LEU:O    | 2.06                     | 0.55              |
| 6:C:4055:ASN:OD1  | 6:C:4058:VAL:N    | 2.39                     | 0.55              |
| 1:A:108:LEU:CD1   | 1:A:156:ASP:HB2   | 2.37                     | 0.55              |
| 1:A:378:SER:HA    | 1:A:382:PHE:H     | 1.71                     | 0.55              |
| 2:B:400:ARG:NE    | 4:D:10:DG:N3      | 2.54                     | 0.55              |
| 6:C:260:ILE:O     | 6:C:263:LYS:N     | 2.26                     | 0.55              |
| 6:C:609:ALA:O     | 6:C:613:HIS:HB3   | 2.04                     | 0.55              |
| 6:C:1689:LYS:NZ   | 6:C:1727:ARG:HB3  | 2.22                     | 0.55              |
| 6:C:1924:THR:HA   | 6:C:1927:MET:HB2  | 1.89                     | 0.55              |
| 6:C:2402:LEU:O    | 6:C:2405:VAL:HG22 | 2.07                     | 0.55              |
| 6:C:3098:ARG:O    | 6:C:3102:TYR:HB2  | 2.07                     | 0.55              |
| 6:C:3622:ALA:HB3  | 6:C:3625:LEU:HB2  | 1.88                     | 0.55              |
| 6:C:3703:GLY:N    | 6:C:3706:ASP:OD1  | 2.40                     | 0.55              |
| 6:C:3733:ARG:NH1  | 6:C:3755:GLY:H    | 2.04                     | 0.55              |
| 6:C:3920:ILE:HG23 | 6:C:4124:TRP:CH2  | 2.42                     | 0.55              |
| 1:A:319:SER:O     | 2:B:277:THR:N     | 2.40                     | 0.55              |
| 1:A:534:TYR:OH    | 2:B:250:ARG:HG2   | 2.06                     | 0.55              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:24:ILE:HD12   | 2:B:30:PRO:HD3    | 1.88                     | 0.55              |
| 6:C:171:LEU:O     | 6:C:174:VAL:HB    | 2.07                     | 0.55              |
| 6:C:204:LEU:HD12  | 6:C:223:CYS:HB2   | 1.88                     | 0.55              |
| 6:C:362:ALA:HB2   | 6:C:408:TYR:CE1   | 2.41                     | 0.55              |
| 6:C:803:SER:O     | 6:C:855:VAL:HG21  | 2.06                     | 0.55              |
| 6:C:1524:LEU:HD12 | 6:C:1563:PHE:HD2  | 1.72                     | 0.55              |
| 6:C:2006:GLU:O    | 6:C:2008:ARG:HG3  | 2.06                     | 0.55              |
| 6:C:2236:GLU:O    | 6:C:2240:THR:HG23 | 2.07                     | 0.55              |
| 6:C:2803:ILE:HG23 | 6:C:2804:ILE:N    | 2.21                     | 0.55              |
| 6:C:2969:ALA:HA   | 6:C:2972:TYR:CZ   | 2.42                     | 0.55              |
| 6:C:3387:GLU:O    | 6:C:3391:ALA:CB   | 2.55                     | 0.55              |
| 6:C:3836:PRO:HB3  | 6:C:4127:TRP:HZ3  | 1.70                     | 0.55              |
| 6:C:3885:ARG:O    | 6:C:3888:VAL:HB   | 2.06                     | 0.55              |
| 1:A:142:SER:O     | 1:A:145:GLU:HB2   | 2.07                     | 0.55              |
| 1:A:256:LEU:HD21  | 5:E:37:DT:H1'     | 1.89                     | 0.55              |
| 1:A:319:SER:HB3   | 2:B:277:THR:HB    | 1.87                     | 0.55              |
| 2:B:68:LEU:HB2    | 2:B:74:TYR:CZ     | 2.42                     | 0.55              |
| 2:B:70:GLY:O      | 2:B:74:TYR:HD2    | 1.90                     | 0.55              |
| 2:B:461:MET:HA    | 2:B:522:VAL:HG13  | 1.89                     | 0.55              |
| 6:C:407:VAL:C     | 6:C:409:GLN:N     | 2.65                     | 0.55              |
| 6:C:468:LEU:HD13  | 6:C:476:ARG:HA    | 1.89                     | 0.55              |
| 6:C:495:VAL:HG21  | 6:C:528:VAL:HG23  | 1.87                     | 0.55              |
| 6:C:788:TYR:O     | 6:C:792:ILE:HG12  | 2.06                     | 0.55              |
| 6:C:1154:PRO:HA   | 6:C:1157:PHE:CD2  | 2.42                     | 0.55              |
| 6:C:1506:SER:HA   | 6:C:1509:GLN:HG2  | 1.88                     | 0.55              |
| 6:C:1516:GLU:OE1  | 6:C:1574:ASN:ND2  | 2.40                     | 0.55              |
| 6:C:2467:THR:O    | 6:C:2470:ARG:N    | 2.40                     | 0.55              |
| 6:C:2552:VAL:C    | 6:C:2554:PHE:H    | 2.15                     | 0.55              |
| 6:C:2559:THR:O    | 6:C:2562:LEU:N    | 2.40                     | 0.55              |
| 6:C:2808:LEU:O    | 6:C:2812:LEU:HG   | 2.07                     | 0.55              |
| 1:A:50:GLU:O      | 1:A:58:THR:OG1    | 2.25                     | 0.55              |
| 1:A:145:GLU:HA    | 1:A:148:TRP:CE2   | 2.42                     | 0.55              |
| 1:A:200:LEU:N     | 1:A:222:SER:OG    | 2.40                     | 0.55              |
| 1:A:206:LYS:HA    | 1:A:210:GLY:HA2   | 1.89                     | 0.55              |
| 1:A:387:ILE:O     | 1:A:391:GLU:HG3   | 2.07                     | 0.55              |
| 1:A:403:ARG:HH21  | 5:E:36:DA:H1'     | 1.72                     | 0.55              |
| 2:B:330:GLN:HG3   | 2:B:331:MET:N     | 2.22                     | 0.55              |
| 4:D:8:DT:C2'      | 4:D:9:DG:H8       | 2.19                     | 0.55              |
| 4:D:15:DG:C2      | 5:E:21:DA:N1      | 2.75                     | 0.55              |
| 5:E:44:DA:H4'     | 6:C:260:ILE:HD11  | 1.88                     | 0.55              |
| 6:C:54:GLN:O      | 6:C:58:VAL:HG23   | 2.07                     | 0.55              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:139:ARG:HB2   | 6:C:142:ARG:HH11  | 1.72                     | 0.55              |
| 6:C:449:TYR:CD2   | 6:C:454:GLN:HG2   | 2.42                     | 0.55              |
| 6:C:484:HIS:CE1   | 6:C:555:SER:HB2   | 2.36                     | 0.55              |
| 6:C:1481:THR:C    | 6:C:1484:LEU:HB3  | 2.32                     | 0.55              |
| 6:C:1602:ASP:OD1  | 6:C:1606:ARG:N    | 2.38                     | 0.55              |
| 6:C:1743:MET:HE3  | 6:C:1747:LEU:HD11 | 1.88                     | 0.55              |
| 6:C:2030:TYR:O    | 6:C:2033:ASP:N    | 2.34                     | 0.55              |
| 6:C:2050:GLN:O    | 6:C:2053:SER:N    | 2.39                     | 0.55              |
| 6:C:2977:ASN:HB3  | 6:C:2980:ASP:HB2  | 1.89                     | 0.55              |
| 6:C:3706:ASP:OD1  | 6:C:3706:ASP:N    | 2.40                     | 0.55              |
| 6:C:4028:ILE:HG23 | 6:C:4029:GLN:H    | 1.72                     | 0.55              |
| 6:C:4047:ALA:HB1  | 6:C:4060:THR:HB   | 1.89                     | 0.55              |
| 1:A:241:ASP:O     | 1:A:245:LYS:CB    | 2.55                     | 0.54              |
| 1:A:359:HIS:HB3   | 1:A:360:HIS:CD2   | 2.42                     | 0.54              |
| 1:A:458:GLN:C     | 1:A:462:MET:HG2   | 2.32                     | 0.54              |
| 2:B:162:GLN:HE21  | 2:B:239:LYS:HE3   | 1.70                     | 0.54              |
| 2:B:452:ASN:HA    | 2:B:455:ASP:OD2   | 2.06                     | 0.54              |
| 6:C:320:LEU:O     | 6:C:323:VAL:HB    | 2.08                     | 0.54              |
| 6:C:409:GLN:O     | 6:C:412:SER:HB2   | 2.06                     | 0.54              |
| 6:C:415:GLN:HG2   | 6:C:463:LYS:HD3   | 1.89                     | 0.54              |
| 6:C:496:VAL:HG23  | 6:C:497:LEU:HG    | 1.88                     | 0.54              |
| 6:C:870:LEU:HD12  | 6:C:871:LEU:N     | 2.23                     | 0.54              |
| 6:C:873:VAL:C     | 6:C:876:SER:H     | 2.16                     | 0.54              |
| 6:C:957:PRO:C     | 6:C:960:GLN:HB3   | 2.32                     | 0.54              |
| 6:C:1404:LYS:HA   | 6:C:1407:LYS:HG3  | 1.89                     | 0.54              |
| 6:C:2242:VAL:O    | 6:C:2245:TRP:HD1  | 1.90                     | 0.54              |
| 6:C:2386:LEU:HB3  | 6:C:2404:ARG:HH11 | 1.72                     | 0.54              |
| 6:C:2476:ILE:HG22 | 6:C:2479:TRP:CE2  | 2.42                     | 0.54              |
| 6:C:2481:HIS:HE1  | 6:C:2499:PHE:O    | 1.89                     | 0.54              |
| 6:C:2893:LEU:O    | 6:C:2898:LEU:N    | 2.28                     | 0.54              |
| 6:C:2932:SER:O    | 6:C:2935:GLU:HG2  | 2.07                     | 0.54              |
| 6:C:3078:LEU:HA   | 6:C:3081:HIS:CG   | 2.42                     | 0.54              |
| 6:C:3276:TRP:HB3  | 6:C:3280:TYR:OH   | 2.07                     | 0.54              |
| 6:C:3592:VAL:HA   | 6:C:3606:ILE:HD12 | 1.89                     | 0.54              |
| 6:C:3619:ASP:HB2  | 6:C:3625:LEU:HD22 | 1.89                     | 0.54              |
| 6:C:3873:LYS:HA   | 6:C:3877:LYS:HZ3  | 1.72                     | 0.54              |
| 1:A:143:LEU:H     | 1:A:185:ARG:HH21  | 1.55                     | 0.54              |
| 1:A:258:ARG:N     | 5:E:38:DA:OP1     | 2.35                     | 0.54              |
| 1:A:262:LYS:O     | 1:A:346:MET:HA    | 2.07                     | 0.54              |
| 1:A:404:ARG:HD2   | 5:E:36:DA:O5'     | 2.08                     | 0.54              |
| 1:A:513:ALA:HA    | 1:A:516:LYS:HB3   | 1.89                     | 0.54              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:324:SER:O     | 2:B:328:GLU:HG2   | 2.06                     | 0.54              |
| 2:B:393:VAL:HG12  | 2:B:394:ARG:O     | 2.07                     | 0.54              |
| 5:E:40:DT:C4      | 5:E:41:DA:C5      | 2.94                     | 0.54              |
| 5:E:47:DT:H2'     | 5:E:48:DT:C6      | 2.42                     | 0.54              |
| 6:C:729:CYS:O     | 6:C:733:LEU:HG    | 2.07                     | 0.54              |
| 6:C:922:SER:HB3   | 6:C:925:GLN:HG2   | 1.89                     | 0.54              |
| 6:C:1049:GLN:O    | 6:C:1056:THR:OG1  | 2.16                     | 0.54              |
| 6:C:1169:VAL:HG21 | 6:C:1264:LEU:HD13 | 1.90                     | 0.54              |
| 6:C:1231:GLN:NE2  | 6:C:1264:LEU:HD11 | 2.22                     | 0.54              |
| 6:C:1432:CYS:O    | 6:C:1436:LEU:HG   | 2.07                     | 0.54              |
| 6:C:1472:SER:HA   | 6:C:1476:HIS:CD2  | 2.41                     | 0.54              |
| 6:C:1524:LEU:HD12 | 6:C:1563:PHE:CD2  | 2.42                     | 0.54              |
| 6:C:2510:LEU:HA   | 6:C:2522:ARG:CG   | 2.35                     | 0.54              |
| 6:C:2521:ILE:H    | 6:C:2521:ILE:HD12 | 1.72                     | 0.54              |
| 6:C:2529:THR:OG1  | 6:C:2530:ARG:N    | 2.40                     | 0.54              |
| 6:C:2790:LEU:O    | 6:C:2793:PRO:HD2  | 2.07                     | 0.54              |
| 6:C:2884:LEU:HD21 | 6:C:2925:GLU:OE2  | 2.07                     | 0.54              |
| 6:C:2921:LEU:O    | 6:C:2924:VAL:HG22 | 2.07                     | 0.54              |
| 6:C:3462:ARG:NH2  | 6:C:3463:LEU:HD11 | 2.22                     | 0.54              |
| 6:C:3701:ILE:HG13 | 6:C:3719:ILE:N    | 2.22                     | 0.54              |
| 6:C:3877:LYS:HE3  | 6:C:3965:ARG:HE   | 1.72                     | 0.54              |
| 1:A:90:THR:HG23   | 1:A:138:GLY:H     | 1.72                     | 0.54              |
| 1:A:311:LEU:HD11  | 2:B:288:ASP:O     | 2.07                     | 0.54              |
| 1:A:403:ARG:NH2   | 5:E:36:DA:H1'     | 2.23                     | 0.54              |
| 2:B:147:LEU:HD12  | 2:B:148:ASP:N     | 2.22                     | 0.54              |
| 2:B:428:GLU:OE1   | 2:B:428:GLU:N     | 2.39                     | 0.54              |
| 4:D:-4:DA:H2'     | 4:D:-4:DA:N3      | 2.22                     | 0.54              |
| 6:C:13:LEU:HD11   | 6:C:58:VAL:HG22   | 1.88                     | 0.54              |
| 6:C:88:PHE:CD1    | 6:C:91:ILE:HD11   | 2.43                     | 0.54              |
| 6:C:299:LYS:HA    | 6:C:303:HIS:HD2   | 1.72                     | 0.54              |
| 6:C:571:SER:OG    | 6:C:572:VAL:N     | 2.39                     | 0.54              |
| 6:C:572:VAL:HG23  | 6:C:576:VAL:HG21  | 1.90                     | 0.54              |
| 6:C:749:VAL:CG2   | 6:C:750:PRO:HD3   | 2.38                     | 0.54              |
| 6:C:913:ARG:HD2   | 6:C:930:ALA:HA    | 1.90                     | 0.54              |
| 6:C:2254:ARG:HH11 | 6:C:2295:GLN:HE21 | 1.55                     | 0.54              |
| 6:C:2330:VAL:HG11 | 6:C:2338:GLU:OE1  | 2.07                     | 0.54              |
| 6:C:2444:PRO:HD2  | 6:C:2445:LYS:HE3  | 1.89                     | 0.54              |
| 6:C:2774:SER:HB2  | 6:C:2777:HIS:HD1  | 1.72                     | 0.54              |
| 6:C:3006:ALA:HB1  | 6:C:3254:LEU:HD21 | 1.90                     | 0.54              |
| 6:C:3514:VAL:HA   | 6:C:3518:VAL:HB   | 1.90                     | 0.54              |
| 6:C:3650:LYS:O    | 6:C:3653:ARG:N    | 2.40                     | 0.54              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3754:GLY:O    | 6:C:3800:LEU:HB3  | 2.07                     | 0.54              |
| 6:C:4018:GLN:O    | 6:C:4022:LYS:HG3  | 2.07                     | 0.54              |
| 1:A:152:ASN:O     | 1:A:155:SER:HB2   | 2.07                     | 0.54              |
| 1:A:343:PRO:CG    | 1:A:405:ASN:H     | 2.20                     | 0.54              |
| 1:A:367:PHE:HZ    | 1:A:431:GLY:HA3   | 1.71                     | 0.54              |
| 1:A:439:PHE:N     | 1:A:442:ASP:OD2   | 2.40                     | 0.54              |
| 1:A:479:GLU:HA    | 2:B:426:PHE:CB    | 2.37                     | 0.54              |
| 2:B:169:LEU:HD13  | 2:B:205:LEU:HD11  | 1.90                     | 0.54              |
| 5:E:39:DA:H62     | 5:E:40:DT:H73     | 1.72                     | 0.54              |
| 6:C:461:ILE:HG22  | 6:C:465:PHE:CZ    | 2.42                     | 0.54              |
| 6:C:556:SER:O     | 6:C:559:SER:HB2   | 2.08                     | 0.54              |
| 6:C:1091:GLU:HG3  | 6:C:1137:ILE:HD12 | 1.88                     | 0.54              |
| 6:C:1124:ILE:HD12 | 6:C:1125:GLN:H    | 1.72                     | 0.54              |
| 6:C:1905:ILE:HG13 | 6:C:1947:CYS:HB3  | 1.90                     | 0.54              |
| 6:C:1931:ASN:HB2  | 6:C:1933:LEU:HG   | 1.89                     | 0.54              |
| 6:C:2127:LYS:O    | 6:C:2130:HIS:NE2  | 2.41                     | 0.54              |
| 6:C:2166:SER:O    | 6:C:2170:GLN:HB3  | 2.08                     | 0.54              |
| 6:C:2200:ALA:O    | 6:C:2203:THR:N    | 2.40                     | 0.54              |
| 6:C:2298:GLU:OE1  | 6:C:2301:GLN:HB2  | 2.06                     | 0.54              |
| 6:C:2450:GLU:O    | 6:C:2454:LEU:HD13 | 2.08                     | 0.54              |
| 6:C:2472:GLN:NE2  | 6:C:2475:ASN:HB3  | 2.23                     | 0.54              |
| 6:C:3156:PRO:O    | 6:C:3160:LEU:N    | 2.41                     | 0.54              |
| 6:C:3506:LEU:HA   | 6:C:3510:GLN:OE1  | 2.07                     | 0.54              |
| 6:C:3531:TYR:HE2  | 6:C:3535:ILE:HG23 | 1.72                     | 0.54              |
| 6:C:3940:ILE:O    | 6:C:3940:ILE:HG12 | 2.05                     | 0.54              |
| 6:C:3963:LEU:HD11 | 6:C:3971:MET:SD   | 2.47                     | 0.54              |
| 6:C:4113:ASP:OD2  | 6:C:4115:ASN:HB3  | 2.07                     | 0.54              |
| 1:A:345:LEU:HD11  | 1:A:400:TYR:CD1   | 2.43                     | 0.54              |
| 6:C:346:TYR:HD1   | 6:C:349:ILE:HD12  | 1.71                     | 0.54              |
| 6:C:365:GLY:CA    | 6:C:368:LEU:HB2   | 2.37                     | 0.54              |
| 6:C:575:ILE:HG13  | 6:C:578:LYS:HE3   | 1.88                     | 0.54              |
| 6:C:889:GLU:OE2   | 6:C:3889:ARG:NH1  | 2.40                     | 0.54              |
| 6:C:1062:ARG:HB2  | 6:C:1066:LEU:HD22 | 1.90                     | 0.54              |
| 6:C:1063:LEU:O    | 6:C:1067:ALA:CB   | 2.56                     | 0.54              |
| 6:C:1240:THR:HA   | 6:C:1243:TYR:CD2  | 2.42                     | 0.54              |
| 6:C:1267:TYR:HA   | 6:C:1270:PHE:CE2  | 2.43                     | 0.54              |
| 6:C:1297:PHE:O    | 6:C:1301:ILE:HG12 | 2.06                     | 0.54              |
| 6:C:1762:MET:SD   | 6:C:1896:ILE:HG23 | 2.48                     | 0.54              |
| 6:C:1987:ARG:O    | 6:C:1990:PHE:HB3  | 2.08                     | 0.54              |
| 6:C:2239:LYS:HD3  | 6:C:2279:ILE:HG13 | 1.89                     | 0.54              |
| 6:C:2304:VAL:HG21 | 6:C:2341:LEU:HD11 | 1.90                     | 0.54              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2413:PHE:CD1  | 6:C:2442:MET:HG2  | 2.42                     | 0.54              |
| 6:C:2456:ASN:HB2  | 6:C:2457:PRO:HD3  | 1.89                     | 0.54              |
| 6:C:2459:VAL:HA   | 6:C:2462:VAL:CG1  | 2.38                     | 0.54              |
| 6:C:2517:LEU:HA   | 6:C:2520:ILE:HB   | 1.90                     | 0.54              |
| 6:C:3320:ILE:O    | 6:C:3323:PHE:HB3  | 2.07                     | 0.54              |
| 6:C:3339:ASN:HA   | 6:C:3342:SER:HB2  | 1.90                     | 0.54              |
| 6:C:3630:ARG:HA   | 6:C:3686:TRP:CD1  | 2.42                     | 0.54              |
| 6:C:3763:ARG:HA   | 6:C:3766:GLN:HB2  | 1.90                     | 0.54              |
| 6:C:3987:ALA:O    | 6:C:3990:ALA:HB3  | 2.07                     | 0.54              |
| 2:B:73:GLN:HG2    | 2:B:74:TYR:CD2    | 2.42                     | 0.54              |
| 2:B:93:ASP:OD1    | 2:B:94:ILE:N      | 2.40                     | 0.54              |
| 5:E:41:DA:N1      | 5:E:42:DA:C5      | 2.75                     | 0.54              |
| 6:C:394:GLN:O     | 6:C:398:THR:OG1   | 2.19                     | 0.54              |
| 6:C:652:GLU:HG2   | 6:C:717:LYS:HZ1   | 1.71                     | 0.54              |
| 6:C:970:LEU:HD22  | 6:C:1031:ARG:HH21 | 1.72                     | 0.54              |
| 6:C:1038:LYS:HD2  | 6:C:1041:ILE:HB   | 1.90                     | 0.54              |
| 6:C:1045:THR:O    | 6:C:1049:GLN:N    | 2.40                     | 0.54              |
| 6:C:1890:HIS:ND1  | 6:C:1937:ARG:HA   | 2.23                     | 0.54              |
| 6:C:2018:ASP:OD2  | 6:C:2048:GLY:HA3  | 2.08                     | 0.54              |
| 6:C:2260:PHE:O    | 6:C:2263:LYS:HE3  | 2.07                     | 0.54              |
| 6:C:2296:SER:HB3  | 6:C:2299:TYR:CE1  | 2.42                     | 0.54              |
| 6:C:2381:ALA:O    | 6:C:2385:LEU:HD13 | 2.07                     | 0.54              |
| 6:C:2507:ILE:HD12 | 6:C:2530:ARG:HH21 | 1.71                     | 0.54              |
| 6:C:2936:TYR:O    | 6:C:2939:LEU:HB2  | 2.08                     | 0.54              |
| 6:C:2938:VAL:HA   | 6:C:3975:LYS:NZ   | 2.23                     | 0.54              |
| 6:C:3097:ASP:O    | 6:C:3100:LYS:HB3  | 2.08                     | 0.54              |
| 6:C:3459:ASN:CB   | 6:C:3462:ARG:HE   | 2.20                     | 0.54              |
| 6:C:3570:ASP:O    | 6:C:3573:ASN:HB3  | 2.08                     | 0.54              |
| 6:C:3629:ARG:NH1  | 6:C:3638:LYS:HZ1  | 2.02                     | 0.54              |
| 1:A:403:ARG:HD2   | 5:E:37:DT:C4'     | 2.37                     | 0.54              |
| 2:B:242:ARG:HG3   | 2:B:243:HIS:O     | 2.08                     | 0.54              |
| 6:C:415:GLN:HG3   | 6:C:460:ALA:HA    | 1.90                     | 0.54              |
| 6:C:557:SER:O     | 6:C:645:TRP:HH2   | 1.91                     | 0.54              |
| 6:C:642:PHE:CZ    | 6:C:646:VAL:HG11  | 2.43                     | 0.54              |
| 6:C:659:ARG:O     | 6:C:662:LEU:N     | 2.40                     | 0.54              |
| 6:C:660:LEU:O     | 6:C:664:SER:OG    | 2.07                     | 0.54              |
| 6:C:731:THR:OG1   | 6:C:732:PHE:N     | 2.39                     | 0.54              |
| 6:C:741:ILE:O     | 6:C:745:VAL:HG23  | 2.07                     | 0.54              |
| 6:C:1433:ALA:O    | 6:C:1436:LEU:N    | 2.40                     | 0.54              |
| 6:C:1916:ILE:HA   | 6:C:1919:CYS:SG   | 2.47                     | 0.54              |
| 6:C:1938:ARG:HE   | 6:C:1983:ASP:CG   | 2.15                     | 0.54              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2187:VAL:O    | 6:C:2191:ALA:HB3  | 2.06                     | 0.54              |
| 6:C:3031:TRP:HZ2  | 6:C:3038:GLU:HB2  | 1.72                     | 0.54              |
| 6:C:3125:ARG:C    | 6:C:3129:LEU:HG   | 2.33                     | 0.54              |
| 6:C:3293:CYS:SG   | 6:C:3294:SER:N    | 2.69                     | 0.54              |
| 6:C:3659:PHE:HA   | 6:C:3662:ILE:HB   | 1.88                     | 0.54              |
| 6:C:3887:PHE:HA   | 6:C:3890:MET:HE2  | 1.89                     | 0.54              |
| 6:C:4031:ILE:HG13 | 6:C:4032:ASN:N    | 2.21                     | 0.54              |
| 1:A:155:SER:N     | 6:C:2384:PHE:HE1  | 2.06                     | 0.54              |
| 1:A:186:ALA:O     | 1:A:190:ALA:HB2   | 2.08                     | 0.54              |
| 1:A:407:PRO:HB2   | 2:B:485:PRO:HG2   | 1.90                     | 0.54              |
| 2:B:61:THR:O      | 2:B:103:GLN:HB3   | 2.08                     | 0.54              |
| 2:B:129:LYS:NZ    | 2:B:239:LYS:O     | 2.41                     | 0.54              |
| 2:B:292:GLU:HB3   | 2:B:294:VAL:CG2   | 2.36                     | 0.54              |
| 5:E:47:DT:C4      | 5:E:48:DT:O4      | 2.61                     | 0.54              |
| 6:C:127:ALA:O     | 6:C:130:LEU:HB2   | 2.08                     | 0.54              |
| 6:C:197:PHE:HZ    | 6:C:223:CYS:HA    | 1.72                     | 0.54              |
| 6:C:327:VAL:HA    | 6:C:334:HIS:CD2   | 2.42                     | 0.54              |
| 6:C:472:GLY:O     | 6:C:474:VAL:HG22  | 2.07                     | 0.54              |
| 6:C:544:ILE:HG22  | 6:C:547:ASP:H     | 1.73                     | 0.54              |
| 6:C:852:ARG:HE    | 6:C:3111:MET:HA   | 1.73                     | 0.54              |
| 6:C:1015:ASP:O    | 6:C:1025:LEU:HD21 | 2.07                     | 0.54              |
| 6:C:1941:HIS:O    | 6:C:1945:TYR:HB3  | 2.08                     | 0.54              |
| 6:C:2084:GLU:HG2  | 6:C:2177:ASN:O    | 2.08                     | 0.54              |
| 6:C:2448:PRO:HB2  | 6:C:2450:GLU:OE1  | 2.08                     | 0.54              |
| 6:C:2916:LEU:HA   | 6:C:2919:ASP:OD2  | 2.07                     | 0.54              |
| 6:C:3040:TYR:HA   | 6:C:3043:TYR:CE2  | 2.43                     | 0.54              |
| 6:C:3122:HIS:CG   | 6:C:3123:GLN:N    | 2.76                     | 0.54              |
| 6:C:3491:PRO:O    | 6:C:3494:GLN:HG2  | 2.08                     | 0.54              |
| 6:C:3760:GLN:OE1  | 6:C:3760:GLN:N    | 2.32                     | 0.54              |
| 6:C:3768:PHE:HB3  | 6:C:3788:LEU:HD11 | 1.89                     | 0.54              |
| 1:A:94:LYS:HD3    | 1:A:104:VAL:O     | 2.07                     | 0.54              |
| 2:B:73:GLN:C      | 2:B:75:GLN:H      | 2.15                     | 0.54              |
| 2:B:426:PHE:N     | 2:B:429:ASP:OD2   | 2.27                     | 0.54              |
| 2:B:448:GLU:HA    | 2:B:451:LEU:HD12  | 1.89                     | 0.54              |
| 2:B:526:SER:O     | 2:B:530:LEU:HG    | 2.07                     | 0.54              |
| 4:D:10:DG:N2      | 5:E:26:DC:C2      | 2.73                     | 0.54              |
| 6:C:70:ARG:NH2    | 6:C:75:SER:HA     | 2.13                     | 0.54              |
| 6:C:212:VAL:O     | 6:C:214:GLU:HG2   | 2.07                     | 0.54              |
| 6:C:277:LEU:H     | 6:C:280:SER:HB3   | 1.70                     | 0.54              |
| 6:C:291:VAL:HG13  | 6:C:344:GLN:HE21  | 1.73                     | 0.54              |
| 6:C:431:TYR:HA    | 6:C:434:VAL:HG12  | 1.89                     | 0.54              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:886:TRP:CZ2   | 6:C:890:LYS:HB2   | 2.42                     | 0.54              |
| 6:C:1239:PRO:O    | 6:C:1242:LEU:N    | 2.41                     | 0.54              |
| 6:C:1493:PRO:HB2  | 6:C:1496:GLU:H    | 1.72                     | 0.54              |
| 6:C:1679:LEU:O    | 6:C:1682:THR:HB   | 2.08                     | 0.54              |
| 6:C:1680:ALA:O    | 6:C:1683:LYS:HB2  | 2.08                     | 0.54              |
| 6:C:1946:ASN:CG   | 6:C:1994:VAL:HG23 | 2.33                     | 0.54              |
| 6:C:2040:MET:HA   | 6:C:2043:PHE:CZ   | 2.43                     | 0.54              |
| 6:C:3101:TYR:O    | 6:C:3104:GLN:HB3  | 2.07                     | 0.54              |
| 6:C:3487:ILE:O    | 6:C:3524:ASN:ND2  | 2.30                     | 0.54              |
| 6:C:3759:ARG:HD3  | 6:C:4011:PHE:CE2  | 2.41                     | 0.54              |
| 1:A:277:VAL:HB    | 2:B:429:ASP:HA    | 1.90                     | 0.54              |
| 1:A:312:LEU:O     | 1:A:315:ASP:N     | 2.41                     | 0.54              |
| 1:A:332:GLU:HA    | 1:A:335:GLU:HG2   | 1.89                     | 0.54              |
| 5:E:18:DG:H1'     | 5:E:19:DC:H5'     | 1.90                     | 0.54              |
| 6:C:55:THR:O      | 6:C:56:SER:C      | 2.50                     | 0.54              |
| 6:C:150:GLY:O     | 6:C:153:PHE:N     | 2.41                     | 0.54              |
| 6:C:649:PHE:HA    | 6:C:656:GLN:NE2   | 2.20                     | 0.54              |
| 6:C:938:VAL:HG13  | 6:C:959:TYR:HE1   | 1.73                     | 0.54              |
| 6:C:981:ARG:NE    | 6:C:1026:ARG:HH22 | 2.05                     | 0.54              |
| 6:C:990:GLN:HA    | 6:C:2776:ARG:HD2  | 1.89                     | 0.54              |
| 6:C:1010:LEU:HA   | 6:C:1013:ILE:CG1  | 2.37                     | 0.54              |
| 6:C:1059:LEU:HD23 | 6:C:1062:ARG:NH1  | 2.23                     | 0.54              |
| 6:C:1356:TRP:HZ2  | 6:C:1409:SER:O    | 1.91                     | 0.54              |
| 6:C:1740:VAL:O    | 6:C:1744:LYS:HB3  | 2.08                     | 0.54              |
| 6:C:2159:PRO:O    | 6:C:2162:LYS:HB2  | 2.08                     | 0.54              |
| 6:C:2199:LEU:C    | 6:C:2202:PRO:HD2  | 2.33                     | 0.54              |
| 6:C:2235:LEU:HA   | 6:C:2238:ILE:HD13 | 1.90                     | 0.54              |
| 6:C:2238:ILE:HA   | 6:C:2241:LEU:HD12 | 1.89                     | 0.54              |
| 6:C:2264:ASP:HB3  | 6:C:2265:PRO:HD2  | 1.90                     | 0.54              |
| 6:C:3031:TRP:HD1  | 6:C:3037:GLN:OE1  | 1.91                     | 0.54              |
| 6:C:3151:LEU:HD12 | 6:C:3152:SER:HA   | 1.90                     | 0.54              |
| 6:C:3329:LEU:HD11 | 6:C:3388:ALA:HB3  | 1.89                     | 0.54              |
| 6:C:3424:LEU:O    | 6:C:3427:GLU:N    | 2.41                     | 0.54              |
| 6:C:3778:ASP:HB3  | 6:C:3781:CYS:SG   | 2.48                     | 0.54              |
| 6:C:3923:ARG:NH1  | 6:C:3939:GLY:HA2  | 2.23                     | 0.54              |
| 6:C:3952:PHE:HA   | 6:C:4030:GLU:OE2  | 2.08                     | 0.54              |
| 6:C:4017:GLU:HB3  | 6:C:4031:ILE:HB   | 1.89                     | 0.54              |
| 1:A:243:LEU:O     | 1:A:247:ARG:HG2   | 2.08                     | 0.53              |
| 1:A:337:LEU:O     | 2:B:489:ARG:NE    | 2.41                     | 0.53              |
| 1:A:419:GLU:OE2   | 1:A:425:ILE:HG13  | 2.08                     | 0.53              |
| 1:A:465:ILE:HG13  | 1:A:525:PHE:CE2   | 2.42                     | 0.53              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:193:ALA:O     | 6:C:197:PHE:N     | 2.25                     | 0.53              |
| 6:C:266:ALA:HA    | 6:C:269:SER:HB3   | 1.90                     | 0.53              |
| 6:C:677:ALA:HB2   | 6:C:704:PHE:HB3   | 1.89                     | 0.53              |
| 6:C:704:PHE:C     | 6:C:707:PHE:HB3   | 2.33                     | 0.53              |
| 6:C:898:PHE:CD1   | 6:C:2567:SER:HB3  | 2.43                     | 0.53              |
| 6:C:988:VAL:O     | 6:C:992:ILE:HG23  | 2.07                     | 0.53              |
| 6:C:1338:VAL:O    | 6:C:1342:MET:HB2  | 2.07                     | 0.53              |
| 6:C:1957:ASN:N    | 6:C:1960:LYS:HE3  | 2.22                     | 0.53              |
| 6:C:1994:VAL:HG22 | 6:C:1998:MET:SD   | 2.48                     | 0.53              |
| 6:C:2171:LEU:HB2  | 6:C:2185:MET:SD   | 2.47                     | 0.53              |
| 6:C:2390:HIS:CE1  | 6:C:2426:HIS:HB3  | 2.44                     | 0.53              |
| 6:C:2397:CYS:O    | 6:C:2401:VAL:CB   | 2.37                     | 0.53              |
| 6:C:2470:ARG:HB3  | 6:C:2474:TYR:HE2  | 1.73                     | 0.53              |
| 6:C:2474:TYR:HA   | 6:C:2477:LEU:HD12 | 1.89                     | 0.53              |
| 6:C:2558:ALA:HA   | 6:C:2561:PHE:CD2  | 2.43                     | 0.53              |
| 6:C:3182:ILE:HG13 | 6:C:3183:ILE:N    | 2.23                     | 0.53              |
| 6:C:3504:ALA:HB3  | 6:C:4008:GLU:OE2  | 2.07                     | 0.53              |
| 6:C:3549:HIS:O    | 6:C:3553:GLU:HG2  | 2.08                     | 0.53              |
| 6:C:3678:GLY:HA3  | 6:C:3734:ARG:NH2  | 2.23                     | 0.53              |
| 1:A:100:LYS:HG3   | 1:A:101:ASN:CG    | 2.32                     | 0.53              |
| 1:A:290:ARG:NE    | 2:B:309:ASP:O     | 2.41                     | 0.53              |
| 1:A:334:THR:O     | 1:A:337:LEU:HG    | 2.08                     | 0.53              |
| 1:A:383:SER:OG    | 1:A:384:ALA:N     | 2.41                     | 0.53              |
| 1:A:421:ASP:CG    | 1:A:425:ILE:HG12  | 2.33                     | 0.53              |
| 2:B:509:GLN:O     | 2:B:511:HIS:ND1   | 2.41                     | 0.53              |
| 6:C:575:ILE:HG21  | 6:C:604:PRO:C     | 2.33                     | 0.53              |
| 6:C:788:TYR:O     | 6:C:791:ASP:CB    | 2.50                     | 0.53              |
| 6:C:2274:ILE:HG13 | 6:C:2275:GLN:H    | 1.73                     | 0.53              |
| 6:C:2797:VAL:HG23 | 6:C:2798:ALA:H    | 1.73                     | 0.53              |
| 6:C:2823:PHE:HD2  | 6:C:2829:LYS:HZ1  | 1.51                     | 0.53              |
| 6:C:2906:PRO:HG3  | 6:C:2943:PHE:HB3  | 1.90                     | 0.53              |
| 6:C:3386:SER:HA   | 6:C:3419:PHE:CZ   | 2.44                     | 0.53              |
| 6:C:3819:THR:O    | 6:C:3823:GLU:HB3  | 2.08                     | 0.53              |
| 6:C:4102:THR:OG1  | 6:C:4103:GLN:N    | 2.41                     | 0.53              |
| 6:C:4121:TRP:NE1  | 6:C:4123:GLY:H    | 2.05                     | 0.53              |
| 1:A:92:LYS:HB3    | 1:A:135:MET:O     | 2.08                     | 0.53              |
| 1:A:154:PHE:O     | 1:A:157:VAL:HG12  | 2.07                     | 0.53              |
| 1:A:186:ALA:O     | 1:A:190:ALA:CB    | 2.56                     | 0.53              |
| 1:A:254:ARG:N     | 2:B:431:ARG:HH21  | 2.05                     | 0.53              |
| 1:A:328:ILE:HG21  | 2:B:284:LEU:HD21  | 1.91                     | 0.53              |
| 1:A:354:VAL:HG22  | 1:A:393:GLU:OE2   | 2.09                     | 0.53              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:205:LEU:HG    | 2:B:209:LYS:HE3   | 1.89                     | 0.53              |
| 5:E:46:DT:H2'     | 5:E:47:DT:H71     | 1.89                     | 0.53              |
| 6:C:457:CYS:O     | 6:C:460:ALA:HB3   | 2.08                     | 0.53              |
| 6:C:730:LEU:O     | 6:C:733:LEU:HB2   | 2.08                     | 0.53              |
| 6:C:897:PRO:HG2   | 6:C:2571:ASP:HA   | 1.89                     | 0.53              |
| 6:C:1163:LEU:HA   | 6:C:1256:TRP:HB3  | 1.89                     | 0.53              |
| 6:C:1400:VAL:HG21 | 6:C:1460:ARG:HB2  | 1.91                     | 0.53              |
| 6:C:1718:ILE:HD12 | 6:C:1746:PHE:CD2  | 2.43                     | 0.53              |
| 6:C:2088:LEU:HD21 | 6:C:2145:PHE:HD2  | 1.73                     | 0.53              |
| 6:C:2266:ASN:HD22 | 6:C:2312:TYR:HE2  | 1.57                     | 0.53              |
| 6:C:2418:LYS:O    | 6:C:2422:GLN:HG3  | 2.07                     | 0.53              |
| 6:C:2534:ASN:HD21 | 6:C:2537:ASP:H    | 1.55                     | 0.53              |
| 6:C:3052:LEU:HD21 | 6:C:3089:LEU:HA   | 1.90                     | 0.53              |
| 6:C:3287:ARG:NH1  | 6:C:3327:ASN:OD1  | 2.41                     | 0.53              |
| 6:C:3620:PRO:O    | 6:C:3629:ARG:HD3  | 2.09                     | 0.53              |
| 6:C:3924:HIS:ND1  | 6:C:3926:ASN:OD1  | 2.40                     | 0.53              |
| 1:A:141:TYR:OH    | 1:A:172:GLU:OE2   | 2.27                     | 0.53              |
| 1:A:348:MET:HB2   | 1:A:397:LEU:HG    | 1.91                     | 0.53              |
| 2:B:233:LYS:HA    | 2:B:481:LYS:HB3   | 1.90                     | 0.53              |
| 4:D:11:DC:C2      | 5:E:25:DG:C2      | 2.97                     | 0.53              |
| 6:C:89:LEU:O      | 6:C:92:PHE:N      | 2.40                     | 0.53              |
| 6:C:787:PRO:HD2   | 6:C:788:TYR:CE2   | 2.44                     | 0.53              |
| 6:C:908:ASP:C     | 6:C:2807:GLN:HE21 | 2.16                     | 0.53              |
| 6:C:1037:LEU:O    | 6:C:1041:ILE:N    | 2.30                     | 0.53              |
| 6:C:1648:LEU:O    | 6:C:1651:LYS:HB2  | 2.09                     | 0.53              |
| 6:C:2307:MET:O    | 6:C:2315:VAL:HG21 | 2.08                     | 0.53              |
| 6:C:2450:GLU:HA   | 6:C:2453:GLU:OE1  | 2.08                     | 0.53              |
| 6:C:2546:TYR:CB   | 6:C:2549:LYS:HZ1  | 2.22                     | 0.53              |
| 6:C:2936:TYR:HB2  | 6:C:2953:THR:HG21 | 1.89                     | 0.53              |
| 6:C:2990:GLU:H    | 6:C:2990:GLU:CD   | 2.17                     | 0.53              |
| 6:C:3123:GLN:O    | 6:C:3127:THR:OG1  | 2.12                     | 0.53              |
| 6:C:4013:TRP:CZ3  | 6:C:4040:PRO:HD2  | 2.43                     | 0.53              |
| 6:C:4060:THR:O    | 6:C:4063:GLU:HB2  | 2.08                     | 0.53              |
| 1:A:65:GLN:O      | 1:A:69:SER:OG     | 2.19                     | 0.53              |
| 1:A:213:ILE:HD12  | 1:A:217:TYR:CZ    | 2.43                     | 0.53              |
| 2:B:487:PHE:HB2   | 2:B:491:PHE:CZ    | 2.43                     | 0.53              |
| 6:C:491:CYS:HA    | 6:C:527:TYR:CE1   | 2.43                     | 0.53              |
| 6:C:881:LYS:HG3   | 6:C:883:TYR:CE2   | 2.35                     | 0.53              |
| 6:C:964:ARG:O     | 6:C:967:PRO:HG2   | 2.08                     | 0.53              |
| 6:C:985:GLU:HG2   | 6:C:1031:ARG:HH22 | 1.73                     | 0.53              |
| 6:C:1970:LYS:HA   | 6:C:1988:TYR:HB2  | 1.91                     | 0.53              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2033:ASP:O    | 6:C:2037:SER:HB2  | 2.09                     | 0.53              |
| 6:C:2308:SER:HB3  | 6:C:2348:GLN:HE21 | 1.73                     | 0.53              |
| 6:C:2350:LYS:HZ1  | 6:C:2377:ARG:HB3  | 1.72                     | 0.53              |
| 6:C:2361:ILE:HG13 | 6:C:2365:ASN:OD1  | 2.08                     | 0.53              |
| 6:C:2398:LEU:HG   | 6:C:2399:GLU:N    | 2.22                     | 0.53              |
| 6:C:2429:ASP:HA   | 6:C:2430:GLU:OE2  | 2.09                     | 0.53              |
| 6:C:2825:THR:OG1  | 6:C:2829:LYS:HE2  | 2.08                     | 0.53              |
| 6:C:2893:LEU:HA   | 6:C:2897:LEU:HD23 | 1.89                     | 0.53              |
| 6:C:2965:TYR:CE2  | 6:C:2969:ALA:HB3  | 2.44                     | 0.53              |
| 6:C:2990:GLU:HA   | 6:C:2993:PHE:HB2  | 1.90                     | 0.53              |
| 6:C:3120:LEU:HA   | 6:C:3125:ARG:NH1  | 2.24                     | 0.53              |
| 6:C:3231:ILE:HD12 | 6:C:3234:CYS:HB3  | 1.88                     | 0.53              |
| 6:C:3506:LEU:HD12 | 6:C:3513:ALA:HB1  | 1.90                     | 0.53              |
| 1:A:161:MET:HE1   | 1:A:164:LYS:HG3   | 1.90                     | 0.53              |
| 1:A:295:PRO:HD2   | 2:B:298:ASN:ND2   | 2.24                     | 0.53              |
| 1:A:330:GLU:O     | 1:A:334:THR:HG23  | 2.09                     | 0.53              |
| 1:A:362:LEU:HD12  | 2:B:359:ASN:HB2   | 1.89                     | 0.53              |
| 1:A:409:TYR:CD1   | 2:B:485:PRO:HD2   | 2.43                     | 0.53              |
| 2:B:115:MET:HA    | 2:B:154:LEU:HD21  | 1.90                     | 0.53              |
| 6:C:147:PHE:CD2   | 6:C:148:LYS:HG3   | 2.43                     | 0.53              |
| 6:C:277:LEU:O     | 6:C:322:GLN:NE2   | 2.42                     | 0.53              |
| 6:C:327:VAL:HA    | 6:C:334:HIS:CG    | 2.43                     | 0.53              |
| 6:C:483:VAL:O     | 6:C:487:LEU:HB3   | 2.08                     | 0.53              |
| 6:C:704:PHE:O     | 6:C:708:VAL:HG23  | 2.08                     | 0.53              |
| 6:C:789:TYR:CZ    | 6:C:790:LYS:HG3   | 2.44                     | 0.53              |
| 6:C:1023:SER:HB3  | 6:C:1026:ARG:HE   | 1.74                     | 0.53              |
| 6:C:1122:GLY:C    | 6:C:1124:ILE:HG13 | 2.34                     | 0.53              |
| 6:C:1253:THR:HG22 | 6:C:1258:ASP:OD1  | 2.08                     | 0.53              |
| 6:C:1437:TYR:CD2  | 6:C:1441:ALA:HA   | 2.43                     | 0.53              |
| 6:C:2010:GLU:HG2  | 6:C:2011:ALA:N    | 2.23                     | 0.53              |
| 6:C:2086:ASP:HB3  | 6:C:2090:ARG:HG3  | 1.90                     | 0.53              |
| 6:C:2384:PHE:O    | 6:C:2387:PRO:HD2  | 2.08                     | 0.53              |
| 6:C:2416:LYS:O    | 6:C:2420:PHE:HB3  | 2.09                     | 0.53              |
| 6:C:2519:LEU:HA   | 6:C:2522:ARG:HB3  | 1.90                     | 0.53              |
| 6:C:2858:ILE:HG23 | 6:C:3894:PRO:HG2  | 1.91                     | 0.53              |
| 6:C:3048:LYS:O    | 6:C:3051:LEU:HB2  | 2.07                     | 0.53              |
| 6:C:3322:ALA:HB1  | 6:C:3392:ALA:HB1  | 1.91                     | 0.53              |
| 6:C:3479:THR:O    | 6:C:3483:MET:HB2  | 2.09                     | 0.53              |
| 6:C:3564:GLN:OE1  | 6:C:3565:GLY:N    | 2.41                     | 0.53              |
| 6:C:3962:ARG:HD3  | 6:C:4124:TRP:CE3  | 2.44                     | 0.53              |
| 1:A:297:LYS:HG3   | 1:A:299:LYS:HZ2   | 1.74                     | 0.53              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:264:TYR:CE2   | 2:B:365:PHE:HB3   | 2.44                     | 0.53              |
| 2:B:377:LEU:HD12  | 2:B:380:LEU:HD11  | 1.90                     | 0.53              |
| 6:C:242:PRO:O     | 6:C:246:ARG:HB2   | 2.09                     | 0.53              |
| 6:C:272:LEU:HB3   | 6:C:319:PHE:CE2   | 2.43                     | 0.53              |
| 6:C:771:ASN:O     | 6:C:775:GLU:HG3   | 2.09                     | 0.53              |
| 6:C:850:GLU:HB3   | 6:C:854:ARG:NH2   | 2.22                     | 0.53              |
| 6:C:1340:ARG:O    | 6:C:1343:GLU:HB2  | 2.08                     | 0.53              |
| 6:C:2291:GLN:HA   | 6:C:2294:ILE:HB   | 1.91                     | 0.53              |
| 6:C:2325:LEU:HA   | 6:C:2328:ARG:HB2  | 1.91                     | 0.53              |
| 6:C:2572:TYR:N    | 6:C:2573:PRO:HD2  | 2.24                     | 0.53              |
| 6:C:2865:HIS:H    | 6:C:2868:LEU:HD22 | 1.73                     | 0.53              |
| 6:C:3111:MET:O    | 6:C:3115:SER:OG   | 2.26                     | 0.53              |
| 6:C:3254:LEU:O    | 6:C:3258:LEU:HD13 | 2.08                     | 0.53              |
| 6:C:3281:CYS:HG   | 6:C:3285:HIS:CE1  | 2.27                     | 0.53              |
| 6:C:3507:ASP:O    | 6:C:3545:THR:OG1  | 2.17                     | 0.53              |
| 6:C:3531:TYR:CE1  | 6:C:3534:ILE:HD12 | 2.44                     | 0.53              |
| 6:C:3578:LEU:HD23 | 6:C:3630:ARG:HH11 | 1.74                     | 0.53              |
| 6:C:3689:ASP:OD1  | 6:C:3690:PHE:N    | 2.42                     | 0.53              |
| 6:C:3759:ARG:HG3  | 6:C:3762:GLN:OE1  | 2.08                     | 0.53              |
| 6:C:3885:ARG:O    | 6:C:3888:VAL:N    | 2.40                     | 0.53              |
| 1:A:34:GLY:N      | 1:A:160:LYS:HG3   | 2.24                     | 0.53              |
| 1:A:182:LYS:HG2   | 1:A:185:ARG:NH1   | 2.22                     | 0.53              |
| 1:A:259:LEU:HD22  | 1:A:400:TYR:HE1   | 1.72                     | 0.53              |
| 1:A:288:LEU:O     | 2:B:311:ILE:HG13  | 2.09                     | 0.53              |
| 1:A:332:GLU:O     | 1:A:335:GLU:HG2   | 2.09                     | 0.53              |
| 1:A:338:LYS:HB3   | 1:A:406:ILE:C     | 2.33                     | 0.53              |
| 1:A:350:PHE:CD2   | 2:B:458:ILE:HG23  | 2.43                     | 0.53              |
| 1:A:466:VAL:HA    | 1:A:469:LEU:HB2   | 1.91                     | 0.53              |
| 2:B:399:LYS:HZ3   | 5:E:27:DC:H1'     | 1.73                     | 0.53              |
| 4:D:-4:DA:N1      | 5:E:41:DA:C2      | 2.77                     | 0.53              |
| 5:E:42:DA:H2''    | 5:E:43:DT:OP1     | 2.08                     | 0.53              |
| 6:C:17:GLU:CD     | 6:C:65:LEU:HD21   | 2.34                     | 0.53              |
| 6:C:528:VAL:HA    | 6:C:531:PHE:CZ    | 2.44                     | 0.53              |
| 6:C:787:PRO:HD2   | 6:C:788:TYR:CZ    | 2.44                     | 0.53              |
| 6:C:1081:ALA:O    | 6:C:1085:ILE:HG13 | 2.09                     | 0.53              |
| 6:C:1083:ASN:HD22 | 6:C:1086:TYR:HD2  | 1.56                     | 0.53              |
| 6:C:1564:SER:C    | 6:C:1567:ILE:HB   | 2.34                     | 0.53              |
| 6:C:1650:ALA:O    | 6:C:1654:GLN:HB2  | 2.08                     | 0.53              |
| 6:C:1863:PHE:O    | 6:C:1867:ILE:HG12 | 2.09                     | 0.53              |
| 6:C:3091:LEU:HD22 | 6:C:3189:PHE:HE1  | 1.73                     | 0.53              |
| 6:C:3329:LEU:HD22 | 6:C:3385:LEU:HD23 | 1.91                     | 0.53              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3401:TRP:HB2  | 6:C:3452:LYS:NZ   | 2.23                     | 0.53              |
| 6:C:3751:LEU:HB2  | 6:C:3805:TRP:HB2  | 1.91                     | 0.53              |
| 6:C:3844:THR:HB   | 6:C:3849:LYS:HD3  | 1.90                     | 0.53              |
| 6:C:3850:HIS:HE1  | 6:C:3853:GLY:H    | 1.54                     | 0.53              |
| 1:A:75:ILE:HG12   | 2:B:316:TYR:CE1   | 2.44                     | 0.53              |
| 1:A:148:TRP:O     | 1:A:152:ASN:ND2   | 2.41                     | 0.53              |
| 1:A:416:GLN:OE1   | 1:A:428:THR:HB    | 2.08                     | 0.53              |
| 2:B:10:VAL:HB     | 2:B:53:GLU:O      | 2.09                     | 0.53              |
| 2:B:345:PHE:CD1   | 2:B:391:ALA:HA    | 2.44                     | 0.53              |
| 6:C:253:LEU:HD21  | 6:C:297:LEU:HD12  | 1.91                     | 0.53              |
| 6:C:290:TYR:CE2   | 6:C:294:PHE:HB2   | 2.44                     | 0.53              |
| 6:C:485:GLN:HB3   | 6:C:1804:MET:HG3  | 1.91                     | 0.53              |
| 6:C:767:GLU:O     | 6:C:770:LEU:N     | 2.42                     | 0.53              |
| 6:C:1280:GLN:NE2  | 6:C:1284:THR:HG23 | 2.23                     | 0.53              |
| 6:C:1866:GLN:O    | 6:C:1869:LYS:HB2  | 2.09                     | 0.53              |
| 6:C:1890:HIS:CE1  | 6:C:1937:ARG:HA   | 2.44                     | 0.53              |
| 6:C:1921:ASP:HB3  | 6:C:1959:LEU:HB2  | 1.90                     | 0.53              |
| 6:C:2131:GLY:C    | 6:C:2137:ILE:HA   | 2.34                     | 0.53              |
| 6:C:3165:THR:O    | 6:C:3169:PRO:HG3  | 2.08                     | 0.53              |
| 6:C:3409:VAL:HG23 | 6:C:3410:ILE:H    | 1.73                     | 0.53              |
| 6:C:3740:ILE:HG13 | 6:C:3750:PHE:HD2  | 1.74                     | 0.53              |
| 1:A:204:HIS:CE1   | 1:A:211:PHE:HB2   | 2.44                     | 0.53              |
| 1:A:356:LEU:HB3   | 1:A:360:HIS:HE2   | 1.72                     | 0.53              |
| 1:A:470:ARG:HG2   | 1:A:471:PHE:N     | 2.24                     | 0.53              |
| 6:C:277:LEU:HB2   | 6:C:280:SER:N     | 2.15                     | 0.53              |
| 6:C:298:LEU:O     | 6:C:302:ALA:HB3   | 2.09                     | 0.53              |
| 6:C:557:SER:HA    | 6:C:616:LYS:HZ3   | 1.74                     | 0.53              |
| 6:C:636:GLU:OE2   | 6:C:1495:ASP:N    | 2.41                     | 0.53              |
| 6:C:677:ALA:O     | 6:C:681:LYS:HB2   | 2.09                     | 0.53              |
| 6:C:1008:ALA:HA   | 6:C:1011:GLU:HG2  | 1.91                     | 0.53              |
| 6:C:1055:ASN:HB3  | 6:C:1056:THR:HG23 | 1.91                     | 0.53              |
| 6:C:1139:GLU:CD   | 6:C:1141:LYS:HZ2  | 2.16                     | 0.53              |
| 6:C:1378:GLU:HB3  | 6:C:1379:PRO:HD3  | 1.91                     | 0.53              |
| 6:C:1496:GLU:HA   | 6:C:1499:CYS:SG   | 2.49                     | 0.53              |
| 6:C:1893:GLU:HG3  | 6:C:1897:ASN:HD21 | 1.73                     | 0.53              |
| 6:C:2084:GLU:N    | 6:C:2177:ASN:O    | 2.26                     | 0.53              |
| 6:C:2193:ILE:HD12 | 6:C:2203:THR:OG1  | 2.09                     | 0.53              |
| 6:C:2547:SER:OG   | 6:C:2842:ARG:NE   | 2.33                     | 0.53              |
| 6:C:3126:LEU:HD23 | 6:C:3129:LEU:HD12 | 1.89                     | 0.53              |
| 6:C:4002:MET:O    | 6:C:4006:VAL:HG22 | 2.09                     | 0.53              |
| 1:A:73:SER:HB2    | 1:A:246:VAL:HG11  | 1.90                     | 0.52              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:301:ARG:NE    | 6:C:163:LYS:HB3   | 2.24                     | 0.52              |
| 1:A:520:SER:O     | 1:A:523:ASP:N     | 2.25                     | 0.52              |
| 5:E:32:DT:H2'     | 5:E:33:DA:H8      | 1.72                     | 0.52              |
| 5:E:36:DA:C4      | 5:E:37:DT:C4      | 2.98                     | 0.52              |
| 6:C:389:ILE:O     | 6:C:392:CYS:HB2   | 2.09                     | 0.52              |
| 6:C:913:ARG:NH1   | 6:C:916:GLU:OE2   | 2.42                     | 0.52              |
| 6:C:1390:GLN:NE2  | 6:C:1394:HIS:HB2  | 2.25                     | 0.52              |
| 6:C:2238:ILE:N    | 6:C:2238:ILE:HD12 | 2.24                     | 0.52              |
| 6:C:2330:VAL:HG21 | 6:C:2338:GLU:HB3  | 1.91                     | 0.52              |
| 6:C:2367:VAL:O    | 6:C:2369:LYS:N    | 2.41                     | 0.52              |
| 6:C:2962:ARG:HG3  | 6:C:2963:SER:OG   | 2.09                     | 0.52              |
| 6:C:2965:TYR:CD2  | 6:C:3002:TYR:HE2  | 2.27                     | 0.52              |
| 6:C:3173:MET:HG3  | 6:C:3174:ASP:N    | 2.24                     | 0.52              |
| 6:C:3272:TRP:C    | 6:C:3276:TRP:HD1  | 2.17                     | 0.52              |
| 6:C:3317:SER:O    | 6:C:3320:ILE:N    | 2.42                     | 0.52              |
| 6:C:3621:LYS:HA   | 6:C:3629:ARG:NH1  | 2.25                     | 0.52              |
| 6:C:3869:THR:HA   | 6:C:3872:ARG:NH2  | 2.23                     | 0.52              |
| 6:C:3884:LYS:O    | 6:C:3888:VAL:HG23 | 2.09                     | 0.52              |
| 6:C:3933:GLU:HG3  | 6:C:3934:THR:H    | 1.74                     | 0.52              |
| 6:C:4024:GLY:O    | 6:C:4027:TRP:HB2  | 2.08                     | 0.52              |
| 1:A:49:PHE:HD1    | 1:A:132:GLN:NE2   | 2.07                     | 0.52              |
| 1:A:86:VAL:HG13   | 1:A:103:TYR:O     | 2.09                     | 0.52              |
| 1:A:130:ARG:HG3   | 1:A:134:MET:HE2   | 1.91                     | 0.52              |
| 1:A:143:LEU:HD11  | 1:A:182:LYS:O     | 2.08                     | 0.52              |
| 1:A:261:LEU:O     | 1:A:269:ILE:HG22  | 2.09                     | 0.52              |
| 1:A:304:ASN:H     | 1:A:309:GLY:C     | 2.16                     | 0.52              |
| 1:A:395:ALA:HA    | 1:A:415:PRO:HD3   | 1.91                     | 0.52              |
| 2:B:250:ARG:NH2   | 2:B:260:ARG:HE    | 2.07                     | 0.52              |
| 2:B:340:PHE:CZ    | 2:B:393:VAL:HG11  | 2.44                     | 0.52              |
| 2:B:496:HIS:O     | 2:B:500:HIS:N     | 2.42                     | 0.52              |
| 4:D:1:DG:H2'      | 4:D:2:DG:N9       | 2.25                     | 0.52              |
| 6:C:278:HIS:HA    | 6:C:281:GLN:CG    | 2.40                     | 0.52              |
| 6:C:412:SER:O     | 6:C:416:SER:HB3   | 2.09                     | 0.52              |
| 6:C:925:GLN:CD    | 6:C:2801:ASP:HB3  | 2.34                     | 0.52              |
| 6:C:928:VAL:HG23  | 6:C:929:ALA:H     | 1.73                     | 0.52              |
| 6:C:1479:VAL:HG21 | 6:C:1507:CYS:HB2  | 1.89                     | 0.52              |
| 6:C:2114:GLU:OE2  | 6:C:2119:PRO:HG2  | 2.08                     | 0.52              |
| 6:C:2852:PRO:HB2  | 6:C:2853:PRO:HD3  | 1.89                     | 0.52              |
| 6:C:3117:ILE:HG21 | 6:C:3125:ARG:NH2  | 2.23                     | 0.52              |
| 6:C:3538:GLU:O    | 6:C:3541:SER:CB   | 2.51                     | 0.52              |
| 6:C:3650:LYS:HG2  | 6:C:3659:PHE:HZ   | 1.74                     | 0.52              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:4056:PRO:HD3  | 6:C:4096:SER:HA   | 1.91                     | 0.52              |
| 2:B:116:ASP:OD1   | 2:B:120:HIS:ND1   | 2.41                     | 0.52              |
| 2:B:218:GLU:OE2   | 2:B:221:LEU:HD12  | 2.09                     | 0.52              |
| 2:B:308:GLU:O     | 2:B:310:ILE:HG23  | 2.09                     | 0.52              |
| 2:B:365:PHE:HE2   | 2:B:368:ARG:HD3   | 1.74                     | 0.52              |
| 6:C:70:ARG:CZ     | 6:C:82:ARG:HH21   | 2.21                     | 0.52              |
| 6:C:560:LEU:HB2   | 6:C:616:LYS:HD3   | 1.90                     | 0.52              |
| 6:C:913:ARG:HH21  | 6:C:933:LEU:CB    | 2.19                     | 0.52              |
| 6:C:1034:ARG:NH1  | 6:C:1038:LYS:H    | 2.07                     | 0.52              |
| 6:C:1213:LYS:HE2  | 6:C:1218:SER:HB3  | 1.90                     | 0.52              |
| 6:C:1238:GLN:HG3  | 6:C:1301:ILE:HG13 | 1.90                     | 0.52              |
| 6:C:1302:ALA:HA   | 6:C:1305:ASP:OD2  | 2.09                     | 0.52              |
| 6:C:1493:PRO:O    | 6:C:1497:ARG:HG2  | 2.09                     | 0.52              |
| 6:C:1984:LEU:HA   | 6:C:1987:ARG:NH2  | 2.24                     | 0.52              |
| 6:C:2022:PRO:HA   | 6:C:2041:SER:HB2  | 1.90                     | 0.52              |
| 6:C:2208:ASP:OD1  | 6:C:2211:LEU:HB2  | 2.09                     | 0.52              |
| 6:C:2552:VAL:C    | 6:C:2554:PHE:HD2  | 2.17                     | 0.52              |
| 6:C:2552:VAL:HA   | 6:C:2554:PHE:CD2  | 2.44                     | 0.52              |
| 6:C:2799:GLN:C    | 6:C:2802:PRO:HD2  | 2.35                     | 0.52              |
| 6:C:3167:ARG:HD2  | 6:C:3237:SER:OG   | 2.08                     | 0.52              |
| 6:C:3351:ILE:HA   | 6:C:3354:ASP:OD2  | 2.09                     | 0.52              |
| 6:C:3662:ILE:HG23 | 6:C:3665:MET:HE2  | 1.92                     | 0.52              |
| 6:C:3704:GLN:OE1  | 6:C:3719:ILE:HD12 | 2.09                     | 0.52              |
| 6:C:3774:ILE:HA   | 6:C:3777:GLN:HG3  | 1.90                     | 0.52              |
| 6:C:3858:MET:C    | 6:C:3864:ARG:HH21 | 2.17                     | 0.52              |
| 6:C:3921:GLY:O    | 6:C:3923:ARG:HG2  | 2.10                     | 0.52              |
| 6:C:3972:LEU:HB2  | 6:C:3974:MET:HB2  | 1.91                     | 0.52              |
| 6:C:4091:ALA:O    | 6:C:4094:PRO:HD2  | 2.09                     | 0.52              |
| 1:A:37:SER:OG     | 1:A:163:HIS:O     | 2.15                     | 0.52              |
| 1:A:416:GLN:CD    | 1:A:428:THR:HB    | 2.33                     | 0.52              |
| 1:A:534:TYR:CE2   | 2:B:260:ARG:HG3   | 2.45                     | 0.52              |
| 2:B:88:PHE:O      | 2:B:92:GLU:HG2    | 2.10                     | 0.52              |
| 2:B:264:TYR:O     | 2:B:362:LEU:CA    | 2.55                     | 0.52              |
| 2:B:386:ASP:CG    | 2:B:387:LEU:HG    | 2.34                     | 0.52              |
| 4:D:-9:DC:C2      | 4:D:-8:DT:C5      | 2.98                     | 0.52              |
| 6:C:649:PHE:CD1   | 6:C:656:GLN:HG3   | 2.42                     | 0.52              |
| 6:C:874:THR:HA    | 6:C:877:ASP:OD2   | 2.08                     | 0.52              |
| 6:C:1638:PRO:HA   | 6:C:1641:THR:OG1  | 2.09                     | 0.52              |
| 6:C:1983:ASP:O    | 6:C:1987:ARG:HG3  | 2.10                     | 0.52              |
| 6:C:2024:TYR:CE2  | 6:C:2069:ARG:HA   | 2.44                     | 0.52              |
| 6:C:2056:SER:HB2  | 6:C:2061:PRO:HG2  | 1.91                     | 0.52              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2304:VAL:O    | 6:C:2307:MET:N    | 2.43                     | 0.52              |
| 6:C:2444:PRO:HD2  | 6:C:2445:LYS:HG2  | 1.89                     | 0.52              |
| 6:C:3631:LYS:HA   | 6:C:3634:GLN:CB   | 2.39                     | 0.52              |
| 6:C:3688:SER:HA   | 6:C:3690:PHE:CE2  | 2.45                     | 0.52              |
| 6:C:3772:ASN:HA   | 6:C:3775:LEU:CG   | 2.40                     | 0.52              |
| 6:C:3877:LYS:CE   | 6:C:3965:ARG:HE   | 2.23                     | 0.52              |
| 6:C:3963:LEU:HG   | 6:C:3964:THR:H    | 1.75                     | 0.52              |
| 6:C:4125:GLU:HG2  | 6:C:4127:TRP:NE1  | 2.24                     | 0.52              |
| 5:E:45:DG:C5'     | 6:C:260:ILE:HA    | 2.40                     | 0.52              |
| 6:C:260:ILE:O     | 6:C:262:LEU:N     | 2.43                     | 0.52              |
| 6:C:292:SER:O     | 6:C:296:VAL:HG23  | 2.09                     | 0.52              |
| 6:C:664:SER:O     | 6:C:667:TYR:N     | 2.42                     | 0.52              |
| 6:C:1104:LEU:O    | 6:C:1107:TYR:HB3  | 2.09                     | 0.52              |
| 6:C:1133:HIS:HD2  | 6:C:1136:ARG:HH22 | 1.57                     | 0.52              |
| 6:C:1232:PRO:HD2  | 6:C:1291:LEU:HD13 | 1.90                     | 0.52              |
| 6:C:1276:VAL:O    | 6:C:1357:LYS:NZ   | 2.42                     | 0.52              |
| 6:C:1812:LEU:O    | 6:C:1815:THR:HG23 | 2.10                     | 0.52              |
| 6:C:2029:SER:HB2  | 6:C:2030:TYR:CE1  | 2.44                     | 0.52              |
| 6:C:2187:VAL:HG13 | 6:C:2188:GLU:H    | 1.73                     | 0.52              |
| 6:C:2346:ALA:O    | 6:C:2349:LEU:HB3  | 2.10                     | 0.52              |
| 6:C:2363:CYS:C    | 6:C:2365:ASN:N    | 2.67                     | 0.52              |
| 6:C:2873:PRO:O    | 6:C:2876:VAL:HB   | 2.10                     | 0.52              |
| 6:C:3007:GLU:OE2  | 6:C:3049:LEU:HB2  | 2.09                     | 0.52              |
| 6:C:3087:SER:HA   | 6:C:3090:TYR:CD2  | 2.45                     | 0.52              |
| 6:C:3128:LYS:O    | 6:C:3132:VAL:HG22 | 2.09                     | 0.52              |
| 6:C:3134:ALA:O    | 6:C:3138:ILE:HG12 | 2.10                     | 0.52              |
| 6:C:3167:ARG:HA   | 6:C:3186:ARG:CZ   | 2.39                     | 0.52              |
| 6:C:3190:LEU:HA   | 6:C:3193:ILE:HD12 | 1.91                     | 0.52              |
| 6:C:3608:LYS:HA   | 6:C:3611:GLU:CD   | 2.34                     | 0.52              |
| 6:C:3614:TYR:CE2  | 6:C:3652:LEU:HD22 | 2.44                     | 0.52              |
| 6:C:3884:LYS:O    | 6:C:3887:PHE:HB3  | 2.09                     | 0.52              |
| 1:A:112:GLY:CA    | 2:B:319:ASP:HB3   | 2.24                     | 0.52              |
| 1:A:284:PRO:HB2   | 1:A:285:PRO:HD2   | 1.91                     | 0.52              |
| 1:A:332:GLU:HG2   | 1:A:336:GLU:OE1   | 2.10                     | 0.52              |
| 2:B:13:CYS:SG     | 2:B:59:PHE:HE2    | 2.33                     | 0.52              |
| 2:B:146:GLN:HG3   | 2:B:149:ILE:HD12  | 1.91                     | 0.52              |
| 2:B:535:THR:OG1   | 2:B:536:LEU:N     | 2.42                     | 0.52              |
| 4:D:-2:DT:N3      | 5:E:39:DA:C2      | 2.67                     | 0.52              |
| 6:C:105:VAL:O     | 6:C:108:LYS:HB2   | 2.09                     | 0.52              |
| 6:C:242:PRO:HB2   | 6:C:246:ARG:HH12  | 1.74                     | 0.52              |
| 6:C:280:SER:C     | 6:C:282:PHE:HD2   | 2.17                     | 0.52              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:561:ASN:O     | 6:C:564:LEU:HG    | 2.10                     | 0.52              |
| 6:C:628:GLU:HG2   | 6:C:637:LYS:CD    | 2.38                     | 0.52              |
| 6:C:756:PHE:O     | 6:C:759:GLY:N     | 2.43                     | 0.52              |
| 6:C:1050:GLU:OE2  | 6:C:1057:LYS:NZ   | 2.33                     | 0.52              |
| 6:C:1403:MET:HE3  | 6:C:1415:LEU:HD23 | 1.91                     | 0.52              |
| 6:C:1988:TYR:C    | 6:C:1991:PRO:HD2  | 2.34                     | 0.52              |
| 6:C:3117:ILE:HG12 | 6:C:3124:SER:HB3  | 1.91                     | 0.52              |
| 6:C:3459:ASN:HA   | 6:C:3462:ARG:HG2  | 1.90                     | 0.52              |
| 6:C:3693:GLU:O    | 6:C:3697:ASN:N    | 2.41                     | 0.52              |
| 6:C:3718:ARG:HB2  | 6:C:3743:HIS:CB   | 2.39                     | 0.52              |
| 6:C:3763:ARG:HH22 | 6:C:4009:PRO:CD   | 2.22                     | 0.52              |
| 1:A:47:ALA:O      | 1:A:50:GLU:HB2    | 2.10                     | 0.52              |
| 1:A:290:ARG:HG3   | 2:B:310:ILE:HA    | 1.91                     | 0.52              |
| 1:A:301:ARG:HB2   | 2:B:292:GLU:OE1   | 2.10                     | 0.52              |
| 1:A:426:GLN:HE21  | 1:A:428:THR:N     | 2.08                     | 0.52              |
| 2:B:99:GLN:HG2    | 2:B:101:GLY:N     | 2.25                     | 0.52              |
| 5:E:19:DC:H4'     | 5:E:20:DT:H4'     | 1.91                     | 0.52              |
| 6:C:13:LEU:HA     | 6:C:16:GLN:HG2    | 1.91                     | 0.52              |
| 6:C:182:GLY:HA3   | 6:C:229:SER:HB3   | 1.91                     | 0.52              |
| 6:C:393:LYS:HA    | 6:C:396:PHE:HB3   | 1.92                     | 0.52              |
| 6:C:947:GLN:HG2   | 6:C:949:PRO:HD3   | 1.92                     | 0.52              |
| 6:C:950:GLU:O     | 6:C:954:GLY:N     | 2.32                     | 0.52              |
| 6:C:2952:ILE:HD13 | 6:C:2972:TYR:CE2  | 2.45                     | 0.52              |
| 6:C:3050:LYS:HE2  | 6:C:3051:LEU:HD21 | 1.91                     | 0.52              |
| 6:C:3172:LYS:CE   | 6:C:3241:LYS:HB3  | 2.38                     | 0.52              |
| 6:C:3662:ILE:O    | 6:C:3665:MET:HB3  | 2.10                     | 0.52              |
| 6:C:3750:PHE:HD1  | 6:C:3805:TRP:H    | 1.57                     | 0.52              |
| 1:A:311:LEU:C     | 1:A:312:LEU:HD12  | 2.34                     | 0.52              |
| 2:B:138:LEU:HD13  | 2:B:204:GLY:C     | 2.33                     | 0.52              |
| 2:B:265:LYS:NZ    | 5:E:28:DA:H4'     | 2.24                     | 0.52              |
| 2:B:382:HIS:ND1   | 2:B:385:ASP:OD2   | 2.43                     | 0.52              |
| 2:B:413:LYS:H     | 2:B:417:GLU:HG3   | 1.74                     | 0.52              |
| 2:B:509:GLN:O     | 2:B:512:ILE:HG12  | 2.09                     | 0.52              |
| 6:C:112:THR:OG1   | 6:C:157:TYR:OH    | 2.28                     | 0.52              |
| 6:C:263:LYS:O     | 6:C:267:VAL:HG23  | 2.08                     | 0.52              |
| 6:C:301:CYS:HA    | 6:C:304:THR:HB    | 1.91                     | 0.52              |
| 6:C:353:ASP:O     | 6:C:1856:THR:N    | 2.42                     | 0.52              |
| 6:C:444:ASP:HA    | 6:C:446:PHE:HE2   | 1.75                     | 0.52              |
| 6:C:488:ILE:HD12  | 6:C:489:ARG:N     | 2.24                     | 0.52              |
| 6:C:613:HIS:HB3   | 6:C:614:PRO:HD2   | 1.92                     | 0.52              |
| 6:C:848:LEU:O     | 6:C:851:ILE:HB    | 2.10                     | 0.52              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 6:C:1156:GLY:HA2 | 6:C:1159:PRO:HG2  | 1.91                     | 0.52              |
| 6:C:1231:GLN:HB2 | 6:C:1232:PRO:HD3  | 1.90                     | 0.52              |
| 6:C:1379:PRO:HB3 | 6:C:1384:PHE:CD1  | 2.45                     | 0.52              |
| 6:C:1494:GLY:HA2 | 6:C:1497:ARG:HB2  | 1.91                     | 0.52              |
| 6:C:1603:GLN:HA  | 6:C:1606:ARG:NH1  | 2.25                     | 0.52              |
| 6:C:1643:MET:HA  | 6:C:1646:LEU:HB2  | 1.91                     | 0.52              |
| 6:C:1914:THR:O   | 6:C:1917:LYS:HB3  | 2.09                     | 0.52              |
| 6:C:2346:ALA:O   | 6:C:2347:LYS:C    | 2.53                     | 0.52              |
| 6:C:3138:ILE:O   | 6:C:3141:PHE:N    | 2.43                     | 0.52              |
| 6:C:3514:VAL:CG1 | 6:C:3554:PHE:HB2  | 2.40                     | 0.52              |
| 6:C:3676:PRO:N   | 6:C:3677:PRO:HD2  | 2.24                     | 0.52              |
| 1:A:70:VAL:O     | 1:A:73:SER:OG     | 2.10                     | 0.52              |
| 1:A:260:LYS:NZ   | 1:A:344:GLY:HA3   | 2.25                     | 0.52              |
| 1:A:381:LEU:HD23 | 1:A:382:PHE:N     | 2.25                     | 0.52              |
| 1:A:381:LEU:O    | 1:A:385:LEU:HG    | 2.10                     | 0.52              |
| 2:B:48:ALA:HB1   | 2:B:50:ASN:ND2    | 2.25                     | 0.52              |
| 5:E:48:DT:H2'    | 5:E:49:DT:C6      | 2.44                     | 0.52              |
| 6:C:631:ARG:HH22 | 6:C:668:LYS:HD3   | 1.75                     | 0.52              |
| 6:C:741:ILE:O    | 6:C:742:GLU:C     | 2.53                     | 0.52              |
| 6:C:786:GLN:O    | 6:C:789:TYR:CE2   | 2.61                     | 0.52              |
| 6:C:913:ARG:NH2  | 6:C:933:LEU:HB3   | 2.22                     | 0.52              |
| 6:C:1101:PHE:O   | 6:C:1105:VAL:HG23 | 2.09                     | 0.52              |
| 6:C:1111:LEU:O   | 6:C:1115:HIS:CE1  | 2.62                     | 0.52              |
| 6:C:1280:GLN:CD  | 6:C:1357:LYS:HE2  | 2.35                     | 0.52              |
| 6:C:1582:LEU:O   | 6:C:1586:SER:OG   | 2.22                     | 0.52              |
| 6:C:1701:SER:O   | 6:C:1705:GLY:HA3  | 2.09                     | 0.52              |
| 6:C:1988:TYR:O   | 6:C:1991:PRO:HD2  | 2.10                     | 0.52              |
| 6:C:2139:PRO:HA  | 6:C:2142:ILE:HD12 | 1.91                     | 0.52              |
| 6:C:2367:VAL:C   | 6:C:2369:LYS:H    | 2.18                     | 0.52              |
| 6:C:3671:ASN:O   | 6:C:3674:SER:OG   | 2.25                     | 0.52              |
| 6:C:3975:LYS:C   | 6:C:3977:THR:N    | 2.68                     | 0.52              |
| 1:A:275:ASN:HA   | 1:A:366:LEU:HB3   | 1.92                     | 0.52              |
| 1:A:402:PRO:CD   | 1:A:406:ILE:HG21  | 2.30                     | 0.52              |
| 1:A:470:ARG:HH22 | 1:A:472:THR:HA    | 1.75                     | 0.52              |
| 4:D:-9:DC:H5'    | 6:C:2313:LYS:HE3  | 1.92                     | 0.52              |
| 4:D:4:DA:C2      | 4:D:5:DT:C2       | 2.97                     | 0.52              |
| 6:C:70:ARG:HE    | 6:C:82:ARG:NE     | 2.07                     | 0.52              |
| 6:C:321:LYS:HG2  | 6:C:325:ASN:ND2   | 2.25                     | 0.52              |
| 6:C:341:PHE:O    | 6:C:344:GLN:HB2   | 2.10                     | 0.52              |
| 6:C:446:PHE:HB2  | 6:C:448:GLN:O     | 2.10                     | 0.52              |
| 6:C:649:PHE:CD2  | 6:C:650:SER:HA    | 2.44                     | 0.52              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:663:ILE:O     | 6:C:667:TYR:N     | 2.42                     | 0.52              |
| 6:C:738:HIS:CD2   | 6:C:745:VAL:HG22  | 2.45                     | 0.52              |
| 6:C:978:GLN:O     | 6:C:982:GLN:HB3   | 2.10                     | 0.52              |
| 6:C:985:GLU:O     | 6:C:988:VAL:HG22  | 2.10                     | 0.52              |
| 6:C:994:TRP:CE3   | 6:C:2783:ILE:HG13 | 2.45                     | 0.52              |
| 6:C:1002:GLU:HA   | 6:C:1005:ASP:OD2  | 2.10                     | 0.52              |
| 6:C:1233:SER:N    | 6:C:1291:LEU:HD22 | 2.24                     | 0.52              |
| 6:C:1701:SER:C    | 6:C:1705:GLY:HA3  | 2.35                     | 0.52              |
| 6:C:1760:GLU:HA   | 6:C:1894:SER:HA   | 1.92                     | 0.52              |
| 6:C:1998:MET:HG3  | 6:C:1999:GLU:H    | 1.75                     | 0.52              |
| 6:C:2007:ILE:HG13 | 6:C:2009:LYS:H    | 1.74                     | 0.52              |
| 6:C:2193:ILE:HA   | 6:C:2196:TRP:CZ2  | 2.44                     | 0.52              |
| 6:C:2518:GLN:O    | 6:C:2522:ARG:CB   | 2.58                     | 0.52              |
| 6:C:2840:PHE:HA   | 6:C:2843:PHE:HB3  | 1.92                     | 0.52              |
| 6:C:2898:LEU:HD11 | 6:C:2914:ALA:HB1  | 1.92                     | 0.52              |
| 6:C:3421:ASP:O    | 6:C:3424:LEU:HB3  | 2.10                     | 0.52              |
| 6:C:3500:SER:HB2  | 6:C:3762:GLN:CD   | 2.33                     | 0.52              |
| 6:C:3529:ILE:HG13 | 6:C:3532:PRO:CG   | 2.39                     | 0.52              |
| 6:C:3631:LYS:NZ   | 6:C:3686:TRP:HD1  | 2.05                     | 0.52              |
| 1:A:61:ASP:O      | 1:A:64:ILE:HB     | 2.09                     | 0.51              |
| 1:A:164:LYS:HB3   | 1:A:198:ILE:HA    | 1.92                     | 0.51              |
| 1:A:332:GLU:O     | 1:A:335:GLU:N     | 2.43                     | 0.51              |
| 1:A:380:THR:O     | 1:A:383:SER:OG    | 2.12                     | 0.51              |
| 2:B:350:GLN:O     | 2:B:352:GLN:NE2   | 2.43                     | 0.51              |
| 2:B:490:LEU:HG    | 2:B:494:LEU:HG    | 1.92                     | 0.51              |
| 6:C:60:SER:O      | 6:C:63:PHE:HB2    | 2.10                     | 0.51              |
| 6:C:411:PRO:O     | 6:C:414:LEU:N     | 2.44                     | 0.51              |
| 6:C:1303:MET:O    | 6:C:1307:ILE:HG12 | 2.10                     | 0.51              |
| 6:C:1985:LYS:NZ   | 6:C:2036:LEU:HB2  | 2.19                     | 0.51              |
| 6:C:2098:THR:OG1  | 6:C:2099:ALA:N    | 2.43                     | 0.51              |
| 6:C:2400:VAL:O    | 6:C:2401:VAL:C    | 2.53                     | 0.51              |
| 6:C:2890:ILE:HA   | 6:C:2893:LEU:HD13 | 1.91                     | 0.51              |
| 6:C:3173:MET:CG   | 6:C:3174:ASP:H    | 2.23                     | 0.51              |
| 6:C:3373:VAL:HG23 | 6:C:3375:ALA:H    | 1.75                     | 0.51              |
| 6:C:3447:VAL:HG12 | 6:C:3465:PHE:CE1  | 2.45                     | 0.51              |
| 6:C:3592:VAL:HG13 | 6:C:3606:ILE:HD12 | 1.92                     | 0.51              |
| 6:C:3626:GLY:HA2  | 6:C:3629:ARG:HB3  | 1.92                     | 0.51              |
| 6:C:3685:PRO:HA   | 6:C:3688:SER:OG   | 2.09                     | 0.51              |
| 6:C:3733:ARG:HH11 | 6:C:3755:GLY:H    | 1.57                     | 0.51              |
| 6:C:3733:ARG:HG2  | 6:C:3735:PRO:HB3  | 1.92                     | 0.51              |
| 1:A:511:VAL:HA    | 1:A:514:MET:HE3   | 1.91                     | 0.51              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:41:PHE:O      | 2:B:45:GLN:HG2    | 2.10                     | 0.51              |
| 2:B:81:ARG:NH2    | 2:B:93:ASP:OD2    | 2.38                     | 0.51              |
| 2:B:112:ILE:O     | 2:B:115:MET:HB2   | 2.10                     | 0.51              |
| 2:B:311:ILE:HB    | 2:B:323:PHE:O     | 2.11                     | 0.51              |
| 4:D:-7:DA:H3'     | 4:D:-6:DT:H71     | 1.92                     | 0.51              |
| 6:C:20:SER:O      | 6:C:23:ASP:HB2    | 2.09                     | 0.51              |
| 6:C:75:SER:O      | 6:C:79:ARG:N      | 2.39                     | 0.51              |
| 6:C:382:ASP:HA    | 6:C:385:TYR:CE2   | 2.45                     | 0.51              |
| 6:C:557:SER:O     | 6:C:560:LEU:N     | 2.43                     | 0.51              |
| 6:C:1655:ILE:HA   | 6:C:1677:SER:HB3  | 1.91                     | 0.51              |
| 6:C:1933:LEU:HA   | 6:C:1937:ARG:HD3  | 1.92                     | 0.51              |
| 6:C:1977:ILE:HG22 | 6:C:1978:PHE:H    | 1.75                     | 0.51              |
| 6:C:1986:ARG:O    | 6:C:1990:PHE:CB   | 2.41                     | 0.51              |
| 6:C:2008:ARG:O    | 6:C:2012:ARG:NH2  | 2.42                     | 0.51              |
| 6:C:2182:ILE:O    | 6:C:2186:VAL:HG12 | 2.10                     | 0.51              |
| 6:C:2386:LEU:HD11 | 6:C:2401:VAL:HG22 | 1.91                     | 0.51              |
| 6:C:2519:LEU:HG   | 6:C:2523:ASN:ND2  | 2.25                     | 0.51              |
| 6:C:2826:LEU:HA   | 6:C:2829:LYS:HG2  | 1.92                     | 0.51              |
| 6:C:2847:THR:HB   | 6:C:2850:PHE:HD2  | 1.75                     | 0.51              |
| 6:C:3062:LEU:O    | 6:C:3065:ILE:HG22 | 2.10                     | 0.51              |
| 6:C:3256:MET:HA   | 6:C:3259:LEU:HB2  | 1.92                     | 0.51              |
| 6:C:3583:LEU:O    | 6:C:3587:ASP:HB2  | 2.10                     | 0.51              |
| 6:C:3733:ARG:NH2  | 6:C:3756:GLU:HB3  | 2.23                     | 0.51              |
| 6:C:4048:LYS:HA   | 6:C:4051:LEU:HB3  | 1.93                     | 0.51              |
| 6:C:4077:TYR:HE1  | 6:C:4115:ASN:ND2  | 2.07                     | 0.51              |
| 1:A:40:PHE:HD2    | 1:A:85:VAL:HG12   | 1.75                     | 0.51              |
| 1:A:71:TYR:HA     | 1:A:83:LEU:CD1    | 2.40                     | 0.51              |
| 2:B:76:ASN:HB3    | 2:B:105:ALA:HB2   | 1.92                     | 0.51              |
| 2:B:152:HIS:O     | 2:B:155:LYS:HB2   | 2.10                     | 0.51              |
| 2:B:320:ILE:HD12  | 2:B:320:ILE:H     | 1.75                     | 0.51              |
| 2:B:332:LYS:HG2   | 2:B:334:LYS:HG3   | 1.91                     | 0.51              |
| 6:C:60:SER:HA     | 6:C:63:PHE:CD2    | 2.45                     | 0.51              |
| 6:C:237:SER:OG    | 6:C:279:ALA:HB1   | 2.10                     | 0.51              |
| 6:C:261:ASP:O     | 6:C:264:ARG:HB2   | 2.10                     | 0.51              |
| 6:C:284:THR:HG21  | 6:C:326:MET:SD    | 2.51                     | 0.51              |
| 6:C:366:TYR:CE1   | 6:C:412:SER:HA    | 2.45                     | 0.51              |
| 6:C:474:VAL:HG23  | 6:C:475:LEU:H     | 1.75                     | 0.51              |
| 6:C:901:MET:HE2   | 6:C:903:PRO:HB3   | 1.91                     | 0.51              |
| 6:C:938:VAL:HG22  | 6:C:962:TYR:OH    | 2.10                     | 0.51              |
| 6:C:1140:LYS:HB2  | 6:C:1142:HIS:NE2  | 2.25                     | 0.51              |
| 6:C:1389:VAL:O    | 6:C:1390:GLN:HB3  | 2.10                     | 0.51              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2243:GLU:C    | 6:C:2246:LYS:HZ1  | 2.15                     | 0.51              |
| 6:C:2322:VAL:O    | 6:C:2326:ILE:HB   | 2.11                     | 0.51              |
| 6:C:3065:ILE:O    | 6:C:3069:MET:HG3  | 2.10                     | 0.51              |
| 6:C:3514:VAL:HG11 | 6:C:3554:PHE:HB2  | 1.92                     | 0.51              |
| 6:C:3731:SER:HB2  | 6:C:3734:ARG:N    | 2.20                     | 0.51              |
| 6:C:4014:LYS:O    | 6:C:4017:GLU:HB2  | 2.10                     | 0.51              |
| 6:C:4074:PHE:O    | 6:C:4078:VAL:HG22 | 2.11                     | 0.51              |
| 1:A:412:ALA:O     | 1:A:435:VAL:N     | 2.36                     | 0.51              |
| 2:B:441:SER:HB3   | 2:B:444:TYR:O     | 2.10                     | 0.51              |
| 5:E:45:DG:P       | 6:C:260:ILE:HG23  | 2.51                     | 0.51              |
| 6:C:86:LEU:HA     | 6:C:89:LEU:HD12   | 1.91                     | 0.51              |
| 6:C:214:GLU:HG3   | 6:C:256:ILE:HG23  | 1.92                     | 0.51              |
| 6:C:313:LEU:O     | 6:C:316:LEU:HB3   | 2.10                     | 0.51              |
| 6:C:330:ASN:O     | 6:C:334:HIS:HB2   | 2.10                     | 0.51              |
| 6:C:1141:LYS:H    | 6:C:1146:ASN:ND2  | 2.09                     | 0.51              |
| 6:C:1165:LEU:HB2  | 6:C:1260:LEU:HD11 | 1.92                     | 0.51              |
| 6:C:1259:LEU:HD22 | 6:C:1340:ARG:HG3  | 1.93                     | 0.51              |
| 6:C:1508:LYS:HD3  | 6:C:1573:LYS:HG2  | 1.92                     | 0.51              |
| 6:C:1524:LEU:HB2  | 6:C:1563:PHE:HD2  | 1.74                     | 0.51              |
| 6:C:1593:VAL:O    | 6:C:1596:VAL:HB   | 2.11                     | 0.51              |
| 6:C:2296:SER:HB3  | 6:C:2299:TYR:CZ   | 2.44                     | 0.51              |
| 6:C:2510:LEU:HD13 | 6:C:2522:ARG:CZ   | 2.40                     | 0.51              |
| 6:C:2524:PHE:HA   | 6:C:2527:HIS:CE1  | 2.45                     | 0.51              |
| 6:C:2964:ASP:O    | 6:C:2968:ALA:HB2  | 2.11                     | 0.51              |
| 6:C:3118:ASP:O    | 6:C:3119:VAL:C    | 2.53                     | 0.51              |
| 6:C:3166:ASN:C    | 6:C:3169:PRO:HD2  | 2.35                     | 0.51              |
| 6:C:3167:ARG:HH21 | 6:C:3186:ARG:HD2  | 1.74                     | 0.51              |
| 6:C:3283:LEU:HD11 | 6:C:3297:VAL:HA   | 1.92                     | 0.51              |
| 6:C:3812:LEU:HD11 | 6:C:3925:LEU:O    | 2.10                     | 0.51              |
| 1:A:90:THR:CG2    | 1:A:103:TYR:HE2   | 2.23                     | 0.51              |
| 1:A:145:GLU:H     | 1:A:145:GLU:CD    | 2.15                     | 0.51              |
| 1:A:296:VAL:HG12  | 2:B:296:CYS:H     | 1.75                     | 0.51              |
| 1:A:331:LYS:O     | 1:A:334:THR:OG1   | 2.27                     | 0.51              |
| 2:B:135:PHE:HB3   | 2:B:227:PHE:CZ    | 2.46                     | 0.51              |
| 2:B:526:SER:C     | 2:B:530:LEU:HG    | 2.35                     | 0.51              |
| 6:C:715:ALA:HB1   | 6:C:719:LYS:HE2   | 1.91                     | 0.51              |
| 6:C:1434:VAL:HG11 | 6:C:1448:LEU:HD11 | 1.92                     | 0.51              |
| 6:C:1456:LYS:C    | 6:C:1460:ARG:HH21 | 2.18                     | 0.51              |
| 6:C:1882:SER:O    | 6:C:1885:PRO:HD2  | 2.10                     | 0.51              |
| 6:C:2077:HIS:HE1  | 6:C:2138:VAL:HG11 | 1.75                     | 0.51              |
| 6:C:2102:LYS:O    | 6:C:2106:ARG:HG3  | 2.11                     | 0.51              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2151:ILE:HG22 | 6:C:2152:ASN:O    | 2.10                     | 0.51              |
| 6:C:2220:MET:HB3  | 6:C:2224:PHE:CZ   | 2.45                     | 0.51              |
| 6:C:2313:LYS:HG3  | 6:C:2316:TYR:HE2  | 1.76                     | 0.51              |
| 6:C:2450:GLU:HG2  | 6:C:2451:LEU:N    | 2.25                     | 0.51              |
| 6:C:2474:TYR:HD1  | 6:C:2477:LEU:HD12 | 1.75                     | 0.51              |
| 6:C:2554:PHE:CD2  | 6:C:2554:PHE:N    | 2.79                     | 0.51              |
| 6:C:2858:ILE:O    | 6:C:2861:ILE:HG13 | 2.11                     | 0.51              |
| 6:C:2928:LYS:HB3  | 6:C:3784:ARG:NH2  | 2.26                     | 0.51              |
| 6:C:2934:GLY:HA2  | 6:C:2937:ASP:CB   | 2.41                     | 0.51              |
| 6:C:2977:ASN:HA   | 6:C:2980:ASP:OD2  | 2.11                     | 0.51              |
| 6:C:3029:LYS:NZ   | 6:C:3067:LYS:HB2  | 2.25                     | 0.51              |
| 6:C:3794:VAL:N    | 6:C:3802:LEU:O    | 2.31                     | 0.51              |
| 6:C:3864:ARG:HG2  | 6:C:4115:ASN:HA   | 1.93                     | 0.51              |
| 1:A:90:THR:H      | 1:A:101:ASN:HA    | 1.76                     | 0.51              |
| 2:B:275:THR:HB    | 4:D:6:DT:OP1      | 2.11                     | 0.51              |
| 2:B:486:ARG:NH1   | 4:D:4:DA:O5'      | 2.35                     | 0.51              |
| 4:D:5:DT:H2'      | 4:D:6:DT:H71      | 1.92                     | 0.51              |
| 6:C:118:ASP:OD1   | 6:C:127:ALA:HB1   | 2.11                     | 0.51              |
| 6:C:135:LEU:O     | 6:C:138:PHE:HB3   | 2.11                     | 0.51              |
| 6:C:209:THR:O     | 6:C:213:ARG:HA    | 2.10                     | 0.51              |
| 6:C:1058:SER:HA   | 6:C:1061:LYS:CB   | 2.40                     | 0.51              |
| 6:C:1165:LEU:HD12 | 6:C:1260:LEU:HD21 | 1.92                     | 0.51              |
| 6:C:1399:CYS:O    | 6:C:1403:MET:HG2  | 2.11                     | 0.51              |
| 6:C:1603:GLN:HA   | 6:C:1606:ARG:HH12 | 1.76                     | 0.51              |
| 6:C:1746:PHE:O    | 6:C:1750:LEU:HB2  | 2.10                     | 0.51              |
| 6:C:2238:ILE:HA   | 6:C:2241:LEU:CD1  | 2.40                     | 0.51              |
| 6:C:2371:PHE:CE2  | 6:C:2378:PHE:CE2  | 2.92                     | 0.51              |
| 6:C:2417:SER:C    | 6:C:2418:LYS:HD2  | 2.36                     | 0.51              |
| 6:C:2452:ARG:NH2  | 6:C:2497:GLU:HB2  | 2.06                     | 0.51              |
| 6:C:2828:GLU:CD   | 6:C:2831:ASN:HD22 | 2.18                     | 0.51              |
| 6:C:2925:GLU:HB3  | 6:C:2930:TYR:CD2  | 2.45                     | 0.51              |
| 6:C:3185:ASN:HB3  | 6:C:3189:PHE:CE2  | 2.45                     | 0.51              |
| 6:C:3571:PHE:HZ   | 6:C:3690:PHE:N    | 2.05                     | 0.51              |
| 6:C:3927:ASN:HB3  | 6:C:3941:ASP:OD2  | 2.11                     | 0.51              |
| 6:C:4031:ILE:HG13 | 6:C:4032:ASN:H    | 1.74                     | 0.51              |
| 1:A:76:ILE:HD13   | 1:A:247:ARG:HA    | 1.92                     | 0.51              |
| 1:A:90:THR:HG21   | 1:A:103:TYR:HE2   | 1.76                     | 0.51              |
| 1:A:92:LYS:HE2    | 1:A:135:MET:O     | 2.11                     | 0.51              |
| 1:A:299:LYS:N     | 2:B:294:VAL:O     | 2.36                     | 0.51              |
| 1:A:339:ARG:HA    | 1:A:405:ASN:HD21  | 1.76                     | 0.51              |
| 2:B:114:SER:HB3   | 2:B:132:ILE:HD13  | 1.93                     | 0.51              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:162:GLN:HG2   | 2:B:223:GLU:OE2   | 2.11                     | 0.51              |
| 6:C:204:LEU:HD11  | 6:C:219:VAL:HG12  | 1.91                     | 0.51              |
| 6:C:1036:PHE:CE2  | 6:C:1085:ILE:HG21 | 2.46                     | 0.51              |
| 6:C:1445:ARG:O    | 6:C:1448:LEU:HB2  | 2.11                     | 0.51              |
| 6:C:1643:MET:C    | 6:C:1646:LEU:H    | 2.17                     | 0.51              |
| 6:C:1928:ALA:CA   | 6:C:1938:ARG:HH12 | 2.17                     | 0.51              |
| 6:C:2103:HIS:HA   | 6:C:2106:ARG:HD3  | 1.93                     | 0.51              |
| 6:C:2395:THR:HG22 | 6:C:2399:GLU:CD   | 2.36                     | 0.51              |
| 6:C:2450:GLU:OE1  | 6:C:2450:GLU:N    | 2.41                     | 0.51              |
| 6:C:2983:ASP:OD1  | 6:C:2984:GLY:N    | 2.38                     | 0.51              |
| 6:C:3012:GLU:HB2  | 6:C:3050:LYS:HZ1  | 1.75                     | 0.51              |
| 6:C:3482:LEU:O    | 6:C:3485:LYS:HB2  | 2.09                     | 0.51              |
| 6:C:3493:TRP:O    | 6:C:3496:ILE:HG12 | 2.11                     | 0.51              |
| 6:C:3930:VAL:HA   | 6:C:3936:GLY:C    | 2.36                     | 0.51              |
| 6:C:3962:ARG:CD   | 6:C:4124:TRP:HB3  | 2.40                     | 0.51              |
| 1:A:207:LYS:HD2   | 1:A:208:PRO:HD2   | 1.92                     | 0.51              |
| 1:A:347:LEU:HD13  | 1:A:396:ALA:HB1   | 1.92                     | 0.51              |
| 1:A:471:PHE:CZ    | 2:B:392:ILE:HG13  | 2.46                     | 0.51              |
| 1:A:526:LYS:HA    | 1:A:530:TYR:CZ    | 2.45                     | 0.51              |
| 2:B:151:ILE:HD13  | 2:B:214:SER:CB    | 2.41                     | 0.51              |
| 2:B:302:GLU:OE2   | 6:C:119:ARG:NE    | 2.31                     | 0.51              |
| 4:D:-4:DA:H5"     | 4:D:-3:DT:H71     | 1.91                     | 0.51              |
| 6:C:138:PHE:CZ    | 6:C:177:LEU:HD22  | 2.46                     | 0.51              |
| 6:C:297:LEU:HA    | 6:C:300:TRP:HB3   | 1.92                     | 0.51              |
| 6:C:478:CYS:O     | 6:C:482:VAL:HG23  | 2.11                     | 0.51              |
| 6:C:637:LYS:HA    | 6:C:641:PHE:CB    | 2.41                     | 0.51              |
| 6:C:1132:ASP:HB3  | 6:C:1171:TRP:NE1  | 2.26                     | 0.51              |
| 6:C:1329:ARG:O    | 6:C:1333:SER:OG   | 2.29                     | 0.51              |
| 6:C:1442:GLN:HA   | 6:C:1445:ARG:NH2  | 2.25                     | 0.51              |
| 6:C:1453:SER:CA   | 6:C:1456:LYS:HE2  | 2.40                     | 0.51              |
| 6:C:1687:HIS:O    | 6:C:1691:GLN:CB   | 2.59                     | 0.51              |
| 6:C:1897:ASN:HA   | 6:C:1900:PHE:CD2  | 2.45                     | 0.51              |
| 6:C:2351:GLN:O    | 6:C:2352:HIS:C    | 2.54                     | 0.51              |
| 6:C:2386:LEU:HA   | 6:C:2400:VAL:HG11 | 1.92                     | 0.51              |
| 6:C:2818:LYS:O    | 6:C:2821:ASP:HB2  | 2.10                     | 0.51              |
| 6:C:2835:LYS:O    | 6:C:2836:LEU:C    | 2.52                     | 0.51              |
| 6:C:3763:ARG:HA   | 6:C:3766:GLN:OE1  | 2.10                     | 0.51              |
| 6:C:3925:LEU:HD23 | 6:C:4125:GLU:HB2  | 1.93                     | 0.51              |
| 6:C:3933:GLU:HG3  | 6:C:3934:THR:N    | 2.25                     | 0.51              |
| 1:A:340:PHE:CE1   | 2:B:489:ARG:HD3   | 2.46                     | 0.51              |
| 6:C:77:GLU:HB2    | 6:C:78:PHE:CD1    | 2.46                     | 0.51              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:345:PHE:HA    | 6:C:348:ILE:HD13  | 1.93                     | 0.51              |
| 6:C:528:VAL:HG13  | 6:C:531:PHE:CE2   | 2.45                     | 0.51              |
| 6:C:1949:ILE:HA   | 6:C:1952:ILE:HG22 | 1.93                     | 0.51              |
| 6:C:2077:HIS:HE2  | 6:C:2087:GLU:CD   | 2.17                     | 0.51              |
| 6:C:2154:GLU:O    | 6:C:2157:PHE:HB2  | 2.10                     | 0.51              |
| 6:C:2335:ASN:HB3  | 6:C:2339:GLU:OE2  | 2.10                     | 0.51              |
| 6:C:3228:SER:HA   | 6:C:3231:ILE:HG22 | 1.92                     | 0.51              |
| 6:C:3277:VAL:HB   | 6:C:3324:ARG:NH2  | 2.26                     | 0.51              |
| 6:C:3923:ARG:HH12 | 6:C:3939:GLY:HA2  | 1.76                     | 0.51              |
| 1:A:76:ILE:HG21   | 1:A:247:ARG:O     | 2.11                     | 0.51              |
| 1:A:260:LYS:NZ    | 1:A:343:PRO:O     | 2.44                     | 0.51              |
| 1:A:288:LEU:HB2   | 2:B:311:ILE:HD11  | 1.93                     | 0.51              |
| 1:A:388:LYS:HD3   | 2:B:455:ASP:OD2   | 2.11                     | 0.51              |
| 2:B:162:GLN:HE22  | 2:B:236:VAL:HG22  | 1.76                     | 0.51              |
| 2:B:459:ASP:HA    | 2:B:462:SER:OG    | 2.11                     | 0.51              |
| 2:B:486:ARG:HH12  | 4:D:4:DA:P        | 2.34                     | 0.51              |
| 5:E:34:DC:C4      | 5:E:35:DC:C4      | 2.99                     | 0.51              |
| 6:C:738:HIS:O     | 6:C:741:ILE:N     | 2.39                     | 0.51              |
| 6:C:970:LEU:O     | 6:C:981:ARG:HD2   | 2.11                     | 0.51              |
| 6:C:1062:ARG:O    | 6:C:1065:SER:N    | 2.44                     | 0.51              |
| 6:C:1259:LEU:HD22 | 6:C:1340:ARG:NH1  | 2.26                     | 0.51              |
| 6:C:1648:LEU:HG   | 6:C:1652:ILE:CD1  | 2.40                     | 0.51              |
| 6:C:1803:GLU:HA   | 6:C:1806:ARG:HG3  | 1.93                     | 0.51              |
| 6:C:1897:ASN:HA   | 6:C:1900:PHE:CE2  | 2.46                     | 0.51              |
| 6:C:2070:GLU:OE2  | 6:C:2075:THR:HG21 | 2.11                     | 0.51              |
| 6:C:2878:ALA:HB3  | 6:C:2882:ALA:CB   | 2.40                     | 0.51              |
| 6:C:2996:LEU:O    | 6:C:2999:LEU:N    | 2.43                     | 0.51              |
| 6:C:3336:ILE:HG23 | 6:C:3339:ASN:N    | 2.24                     | 0.51              |
| 6:C:3621:LYS:HZ2  | 6:C:3638:LYS:HD3  | 1.76                     | 0.51              |
| 1:A:65:GLN:HE21   | 1:A:123:LYS:HG2   | 1.76                     | 0.50              |
| 1:A:330:GLU:HB3   | 1:A:333:GLU:H     | 1.76                     | 0.50              |
| 2:B:497:ARG:NH2   | 2:B:503:GLU:O     | 2.43                     | 0.50              |
| 4:D:10:DG:H1      | 5:E:25:DG:H1      | 1.56                     | 0.50              |
| 6:C:138:PHE:O     | 6:C:141:SER:HB2   | 2.11                     | 0.50              |
| 6:C:299:LYS:O     | 6:C:303:HIS:HB2   | 2.12                     | 0.50              |
| 6:C:670:LEU:O     | 6:C:674:VAL:HG23  | 2.11                     | 0.50              |
| 6:C:673:THR:O     | 6:C:677:ALA:HB3   | 2.11                     | 0.50              |
| 6:C:987:LEU:HG    | 6:C:990:GLN:NE2   | 2.27                     | 0.50              |
| 6:C:1112:ALA:HA   | 6:C:1115:HIS:CE1  | 2.46                     | 0.50              |
| 6:C:1163:LEU:HA   | 6:C:1256:TRP:CB   | 2.41                     | 0.50              |
| 6:C:1285:GLU:HG2  | 6:C:1361:LYS:HG3  | 1.93                     | 0.50              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1374:GLN:NE2  | 6:C:1377:CYS:SG   | 2.84                     | 0.50              |
| 6:C:1407:LYS:HZ1  | 6:C:1463:LEU:HD12 | 1.76                     | 0.50              |
| 6:C:1738:ASN:O    | 6:C:1742:CYS:HB2  | 2.11                     | 0.50              |
| 6:C:2047:THR:HA   | 6:C:2050:GLN:OE1  | 2.10                     | 0.50              |
| 6:C:2070:GLU:CD   | 6:C:2075:THR:HG21 | 2.36                     | 0.50              |
| 6:C:2093:CYS:O    | 6:C:2096:PRO:HG2  | 2.10                     | 0.50              |
| 6:C:2151:ILE:HG21 | 6:C:2156:VAL:HG13 | 1.93                     | 0.50              |
| 6:C:2844:LEU:C    | 6:C:2846:THR:H    | 2.18                     | 0.50              |
| 6:C:3028:ASN:C    | 6:C:3030:ILE:N    | 2.69                     | 0.50              |
| 6:C:3038:GLU:O    | 6:C:3041:LEU:CB   | 2.52                     | 0.50              |
| 6:C:3087:SER:HA   | 6:C:3090:TYR:CE2  | 2.45                     | 0.50              |
| 6:C:3306:LEU:O    | 6:C:3310:ASN:ND2  | 2.44                     | 0.50              |
| 6:C:3578:LEU:HD23 | 6:C:3630:ARG:NH1  | 2.27                     | 0.50              |
| 6:C:3767:LEU:O    | 6:C:3770:VAL:N    | 2.44                     | 0.50              |
| 6:C:3879:PRO:HB2  | 6:C:3966:GLN:OE1  | 2.11                     | 0.50              |
| 6:C:3901:ARG:CZ   | 6:C:3971:MET:O    | 2.59                     | 0.50              |
| 6:C:3952:PHE:HB2  | 6:C:3955:VAL:HG12 | 1.93                     | 0.50              |
| 6:C:4125:GLU:HG2  | 6:C:4127:TRP:CE2  | 2.46                     | 0.50              |
| 1:A:80:ARG:C      | 1:A:110:ASN:HD21  | 2.19                     | 0.50              |
| 1:A:305:THR:N     | 2:B:288:ASP:O     | 2.32                     | 0.50              |
| 1:A:486:HIS:NE2   | 2:B:328:GLU:OE2   | 2.44                     | 0.50              |
| 2:B:280:ASP:OD1   | 2:B:281:ALA:N     | 2.44                     | 0.50              |
| 2:B:496:HIS:HE1   | 2:B:503:GLU:CG    | 2.24                     | 0.50              |
| 4:D:-2:DT:C4      | 5:E:38:DA:N6      | 2.79                     | 0.50              |
| 6:C:681:LYS:HE3   | 6:C:746:ARG:HE    | 1.76                     | 0.50              |
| 6:C:738:HIS:CE1   | 6:C:741:ILE:HD11  | 2.47                     | 0.50              |
| 6:C:1334:LYS:O    | 6:C:1337:VAL:HB   | 2.11                     | 0.50              |
| 6:C:1415:LEU:O    | 6:C:1418:HIS:HB3  | 2.12                     | 0.50              |
| 6:C:1954:CYS:SG   | 6:C:2003:LYS:NZ   | 2.65                     | 0.50              |
| 6:C:2240:THR:HA   | 6:C:2243:GLU:OE1  | 2.11                     | 0.50              |
| 6:C:2457:PRO:HA   | 6:C:2460:GLU:CD   | 2.36                     | 0.50              |
| 6:C:3133:GLN:O    | 6:C:3137:GLU:HG3  | 2.10                     | 0.50              |
| 6:C:3273:LEU:O    | 6:C:3277:VAL:HG13 | 2.10                     | 0.50              |
| 6:C:3619:ASP:O    | 6:C:3625:LEU:HD22 | 2.11                     | 0.50              |
| 6:C:3774:ILE:HA   | 6:C:3777:GLN:CG   | 2.40                     | 0.50              |
| 6:C:3907:SER:O    | 6:C:3908:HIS:C    | 2.54                     | 0.50              |
| 6:C:3976:GLU:HA   | 6:C:3979:LEU:CB   | 2.40                     | 0.50              |
| 1:A:382:PHE:HZ    | 1:A:431:GLY:HA2   | 1.77                     | 0.50              |
| 1:A:403:ARG:HD2   | 5:E:37:DT:C5'     | 2.41                     | 0.50              |
| 1:A:429:PRO:HD2   | 2:B:354:ARG:NH1   | 2.23                     | 0.50              |
| 1:A:479:GLU:HG3   | 1:A:481:PRO:HG3   | 1.92                     | 0.50              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:200:GLN:HA    | 2:B:203:GLU:OE1   | 2.10                     | 0.50              |
| 6:C:70:ARG:NE     | 6:C:82:ARG:HH21   | 2.09                     | 0.50              |
| 6:C:80:GLU:O      | 6:C:84:GLU:HG2    | 2.12                     | 0.50              |
| 6:C:112:THR:O     | 6:C:115:TYR:HB2   | 2.12                     | 0.50              |
| 6:C:437:HIS:O     | 6:C:440:VAL:HG22  | 2.11                     | 0.50              |
| 6:C:630:CYS:O     | 6:C:634:LEU:HB3   | 2.12                     | 0.50              |
| 6:C:704:PHE:O     | 6:C:707:PHE:HB3   | 2.12                     | 0.50              |
| 6:C:772:ALA:O     | 6:C:773:LEU:C     | 2.54                     | 0.50              |
| 6:C:850:GLU:CB    | 6:C:854:ARG:HH12  | 2.22                     | 0.50              |
| 6:C:894:PHE:CD1   | 6:C:906:PHE:HE2   | 2.29                     | 0.50              |
| 6:C:910:PHE:N     | 6:C:912:PRO:HD2   | 2.26                     | 0.50              |
| 6:C:1235:ILE:H    | 6:C:1235:ILE:HD12 | 1.76                     | 0.50              |
| 6:C:1248:PHE:HA   | 6:C:1251:GLN:CD   | 2.37                     | 0.50              |
| 6:C:1443:VAL:HG12 | 6:C:1447:ARG:NH2  | 2.25                     | 0.50              |
| 6:C:2009:LYS:HG3  | 6:C:2013:GLU:HB2  | 1.93                     | 0.50              |
| 6:C:2295:GLN:HG3  | 6:C:2299:TYR:OH   | 2.10                     | 0.50              |
| 6:C:2434:VAL:O    | 6:C:2437:ASP:CB   | 2.51                     | 0.50              |
| 6:C:2890:ILE:HG12 | 6:C:2918:PRO:HG3  | 1.94                     | 0.50              |
| 6:C:3128:LYS:O    | 6:C:3131:SER:HB2  | 2.11                     | 0.50              |
| 6:C:3813:LYS:NZ   | 6:C:3817:LEU:HD21 | 2.26                     | 0.50              |
| 6:C:4056:PRO:HA   | 6:C:4094:PRO:HB3  | 1.94                     | 0.50              |
| 6:C:4107:LEU:HA   | 6:C:4110:GLN:OE1  | 2.12                     | 0.50              |
| 1:A:90:THR:HA     | 1:A:138:GLY:HA2   | 1.93                     | 0.50              |
| 1:A:145:GLU:OE1   | 1:A:145:GLU:N     | 2.28                     | 0.50              |
| 1:A:317:LYS:CG    | 1:A:330:GLU:HA    | 2.41                     | 0.50              |
| 2:B:213:ILE:HA    | 2:B:217:GLY:C     | 2.37                     | 0.50              |
| 2:B:253:ILE:HB    | 2:B:257:LEU:HB3   | 1.93                     | 0.50              |
| 2:B:315:ARG:NH2   | 2:B:318:SER:HA    | 2.26                     | 0.50              |
| 2:B:448:GLU:OE2   | 2:B:452:ASN:N     | 2.45                     | 0.50              |
| 2:B:523:THR:HG22  | 2:B:527:GLN:HE22  | 1.75                     | 0.50              |
| 2:B:528:ILE:O     | 2:B:531:SER:HB2   | 2.12                     | 0.50              |
| 5:E:25:DG:C2'     | 5:E:26:DC:H5'     | 2.40                     | 0.50              |
| 5:E:34:DC:H2''    | 5:E:35:DC:H2'     | 1.94                     | 0.50              |
| 5:E:45:DG:H2'     | 5:E:46:DT:N3      | 2.27                     | 0.50              |
| 6:C:90:CYS:HB3    | 6:C:137:THR:OG1   | 2.11                     | 0.50              |
| 6:C:444:ASP:CB    | 6:C:530:LEU:HG    | 2.41                     | 0.50              |
| 6:C:626:LEU:HA    | 6:C:666:PHE:CZ    | 2.46                     | 0.50              |
| 6:C:1074:LYS:HE3  | 6:C:1075:ARG:HH12 | 1.76                     | 0.50              |
| 6:C:1739:TYR:O    | 6:C:1743:MET:HB3  | 2.12                     | 0.50              |
| 6:C:2313:LYS:HG3  | 6:C:2316:TYR:CE2  | 2.47                     | 0.50              |
| 6:C:2863:CYS:HB2  | 6:C:2868:LEU:HD21 | 1.93                     | 0.50              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3119:VAL:O    | 6:C:3121:LEU:HG   | 2.11                     | 0.50              |
| 6:C:3159:ARG:NE   | 6:C:3162:ASN:OD1  | 2.43                     | 0.50              |
| 6:C:4044:ILE:O    | 6:C:4048:LYS:HD3  | 2.11                     | 0.50              |
| 1:A:143:LEU:O     | 1:A:146:VAL:N     | 2.45                     | 0.50              |
| 1:A:264:ASN:CG    | 1:A:266:ASP:H     | 2.18                     | 0.50              |
| 1:A:455:THR:OG1   | 1:A:458:GLN:OE1   | 2.20                     | 0.50              |
| 2:B:215:LEU:HD22  | 2:B:216:GLU:CD    | 2.36                     | 0.50              |
| 2:B:251:LEU:HA    | 2:B:340:PHE:O     | 2.11                     | 0.50              |
| 2:B:340:PHE:CE2   | 2:B:393:VAL:HG11  | 2.47                     | 0.50              |
| 2:B:400:ARG:HD2   | 4:D:9:DG:C2'      | 2.40                     | 0.50              |
| 2:B:405:VAL:HG23  | 2:B:426:PHE:HZ    | 1.74                     | 0.50              |
| 4:D:-10:DA:C6     | 5:E:45:DG:C6      | 2.99                     | 0.50              |
| 6:C:304:THR:HG22  | 6:C:306:VAL:HG13  | 1.94                     | 0.50              |
| 6:C:337:LYS:O     | 6:C:340:TYR:HB2   | 2.11                     | 0.50              |
| 6:C:411:PRO:HA    | 6:C:414:LEU:CB    | 2.41                     | 0.50              |
| 6:C:652:GLU:HB3   | 6:C:722:LYS:HE3   | 1.94                     | 0.50              |
| 6:C:1389:VAL:HG23 | 6:C:1391:VAL:HG23 | 1.93                     | 0.50              |
| 6:C:1973:LYS:NZ   | 6:C:1975:LEU:HB2  | 2.26                     | 0.50              |
| 6:C:2049:VAL:HA   | 6:C:2052:TYR:HD2  | 1.76                     | 0.50              |
| 6:C:2341:LEU:O    | 6:C:2344:LEU:HB2  | 2.11                     | 0.50              |
| 6:C:2420:PHE:CZ   | 6:C:2424:MET:HB2  | 2.46                     | 0.50              |
| 6:C:3559:LYS:NZ   | 6:C:3563:ASP:OD2  | 2.36                     | 0.50              |
| 6:C:4065:LEU:HA   | 6:C:4068:HIS:HB3  | 1.94                     | 0.50              |
| 1:A:39:ILE:HD13   | 1:A:166:ILE:HG12  | 1.92                     | 0.50              |
| 1:A:77:SER:HA     | 1:A:249:LYS:O     | 2.12                     | 0.50              |
| 1:A:470:ARG:HE    | 2:B:347:LYS:H     | 1.59                     | 0.50              |
| 2:B:28:GLU:HG3    | 2:B:33:GLN:HG3    | 1.94                     | 0.50              |
| 2:B:162:GLN:NE2   | 2:B:239:LYS:HE3   | 2.26                     | 0.50              |
| 2:B:374:ALA:O     | 2:B:377:LEU:HB3   | 2.11                     | 0.50              |
| 6:C:177:LEU:HA    | 6:C:180:LEU:HB2   | 1.94                     | 0.50              |
| 6:C:207:GLN:HG3   | 6:C:215:PRO:HB3   | 1.93                     | 0.50              |
| 6:C:260:ILE:HD13  | 6:C:260:ILE:N     | 2.26                     | 0.50              |
| 6:C:291:VAL:O     | 6:C:294:PHE:HB3   | 2.10                     | 0.50              |
| 6:C:326:MET:O     | 6:C:330:ASN:ND2   | 2.37                     | 0.50              |
| 6:C:408:TYR:O     | 6:C:412:SER:OG    | 2.24                     | 0.50              |
| 6:C:894:PHE:CE1   | 6:C:903:PRO:HG2   | 2.45                     | 0.50              |
| 6:C:1007:VAL:O    | 6:C:1010:LEU:HG   | 2.12                     | 0.50              |
| 6:C:1250:LEU:HD23 | 6:C:1254:LEU:HD13 | 1.93                     | 0.50              |
| 6:C:1292:LYS:O    | 6:C:1295:ALA:HB3  | 2.12                     | 0.50              |
| 6:C:1399:CYS:O    | 6:C:1403:MET:N    | 2.24                     | 0.50              |
| 6:C:1403:MET:O    | 6:C:1406:LEU:HB2  | 2.10                     | 0.50              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1878:ASP:O    | 6:C:1882:SER:N    | 2.43                     | 0.50              |
| 6:C:1918:LEU:HA   | 6:C:1921:ASP:HB2  | 1.94                     | 0.50              |
| 6:C:2418:LYS:N    | 6:C:2418:LYS:HD2  | 2.26                     | 0.50              |
| 6:C:3076:ALA:O    | 6:C:3080:LEU:HG   | 2.12                     | 0.50              |
| 6:C:3353:GLU:HB2  | 6:C:3373:VAL:O    | 2.12                     | 0.50              |
| 6:C:3817:LEU:HD22 | 6:C:3829:LEU:HD22 | 1.94                     | 0.50              |
| 6:C:3864:ARG:NH1  | 6:C:4119:ARG:HH11 | 2.09                     | 0.50              |
| 6:C:3929:MET:O    | 6:C:3937:VAL:HA   | 2.12                     | 0.50              |
| 6:C:4013:TRP:CH2  | 6:C:4041:ARG:HB2  | 2.46                     | 0.50              |
| 1:A:95:ASN:HD21   | 1:A:99:PHE:H      | 1.57                     | 0.50              |
| 2:B:463:LEU:HB2   | 2:B:475:ASP:OD1   | 2.12                     | 0.50              |
| 2:B:485:PRO:O     | 2:B:486:ARG:C     | 2.55                     | 0.50              |
| 6:C:288:ASP:OD1   | 6:C:289:ASN:N     | 2.44                     | 0.50              |
| 6:C:574:LYS:HA    | 6:C:577:GLU:HG2   | 1.93                     | 0.50              |
| 6:C:933:LEU:HD13  | 6:C:2794:LEU:CB   | 2.40                     | 0.50              |
| 6:C:983:LEU:HD23  | 6:C:984:TYR:CE2   | 2.47                     | 0.50              |
| 6:C:2291:GLN:CD   | 6:C:2294:ILE:HB   | 2.35                     | 0.50              |
| 6:C:2510:LEU:HB2  | 6:C:2522:ARG:CZ   | 2.41                     | 0.50              |
| 6:C:2534:ASN:ND2  | 6:C:2537:ASP:H    | 2.10                     | 0.50              |
| 6:C:2813:PHE:HB3  | 6:C:2817:LEU:CD1  | 2.40                     | 0.50              |
| 6:C:2841:ASN:O    | 6:C:2844:LEU:HB2  | 2.11                     | 0.50              |
| 6:C:3359:ILE:C    | 6:C:3388:ALA:HB2  | 2.37                     | 0.50              |
| 6:C:3444:ALA:HB1  | 6:C:3478:GLU:OE2  | 2.12                     | 0.50              |
| 6:C:3448:GLU:CD   | 6:C:3482:LEU:HD13 | 2.36                     | 0.50              |
| 6:C:3510:GLN:HB2  | 6:C:3513:ALA:HB2  | 1.94                     | 0.50              |
| 6:C:3629:ARG:HG3  | 6:C:3633:ILE:HB   | 1.93                     | 0.50              |
| 6:C:4093:GLU:HB2  | 6:C:4094:PRO:HD3  | 1.93                     | 0.50              |
| 1:A:292:THR:O     | 1:A:294:GLU:HG2   | 2.12                     | 0.50              |
| 1:A:428:THR:HG22  | 2:B:354:ARG:NH2   | 2.27                     | 0.50              |
| 1:A:451:LYS:NZ    | 2:B:415:ASN:O     | 2.34                     | 0.50              |
| 1:A:458:GLN:O     | 1:A:462:MET:HG2   | 2.12                     | 0.50              |
| 2:B:18:PHE:CE2    | 2:B:103:GLN:HA    | 2.47                     | 0.50              |
| 4:D:2:DG:C6       | 5:E:33:DA:N6      | 2.79                     | 0.50              |
| 6:C:447:PRO:HG3   | 6:C:525:LYS:HD3   | 1.94                     | 0.50              |
| 6:C:566:ASP:OD2   | 6:C:1800:SER:HA   | 2.12                     | 0.50              |
| 6:C:731:THR:C     | 6:C:734:LEU:H     | 2.16                     | 0.50              |
| 6:C:735:SER:O     | 6:C:738:HIS:N     | 2.35                     | 0.50              |
| 6:C:1013:ILE:HG22 | 6:C:1028:PHE:HB2  | 1.94                     | 0.50              |
| 6:C:1178:ARG:HG3  | 6:C:1214:GLU:O    | 2.12                     | 0.50              |
| 6:C:1761:LEU:HG   | 6:C:1860:GLU:CD   | 2.36                     | 0.50              |
| 6:C:2019:SER:O    | 6:C:2069:ARG:NH2  | 2.43                     | 0.50              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2057:GLN:O    | 6:C:2104:MET:HE3  | 2.12                     | 0.50              |
| 6:C:2105:HIS:ND1  | 6:C:2108:LEU:O    | 2.44                     | 0.50              |
| 6:C:2157:PHE:O    | 6:C:2160:TYR:HB2  | 2.11                     | 0.50              |
| 6:C:2239:LYS:O    | 6:C:2243:GLU:HG3  | 2.11                     | 0.50              |
| 6:C:2797:VAL:HG23 | 6:C:2798:ALA:N    | 2.27                     | 0.50              |
| 6:C:2814:SER:O    | 6:C:2819:GLU:HG2  | 2.12                     | 0.50              |
| 6:C:2905:LEU:HB2  | 6:C:2906:PRO:HD2  | 1.93                     | 0.50              |
| 6:C:2911:ARG:HD3  | 6:C:2913:LYS:HG3  | 1.94                     | 0.50              |
| 6:C:3049:LEU:HD21 | 6:C:3088:LEU:HD23 | 1.93                     | 0.50              |
| 6:C:3270:ASP:OD1  | 6:C:3273:LEU:HD12 | 2.12                     | 0.50              |
| 6:C:3326:GLN:HG2  | 6:C:3389:VAL:HA   | 1.93                     | 0.50              |
| 6:C:3857:LEU:HB3  | 6:C:3859:TYR:CE2  | 2.47                     | 0.50              |
| 6:C:3884:LYS:HZ2  | 6:C:3970:LEU:CA   | 2.24                     | 0.50              |
| 6:C:4039:TYR:CG   | 6:C:4042:GLN:HG2  | 2.47                     | 0.50              |
| 6:C:4102:THR:HA   | 6:C:4105:LYS:HD2  | 1.93                     | 0.50              |
| 6:C:4113:ASP:O    | 6:C:4117:LEU:HG   | 2.12                     | 0.50              |
| 1:A:158:GLN:HG2   | 1:A:159:PHE:CD1   | 2.47                     | 0.50              |
| 2:B:106:ASP:OD1   | 2:B:107:PHE:N     | 2.42                     | 0.50              |
| 4:D:10:DG:N1      | 5:E:26:DC:C2      | 2.79                     | 0.50              |
| 4:D:10:DG:H2''    | 4:D:11:DC:O5'     | 2.12                     | 0.50              |
| 6:C:90:CYS:CB     | 6:C:136:GLN:HG3   | 2.42                     | 0.50              |
| 6:C:139:ARG:HG3   | 6:C:140:SER:N     | 2.27                     | 0.50              |
| 6:C:373:CYS:H     | 6:C:375:VAL:CG2   | 2.25                     | 0.50              |
| 6:C:384:MET:O     | 6:C:385:TYR:CG    | 2.65                     | 0.50              |
| 6:C:643:GLU:O     | 6:C:646:VAL:HG22  | 2.12                     | 0.50              |
| 6:C:879:MET:SD    | 6:C:3119:VAL:HA   | 2.52                     | 0.50              |
| 6:C:1392:MET:O    | 6:C:1395:LEU:HB3  | 2.12                     | 0.50              |
| 6:C:2160:TYR:O    | 6:C:2163:HIS:N    | 2.43                     | 0.50              |
| 6:C:2239:LYS:NZ   | 6:C:2275:GLN:HB3  | 2.27                     | 0.50              |
| 6:C:2307:MET:HB3  | 6:C:2348:GLN:NE2  | 2.27                     | 0.50              |
| 6:C:2313:LYS:C    | 6:C:2316:TYR:HD2  | 2.19                     | 0.50              |
| 6:C:2554:PHE:HA   | 6:C:2557:LEU:CD1  | 2.34                     | 0.50              |
| 6:C:2795:GLN:HB3  | 6:C:2799:GLN:OE1  | 2.12                     | 0.50              |
| 6:C:2946:GLU:HB2  | 6:C:2950:LYS:HE3  | 1.94                     | 0.50              |
| 6:C:2953:THR:O    | 6:C:2957:LEU:HG   | 2.12                     | 0.50              |
| 6:C:3298:LEU:HD23 | 6:C:3348:LEU:HB3  | 1.94                     | 0.50              |
| 6:C:3319:ASN:HA   | 6:C:3396:ALA:CB   | 2.42                     | 0.50              |
| 6:C:3733:ARG:HB3  | 6:C:3735:PRO:HD3  | 1.94                     | 0.50              |
| 6:C:3976:GLU:OE2  | 6:C:3979:LEU:HD12 | 2.12                     | 0.50              |
| 1:A:279:LYS:NZ    | 1:A:281:LEU:HD11  | 2.27                     | 0.49              |
| 1:A:351:LYS:N     | 1:A:394:VAL:HG22  | 2.27                     | 0.49              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:297:LEU:O     | 2:B:302:GLU:HB2   | 2.12                     | 0.49              |
| 4:D:5:DT:C2       | 4:D:6:DT:C5       | 3.00                     | 0.49              |
| 5:E:16:DC:H2'     | 5:E:18:DG:C6      | 2.46                     | 0.49              |
| 6:C:275:PHE:CD1   | 6:C:280:SER:HB2   | 2.47                     | 0.49              |
| 6:C:790:LYS:O     | 6:C:794:PRO:HG2   | 2.11                     | 0.49              |
| 6:C:847:SER:HB2   | 6:C:850:GLU:HG3   | 1.94                     | 0.49              |
| 6:C:917:LEU:HA    | 6:C:927:LYS:NZ    | 2.26                     | 0.49              |
| 6:C:927:LYS:O     | 6:C:930:ALA:HB3   | 2.12                     | 0.49              |
| 6:C:1170:LYS:HA   | 6:C:1267:TYR:CD1  | 2.47                     | 0.49              |
| 6:C:1608:ARG:HB2  | 6:C:1633:TRP:HZ2  | 1.76                     | 0.49              |
| 6:C:2218:PHE:O    | 6:C:2221:LYS:HB3  | 2.12                     | 0.49              |
| 6:C:2938:VAL:HA   | 6:C:3975:LYS:HZ2  | 1.76                     | 0.49              |
| 6:C:3050:LYS:HG3  | 6:C:3051:LEU:HG   | 1.94                     | 0.49              |
| 6:C:3272:TRP:HB3  | 6:C:3276:TRP:HE1  | 1.77                     | 0.49              |
| 6:C:3666:LEU:HG   | 6:C:3670:MET:SD   | 2.52                     | 0.49              |
| 6:C:3922:ASP:C    | 6:C:3927:ASN:HD22 | 2.20                     | 0.49              |
| 1:A:215:LEU:HD12  | 1:A:216:PHE:H     | 1.77                     | 0.49              |
| 2:B:138:LEU:O     | 2:B:142:PHE:HZ    | 1.95                     | 0.49              |
| 6:C:33:GLN:HG3    | 6:C:34:LEU:N      | 2.27                     | 0.49              |
| 6:C:348:ILE:HA    | 6:C:351:ASN:CB    | 2.42                     | 0.49              |
| 6:C:593:ASN:OD1   | 6:C:1087:ARG:NH2  | 2.43                     | 0.49              |
| 6:C:891:ARG:HH11  | 6:C:893:SER:HA    | 1.77                     | 0.49              |
| 6:C:1703:THR:OG1  | 6:C:1704:GLY:N    | 2.45                     | 0.49              |
| 6:C:1994:VAL:O    | 6:C:1998:MET:HG2  | 2.11                     | 0.49              |
| 6:C:2131:GLY:HA3  | 6:C:2141:ASN:HD21 | 1.77                     | 0.49              |
| 6:C:2304:VAL:HG13 | 6:C:2345:VAL:HG22 | 1.94                     | 0.49              |
| 6:C:2349:LEU:HD12 | 6:C:2364:LEU:HB3  | 1.93                     | 0.49              |
| 6:C:2381:ALA:C    | 6:C:2383:PHE:N    | 2.67                     | 0.49              |
| 6:C:2388:LYS:O    | 6:C:2392:VAL:HG23 | 2.11                     | 0.49              |
| 6:C:2956:ALA:C    | 6:C:2959:ALA:H    | 2.20                     | 0.49              |
| 6:C:3632:PHE:HE1  | 6:C:3682:GLU:HB2  | 1.76                     | 0.49              |
| 6:C:3839:TYR:OH   | 6:C:4118:GLY:O    | 2.27                     | 0.49              |
| 6:C:3974:MET:CA   | 6:C:3975:LYS:HB3  | 2.41                     | 0.49              |
| 6:C:4006:VAL:O    | 6:C:4009:PRO:HD2  | 2.11                     | 0.49              |
| 6:C:4016:PHE:HD1  | 6:C:4019:LYS:HD2  | 1.76                     | 0.49              |
| 6:C:4068:HIS:CG   | 6:C:4069:GLU:N    | 2.80                     | 0.49              |
| 6:C:4100:GLU:N    | 6:C:4102:THR:OG1  | 2.44                     | 0.49              |
| 1:A:133:ASP:C     | 1:A:136:GLY:H     | 2.20                     | 0.49              |
| 1:A:353:LEU:N     | 1:A:393:GLU:OE2   | 2.45                     | 0.49              |
| 2:B:234:LEU:HD22  | 2:B:237:PHE:CE2   | 2.47                     | 0.49              |
| 2:B:362:LEU:HB2   | 2:B:421:TYR:H     | 1.78                     | 0.49              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:454:VAL:H     | 2:B:532:LYS:NZ    | 2.09                     | 0.49              |
| 2:B:460:SER:O     | 2:B:522:VAL:HG13  | 2.12                     | 0.49              |
| 4:D:-6:DT:O4      | 5:E:42:DA:N6      | 2.45                     | 0.49              |
| 5:E:17:DA:C8      | 5:E:18:DG:C4      | 3.00                     | 0.49              |
| 6:C:437:HIS:HB2   | 6:C:1814:PHE:CB   | 2.36                     | 0.49              |
| 6:C:592:GLU:O     | 6:C:596:GLU:HG3   | 2.12                     | 0.49              |
| 6:C:852:ARG:NH2   | 6:C:3110:PHE:O    | 2.41                     | 0.49              |
| 6:C:1403:MET:O    | 6:C:1407:LYS:HG3  | 2.12                     | 0.49              |
| 6:C:1743:MET:HB3  | 6:C:1880:MET:HE1  | 1.94                     | 0.49              |
| 6:C:2004:TYR:OH   | 6:C:2009:LYS:HE3  | 2.13                     | 0.49              |
| 6:C:2227:LYS:HA   | 6:C:2231:PHE:O    | 2.12                     | 0.49              |
| 6:C:2345:VAL:O    | 6:C:2348:GLN:HB3  | 2.12                     | 0.49              |
| 6:C:2439:ILE:HG23 | 6:C:2440:TYR:CZ   | 2.47                     | 0.49              |
| 6:C:2507:ILE:C    | 6:C:2510:LEU:H    | 2.20                     | 0.49              |
| 6:C:2920:VAL:HA   | 6:C:2923:TRP:HD1  | 1.74                     | 0.49              |
| 6:C:3025:PRO:O    | 6:C:3029:LYS:HG3  | 2.12                     | 0.49              |
| 6:C:3353:GLU:HB2  | 6:C:3377:LEU:HG   | 1.93                     | 0.49              |
| 6:C:3753:LYS:HG2  | 6:C:3803:ILE:HG21 | 1.93                     | 0.49              |
| 6:C:3764:VAL:HG12 | 6:C:3768:PHE:HE2  | 1.76                     | 0.49              |
| 6:C:3817:LEU:O    | 6:C:3820:MET:N    | 2.44                     | 0.49              |
| 6:C:3855:TYR:HA   | 6:C:3858:MET:CE   | 2.41                     | 0.49              |
| 6:C:3863:ASN:HA   | 6:C:3866:GLU:CD   | 2.37                     | 0.49              |
| 6:C:3998:LEU:HD11 | 6:C:4002:MET:HG2  | 1.95                     | 0.49              |
| 1:A:69:SER:CB     | 1:A:239:LEU:HD11  | 2.42                     | 0.49              |
| 2:B:275:THR:O     | 2:B:276:TRP:HB2   | 2.11                     | 0.49              |
| 5:E:27:DC:O2      | 5:E:27:DC:H2'     | 2.13                     | 0.49              |
| 5:E:46:DT:H2'     | 5:E:47:DT:H6      | 1.72                     | 0.49              |
| 6:C:33:GLN:CD     | 6:C:2427:ARG:HA   | 2.37                     | 0.49              |
| 6:C:187:SER:O     | 6:C:190:ILE:HB    | 2.12                     | 0.49              |
| 6:C:323:VAL:O     | 6:C:327:VAL:HG23  | 2.11                     | 0.49              |
| 6:C:437:HIS:HA    | 6:C:440:VAL:HG22  | 1.93                     | 0.49              |
| 6:C:608:PRO:HB3   | 6:C:1801:VAL:HG13 | 1.93                     | 0.49              |
| 6:C:852:ARG:NE    | 6:C:3111:MET:HA   | 2.27                     | 0.49              |
| 6:C:1304:HIS:HA   | 6:C:1307:ILE:HG12 | 1.94                     | 0.49              |
| 6:C:1372:LEU:HD11 | 6:C:1399:CYS:SG   | 2.52                     | 0.49              |
| 6:C:1409:SER:HB3  | 6:C:1410:PRO:HD3  | 1.94                     | 0.49              |
| 6:C:1633:TRP:CD1  | 6:C:1633:TRP:N    | 2.78                     | 0.49              |
| 6:C:1726:SER:HA   | 6:C:1866:GLN:NE2  | 2.18                     | 0.49              |
| 6:C:2021:GLY:HA3  | 6:C:2044:ASP:OD2  | 2.13                     | 0.49              |
| 6:C:2458:VAL:HG13 | 6:C:2473:MET:SD   | 2.52                     | 0.49              |
| 6:C:3134:ALA:O    | 6:C:3137:GLU:HB2  | 2.12                     | 0.49              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3704:GLN:NE2  | 6:C:3802:LEU:HD22 | 2.26                     | 0.49              |
| 6:C:3793:VAL:HG22 | 6:C:3803:ILE:HG13 | 1.93                     | 0.49              |
| 6:C:4108:MET:N    | 6:C:4108:MET:HE2  | 2.28                     | 0.49              |
| 1:A:73:SER:HB2    | 1:A:246:VAL:CG1   | 2.43                     | 0.49              |
| 1:A:239:LEU:HG    | 1:A:243:LEU:HG    | 1.95                     | 0.49              |
| 1:A:256:LEU:HD23  | 5:E:38:DA:O5'     | 2.13                     | 0.49              |
| 1:A:306:SER:HB2   | 2:B:288:ASP:OD1   | 2.12                     | 0.49              |
| 2:B:131:HIS:CE1   | 2:B:133:GLU:HB3   | 2.47                     | 0.49              |
| 6:C:351:ASN:HB3   | 6:C:357:LYS:HZ1   | 1.78                     | 0.49              |
| 6:C:369:PHE:CE1   | 6:C:373:CYS:HA    | 2.48                     | 0.49              |
| 6:C:484:HIS:HA    | 6:C:487:LEU:HD23  | 1.94                     | 0.49              |
| 6:C:624:ILE:H     | 6:C:659:ARG:NH1   | 2.11                     | 0.49              |
| 6:C:898:PHE:HD1   | 6:C:2567:SER:HB3  | 1.78                     | 0.49              |
| 6:C:941:MET:SD    | 6:C:959:TYR:HD1   | 2.34                     | 0.49              |
| 6:C:992:ILE:HD11  | 6:C:1034:ARG:CG   | 2.43                     | 0.49              |
| 6:C:1104:LEU:O    | 6:C:1108:MET:HG3  | 2.13                     | 0.49              |
| 6:C:1426:GLN:O    | 6:C:1430:GLU:HG2  | 2.11                     | 0.49              |
| 6:C:1759:LEU:HG   | 6:C:1893:GLU:H    | 1.78                     | 0.49              |
| 6:C:1930:GLU:OE1  | 6:C:1930:GLU:N    | 2.44                     | 0.49              |
| 6:C:2082:GLU:OE1  | 6:C:2082:GLU:N    | 2.46                     | 0.49              |
| 6:C:2195:SER:HB2  | 6:C:2196:TRP:CZ3  | 2.47                     | 0.49              |
| 6:C:2207:LYS:C    | 6:C:2209:GLU:N    | 2.68                     | 0.49              |
| 6:C:2801:ASP:N    | 6:C:2802:PRO:HD2  | 2.26                     | 0.49              |
| 6:C:2886:GLN:NE2  | 6:C:2922:ARG:HA   | 2.27                     | 0.49              |
| 6:C:2989:ALA:O    | 6:C:2992:ASP:N    | 2.45                     | 0.49              |
| 6:C:3120:LEU:HD13 | 6:C:3125:ARG:NH1  | 2.28                     | 0.49              |
| 6:C:3231:ILE:O    | 6:C:3235:LYS:HG3  | 2.11                     | 0.49              |
| 6:C:3276:TRP:HZ3  | 6:C:3303:THR:CB   | 2.22                     | 0.49              |
| 6:C:3566:GLY:HA2  | 6:C:3569:GLN:HG2  | 1.94                     | 0.49              |
| 1:A:43:ASP:CB     | 1:A:170:THR:HB    | 2.42                     | 0.49              |
| 1:A:60:PHE:CZ     | 1:A:64:ILE:HD11   | 2.48                     | 0.49              |
| 1:A:184:SER:HA    | 1:A:187:ARG:HG2   | 1.93                     | 0.49              |
| 1:A:241:ASP:OD1   | 1:A:242:LEU:N     | 2.42                     | 0.49              |
| 1:A:285:PRO:HA    | 2:B:314:PHE:CZ    | 2.48                     | 0.49              |
| 1:A:345:LEU:HD11  | 1:A:400:TYR:CE1   | 2.48                     | 0.49              |
| 1:A:397:LEU:HD11  | 1:A:437:LEU:HD11  | 1.94                     | 0.49              |
| 1:A:438:PRO:HG2   | 2:B:479:THR:HB    | 1.94                     | 0.49              |
| 2:B:66:ASN:ND2    | 2:B:77:ILE:HB     | 2.27                     | 0.49              |
| 2:B:257:LEU:HD21  | 2:B:259:ILE:HD11  | 1.93                     | 0.49              |
| 4:D:8:DT:C2       | 4:D:9:DG:C8       | 3.00                     | 0.49              |
| 6:C:374:LYS:HG2   | 6:C:377:ASN:OD1   | 2.11                     | 0.49              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:389:ILE:HG21  | 6:C:431:TYR:CD1   | 2.45                     | 0.49              |
| 6:C:395:MET:O     | 6:C:399:GLN:HG3   | 2.12                     | 0.49              |
| 6:C:421:LEU:HD23  | 6:C:424:LEU:HD12  | 1.93                     | 0.49              |
| 6:C:625:ASN:H     | 6:C:659:ARG:NH2   | 2.10                     | 0.49              |
| 6:C:895:ALA:HB3   | 6:C:940:PHE:CE1   | 2.47                     | 0.49              |
| 6:C:1009:LEU:O    | 6:C:1013:ILE:HG12 | 2.13                     | 0.49              |
| 6:C:2386:LEU:HD12 | 6:C:2401:VAL:HA   | 1.93                     | 0.49              |
| 6:C:2962:ARG:HD3  | 6:C:3003:ASN:ND2  | 2.27                     | 0.49              |
| 6:C:3581:PRO:O    | 6:C:3584:LEU:HB2  | 2.13                     | 0.49              |
| 6:C:3907:SER:OG   | 6:C:3908:HIS:N    | 2.46                     | 0.49              |
| 1:A:74:LYS:O      | 1:A:78:SER:HA     | 2.12                     | 0.49              |
| 1:A:92:LYS:HG2    | 1:A:93:ASP:N      | 2.27                     | 0.49              |
| 1:A:172:GLU:OE2   | 1:A:175:PRO:HA    | 2.13                     | 0.49              |
| 1:A:206:LYS:HZ1   | 1:A:208:PRO:HA    | 1.78                     | 0.49              |
| 1:A:218:ARG:NH1   | 1:A:221:ILE:HG13  | 2.27                     | 0.49              |
| 1:A:276:LEU:HA    | 2:B:431:ARG:HB3   | 1.94                     | 0.49              |
| 1:A:289:TYR:O     | 1:A:292:THR:OG1   | 2.21                     | 0.49              |
| 1:A:304:ASN:OD1   | 1:A:306:SER:N     | 2.28                     | 0.49              |
| 1:A:441:ASP:OD2   | 2:B:270:GLU:N     | 2.45                     | 0.49              |
| 2:B:327:ASP:N     | 2:B:327:ASP:OD1   | 2.44                     | 0.49              |
| 2:B:386:ASP:N     | 2:B:386:ASP:OD1   | 2.43                     | 0.49              |
| 2:B:476:LEU:HB3   | 2:B:519:PRO:HD2   | 1.95                     | 0.49              |
| 2:B:523:THR:O     | 2:B:527:GLN:NE2   | 2.46                     | 0.49              |
| 6:C:175:TYR:CD1   | 6:C:223:CYS:HA    | 2.47                     | 0.49              |
| 6:C:319:PHE:O     | 6:C:323:VAL:HG23  | 2.13                     | 0.49              |
| 6:C:345:PHE:CZ    | 6:C:364:ARG:HA    | 2.42                     | 0.49              |
| 6:C:567:GLU:O     | 6:C:570:LYS:N     | 2.45                     | 0.49              |
| 6:C:584:GLU:CG    | 6:C:586:GLN:H     | 2.24                     | 0.49              |
| 6:C:852:ARG:O     | 6:C:855:VAL:HB    | 2.12                     | 0.49              |
| 6:C:904:VAL:C     | 6:C:905:ILE:HG12  | 2.38                     | 0.49              |
| 6:C:923:ASP:OD1   | 6:C:923:ASP:N     | 2.45                     | 0.49              |
| 6:C:938:VAL:HG22  | 6:C:962:TYR:CE2   | 2.48                     | 0.49              |
| 6:C:978:GLN:HE21  | 6:C:982:GLN:HB2   | 1.77                     | 0.49              |
| 6:C:1330:TYR:C    | 6:C:1333:SER:HG   | 2.20                     | 0.49              |
| 6:C:1884:LEU:HA   | 6:C:1887:ASP:OD2  | 2.13                     | 0.49              |
| 6:C:2256:ILE:HA   | 6:C:2259:LYS:HZ3  | 1.77                     | 0.49              |
| 6:C:3084:GLN:O    | 6:C:3087:SER:N    | 2.45                     | 0.49              |
| 6:C:3138:ILE:HD12 | 6:C:3189:PHE:HZ   | 1.77                     | 0.49              |
| 6:C:3397:GLN:HB3  | 6:C:3398:PRO:HD3  | 1.94                     | 0.49              |
| 6:C:3771:MET:HA   | 6:C:3774:ILE:HD13 | 1.95                     | 0.49              |
| 6:C:4062:ASP:HA   | 6:C:4065:LEU:HD11 | 1.94                     | 0.49              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:4113:ASP:O    | 6:C:4116:ILE:N    | 2.45                     | 0.49              |
| 1:A:74:LYS:HD3    | 1:A:77:SER:OG     | 2.12                     | 0.49              |
| 1:A:145:GLU:OE1   | 1:A:185:ARG:NE    | 2.46                     | 0.49              |
| 4:D:-9:DC:H2''    | 4:D:-8:DT:O5'     | 2.10                     | 0.49              |
| 4:D:9:DG:H1'      | 5:E:28:DA:C2      | 2.38                     | 0.49              |
| 6:C:175:TYR:CZ    | 6:C:200:PHE:HD1   | 2.30                     | 0.49              |
| 6:C:576:VAL:HA    | 6:C:601:TRP:HB2   | 1.95                     | 0.49              |
| 6:C:703:CYS:O     | 6:C:707:PHE:HB3   | 2.13                     | 0.49              |
| 6:C:1072:ALA:CB   | 6:C:1075:ARG:HG2  | 2.42                     | 0.49              |
| 6:C:1141:LYS:H    | 6:C:1146:ASN:HD21 | 1.60                     | 0.49              |
| 6:C:1164:CYS:HA   | 6:C:1256:TRP:CZ3  | 2.47                     | 0.49              |
| 6:C:1302:ALA:O    | 6:C:1306:ILE:HD12 | 2.13                     | 0.49              |
| 6:C:1878:ASP:HB2  | 6:C:1881:TYR:CD2  | 2.47                     | 0.49              |
| 6:C:1952:ILE:HG12 | 6:C:1953:CYS:N    | 2.25                     | 0.49              |
| 6:C:2028:LEU:HA   | 6:C:2030:TYR:CD2  | 2.47                     | 0.49              |
| 6:C:2423:VAL:HG13 | 6:C:2424:MET:N    | 2.28                     | 0.49              |
| 6:C:2452:ARG:O    | 6:C:2455:LEU:N    | 2.45                     | 0.49              |
| 6:C:3036:TYR:HE2  | 6:C:3040:TYR:HB3  | 1.77                     | 0.49              |
| 6:C:3059:GLN:O    | 6:C:3063:THR:OG1  | 2.29                     | 0.49              |
| 6:C:3249:GLN:O    | 6:C:3251:ASN:ND2  | 2.46                     | 0.49              |
| 6:C:3479:THR:HG23 | 6:C:3480:LEU:HG   | 1.95                     | 0.49              |
| 6:C:3505:LEU:HD12 | 6:C:3509:ASP:HB2  | 1.95                     | 0.49              |
| 1:A:288:LEU:O     | 2:B:310:ILE:HB    | 2.12                     | 0.49              |
| 1:A:362:LEU:HA    | 2:B:359:ASN:O     | 2.13                     | 0.49              |
| 1:A:372:GLU:HG2   | 1:A:379:SER:N     | 2.28                     | 0.49              |
| 2:B:53:GLU:HG2    | 2:B:84:MET:C      | 2.38                     | 0.49              |
| 2:B:249:CYS:SG    | 2:B:339:CYS:HA    | 2.52                     | 0.49              |
| 6:C:118:ASP:OD2   | 6:C:122:LYS:HG2   | 2.12                     | 0.49              |
| 6:C:482:VAL:O     | 6:C:485:GLN:HB2   | 2.13                     | 0.49              |
| 6:C:669:LEU:HD23  | 6:C:672:ILE:HD11  | 1.95                     | 0.49              |
| 6:C:888:ARG:HB2   | 6:C:3889:ARG:HB2  | 1.95                     | 0.49              |
| 6:C:1129:ASP:HA   | 6:C:1132:ASP:HB2  | 1.94                     | 0.49              |
| 6:C:1638:PRO:O    | 6:C:1641:THR:N    | 2.46                     | 0.49              |
| 6:C:2140:LEU:O    | 6:C:2143:ARG:CB   | 2.49                     | 0.49              |
| 6:C:2156:VAL:O    | 6:C:2160:TYR:N    | 2.42                     | 0.49              |
| 6:C:2230:VAL:HG12 | 6:C:2231:PHE:HD2  | 1.78                     | 0.49              |
| 6:C:2367:VAL:C    | 6:C:2369:LYS:N    | 2.70                     | 0.49              |
| 6:C:2936:TYR:CE2  | 6:C:2940:ARG:HB2  | 2.47                     | 0.49              |
| 6:C:3329:LEU:HD12 | 6:C:3389:VAL:HG23 | 1.95                     | 0.49              |
| 6:C:3426:LYS:NZ   | 6:C:3435:ASP:OD2  | 2.43                     | 0.49              |
| 6:C:3591:ASP:HB3  | 6:C:3609:MET:HE2  | 1.94                     | 0.49              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3638:LYS:O    | 6:C:3642:LYS:HG3  | 2.12                     | 0.49              |
| 6:C:3666:LEU:O    | 6:C:3670:MET:N    | 2.26                     | 0.49              |
| 6:C:3678:GLY:HA3  | 6:C:3734:ARG:HH22 | 1.77                     | 0.49              |
| 6:C:3789:ARG:NE   | 6:C:3938:ILE:HD13 | 2.28                     | 0.49              |
| 6:C:3855:TYR:OH   | 6:C:4122:GLU:HG3  | 2.12                     | 0.49              |
| 6:C:3872:ARG:NH1  | 6:C:4117:LEU:HD12 | 2.28                     | 0.49              |
| 6:C:3951:GLN:NE2  | 6:C:4068:HIS:HB2  | 2.21                     | 0.49              |
| 1:A:353:LEU:HD12  | 1:A:393:GLU:HA    | 1.95                     | 0.49              |
| 2:B:265:LYS:HZ3   | 5:E:28:DA:H5'     | 1.77                     | 0.49              |
| 2:B:399:LYS:HG3   | 4:D:11:DC:C4'     | 2.37                     | 0.49              |
| 5:E:29:DT:N3      | 5:E:30:DA:C5      | 2.81                     | 0.49              |
| 5:E:44:DA:H4'     | 6:C:260:ILE:CD1   | 2.43                     | 0.49              |
| 6:C:12:LEU:HA     | 6:C:38:LEU:HD22   | 1.93                     | 0.49              |
| 6:C:382:ASP:N     | 6:C:382:ASP:OD1   | 2.45                     | 0.49              |
| 6:C:563:LEU:HD11  | 6:C:1800:SER:HB3  | 1.95                     | 0.49              |
| 6:C:1030:GLY:HA2  | 6:C:1033:ILE:HG22 | 1.94                     | 0.49              |
| 6:C:1296:PHE:HE2  | 6:C:1361:LYS:HG2  | 1.77                     | 0.49              |
| 6:C:1904:CYS:O    | 6:C:1908:GLY:N    | 2.31                     | 0.49              |
| 6:C:1911:LEU:HD11 | 6:C:1913:LYS:HD2  | 1.95                     | 0.49              |
| 6:C:1952:ILE:HG23 | 6:C:1956:PHE:HE1  | 1.78                     | 0.49              |
| 6:C:2499:PHE:O    | 6:C:2502:ALA:HB3  | 2.12                     | 0.49              |
| 6:C:2552:VAL:HA   | 6:C:2554:PHE:CE2  | 2.47                     | 0.49              |
| 6:C:2874:ALA:O    | 6:C:2877:SER:N    | 2.45                     | 0.49              |
| 6:C:2948:GLY:O    | 6:C:2951:GLN:HB2  | 2.13                     | 0.49              |
| 6:C:3031:TRP:CZ3  | 6:C:3034:PRO:HD3  | 2.47                     | 0.49              |
| 6:C:3118:ASP:CG   | 6:C:3119:VAL:N    | 2.70                     | 0.49              |
| 6:C:3413:TYR:CB   | 6:C:3449:LYS:HG2  | 2.43                     | 0.49              |
| 6:C:3424:LEU:HB2  | 6:C:3439:LEU:HD11 | 1.93                     | 0.49              |
| 6:C:3641:ASP:HA   | 6:C:3644:PHE:CD2  | 2.48                     | 0.49              |
| 6:C:3718:ARG:HB2  | 6:C:3743:HIS:CG   | 2.48                     | 0.49              |
| 6:C:3789:ARG:HH21 | 6:C:3940:ILE:HD12 | 1.78                     | 0.49              |
| 6:C:3974:MET:HB2  | 6:C:3976:GLU:OE2  | 2.13                     | 0.49              |
| 6:C:4038:TRP:CG   | 6:C:4039:TYR:N    | 2.80                     | 0.49              |
| 1:A:194:ARG:O     | 1:A:197:GLY:N     | 2.39                     | 0.48              |
| 1:A:406:ILE:HD12  | 1:A:407:PRO:HD2   | 1.95                     | 0.48              |
| 2:B:338:LYS:HD3   | 2:B:398:ASP:CG    | 2.38                     | 0.48              |
| 2:B:339:CYS:SG    | 2:B:394:ARG:NE    | 2.86                     | 0.48              |
| 5:E:16:DC:H2''    | 5:E:17:DA:H2'     | 1.95                     | 0.48              |
| 6:C:43:VAL:O      | 6:C:46:SER:OG     | 2.20                     | 0.48              |
| 6:C:287:LEU:HD11  | 6:C:291:VAL:HB    | 1.94                     | 0.48              |
| 6:C:635:PRO:O     | 6:C:638:GLN:HB2   | 2.13                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:712:LYS:O     | 6:C:715:ALA:N     | 2.46                     | 0.48              |
| 6:C:738:HIS:CE1   | 6:C:748:TYR:CG    | 3.01                     | 0.48              |
| 6:C:911:LEU:HD23  | 6:C:914:VAL:HG21  | 1.94                     | 0.48              |
| 6:C:1422:LYS:HE3  | 6:C:1426:GLN:HG2  | 1.95                     | 0.48              |
| 6:C:1934:LEU:HD12 | 6:C:1937:ARG:H    | 1.78                     | 0.48              |
| 6:C:2307:MET:HA   | 6:C:2315:VAL:CB   | 2.40                     | 0.48              |
| 6:C:2526:SER:HA   | 6:C:2530:ARG:HD3  | 1.93                     | 0.48              |
| 6:C:2900:LEU:N    | 6:C:2902:PRO:HD2  | 2.28                     | 0.48              |
| 6:C:3015:SER:OG   | 6:C:3043:TYR:HB3  | 2.13                     | 0.48              |
| 6:C:3077:ILE:HG13 | 6:C:3078:LEU:H    | 1.78                     | 0.48              |
| 6:C:3130:GLN:CG   | 6:C:3178:ILE:HG12 | 2.43                     | 0.48              |
| 6:C:3148:GLN:HE21 | 6:C:3196:LYS:HE2  | 1.76                     | 0.48              |
| 6:C:3865:THR:O    | 6:C:3869:THR:HG23 | 2.13                     | 0.48              |
| 6:C:3963:LEU:HD12 | 6:C:3967:PHE:HD2  | 1.77                     | 0.48              |
| 6:C:4065:LEU:CD1  | 6:C:4078:VAL:HG11 | 2.43                     | 0.48              |
| 1:A:69:SER:HB2    | 1:A:239:LEU:HD11  | 1.95                     | 0.48              |
| 1:A:339:ARG:NH1   | 1:A:405:ASN:HD22  | 2.11                     | 0.48              |
| 1:A:384:ALA:HA    | 1:A:387:ILE:HD12  | 1.94                     | 0.48              |
| 2:B:107:PHE:CE1   | 2:B:138:LEU:HD23  | 2.48                     | 0.48              |
| 4:D:17:DG:H2''    | 4:D:18:DC:OP2     | 2.12                     | 0.48              |
| 5:E:46:DT:H6      | 5:E:46:DT:O5'     | 1.97                     | 0.48              |
| 6:C:109:ASN:O     | 6:C:112:THR:HB    | 2.12                     | 0.48              |
| 6:C:111:CYS:HB3   | 6:C:134:LEU:HD22  | 1.95                     | 0.48              |
| 6:C:847:SER:O     | 6:C:850:GLU:HB2   | 2.12                     | 0.48              |
| 6:C:1016:GLY:HA2  | 6:C:1019:ASP:HB2  | 1.95                     | 0.48              |
| 6:C:1216:GLY:HA2  | 6:C:1219:PHE:CD2  | 2.48                     | 0.48              |
| 6:C:1256:TRP:CZ3  | 6:C:1259:LEU:HD12 | 2.48                     | 0.48              |
| 6:C:1978:PHE:O    | 6:C:1982:ILE:HG13 | 2.13                     | 0.48              |
| 6:C:2023:SER:HB2  | 6:C:2025:MET:HE2  | 1.94                     | 0.48              |
| 6:C:2389:PHE:C    | 6:C:2392:VAL:H    | 2.22                     | 0.48              |
| 6:C:2931:ARG:NE   | 6:C:2956:ALA:HB1  | 2.17                     | 0.48              |
| 6:C:3180:ASP:O    | 6:C:3184:THR:HG23 | 2.13                     | 0.48              |
| 6:C:3300:VAL:O    | 6:C:3303:THR:N    | 2.45                     | 0.48              |
| 6:C:3475:TYR:O    | 6:C:3479:THR:HG22 | 2.12                     | 0.48              |
| 6:C:3923:ARG:HA   | 6:C:3927:ASN:CB   | 2.37                     | 0.48              |
| 6:C:3923:ARG:HD2  | 6:C:3928:PHE:CE2  | 2.49                     | 0.48              |
| 1:A:44:ALA:HB3    | 1:A:88:TYR:O      | 2.14                     | 0.48              |
| 1:A:278:GLN:CD    | 4:D:1:DG:H3'      | 2.38                     | 0.48              |
| 1:A:477:SER:N     | 2:B:427:MET:SD    | 2.62                     | 0.48              |
| 1:A:522:VAL:HG11  | 2:B:256:ASN:HB3   | 1.94                     | 0.48              |
| 2:B:191:SER:HB2   | 2:B:232:ARG:NH2   | 2.27                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:487:PHE:CE1   | 2:B:488:GLN:HG2   | 2.49                     | 0.48              |
| 4:D:4:DA:C2       | 5:E:33:DA:C4      | 3.02                     | 0.48              |
| 6:C:411:PRO:HA    | 6:C:414:LEU:HB3   | 1.94                     | 0.48              |
| 6:C:575:ILE:HA    | 6:C:578:LYS:HB2   | 1.95                     | 0.48              |
| 6:C:616:LYS:O     | 6:C:620:PHE:HD2   | 1.95                     | 0.48              |
| 6:C:675:ARG:O     | 6:C:678:LYS:HB3   | 2.13                     | 0.48              |
| 6:C:743:LEU:HD23  | 6:C:783:HIS:HE1   | 1.77                     | 0.48              |
| 6:C:977:ASP:HB2   | 6:C:980:THR:OG1   | 2.14                     | 0.48              |
| 6:C:993:HIS:O     | 6:C:996:THR:OG1   | 2.30                     | 0.48              |
| 6:C:1128:CYS:O    | 6:C:1131:ILE:HG12 | 2.13                     | 0.48              |
| 6:C:1153:LEU:HB3  | 6:C:1157:PHE:CE2  | 2.47                     | 0.48              |
| 6:C:1405:ALA:O    | 6:C:1410:PRO:HG2  | 2.14                     | 0.48              |
| 6:C:1649:LEU:O    | 6:C:1652:ILE:N    | 2.47                     | 0.48              |
| 6:C:2183:HIS:O    | 6:C:2184:TYR:C    | 2.55                     | 0.48              |
| 6:C:2195:SER:HB2  | 6:C:2196:TRP:CE3  | 2.48                     | 0.48              |
| 6:C:2227:LYS:CG   | 6:C:2232:ARG:HA   | 2.36                     | 0.48              |
| 6:C:2235:LEU:O    | 6:C:2236:GLU:C    | 2.56                     | 0.48              |
| 6:C:2549:LYS:HD3  | 6:C:2554:PHE:CG   | 2.48                     | 0.48              |
| 6:C:2809:PHE:HA   | 6:C:2812:LEU:HG   | 1.95                     | 0.48              |
| 6:C:2918:PRO:O    | 6:C:2921:LEU:HG   | 2.13                     | 0.48              |
| 6:C:3008:TRP:CG   | 6:C:3009:LYS:N    | 2.80                     | 0.48              |
| 6:C:3120:LEU:HA   | 6:C:3125:ARG:HH11 | 1.78                     | 0.48              |
| 6:C:3320:ILE:C    | 6:C:3323:PHE:HB3  | 2.38                     | 0.48              |
| 6:C:3922:ASP:O    | 6:C:3923:ARG:HD3  | 2.13                     | 0.48              |
| 6:C:3972:LEU:C    | 6:C:3974:MET:H    | 2.20                     | 0.48              |
| 6:C:4065:LEU:HD11 | 6:C:4078:VAL:HG11 | 1.95                     | 0.48              |
| 1:A:73:SER:OG     | 1:A:74:LYS:NZ     | 2.42                     | 0.48              |
| 1:A:89:GLY:HA2    | 1:A:101:ASN:HB3   | 1.95                     | 0.48              |
| 1:A:132:GLN:HB3   | 1:A:137:HIS:HB3   | 1.94                     | 0.48              |
| 1:A:294:GLU:HB3   | 2:B:298:ASN:ND2   | 2.27                     | 0.48              |
| 2:B:33:GLN:HB3    | 2:B:227:PHE:HB3   | 1.96                     | 0.48              |
| 2:B:35:LYS:O      | 2:B:39:THR:HB     | 2.13                     | 0.48              |
| 2:B:66:ASN:ND2    | 2:B:74:TYR:HB3    | 2.29                     | 0.48              |
| 2:B:352:GLN:HB2   | 2:B:355:PHE:CD2   | 2.48                     | 0.48              |
| 6:C:79:ARG:HH22   | 6:C:121:ALA:HB3   | 1.78                     | 0.48              |
| 6:C:204:LEU:HD13  | 6:C:220:LEU:HD23  | 1.94                     | 0.48              |
| 6:C:382:ASP:HA    | 6:C:385:TYR:CZ    | 2.48                     | 0.48              |
| 6:C:1339:VAL:HG23 | 6:C:1340:ARG:HG2  | 1.94                     | 0.48              |
| 6:C:1996:VAL:HG12 | 6:C:2050:GLN:HE21 | 1.77                     | 0.48              |
| 6:C:2154:GLU:OE1  | 6:C:2157:PHE:HD1  | 1.97                     | 0.48              |
| 6:C:2327:LEU:O    | 6:C:2331:MET:HG3  | 2.13                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2501:LEU:HA   | 6:C:2504:ASP:CG   | 2.38                     | 0.48              |
| 6:C:2523:ASN:HB3  | 6:C:2527:HIS:NE2  | 2.27                     | 0.48              |
| 6:C:2921:LEU:HD12 | 6:C:2922:ARG:HG2  | 1.94                     | 0.48              |
| 6:C:3004:HIS:ND1  | 6:C:3046:ARG:HG2  | 2.29                     | 0.48              |
| 6:C:3159:ARG:HG2  | 6:C:3161:LEU:H    | 1.78                     | 0.48              |
| 6:C:3298:LEU:CA   | 6:C:3301:LEU:HB3  | 2.42                     | 0.48              |
| 6:C:3467:ARG:HA   | 6:C:3470:GLN:OE1  | 2.12                     | 0.48              |
| 6:C:4085:LYS:HA   | 6:C:4088:ASN:CB   | 2.44                     | 0.48              |
| 1:A:144:SER:CB    | 1:A:185:ARG:HG2   | 2.44                     | 0.48              |
| 1:A:256:LEU:HG    | 5:E:38:DA:O4'     | 2.13                     | 0.48              |
| 5:E:17:DA:H2''    | 5:E:18:DG:O4'     | 2.14                     | 0.48              |
| 5:E:45:DG:H2'     | 5:E:46:DT:C5      | 2.49                     | 0.48              |
| 6:C:381:VAL:HB    | 6:C:384:MET:HB2   | 1.95                     | 0.48              |
| 6:C:393:LYS:HE2   | 6:C:397:LEU:HD13  | 1.95                     | 0.48              |
| 6:C:476:ARG:HG3   | 6:C:477:ASN:N     | 2.22                     | 0.48              |
| 6:C:531:PHE:N     | 6:C:531:PHE:CD1   | 2.80                     | 0.48              |
| 6:C:706:LEU:HD21  | 6:C:1385:ASN:HB3  | 1.94                     | 0.48              |
| 6:C:726:LEU:O     | 6:C:727:ALA:C     | 2.55                     | 0.48              |
| 6:C:933:LEU:HD12  | 6:C:936:SER:HB2   | 1.96                     | 0.48              |
| 6:C:1113:LEU:HA   | 6:C:1116:ALA:HB2  | 1.95                     | 0.48              |
| 6:C:1250:LEU:O    | 6:C:1255:CYS:N    | 2.46                     | 0.48              |
| 6:C:1437:TYR:HE2  | 6:C:1444:ASP:HB3  | 1.78                     | 0.48              |
| 6:C:1549:SER:HA   | 6:C:1553:PHE:CD2  | 2.45                     | 0.48              |
| 6:C:1676:ILE:HG23 | 6:C:1679:LEU:HD23 | 1.94                     | 0.48              |
| 6:C:1889:VAL:HG23 | 6:C:1897:ASN:OD1  | 2.14                     | 0.48              |
| 6:C:2169:LEU:HA   | 6:C:2172:ALA:HB3  | 1.96                     | 0.48              |
| 6:C:2208:ASP:HA   | 6:C:2211:LEU:HD12 | 1.95                     | 0.48              |
| 6:C:2252:PRO:HD2  | 6:C:2253:TYR:CE1  | 2.47                     | 0.48              |
| 6:C:2446:LEU:HD22 | 6:C:2450:GLU:HG3  | 1.96                     | 0.48              |
| 6:C:2558:ALA:O    | 6:C:2561:PHE:HB2  | 2.14                     | 0.48              |
| 6:C:3172:LYS:HB3  | 6:C:3179:TRP:HD1  | 1.78                     | 0.48              |
| 6:C:3247:ARG:HH21 | 6:C:3278:GLN:HA   | 1.77                     | 0.48              |
| 6:C:3815:LEU:HA   | 6:C:3818:ASN:HD21 | 1.78                     | 0.48              |
| 6:C:3847:SER:HB3  | 6:C:3854:ALA:O    | 2.12                     | 0.48              |
| 6:C:3888:VAL:HA   | 6:C:3891:SER:HB2  | 1.95                     | 0.48              |
| 6:C:3951:GLN:HG3  | 6:C:4065:LEU:HA   | 1.96                     | 0.48              |
| 6:C:3959:MET:HB3  | 6:C:3961:PHE:O    | 2.13                     | 0.48              |
| 6:C:4011:PHE:HA   | 6:C:4015:ASN:HB2  | 1.95                     | 0.48              |
| 6:C:4013:TRP:O    | 6:C:4017:GLU:HG3  | 2.13                     | 0.48              |
| 6:C:4060:THR:O    | 6:C:4064:LEU:HG   | 2.12                     | 0.48              |
| 6:C:4095:GLU:CG   | 6:C:4098:LEU:H    | 2.26                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:82:LEU:HG     | 1:A:110:ASN:N     | 2.27                     | 0.48              |
| 1:A:412:ALA:HB2   | 1:A:437:LEU:HD21  | 1.96                     | 0.48              |
| 2:B:13:CYS:HB3    | 2:B:134:ILE:HG13  | 1.95                     | 0.48              |
| 2:B:108:LEU:HD13  | 2:B:146:GLN:H     | 1.78                     | 0.48              |
| 2:B:135:PHE:HB3   | 2:B:227:PHE:CE1   | 2.48                     | 0.48              |
| 5:E:23:DT:C4      | 5:E:24:DG:C6      | 3.01                     | 0.48              |
| 5:E:39:DA:H2'     | 5:E:40:DT:O4'     | 2.13                     | 0.48              |
| 6:C:393:LYS:NZ    | 6:C:1865:THR:HG23 | 2.29                     | 0.48              |
| 6:C:396:PHE:HZ    | 6:C:1814:PHE:CB   | 2.27                     | 0.48              |
| 6:C:864:GLY:C     | 6:C:867:ASN:HD21  | 2.16                     | 0.48              |
| 6:C:989:MET:HB2   | 6:C:2776:ARG:NH2  | 2.29                     | 0.48              |
| 6:C:1160:SER:HB2  | 6:C:1165:LEU:HD21 | 1.95                     | 0.48              |
| 6:C:1238:GLN:O    | 6:C:1241:LEU:HB3  | 2.14                     | 0.48              |
| 6:C:1408:MET:N    | 6:C:1412:LYS:HZ3  | 1.99                     | 0.48              |
| 6:C:1434:VAL:HA   | 6:C:1437:TYR:CD2  | 2.48                     | 0.48              |
| 6:C:1632:TRP:O    | 6:C:1635:LYS:N    | 2.46                     | 0.48              |
| 6:C:2192:THR:O    | 6:C:2195:SER:N    | 2.33                     | 0.48              |
| 6:C:2276:LEU:CD1  | 6:C:2280:VAL:HG23 | 2.43                     | 0.48              |
| 6:C:2478:MET:O    | 6:C:2481:HIS:N    | 2.47                     | 0.48              |
| 6:C:2505:VAL:O    | 6:C:2508:GLN:HB2  | 2.12                     | 0.48              |
| 6:C:2542:LEU:HG   | 6:C:2546:TYR:CE2  | 2.49                     | 0.48              |
| 6:C:2911:ARG:HB2  | 6:C:2914:ALA:HB2  | 1.95                     | 0.48              |
| 6:C:3038:GLU:HA   | 6:C:3041:LEU:HB2  | 1.95                     | 0.48              |
| 6:C:3148:GLN:NE2  | 6:C:3196:LYS:HE2  | 2.29                     | 0.48              |
| 6:C:3400:SER:O    | 6:C:3409:VAL:HG13 | 2.13                     | 0.48              |
| 6:C:3538:GLU:HG3  | 6:C:3757:ASP:OD2  | 2.14                     | 0.48              |
| 6:C:3612:ARG:O    | 6:C:3616:ALA:HB2  | 2.13                     | 0.48              |
| 6:C:3652:LEU:HG   | 6:C:3653:ARG:NH1  | 2.28                     | 0.48              |
| 6:C:3759:ARG:HH12 | 6:C:4008:GLU:CD   | 2.21                     | 0.48              |
| 6:C:3795:PRO:HA   | 6:C:3801:GLY:HA3  | 1.94                     | 0.48              |
| 6:C:4080:VAL:O    | 6:C:4115:ASN:ND2  | 2.47                     | 0.48              |
| 1:A:94:LYS:O      | 1:A:104:VAL:HG23  | 2.13                     | 0.48              |
| 1:A:245:LYS:NZ    | 1:A:249:LYS:HD2   | 2.28                     | 0.48              |
| 1:A:349:GLY:HA2   | 2:B:461:MET:HG2   | 1.96                     | 0.48              |
| 2:B:455:ASP:HA    | 2:B:458:ILE:HD12  | 1.96                     | 0.48              |
| 4:D:-2:DT:C4      | 5:E:38:DA:C6      | 3.02                     | 0.48              |
| 4:D:-1:DA:C2      | 5:E:38:DA:H2      | 2.31                     | 0.48              |
| 5:E:17:DA:H8      | 5:E:18:DG:C4      | 2.31                     | 0.48              |
| 6:C:275:PHE:CE1   | 6:C:280:SER:HB2   | 2.48                     | 0.48              |
| 6:C:446:PHE:HD1   | 6:C:448:GLN:CA    | 2.27                     | 0.48              |
| 6:C:461:ILE:O     | 6:C:462:VAL:C     | 2.56                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:528:VAL:O     | 6:C:529:ASP:C     | 2.56                     | 0.48              |
| 6:C:714:VAL:HG13  | 6:C:734:LEU:HD13  | 1.95                     | 0.48              |
| 6:C:1062:ARG:HG3  | 6:C:1063:LEU:N    | 2.29                     | 0.48              |
| 6:C:1062:ARG:C    | 6:C:1066:LEU:HB3  | 2.39                     | 0.48              |
| 6:C:1107:TYR:CE2  | 6:C:1111:LEU:HD22 | 2.49                     | 0.48              |
| 6:C:1280:GLN:HE21 | 6:C:1284:THR:HA   | 1.78                     | 0.48              |
| 6:C:1708:GLU:H    | 6:C:1708:GLU:CD   | 2.20                     | 0.48              |
| 6:C:1805:PHE:CZ   | 6:C:1809:ASP:HA   | 2.48                     | 0.48              |
| 6:C:2218:PHE:CD2  | 6:C:2219:LEU:HD23 | 2.49                     | 0.48              |
| 6:C:2226:PRO:HA   | 6:C:2229:ALA:HB3  | 1.95                     | 0.48              |
| 6:C:2241:LEU:O    | 6:C:2245:TRP:CD1  | 2.67                     | 0.48              |
| 6:C:2254:ARG:HG3  | 6:C:2255:LEU:HG   | 1.96                     | 0.48              |
| 6:C:2279:ILE:O    | 6:C:2282:ALA:HB3  | 2.12                     | 0.48              |
| 6:C:2381:ALA:O    | 6:C:2383:PHE:N    | 2.47                     | 0.48              |
| 6:C:2572:TYR:OH   | 6:C:2790:LEU:HA   | 2.14                     | 0.48              |
| 6:C:2830:ASN:O    | 6:C:2834:GLN:HG2  | 2.14                     | 0.48              |
| 6:C:2962:ARG:HH12 | 6:C:3008:TRP:HB3  | 1.74                     | 0.48              |
| 6:C:3011:LEU:CD2  | 6:C:3047:SER:HA   | 2.44                     | 0.48              |
| 6:C:3178:ILE:O    | 6:C:3181:ASP:N    | 2.47                     | 0.48              |
| 6:C:3272:TRP:HB3  | 6:C:3276:TRP:NE1  | 2.28                     | 0.48              |
| 6:C:3492:CYS:SG   | 6:C:3524:ASN:HB3  | 2.53                     | 0.48              |
| 6:C:3522:THR:HG21 | 6:C:3558:ILE:HD12 | 1.96                     | 0.48              |
| 6:C:3531:TYR:O    | 6:C:3533:PHE:N    | 2.47                     | 0.48              |
| 6:C:4107:LEU:HA   | 6:C:4110:GLN:CD   | 2.38                     | 0.48              |
| 1:A:40:PHE:CE2    | 1:A:71:TYR:HB2    | 2.44                     | 0.48              |
| 1:A:336:GLU:HG3   | 1:A:339:ARG:CZ    | 2.43                     | 0.48              |
| 1:A:413:LEU:CD2   | 1:A:434:LEU:HA    | 2.44                     | 0.48              |
| 2:B:464:ALA:CA    | 2:B:475:ASP:HA    | 2.44                     | 0.48              |
| 2:B:466:LYS:N     | 2:B:473:LEU:HG    | 2.29                     | 0.48              |
| 2:B:511:HIS:HA    | 2:B:514:ASN:ND2   | 2.29                     | 0.48              |
| 6:C:175:TYR:CZ    | 6:C:200:PHE:CD1   | 3.01                     | 0.48              |
| 6:C:258:PRO:HB2   | 6:C:261:ASP:OD1   | 2.13                     | 0.48              |
| 6:C:291:VAL:O     | 6:C:295:GLU:HG2   | 2.14                     | 0.48              |
| 6:C:752:LEU:HD12  | 6:C:753:GLN:N     | 2.29                     | 0.48              |
| 6:C:1695:LEU:O    | 6:C:1698:PHE:N    | 2.38                     | 0.48              |
| 6:C:2056:SER:HB2  | 6:C:2057:GLN:O    | 2.13                     | 0.48              |
| 6:C:2251:ILE:HA   | 6:C:2253:TYR:CD2  | 2.48                     | 0.48              |
| 6:C:2256:ILE:CA   | 6:C:2259:LYS:HZ3  | 2.26                     | 0.48              |
| 6:C:2260:PHE:HE1  | 6:C:2270:ASN:HA   | 1.78                     | 0.48              |
| 6:C:2430:GLU:O    | 6:C:2433:LYS:HB2  | 2.14                     | 0.48              |
| 6:C:2779:ASP:O    | 6:C:2783:ILE:HG12 | 2.13                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2906:PRO:HB3  | 6:C:2941:GLY:C    | 2.39                     | 0.48              |
| 6:C:2976:LEU:HB3  | 6:C:2978:LYS:NZ   | 2.28                     | 0.48              |
| 6:C:3182:ILE:O    | 6:C:3185:ASN:N    | 2.45                     | 0.48              |
| 6:C:3611:GLU:O    | 6:C:3615:ALA:HB3  | 2.13                     | 0.48              |
| 6:C:3791:TYR:CE2  | 6:C:3942:PHE:CE2  | 3.01                     | 0.48              |
| 6:C:3862:ALA:O    | 6:C:3866:GLU:HG3  | 2.13                     | 0.48              |
| 6:C:4014:LYS:HD3  | 6:C:4017:GLU:CD   | 2.38                     | 0.48              |
| 6:C:4125:GLU:CD   | 6:C:4128:MET:HE2  | 2.39                     | 0.48              |
| 1:A:74:LYS:HA     | 1:A:77:SER:HG     | 1.78                     | 0.48              |
| 1:A:99:PHE:HZ     | 6:C:2418:LYS:HE2  | 1.78                     | 0.48              |
| 1:A:338:LYS:NZ    | 1:A:404:ARG:O     | 2.44                     | 0.48              |
| 2:B:80:HIS:HE2    | 2:B:81:ARG:HH21   | 1.61                     | 0.48              |
| 2:B:132:ILE:N     | 2:B:159:ILE:HG23  | 2.29                     | 0.48              |
| 2:B:229:GLU:HA    | 2:B:232:ARG:HG3   | 1.96                     | 0.48              |
| 2:B:400:ARG:HD3   | 4:D:10:DG:O4'     | 2.13                     | 0.48              |
| 4:D:-9:DC:O5'     | 4:D:-9:DC:H6      | 1.96                     | 0.48              |
| 4:D:-2:DT:H6      | 4:D:-2:DT:O5'     | 1.96                     | 0.48              |
| 5:E:45:DG:H2'     | 5:E:46:DT:C6      | 2.49                     | 0.48              |
| 6:C:10:CYS:O      | 6:C:13:LEU:N      | 2.46                     | 0.48              |
| 6:C:96:MET:HB3    | 6:C:98:GLN:O      | 2.14                     | 0.48              |
| 6:C:166:ILE:HD12  | 6:C:170:VAL:HG13  | 1.96                     | 0.48              |
| 6:C:169:THR:OG1   | 6:C:170:VAL:N     | 2.46                     | 0.48              |
| 6:C:207:GLN:HE22  | 6:C:219:VAL:HB    | 1.78                     | 0.48              |
| 6:C:396:PHE:CZ    | 6:C:1814:PHE:HB2  | 2.46                     | 0.48              |
| 6:C:850:GLU:HA    | 6:C:853:ILE:CD1   | 2.44                     | 0.48              |
| 6:C:929:ALA:HB1   | 6:C:2798:ALA:CB   | 2.44                     | 0.48              |
| 6:C:995:PHE:CG    | 6:C:1002:GLU:HB2  | 2.49                     | 0.48              |
| 6:C:2049:VAL:HA   | 6:C:2052:TYR:CD2  | 2.49                     | 0.48              |
| 6:C:2200:ALA:O    | 6:C:2203:THR:HG22 | 2.13                     | 0.48              |
| 6:C:2300:PHE:O    | 6:C:2304:VAL:HG23 | 2.14                     | 0.48              |
| 6:C:2315:VAL:O    | 6:C:2318:ALA:HB3  | 2.14                     | 0.48              |
| 6:C:2916:LEU:HD22 | 6:C:2990:GLU:HG3  | 1.94                     | 0.48              |
| 6:C:2928:LYS:HA   | 6:C:2931:ARG:HH22 | 1.79                     | 0.48              |
| 6:C:2936:TYR:O    | 6:C:2936:TYR:CG   | 2.67                     | 0.48              |
| 6:C:2977:ASN:CB   | 6:C:2980:ASP:HB2  | 2.44                     | 0.48              |
| 6:C:3024:PRO:O    | 6:C:3025:PRO:C    | 2.57                     | 0.48              |
| 6:C:3084:GLN:C    | 6:C:3086:LEU:N    | 2.70                     | 0.48              |
| 6:C:3135:LEU:O    | 6:C:3138:ILE:N    | 2.45                     | 0.48              |
| 6:C:3194:GLU:HG3  | 6:C:3197:LEU:HD12 | 1.96                     | 0.48              |
| 6:C:3629:ARG:HH11 | 6:C:3638:LYS:NZ   | 2.08                     | 0.48              |
| 6:C:3761:ASP:HA   | 6:C:3764:VAL:HG23 | 1.96                     | 0.48              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:143:LEU:N    | 1:A:185:ARG:HH21  | 2.12                     | 0.48              |
| 1:A:247:ARG:HA   | 1:A:247:ARG:HD3   | 1.58                     | 0.48              |
| 1:A:247:ARG:HD2  | 1:A:501:GLU:OE1   | 2.13                     | 0.48              |
| 1:A:325:ARG:NH1  | 2:B:498:ALA:O     | 2.47                     | 0.48              |
| 1:A:407:PRO:HG2  | 1:A:409:TYR:OH    | 2.14                     | 0.48              |
| 1:A:407:PRO:HG3  | 2:B:486:ARG:HG3   | 1.95                     | 0.48              |
| 2:B:83:LEU:HD12  | 2:B:121:GLU:HB2   | 1.96                     | 0.48              |
| 2:B:345:PHE:HD1  | 2:B:391:ALA:HA    | 1.79                     | 0.48              |
| 2:B:508:ILE:HG13 | 2:B:510:GLN:NE2   | 2.29                     | 0.48              |
| 2:B:540:ILE:O    | 2:B:541:GLU:HB2   | 2.14                     | 0.48              |
| 6:C:60:SER:HB3   | 6:C:103:TYR:OH    | 2.13                     | 0.48              |
| 6:C:338:LEU:HD23 | 6:C:342:MET:HG3   | 1.95                     | 0.48              |
| 6:C:345:PHE:O    | 6:C:348:ILE:N     | 2.44                     | 0.48              |
| 6:C:455:LEU:O    | 6:C:458:CYS:HB2   | 2.13                     | 0.48              |
| 6:C:468:LEU:CA   | 6:C:471:LYS:HE3   | 2.40                     | 0.48              |
| 6:C:527:TYR:CE2  | 6:C:531:PHE:HZ    | 2.32                     | 0.48              |
| 6:C:745:VAL:HG13 | 6:C:748:TYR:CD2   | 2.49                     | 0.48              |
| 6:C:754:MET:CE   | 6:C:1020:PRO:HG3  | 2.44                     | 0.48              |
| 6:C:1034:ARG:NE  | 6:C:1037:LEU:HD23 | 2.29                     | 0.48              |
| 6:C:1144:SER:O   | 6:C:1148:ALA:HB2  | 2.14                     | 0.48              |
| 6:C:1145:LEU:O   | 6:C:1150:LYS:NZ   | 2.42                     | 0.48              |
| 6:C:1254:LEU:HA  | 6:C:1258:ASP:OD2  | 2.13                     | 0.48              |
| 6:C:1298:LEU:HA  | 6:C:1301:ILE:HB   | 1.95                     | 0.48              |
| 6:C:1453:SER:HA  | 6:C:1456:LYS:HG3  | 1.95                     | 0.48              |
| 6:C:2039:GLU:HB2 | 6:C:2073:ASP:OD2  | 2.14                     | 0.48              |
| 6:C:2212:ALA:O   | 6:C:2216:LEU:HG   | 2.14                     | 0.48              |
| 6:C:2492:ASP:OD2 | 6:C:2494:ASP:N    | 2.46                     | 0.48              |
| 6:C:3108:GLN:HA  | 6:C:3111:MET:SD   | 2.54                     | 0.48              |
| 6:C:3495:PHE:CZ  | 6:C:3502:MET:HB2  | 2.49                     | 0.48              |
| 6:C:3770:VAL:O   | 6:C:3773:GLY:CA   | 2.62                     | 0.48              |
| 6:C:3838:GLU:O   | 6:C:3841:ASP:HB2  | 2.14                     | 0.48              |
| 6:C:3869:THR:OG1 | 6:C:3870:SER:N    | 2.47                     | 0.48              |
| 6:C:3878:VAL:N   | 6:C:3879:PRO:HD2  | 2.29                     | 0.48              |
| 6:C:4039:TYR:HB3 | 6:C:4042:GLN:H    | 1.79                     | 0.48              |
| 6:C:4104:VAL:O   | 6:C:4105:LYS:C    | 2.56                     | 0.48              |
| 1:A:232:HIS:HB2  | 1:A:423:GLN:C     | 2.39                     | 0.47              |
| 1:A:290:ARG:HH22 | 2:B:307:LYS:HG3   | 1.78                     | 0.47              |
| 1:A:397:LEU:HD23 | 2:B:477:PHE:HD2   | 1.78                     | 0.47              |
| 2:B:76:ASN:HD22  | 2:B:105:ALA:N     | 2.12                     | 0.47              |
| 2:B:227:PHE:O    | 2:B:230:SER:HB2   | 2.14                     | 0.47              |
| 4:D:-3:DT:P      | 6:C:169:THR:HG21  | 2.53                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 4:D:7:DA:N6       | 5:E:28:DA:N6      | 2.62                     | 0.47              |
| 5:E:19:DC:O2      | 5:E:20:DT:HI'     | 2.13                     | 0.47              |
| 6:C:33:GLN:O      | 6:C:36:ARG:HB2    | 2.14                     | 0.47              |
| 6:C:61:ARG:O      | 6:C:65:LEU:HG     | 2.13                     | 0.47              |
| 6:C:85:ILE:HG22   | 6:C:89:LEU:HG     | 1.94                     | 0.47              |
| 6:C:218:PRO:HG3   | 6:C:263:LYS:HZ3   | 1.78                     | 0.47              |
| 6:C:343:GLU:HA    | 6:C:346:TYR:HB3   | 1.96                     | 0.47              |
| 6:C:349:ILE:HG23  | 6:C:368:LEU:HD21  | 1.96                     | 0.47              |
| 6:C:628:GLU:OE2   | 6:C:634:LEU:HB2   | 2.14                     | 0.47              |
| 6:C:756:PHE:HB3   | 6:C:773:LEU:HD13  | 1.95                     | 0.47              |
| 6:C:776:TRP:CZ2   | 6:C:780:ILE:HG13  | 2.49                     | 0.47              |
| 6:C:1135:CYS:CA   | 6:C:1138:ILE:HB   | 2.43                     | 0.47              |
| 6:C:1238:GLN:OE1  | 6:C:1298:LEU:HG   | 2.14                     | 0.47              |
| 6:C:1301:ILE:HD13 | 6:C:1304:HIS:ND1  | 2.29                     | 0.47              |
| 6:C:1406:LEU:O    | 6:C:1410:PRO:HB2  | 2.14                     | 0.47              |
| 6:C:1763:THR:HB   | 6:C:1857:LYS:HB3  | 1.95                     | 0.47              |
| 6:C:2023:SER:HA   | 6:C:2069:ARG:HE   | 1.79                     | 0.47              |
| 6:C:2032:ALA:HB1  | 6:C:2035:THR:OG1  | 2.13                     | 0.47              |
| 6:C:2216:LEU:C    | 6:C:2220:MET:HE2  | 2.39                     | 0.47              |
| 6:C:2285:LEU:O    | 6:C:2286:PRO:C    | 2.56                     | 0.47              |
| 6:C:2324:GLY:HA3  | 6:C:2370:SER:HB3  | 1.96                     | 0.47              |
| 6:C:2482:ASP:HA   | 6:C:2485:ARG:HE   | 1.79                     | 0.47              |
| 6:C:2929:LEU:O    | 6:C:2933:ILE:HG13 | 2.14                     | 0.47              |
| 6:C:3026:ASP:O    | 6:C:3030:ILE:HB   | 2.14                     | 0.47              |
| 6:C:3353:GLU:HB3  | 6:C:3373:VAL:N    | 2.29                     | 0.47              |
| 6:C:3718:ARG:HD2  | 6:C:3743:HIS:CD2  | 2.48                     | 0.47              |
| 1:A:74:LYS:HD3    | 1:A:77:SER:HG     | 1.79                     | 0.47              |
| 1:A:166:ILE:HB    | 1:A:200:LEU:HB2   | 1.96                     | 0.47              |
| 1:A:272:GLY:O     | 1:A:368:VAL:HG13  | 2.14                     | 0.47              |
| 1:A:359:HIS:HB3   | 1:A:360:HIS:HD2   | 1.79                     | 0.47              |
| 1:A:366:LEU:O     | 1:A:434:LEU:HD22  | 2.14                     | 0.47              |
| 2:B:152:HIS:HA    | 2:B:155:LYS:HG3   | 1.96                     | 0.47              |
| 4:D:1:DG:C6       | 4:D:2:DG:C6       | 3.03                     | 0.47              |
| 6:C:10:CYS:HA     | 6:C:13:LEU:HB2    | 1.96                     | 0.47              |
| 6:C:343:GLU:HA    | 6:C:346:TYR:CB    | 2.44                     | 0.47              |
| 6:C:416:SER:O     | 6:C:420:VAL:HG23  | 2.14                     | 0.47              |
| 6:C:653:LEU:HB2   | 6:C:656:GLN:CD    | 2.39                     | 0.47              |
| 6:C:736:LEU:C     | 6:C:739:ASN:H     | 2.22                     | 0.47              |
| 6:C:1080:LEU:HD23 | 6:C:1127:CYS:HA   | 1.96                     | 0.47              |
| 6:C:1333:SER:O    | 6:C:1336:THR:N    | 2.47                     | 0.47              |
| 6:C:1708:GLU:HA   | 6:C:1711:ARG:CZ   | 2.45                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1709:GLU:CD   | 6:C:1716:GLN:HE22 | 2.22                     | 0.47              |
| 6:C:1963:GLN:OE1  | 6:C:1966:LEU:HD12 | 2.13                     | 0.47              |
| 6:C:1981:LEU:O    | 6:C:1984:LEU:HB3  | 2.13                     | 0.47              |
| 6:C:1981:LEU:O    | 6:C:1985:LYS:HG2  | 2.13                     | 0.47              |
| 6:C:2475:ASN:O    | 6:C:2478:MET:HB2  | 2.13                     | 0.47              |
| 6:C:2525:TRP:CZ3  | 6:C:2529:THR:HG21 | 2.49                     | 0.47              |
| 6:C:2921:LEU:HD12 | 6:C:2922:ARG:N    | 2.29                     | 0.47              |
| 6:C:2932:SER:HA   | 6:C:2935:GLU:CD   | 2.38                     | 0.47              |
| 6:C:3130:GLN:HG3  | 6:C:3178:ILE:HG23 | 1.97                     | 0.47              |
| 1:A:114:LYS:HE3   | 1:A:117:LEU:HD22  | 1.96                     | 0.47              |
| 1:A:330:GLU:HG3   | 1:A:332:GLU:N     | 2.29                     | 0.47              |
| 1:A:365:SER:OG    | 1:A:366:LEU:O     | 2.18                     | 0.47              |
| 1:A:486:HIS:ND1   | 1:A:489:ASN:HB2   | 2.30                     | 0.47              |
| 2:B:13:CYS:HG     | 2:B:59:PHE:HE2    | 1.60                     | 0.47              |
| 2:B:148:ASP:HA    | 2:B:151:ILE:HB    | 1.97                     | 0.47              |
| 2:B:151:ILE:HG22  | 2:B:155:LYS:HZ2   | 1.79                     | 0.47              |
| 2:B:185:LEU:O     | 2:B:231:LEU:HB2   | 2.14                     | 0.47              |
| 2:B:340:PHE:HA    | 2:B:394:ARG:O     | 2.14                     | 0.47              |
| 2:B:408:ALA:HA    | 2:B:420:VAL:O     | 2.15                     | 0.47              |
| 6:C:108:LYS:HE3   | 6:C:153:PHE:CE2   | 2.49                     | 0.47              |
| 6:C:194:GLU:O     | 6:C:198:ARG:HG3   | 2.15                     | 0.47              |
| 6:C:287:LEU:O     | 6:C:288:ASP:C     | 2.58                     | 0.47              |
| 6:C:291:VAL:HG11  | 6:C:344:GLN:HG3   | 1.97                     | 0.47              |
| 6:C:568:PHE:CE1   | 6:C:604:PRO:HB3   | 2.48                     | 0.47              |
| 6:C:659:ARG:HG3   | 6:C:663:ILE:HG12  | 1.96                     | 0.47              |
| 6:C:792:ILE:HG22  | 6:C:796:LEU:CG    | 2.44                     | 0.47              |
| 6:C:792:ILE:HG22  | 6:C:796:LEU:HG    | 1.95                     | 0.47              |
| 6:C:878:GLU:OE1   | 6:C:881:LYS:HD3   | 2.14                     | 0.47              |
| 6:C:964:ARG:HH12  | 6:C:971:ARG:NH2   | 2.13                     | 0.47              |
| 6:C:1080:LEU:HD23 | 6:C:1127:CYS:SG   | 2.54                     | 0.47              |
| 6:C:1103:ALA:O    | 6:C:1107:TYR:HB2  | 2.13                     | 0.47              |
| 6:C:1171:TRP:CZ3  | 6:C:1176:CYS:SG   | 3.07                     | 0.47              |
| 6:C:2083:LEU:HD22 | 6:C:2178:GLY:N    | 2.30                     | 0.47              |
| 6:C:2253:TYR:O    | 6:C:2256:ILE:HB   | 2.13                     | 0.47              |
| 6:C:2349:LEU:HD23 | 6:C:2350:LYS:N    | 2.29                     | 0.47              |
| 6:C:2395:THR:O    | 6:C:2398:LEU:HB3  | 2.15                     | 0.47              |
| 6:C:2542:LEU:HG   | 6:C:2546:TYR:OH   | 2.14                     | 0.47              |
| 6:C:2808:LEU:HB2  | 6:C:2809:PHE:CE1  | 2.48                     | 0.47              |
| 6:C:2907:ALA:O    | 6:C:2910:VAL:HG12 | 2.15                     | 0.47              |
| 6:C:2928:LYS:HE2  | 6:C:3784:ARG:HH22 | 1.79                     | 0.47              |
| 6:C:3290:SER:HB3  | 6:C:3992:ARG:HH22 | 1.80                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3762:GLN:O    | 6:C:3766:GLN:HG3  | 2.13                     | 0.47              |
| 6:C:3763:ARG:NH2  | 6:C:4008:GLU:HB3  | 2.28                     | 0.47              |
| 6:C:3821:SER:H    | 6:C:3829:LEU:HD23 | 1.79                     | 0.47              |
| 6:C:4055:ASN:HD22 | 6:C:4107:LEU:HD11 | 1.77                     | 0.47              |
| 1:A:61:ASP:O      | 1:A:64:ILE:N      | 2.47                     | 0.47              |
| 1:A:148:TRP:O     | 1:A:152:ASN:HB2   | 2.14                     | 0.47              |
| 1:A:189:LYS:HA    | 1:A:192:ASP:OD2   | 2.14                     | 0.47              |
| 1:A:409:TYR:OH    | 2:B:486:ARG:HB2   | 2.14                     | 0.47              |
| 1:A:459:VAL:HA    | 1:A:462:MET:HB2   | 1.96                     | 0.47              |
| 1:A:534:TYR:CZ    | 2:B:260:ARG:HG3   | 2.49                     | 0.47              |
| 2:B:365:PHE:CG    | 2:B:366:ALA:N     | 2.83                     | 0.47              |
| 2:B:376:ALA:O     | 2:B:379:SER:HB2   | 2.14                     | 0.47              |
| 4:D:-7:DA:C2      | 5:E:44:DA:C2      | 3.02                     | 0.47              |
| 5:E:29:DT:O4      | 5:E:30:DA:N6      | 2.47                     | 0.47              |
| 6:C:103:TYR:O     | 6:C:107:ILE:HB    | 2.13                     | 0.47              |
| 6:C:471:LYS:HZ3   | 6:C:474:VAL:N     | 2.10                     | 0.47              |
| 6:C:563:LEU:O     | 6:C:566:ASP:HB2   | 2.14                     | 0.47              |
| 6:C:700:LYS:HZ2   | 6:C:701:TYR:HE1   | 1.61                     | 0.47              |
| 6:C:746:ARG:N     | 6:C:748:TYR:CE2   | 2.70                     | 0.47              |
| 6:C:957:PRO:HA    | 6:C:960:GLN:HB3   | 1.95                     | 0.47              |
| 6:C:1034:ARG:NH1  | 6:C:1034:ARG:O    | 2.41                     | 0.47              |
| 6:C:1239:PRO:HA   | 6:C:1242:LEU:HD12 | 1.96                     | 0.47              |
| 6:C:1758:LEU:HB3  | 6:C:1761:LEU:HB3  | 1.96                     | 0.47              |
| 6:C:1873:TYR:CD2  | 6:C:1873:TYR:N    | 2.82                     | 0.47              |
| 6:C:1896:ILE:O    | 6:C:1899:VAL:HB   | 2.14                     | 0.47              |
| 6:C:1930:GLU:O    | 6:C:1931:ASN:ND2  | 2.47                     | 0.47              |
| 6:C:1981:LEU:HA   | 6:C:1984:LEU:HB3  | 1.95                     | 0.47              |
| 6:C:2024:TYR:CZ   | 6:C:2069:ARG:HA   | 2.49                     | 0.47              |
| 6:C:2196:TRP:CD1  | 6:C:2200:ALA:N    | 2.82                     | 0.47              |
| 6:C:2218:PHE:HD2  | 6:C:2219:LEU:HD23 | 1.79                     | 0.47              |
| 6:C:2313:LYS:HZ3  | 6:C:2314:GLU:CD   | 2.21                     | 0.47              |
| 6:C:2350:LYS:NZ   | 6:C:2377:ARG:HB3  | 2.29                     | 0.47              |
| 6:C:2510:LEU:HD13 | 6:C:2522:ARG:NH1  | 2.29                     | 0.47              |
| 6:C:2526:SER:HA   | 6:C:2530:ARG:CB   | 2.45                     | 0.47              |
| 6:C:2866:ALA:C    | 6:C:2868:LEU:N    | 2.72                     | 0.47              |
| 6:C:2914:ALA:C    | 6:C:2917:PRO:HD2  | 2.39                     | 0.47              |
| 6:C:3037:GLN:HG2  | 6:C:3040:TYR:CE2  | 2.48                     | 0.47              |
| 6:C:3042:PRO:O    | 6:C:3045:ILE:HG12 | 2.14                     | 0.47              |
| 6:C:3520:GLU:O    | 6:C:3523:ASP:HB2  | 2.14                     | 0.47              |
| 6:C:3588:TRP:O    | 6:C:3592:VAL:HB   | 2.14                     | 0.47              |
| 6:C:3908:HIS:O    | 6:C:3911:ILE:HB   | 2.15                     | 0.47              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:72:ILE:HD11  | 1:A:495:LEU:HD21  | 1.97                     | 0.47              |
| 1:A:174:ASN:HD21 | 1:A:177:GLY:N     | 2.12                     | 0.47              |
| 1:A:474:ARG:O    | 1:A:478:PHE:HE2   | 1.96                     | 0.47              |
| 2:B:58:LEU:HB3   | 2:B:61:THR:HG21   | 1.96                     | 0.47              |
| 2:B:197:ILE:HD13 | 2:B:202:LYS:HE2   | 1.97                     | 0.47              |
| 2:B:242:ARG:NH1  | 2:B:243:HIS:O     | 2.48                     | 0.47              |
| 2:B:268:LEU:HD13 | 2:B:360:GLN:CA    | 2.45                     | 0.47              |
| 2:B:527:GLN:O    | 2:B:530:LEU:HB2   | 2.14                     | 0.47              |
| 6:C:336:ASN:HB3  | 6:C:340:TYR:HE2   | 1.80                     | 0.47              |
| 6:C:395:MET:HB2  | 6:C:413:PHE:CZ    | 2.50                     | 0.47              |
| 6:C:441:MET:HB2  | 6:C:1814:PHE:CD1  | 2.49                     | 0.47              |
| 6:C:668:LYS:HD2  | 6:C:668:LYS:N     | 2.29                     | 0.47              |
| 6:C:1139:GLU:HA  | 6:C:1146:ASN:HD21 | 1.79                     | 0.47              |
| 6:C:1173:LEU:HA  | 6:C:1177:GLY:H    | 1.79                     | 0.47              |
| 6:C:1265:GLU:CD  | 6:C:1292:LYS:HE3  | 2.39                     | 0.47              |
| 6:C:1482:GLU:C   | 6:C:1485:SER:H    | 2.22                     | 0.47              |
| 6:C:2019:SER:HA  | 6:C:2045:PHE:CZ   | 2.49                     | 0.47              |
| 6:C:2192:THR:HA  | 6:C:2195:SER:OG   | 2.13                     | 0.47              |
| 6:C:2386:LEU:O   | 6:C:2389:PHE:HB2  | 2.14                     | 0.47              |
| 6:C:2396:LEU:C   | 6:C:2400:VAL:HB   | 2.38                     | 0.47              |
| 6:C:2417:SER:HB2 | 6:C:2418:LYS:HD2  | 1.96                     | 0.47              |
| 6:C:2517:LEU:HA  | 6:C:2520:ILE:HG12 | 1.96                     | 0.47              |
| 6:C:3391:ALA:O   | 6:C:3395:GLU:HG3  | 2.15                     | 0.47              |
| 6:C:3951:GLN:OE1 | 6:C:4064:LEU:HB3  | 2.14                     | 0.47              |
| 1:A:132:GLN:HB3  | 1:A:137:HIS:CB    | 2.45                     | 0.47              |
| 1:A:182:LYS:HG2  | 1:A:185:ARG:HH22  | 1.79                     | 0.47              |
| 2:B:297:LEU:HB2  | 2:B:302:GLU:C     | 2.40                     | 0.47              |
| 4:D:-2:DT:C2     | 5:E:39:DA:H2      | 2.31                     | 0.47              |
| 6:C:47:SER:O     | 6:C:52:ALA:N      | 2.47                     | 0.47              |
| 6:C:243:GLN:H    | 6:C:243:GLN:CD    | 2.19                     | 0.47              |
| 6:C:537:SER:OG   | 6:C:538:ASP:OD1   | 2.33                     | 0.47              |
| 6:C:560:LEU:HD21 | 6:C:655:LEU:HD23  | 1.96                     | 0.47              |
| 6:C:620:PHE:CA   | 6:C:623:PHE:HB3   | 2.44                     | 0.47              |
| 6:C:888:ARG:HH12 | 6:C:3892:THR:HA   | 1.80                     | 0.47              |
| 6:C:959:TYR:O    | 6:C:962:TYR:HB3   | 2.15                     | 0.47              |
| 6:C:1108:MET:C   | 6:C:1111:LEU:HB3  | 2.39                     | 0.47              |
| 6:C:1113:LEU:HG  | 6:C:1163:LEU:HB2  | 1.96                     | 0.47              |
| 6:C:1132:ASP:O   | 6:C:1171:TRP:HZ2  | 1.97                     | 0.47              |
| 6:C:1342:MET:HA  | 6:C:1345:THR:CB   | 2.43                     | 0.47              |
| 6:C:1356:TRP:CH2 | 6:C:1411:TYR:HD2  | 2.32                     | 0.47              |
| 6:C:1387:GLY:HA2 | 6:C:1392:MET:H    | 1.79                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1435:ASN:HD21 | 6:C:1485:SER:HB2  | 1.79                     | 0.47              |
| 6:C:1464:LEU:HD12 | 6:C:1465:HIS:N    | 2.29                     | 0.47              |
| 6:C:1936:ARG:O    | 6:C:1939:LEU:N    | 2.47                     | 0.47              |
| 6:C:2034:SER:HA   | 6:C:2038:GLU:OE2  | 2.15                     | 0.47              |
| 6:C:2068:ARG:HH21 | 6:C:2128:PHE:HA   | 1.79                     | 0.47              |
| 6:C:2222:HIS:O    | 6:C:2226:PRO:HD3  | 2.15                     | 0.47              |
| 6:C:2472:GLN:HA   | 6:C:2475:ASN:HB3  | 1.97                     | 0.47              |
| 6:C:2501:LEU:HA   | 6:C:2504:ASP:OD2  | 2.14                     | 0.47              |
| 6:C:2808:LEU:HD12 | 6:C:2809:PHE:HE1  | 1.79                     | 0.47              |
| 6:C:2809:PHE:O    | 6:C:2812:LEU:HB2  | 2.14                     | 0.47              |
| 6:C:3172:LYS:HE2  | 6:C:3172:LYS:HB2  | 1.73                     | 0.47              |
| 6:C:3309:GLU:HA   | 6:C:3312:VAL:CG1  | 2.42                     | 0.47              |
| 6:C:3335:ARG:HG2  | 6:C:3341:LEU:HG   | 1.96                     | 0.47              |
| 6:C:3505:LEU:HA   | 6:C:3509:ASP:HB2  | 1.97                     | 0.47              |
| 6:C:3639:GLU:CD   | 6:C:3642:LYS:HZ2  | 2.22                     | 0.47              |
| 6:C:3807:GLU:O    | 6:C:3809:THR:OG1  | 2.30                     | 0.47              |
| 6:C:3924:HIS:O    | 6:C:4124:TRP:HA   | 2.15                     | 0.47              |
| 6:C:4029:GLN:O    | 6:C:4033:VAL:HG22 | 2.15                     | 0.47              |
| 6:C:4073:ALA:HA   | 6:C:4119:ARG:HH22 | 1.80                     | 0.47              |
| 1:A:58:THR:HG23   | 1:A:61:ASP:N      | 2.25                     | 0.47              |
| 1:A:76:ILE:HG12   | 1:A:487:PHE:CD1   | 2.50                     | 0.47              |
| 1:A:189:LYS:O     | 1:A:189:LYS:HG2   | 2.14                     | 0.47              |
| 1:A:311:LEU:HD21  | 2:B:288:ASP:HB3   | 1.96                     | 0.47              |
| 1:A:455:THR:OG1   | 1:A:457:GLU:HG2   | 2.15                     | 0.47              |
| 1:A:465:ILE:HG13  | 1:A:525:PHE:HZ    | 1.75                     | 0.47              |
| 1:A:488:ARG:O     | 1:A:491:GLU:HB2   | 2.14                     | 0.47              |
| 2:B:154:LEU:HB3   | 2:B:159:ILE:HB    | 1.95                     | 0.47              |
| 2:B:314:PHE:HB2   | 2:B:321:VAL:CB    | 2.43                     | 0.47              |
| 4:D:-6:DT:C2      | 4:D:-5:DT:C2      | 3.02                     | 0.47              |
| 4:D:4:DA:C2       | 5:E:33:DA:C2      | 3.03                     | 0.47              |
| 4:D:4:DA:C4       | 4:D:5:DT:C5       | 3.03                     | 0.47              |
| 6:C:82:ARG:NH2    | 6:C:117:LYS:HE2   | 2.29                     | 0.47              |
| 6:C:127:ALA:HA    | 6:C:130:LEU:HB2   | 1.96                     | 0.47              |
| 6:C:254:LYS:HG3   | 6:C:256:ILE:HG13  | 1.95                     | 0.47              |
| 6:C:263:LYS:HA    | 6:C:266:ALA:HB3   | 1.96                     | 0.47              |
| 6:C:342:MET:SD    | 6:C:371:GLY:HA2   | 2.55                     | 0.47              |
| 6:C:352:VAL:HA    | 6:C:355:ASN:OD1   | 2.14                     | 0.47              |
| 6:C:444:ASP:OD1   | 6:C:533:HIS:ND1   | 2.42                     | 0.47              |
| 6:C:574:LYS:O     | 6:C:577:GLU:N     | 2.48                     | 0.47              |
| 6:C:939:MET:HG2   | 6:C:2783:ILE:HG22 | 1.97                     | 0.47              |
| 6:C:984:TYR:O     | 6:C:988:VAL:HG13  | 2.14                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1019:ASP:N    | 6:C:1019:ASP:OD1  | 2.47                     | 0.47              |
| 6:C:1170:LYS:HA   | 6:C:1267:TYR:CE1  | 2.49                     | 0.47              |
| 6:C:1745:LYS:O    | 6:C:1749:ALA:HB3  | 2.13                     | 0.47              |
| 6:C:1884:LEU:O    | 6:C:1887:ASP:HB2  | 2.14                     | 0.47              |
| 6:C:1926:ASN:C    | 6:C:1929:GLY:H    | 2.23                     | 0.47              |
| 6:C:1974:ASN:ND2  | 6:C:1984:LEU:HD13 | 2.15                     | 0.47              |
| 6:C:2036:LEU:HD22 | 6:C:2040:MET:HE2  | 1.96                     | 0.47              |
| 6:C:2183:HIS:HE1  | 6:C:2237:ILE:HB   | 1.79                     | 0.47              |
| 6:C:2186:VAL:HA   | 6:C:2189:ILE:CB   | 2.40                     | 0.47              |
| 6:C:2371:PHE:CE2  | 6:C:2378:PHE:HE2  | 2.20                     | 0.47              |
| 6:C:2427:ARG:CZ   | 6:C:2432:GLN:HB2  | 2.44                     | 0.47              |
| 6:C:2481:HIS:HA   | 6:C:2484:TYR:HD2  | 1.80                     | 0.47              |
| 6:C:2806:LYS:HG2  | 6:C:2809:PHE:CE2  | 2.50                     | 0.47              |
| 6:C:2820:MET:HB3  | 6:C:2829:LYS:HG3  | 1.96                     | 0.47              |
| 6:C:2869:LEU:HD11 | 6:C:2892:LEU:HD12 | 1.96                     | 0.47              |
| 6:C:3094:ASP:OD1  | 6:C:3145:ILE:HG21 | 2.14                     | 0.47              |
| 6:C:3167:ARG:NH2  | 6:C:3238:MET:HB2  | 2.30                     | 0.47              |
| 6:C:3236:PHE:O    | 6:C:3240:MET:HG2  | 2.14                     | 0.47              |
| 6:C:3531:TYR:CZ   | 6:C:3534:ILE:HB   | 2.50                     | 0.47              |
| 6:C:3575:LEU:HG   | 6:C:3687:MET:SD   | 2.55                     | 0.47              |
| 6:C:3593:ARG:HG3  | 6:C:3660:ASN:HD22 | 1.79                     | 0.47              |
| 6:C:3681:LYS:NZ   | 6:C:3725:ARG:HA   | 2.29                     | 0.47              |
| 6:C:3760:GLN:HG2  | 6:C:3761:ASP:N    | 2.30                     | 0.47              |
| 6:C:3763:ARG:HH12 | 6:C:4009:PRO:HG3  | 1.79                     | 0.47              |
| 6:C:3844:THR:HB   | 6:C:3849:LYS:CD   | 2.44                     | 0.47              |
| 6:C:3964:THR:O    | 6:C:3967:PHE:HB2  | 2.15                     | 0.47              |
| 6:C:4065:LEU:HB2  | 6:C:4074:PHE:CD1  | 2.49                     | 0.47              |
| 1:A:314:SER:OG    | 1:A:315:ASP:OD1   | 2.30                     | 0.47              |
| 1:A:413:LEU:HA    | 1:A:433:GLN:O     | 2.15                     | 0.47              |
| 1:A:419:GLU:OE1   | 1:A:427:VAL:HG22  | 2.15                     | 0.47              |
| 2:B:155:LYS:NZ    | 2:B:215:LEU:HA    | 2.30                     | 0.47              |
| 2:B:523:THR:C     | 2:B:527:GLN:HE21  | 2.21                     | 0.47              |
| 2:B:527:GLN:HA    | 2:B:530:LEU:HD12  | 1.96                     | 0.47              |
| 6:C:80:GLU:O      | 6:C:83:GLU:HB2    | 2.15                     | 0.47              |
| 6:C:172:GLU:O     | 6:C:176:GLU:N     | 2.48                     | 0.47              |
| 6:C:290:TYR:OH    | 6:C:294:PHE:HD1   | 1.97                     | 0.47              |
| 6:C:442:GLN:OE1   | 6:C:443:ILE:HG12  | 2.14                     | 0.47              |
| 6:C:481:THR:HA    | 6:C:484:HIS:CG    | 2.49                     | 0.47              |
| 6:C:706:LEU:C     | 6:C:709:LYS:H     | 2.23                     | 0.47              |
| 6:C:969:LEU:HD21  | 6:C:984:TYR:CD2   | 2.49                     | 0.47              |
| 6:C:995:PHE:CB    | 6:C:1002:GLU:HB2  | 2.45                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1115:HIS:C    | 6:C:1117:ASP:H    | 2.22                     | 0.47              |
| 6:C:1217:VAL:HA   | 6:C:1271:ILE:CG2  | 2.45                     | 0.47              |
| 6:C:1220:LEU:CD1  | 6:C:1271:ILE:HG21 | 2.45                     | 0.47              |
| 6:C:1492:ALA:HB1  | 6:C:1496:GLU:HB3  | 1.97                     | 0.47              |
| 6:C:1860:GLU:O    | 6:C:1863:PHE:HB3  | 2.15                     | 0.47              |
| 6:C:2375:ALA:HA   | 6:C:2378:PHE:CE2  | 2.50                     | 0.47              |
| 6:C:2420:PHE:HZ   | 6:C:2424:MET:SD   | 2.38                     | 0.47              |
| 6:C:2427:ARG:HH12 | 6:C:2433:LYS:HB2  | 1.80                     | 0.47              |
| 6:C:2839:ASP:HA   | 6:C:2842:ARG:NH1  | 2.30                     | 0.47              |
| 6:C:2914:ALA:O    | 6:C:2917:PRO:HD2  | 2.15                     | 0.47              |
| 6:C:3021:SER:O    | 6:C:3024:PRO:HD3  | 2.15                     | 0.47              |
| 6:C:3046:ARG:HD2  | 6:C:3049:LEU:HD12 | 1.96                     | 0.47              |
| 6:C:3231:ILE:HG13 | 6:C:3235:LYS:NZ   | 2.30                     | 0.47              |
| 6:C:3232:ARG:HA   | 6:C:3235:LYS:HD2  | 1.97                     | 0.47              |
| 6:C:3262:LEU:HG   | 6:C:3271:ASP:OD1  | 2.15                     | 0.47              |
| 6:C:3375:ALA:O    | 6:C:3378:TYR:HB3  | 2.14                     | 0.47              |
| 6:C:3591:ASP:OD2  | 6:C:3799:ARG:NH2  | 2.40                     | 0.47              |
| 6:C:3770:VAL:O    | 6:C:3774:ILE:HD12 | 2.14                     | 0.47              |
| 6:C:3815:LEU:HB3  | 6:C:3886:ALA:HB1  | 1.96                     | 0.47              |
| 1:A:95:ASN:OD1    | 1:A:97:VAL:N      | 2.48                     | 0.47              |
| 1:A:427:VAL:C     | 2:B:354:ARG:HH22  | 2.23                     | 0.47              |
| 2:B:115:MET:SD    | 2:B:150:ILE:HG12  | 2.54                     | 0.47              |
| 4:D:16:DG:N1      | 5:E:19:DC:H2''    | 2.30                     | 0.47              |
| 6:C:260:ILE:HD13  | 6:C:260:ILE:H     | 1.80                     | 0.47              |
| 6:C:436:GLU:O     | 6:C:440:VAL:HG13  | 2.15                     | 0.47              |
| 6:C:700:LYS:HD3   | 6:C:701:TYR:CZ    | 2.50                     | 0.47              |
| 6:C:710:PHE:HB3   | 6:C:714:VAL:CG2   | 2.45                     | 0.47              |
| 6:C:727:ALA:HB1   | 6:C:731:THR:CG2   | 2.45                     | 0.47              |
| 6:C:929:ALA:O     | 6:C:932:GLU:HB2   | 2.15                     | 0.47              |
| 6:C:1379:PRO:CA   | 6:C:1384:PHE:HB2  | 2.42                     | 0.47              |
| 6:C:1594:SER:OG   | 6:C:1595:ALA:N    | 2.44                     | 0.47              |
| 6:C:1884:LEU:HA   | 6:C:1887:ASP:CG   | 2.40                     | 0.47              |
| 6:C:1963:GLN:HE22 | 6:C:1966:LEU:HD12 | 1.79                     | 0.47              |
| 6:C:2292:CYS:O    | 6:C:2299:TYR:HB2  | 2.15                     | 0.47              |
| 6:C:2362:VAL:HA   | 6:C:2365:ASN:OD1  | 2.14                     | 0.47              |
| 6:C:2525:TRP:CH2  | 6:C:2529:THR:HG21 | 2.50                     | 0.47              |
| 6:C:2812:LEU:O    | 6:C:2816:ILE:HG22 | 2.15                     | 0.47              |
| 6:C:2838:GLN:O    | 6:C:2841:ASN:N    | 2.43                     | 0.47              |
| 6:C:2930:TYR:O    | 6:C:2933:ILE:HB   | 2.15                     | 0.47              |
| 6:C:2933:ILE:HA   | 6:C:3979:LEU:HD22 | 1.97                     | 0.47              |
| 6:C:3019:ILE:HD12 | 6:C:3040:TYR:CZ   | 2.49                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3167:ARG:NE   | 6:C:3238:MET:HA   | 2.30                     | 0.47              |
| 6:C:3508:LYS:HE2  | 6:C:4010:SER:H    | 1.80                     | 0.47              |
| 6:C:3604:LYS:HA   | 6:C:3607:GLU:HB3  | 1.96                     | 0.47              |
| 6:C:3888:VAL:C    | 6:C:3891:SER:H    | 2.23                     | 0.47              |
| 6:C:3980:MET:O    | 6:C:3984:MET:HG2  | 2.15                     | 0.47              |
| 6:C:4071:ALA:HA   | 6:C:4075:ARG:HB2  | 1.97                     | 0.47              |
| 1:A:166:ILE:CG2   | 1:A:200:LEU:HD12  | 2.42                     | 0.47              |
| 1:A:367:PHE:HE2   | 1:A:369:TYR:HB2   | 1.79                     | 0.47              |
| 1:A:481:PRO:O     | 1:A:484:GLN:HB3   | 2.14                     | 0.47              |
| 2:B:400:ARG:HB3   | 4:D:10:DG:H4'     | 1.97                     | 0.47              |
| 6:C:196:LEU:O     | 6:C:199:ALA:N     | 2.28                     | 0.47              |
| 6:C:291:VAL:HA    | 6:C:294:PHE:CB    | 2.45                     | 0.47              |
| 6:C:337:LYS:HA    | 6:C:340:TYR:CG    | 2.49                     | 0.47              |
| 6:C:471:LYS:HD2   | 6:C:474:VAL:HG23  | 1.95                     | 0.47              |
| 6:C:542:ASP:OD1   | 6:C:542:ASP:N     | 2.48                     | 0.47              |
| 6:C:757:LYS:O     | 6:C:761:SER:N     | 2.43                     | 0.47              |
| 6:C:887:ASP:HB3   | 6:C:3889:ARG:NH2  | 2.27                     | 0.47              |
| 6:C:965:THR:O     | 6:C:968:VAL:N     | 2.33                     | 0.47              |
| 6:C:996:THR:OG1   | 6:C:1038:LYS:HG2  | 2.14                     | 0.47              |
| 6:C:1129:ASP:HA   | 6:C:1132:ASP:CG   | 2.40                     | 0.47              |
| 6:C:1174:ALA:H    | 6:C:1267:TYR:HH   | 1.54                     | 0.47              |
| 6:C:1267:TYR:HA   | 6:C:1270:PHE:CD2  | 2.50                     | 0.47              |
| 6:C:1298:LEU:HA   | 6:C:1301:ILE:HG12 | 1.97                     | 0.47              |
| 6:C:1504:ASP:O    | 6:C:1507:CYS:HB3  | 2.15                     | 0.47              |
| 6:C:1642:LYS:O    | 6:C:1645:VAL:N    | 2.48                     | 0.47              |
| 6:C:1882:SER:C    | 6:C:1885:PRO:HD2  | 2.40                     | 0.47              |
| 6:C:2251:ILE:HG13 | 6:C:2253:TYR:CE2  | 2.50                     | 0.47              |
| 6:C:2517:LEU:HA   | 6:C:2520:ILE:CG1  | 2.45                     | 0.47              |
| 6:C:2851:PHE:HA   | 6:C:2854:PHE:CD1  | 2.50                     | 0.47              |
| 6:C:3102:TYR:HA   | 6:C:3105:ASN:ND2  | 2.30                     | 0.47              |
| 6:C:3252:PHE:O    | 6:C:3255:ALA:HB3  | 2.15                     | 0.47              |
| 6:C:3256:MET:HB2  | 6:C:3282:ARG:NH2  | 2.29                     | 0.47              |
| 6:C:3329:LEU:CD1  | 6:C:3388:ALA:HB3  | 2.45                     | 0.47              |
| 6:C:3425:ARG:HA   | 6:C:3428:GLU:CD   | 2.40                     | 0.47              |
| 6:C:3774:ILE:HG13 | 6:C:3777:GLN:CD   | 2.40                     | 0.47              |
| 6:C:4065:LEU:HD12 | 6:C:4066:LEU:N    | 2.29                     | 0.47              |
| 1:A:276:LEU:O     | 2:B:431:ARG:N     | 2.48                     | 0.46              |
| 1:A:487:PHE:HD1   | 1:A:488:ARG:HH12  | 1.63                     | 0.46              |
| 2:B:221:LEU:HA    | 2:B:224:ILE:HG13  | 1.96                     | 0.46              |
| 2:B:253:ILE:O     | 2:B:257:LEU:HB3   | 2.15                     | 0.46              |
| 2:B:399:LYS:CE    | 4:D:10:DG:H21     | 2.28                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:476:LEU:O     | 2:B:477:PHE:HB2   | 2.15                     | 0.46              |
| 4:D:3:DT:C3'      | 4:D:4:DA:H8       | 2.22                     | 0.46              |
| 5:E:26:DC:H2''    | 5:E:27:DC:C6      | 2.49                     | 0.46              |
| 5:E:30:DA:C6      | 5:E:31:DA:C6      | 3.03                     | 0.46              |
| 6:C:432:THR:HB    | 6:C:433:PRO:HD3   | 1.96                     | 0.46              |
| 6:C:778:ILE:O     | 6:C:781:ASP:HB3   | 2.15                     | 0.46              |
| 6:C:869:ASN:O     | 6:C:873:VAL:HB    | 2.14                     | 0.46              |
| 6:C:952:GLY:O     | 6:C:955:ALA:N     | 2.47                     | 0.46              |
| 6:C:959:TYR:HA    | 6:C:962:TYR:CB    | 2.44                     | 0.46              |
| 6:C:1283:GLY:HA3  | 6:C:1286:ALA:HB3  | 1.97                     | 0.46              |
| 6:C:1288:SER:HB3  | 6:C:1292:LYS:HB2  | 1.97                     | 0.46              |
| 6:C:1400:VAL:HG13 | 6:C:1404:LYS:HE2  | 1.97                     | 0.46              |
| 6:C:1513:GLY:HA3  | 6:C:1573:LYS:HZ2  | 1.80                     | 0.46              |
| 6:C:2235:LEU:HD12 | 6:C:2238:ILE:HB   | 1.97                     | 0.46              |
| 6:C:2255:LEU:O    | 6:C:2258:GLU:HB2  | 2.14                     | 0.46              |
| 6:C:2319:ALA:O    | 6:C:2323:LEU:HG   | 2.15                     | 0.46              |
| 6:C:2505:VAL:HA   | 6:C:2508:GLN:OE1  | 2.15                     | 0.46              |
| 6:C:2531:LEU:HD13 | 6:C:2538:ARG:HD3  | 1.96                     | 0.46              |
| 6:C:2792:THR:HA   | 6:C:2795:GLN:OE1  | 2.15                     | 0.46              |
| 6:C:3257:LYS:HG2  | 6:C:3258:LEU:HD12 | 1.97                     | 0.46              |
| 6:C:3440:GLN:HB3  | 6:C:3474:ARG:HD3  | 1.97                     | 0.46              |
| 6:C:3447:VAL:HG12 | 6:C:3465:PHE:CD1  | 2.50                     | 0.46              |
| 6:C:3450:MET:N    | 6:C:3450:MET:HE2  | 2.30                     | 0.46              |
| 6:C:3459:ASN:CG   | 6:C:3462:ARG:HE   | 2.22                     | 0.46              |
| 6:C:3621:LYS:NZ   | 6:C:3638:LYS:HB3  | 2.29                     | 0.46              |
| 6:C:3635:THR:OG1  | 6:C:3636:PHE:N    | 2.47                     | 0.46              |
| 6:C:3704:GLN:NE2  | 6:C:3794:VAL:HG21 | 2.30                     | 0.46              |
| 6:C:3784:ARG:HB2  | 6:C:3786:LEU:HD11 | 1.97                     | 0.46              |
| 6:C:3913:ILE:HG21 | 6:C:3991:PHE:HZ   | 1.80                     | 0.46              |
| 6:C:3947:GLY:HA3  | 6:C:4064:LEU:HD13 | 1.96                     | 0.46              |
| 6:C:4013:TRP:HH2  | 6:C:4041:ARG:HB2  | 1.79                     | 0.46              |
| 1:A:133:ASP:O     | 1:A:136:GLY:N     | 2.49                     | 0.46              |
| 1:A:301:ARG:CD    | 6:C:164:LYS:H     | 2.29                     | 0.46              |
| 1:A:353:LEU:CD2   | 1:A:395:ALA:HB2   | 2.45                     | 0.46              |
| 1:A:530:TYR:CD1   | 1:A:532:PRO:HB3   | 2.50                     | 0.46              |
| 2:B:134:ILE:O     | 2:B:163:PHE:HA    | 2.15                     | 0.46              |
| 2:B:203:GLU:O     | 2:B:207:ILE:HG12  | 2.15                     | 0.46              |
| 4:D:-1:DA:C2      | 5:E:38:DA:C2      | 3.04                     | 0.46              |
| 4:D:3:DT:N3       | 4:D:4:DA:C5       | 2.83                     | 0.46              |
| 6:C:90:CYS:HA     | 6:C:93:LEU:HG     | 1.98                     | 0.46              |
| 6:C:142:ARG:NH2   | 6:C:183:GLU:OE1   | 2.44                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:738:HIS:CD2   | 6:C:741:ILE:HD11  | 2.50                     | 0.46              |
| 6:C:956:PRO:HD2   | 6:C:957:PRO:HD2   | 1.97                     | 0.46              |
| 6:C:1417:THR:O    | 6:C:1421:GLU:HG3  | 2.13                     | 0.46              |
| 6:C:1730:PRO:HG3  | 6:C:1873:TYR:CD1  | 2.51                     | 0.46              |
| 6:C:2207:LYS:N    | 6:C:2207:LYS:HD2  | 2.31                     | 0.46              |
| 6:C:2555:LEU:O    | 6:C:2559:THR:HG23 | 2.15                     | 0.46              |
| 6:C:2952:ILE:HG22 | 6:C:2968:ALA:HB1  | 1.96                     | 0.46              |
| 6:C:3297:VAL:HG13 | 6:C:3298:LEU:N    | 2.30                     | 0.46              |
| 6:C:3410:ILE:HG13 | 6:C:3414:MET:SD   | 2.55                     | 0.46              |
| 6:C:3425:ARG:HD3  | 6:C:3428:GLU:CD   | 2.39                     | 0.46              |
| 6:C:3505:LEU:O    | 6:C:3510:GLN:HG3  | 2.15                     | 0.46              |
| 1:A:70:VAL:O      | 1:A:74:LYS:HG2    | 2.16                     | 0.46              |
| 1:A:92:LYS:HE2    | 1:A:103:TYR:HE1   | 1.79                     | 0.46              |
| 1:A:115:ARG:O     | 1:A:119:LEU:HG    | 2.15                     | 0.46              |
| 1:A:166:ILE:N     | 1:A:199:PHE:O     | 2.38                     | 0.46              |
| 1:A:358:LYS:HA    | 1:A:360:HIS:CE1   | 2.51                     | 0.46              |
| 1:A:390:LEU:HD21  | 1:A:415:PRO:O     | 2.15                     | 0.46              |
| 1:A:406:ILE:HA    | 1:A:406:ILE:HD12  | 1.77                     | 0.46              |
| 2:B:390:VAL:HG12  | 2:B:409:PHE:CD1   | 2.50                     | 0.46              |
| 4:D:-1:DA:C5      | 4:D:0:DT:C4       | 3.03                     | 0.46              |
| 5:E:36:DA:C4      | 5:E:37:DT:O4      | 2.68                     | 0.46              |
| 5:E:44:DA:C6      | 5:E:45:DG:C6      | 3.04                     | 0.46              |
| 6:C:437:HIS:HB3   | 6:C:1812:LEU:HD22 | 1.97                     | 0.46              |
| 6:C:547:ASP:O     | 6:C:550:PHE:HB3   | 2.15                     | 0.46              |
| 6:C:550:PHE:HD2   | 6:C:551:PHE:CD2   | 2.33                     | 0.46              |
| 6:C:775:GLU:HA    | 6:C:778:ILE:HD12  | 1.97                     | 0.46              |
| 6:C:1123:THR:O    | 6:C:1126:GLN:HB3  | 2.15                     | 0.46              |
| 6:C:1352:SER:C    | 6:C:1354:GLU:N    | 2.73                     | 0.46              |
| 6:C:1522:GLY:HA2  | 6:C:1525:CYS:SG   | 2.56                     | 0.46              |
| 6:C:1598:ASN:OD1  | 6:C:1686:LEU:HD13 | 2.15                     | 0.46              |
| 6:C:1867:ILE:O    | 6:C:1870:LYS:HB3  | 2.16                     | 0.46              |
| 6:C:1879:VAL:O    | 6:C:1883:ARG:HB2  | 2.15                     | 0.46              |
| 6:C:2346:ALA:HB1  | 6:C:2350:LYS:NZ   | 2.31                     | 0.46              |
| 6:C:2516:GLY:O    | 6:C:2519:LEU:N    | 2.49                     | 0.46              |
| 6:C:2809:PHE:N    | 6:C:2809:PHE:HD1  | 2.12                     | 0.46              |
| 6:C:2901:LEU:HD21 | 6:C:2910:VAL:HG11 | 1.98                     | 0.46              |
| 6:C:2930:TYR:C    | 6:C:2933:ILE:H    | 2.23                     | 0.46              |
| 6:C:2944:THR:OG1  | 6:C:2986:PRO:HB2  | 2.14                     | 0.46              |
| 6:C:3122:HIS:CG   | 6:C:3123:GLN:H    | 2.32                     | 0.46              |
| 6:C:3124:SER:HB3  | 6:C:3125:ARG:CZ   | 2.45                     | 0.46              |
| 6:C:3256:MET:HB2  | 6:C:3282:ARG:CZ   | 2.44                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3462:ARG:HD2  | 6:C:3498:TRP:CE3  | 2.50                     | 0.46              |
| 6:C:3763:ARG:HD3  | 6:C:4005:PHE:CD1  | 2.50                     | 0.46              |
| 6:C:4085:LYS:HA   | 6:C:4088:ASN:HB2  | 1.97                     | 0.46              |
| 6:C:4106:CYS:O    | 6:C:4107:LEU:C    | 2.58                     | 0.46              |
| 1:A:184:SER:O     | 1:A:188:THR:CB    | 2.64                     | 0.46              |
| 1:A:465:ILE:HG21  | 1:A:525:PHE:HE2   | 1.80                     | 0.46              |
| 2:B:65:ASP:HB3    | 2:B:79:VAL:H      | 1.79                     | 0.46              |
| 2:B:209:LYS:HG2   | 2:B:221:LEU:HD22  | 1.97                     | 0.46              |
| 2:B:252:THR:HA    | 2:B:258:SER:HA    | 1.97                     | 0.46              |
| 2:B:269:GLN:HG3   | 2:B:270:GLU:O     | 2.15                     | 0.46              |
| 4:D:1:DG:H2'      | 4:D:2:DG:C1'      | 2.46                     | 0.46              |
| 4:D:2:DG:H3'      | 4:D:3:DT:H71      | 1.97                     | 0.46              |
| 4:D:7:DA:C2       | 5:E:30:DA:C2      | 3.03                     | 0.46              |
| 6:C:16:GLN:HE22   | 6:C:62:ASP:HB2    | 1.80                     | 0.46              |
| 6:C:157:TYR:HA    | 6:C:160:LEU:HG    | 1.96                     | 0.46              |
| 6:C:415:GLN:O     | 6:C:418:ALA:HB3   | 2.16                     | 0.46              |
| 6:C:492:SER:HA    | 6:C:493:LYS:HA    | 1.69                     | 0.46              |
| 6:C:548:GLU:O     | 6:C:552:SER:OG    | 2.27                     | 0.46              |
| 6:C:1027:ASP:O    | 6:C:1031:ARG:HG2  | 2.15                     | 0.46              |
| 6:C:1335:CYS:SG   | 6:C:1383:GLY:N    | 2.89                     | 0.46              |
| 6:C:1548:GLY:O    | 6:C:1552:HIS:N    | 2.33                     | 0.46              |
| 6:C:1643:MET:O    | 6:C:1646:LEU:N    | 2.44                     | 0.46              |
| 6:C:1900:PHE:HA   | 6:C:1903:SER:HB2  | 1.98                     | 0.46              |
| 6:C:2129:LEU:HD23 | 6:C:2140:LEU:HD22 | 1.97                     | 0.46              |
| 6:C:2482:ASP:OD2  | 6:C:2525:TRP:HH2  | 1.97                     | 0.46              |
| 6:C:2832:ILE:O    | 6:C:2836:LEU:HG   | 2.14                     | 0.46              |
| 6:C:2871:LEU:O    | 6:C:2873:PRO:HD3  | 2.15                     | 0.46              |
| 6:C:3039:THR:O    | 6:C:3042:PRO:HD2  | 2.15                     | 0.46              |
| 6:C:3767:LEU:HD12 | 6:C:3770:VAL:HB   | 1.97                     | 0.46              |
| 1:A:239:LEU:O     | 1:A:243:LEU:HG    | 2.15                     | 0.46              |
| 1:A:276:LEU:HG    | 2:B:429:ASP:O     | 2.15                     | 0.46              |
| 2:B:162:GLN:HE22  | 2:B:236:VAL:HA    | 1.81                     | 0.46              |
| 6:C:66:LEU:HD11   | 6:C:70:ARG:HB2    | 1.97                     | 0.46              |
| 6:C:321:LYS:HE3   | 6:C:325:ASN:HD21  | 1.80                     | 0.46              |
| 6:C:420:VAL:O     | 6:C:423:TYR:HB3   | 2.16                     | 0.46              |
| 6:C:465:PHE:HA    | 6:C:468:LEU:HD12  | 1.97                     | 0.46              |
| 6:C:716:VAL:O     | 6:C:717:LYS:C     | 2.57                     | 0.46              |
| 6:C:755:ALA:O     | 6:C:758:LEU:HB3   | 2.16                     | 0.46              |
| 6:C:766:ALA:O     | 6:C:770:LEU:HD13  | 2.15                     | 0.46              |
| 6:C:938:VAL:N     | 6:C:962:TYR:OH    | 2.49                     | 0.46              |
| 6:C:1053:PRO:O    | 6:C:1058:SER:HB2  | 2.15                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1325:GLN:O    | 6:C:1328:GLU:HB3  | 2.16                     | 0.46              |
| 6:C:1420:ARG:HD2  | 6:C:1420:ARG:HA   | 1.47                     | 0.46              |
| 6:C:1556:GLY:O    | 6:C:1559:PHE:N    | 2.48                     | 0.46              |
| 6:C:1750:LEU:HA   | 6:C:1753:SER:OG   | 2.15                     | 0.46              |
| 6:C:1758:LEU:CD1  | 6:C:1761:LEU:HD23 | 2.42                     | 0.46              |
| 6:C:1975:LEU:HB3  | 6:C:1976:LEU:HD12 | 1.97                     | 0.46              |
| 6:C:2094:MET:C    | 6:C:2098:THR:HG23 | 2.41                     | 0.46              |
| 6:C:2129:LEU:HD13 | 6:C:2144:LEU:HD21 | 1.96                     | 0.46              |
| 6:C:2132:LYS:O    | 6:C:2136:PRO:HB2  | 2.15                     | 0.46              |
| 6:C:2142:ILE:HG23 | 6:C:2145:PHE:CE2  | 2.50                     | 0.46              |
| 6:C:2164:TRP:CZ2  | 6:C:2245:TRP:HZ3  | 2.33                     | 0.46              |
| 6:C:2221:LYS:HA   | 6:C:2224:PHE:CE2  | 2.50                     | 0.46              |
| 6:C:2225:HIS:O    | 6:C:2227:LYS:N    | 2.48                     | 0.46              |
| 6:C:2253:TYR:O    | 6:C:2256:ILE:N    | 2.49                     | 0.46              |
| 6:C:2324:GLY:HA3  | 6:C:2370:SER:CB   | 2.45                     | 0.46              |
| 6:C:2413:PHE:CE1  | 6:C:2442:MET:HG2  | 2.51                     | 0.46              |
| 6:C:2439:ILE:HG23 | 6:C:2440:TYR:CE2  | 2.50                     | 0.46              |
| 6:C:2517:LEU:HD12 | 6:C:2518:GLN:N    | 2.30                     | 0.46              |
| 6:C:2526:SER:OG   | 6:C:2530:ARG:HD3  | 2.16                     | 0.46              |
| 6:C:2526:SER:CA   | 6:C:2530:ARG:HB2  | 2.44                     | 0.46              |
| 6:C:2894:GLU:CD   | 6:C:3973:PRO:HB2  | 2.40                     | 0.46              |
| 6:C:2928:LYS:HA   | 6:C:2931:ARG:NH2  | 2.30                     | 0.46              |
| 6:C:3083:SER:HB3  | 6:C:3085:GLU:HB2  | 1.96                     | 0.46              |
| 6:C:3176:MET:CA   | 6:C:3179:TRP:HB3  | 2.42                     | 0.46              |
| 6:C:3298:LEU:CD2  | 6:C:3348:LEU:HB3  | 2.45                     | 0.46              |
| 6:C:3440:GLN:HB3  | 6:C:3474:ARG:CD   | 2.46                     | 0.46              |
| 6:C:3629:ARG:NH2  | 6:C:3634:GLN:OE1  | 2.49                     | 0.46              |
| 6:C:3754:GLY:HA2  | 6:C:3800:LEU:HB2  | 1.97                     | 0.46              |
| 6:C:3773:GLY:O    | 6:C:3777:GLN:HG3  | 2.15                     | 0.46              |
| 1:A:39:ILE:HB     | 1:A:166:ILE:HA    | 1.97                     | 0.46              |
| 1:A:289:TYR:HE1   | 1:A:290:ARG:HH21  | 1.63                     | 0.46              |
| 2:B:16:VAL:HG13   | 2:B:101:GLY:O     | 2.14                     | 0.46              |
| 2:B:65:ASP:N      | 2:B:78:THR:HA     | 2.30                     | 0.46              |
| 2:B:390:VAL:HA    | 2:B:409:PHE:HD1   | 1.81                     | 0.46              |
| 2:B:400:ARG:HA    | 4:D:10:DG:H4'     | 1.96                     | 0.46              |
| 2:B:479:THR:OG1   | 2:B:480:THR:HG23  | 2.16                     | 0.46              |
| 5:E:47:DT:N3      | 5:E:48:DT:C4      | 2.84                     | 0.46              |
| 6:C:93:LEU:HD11   | 6:C:137:THR:CA    | 2.42                     | 0.46              |
| 6:C:393:LYS:HZ1   | 6:C:1869:LYS:HE2  | 1.81                     | 0.46              |
| 6:C:1234:GLY:HA2  | 6:C:1237:ALA:HB2  | 1.97                     | 0.46              |
| 6:C:1441:ALA:O    | 6:C:1445:ARG:HB2  | 2.14                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1555:HIS:O    | 6:C:1558:TYR:HB2  | 2.15                     | 0.46              |
| 6:C:1658:SER:HB3  | 6:C:1674:THR:HA   | 1.97                     | 0.46              |
| 6:C:1877:LEU:O    | 6:C:1916:ILE:HG21 | 2.14                     | 0.46              |
| 6:C:2121:ASP:C    | 6:C:2127:LYS:HB2  | 2.41                     | 0.46              |
| 6:C:2381:ALA:O    | 6:C:2384:PHE:N    | 2.49                     | 0.46              |
| 6:C:2398:LEU:HD23 | 6:C:2399:GLU:HG3  | 1.97                     | 0.46              |
| 6:C:2820:MET:SD   | 6:C:2829:LYS:HD2  | 2.56                     | 0.46              |
| 6:C:2893:LEU:HD11 | 6:C:2914:ALA:O    | 2.15                     | 0.46              |
| 6:C:2923:TRP:O    | 6:C:2926:LEU:HB2  | 2.16                     | 0.46              |
| 6:C:3151:LEU:HA   | 6:C:3152:SER:HA   | 1.71                     | 0.46              |
| 6:C:3378:TYR:HD2  | 6:C:3379:GLN:HG3  | 1.78                     | 0.46              |
| 6:C:3501:HIS:HE1  | 6:C:4004:VAL:HG13 | 1.81                     | 0.46              |
| 6:C:3550:LYS:NZ   | 6:C:3554:PHE:HE2  | 2.13                     | 0.46              |
| 6:C:3596:LEU:HB2  | 6:C:3660:ASN:HD21 | 1.80                     | 0.46              |
| 6:C:3643:HIS:HB3  | 6:C:3669:LYS:NZ   | 2.30                     | 0.46              |
| 6:C:3756:GLU:N    | 6:C:3799:ARG:O    | 2.48                     | 0.46              |
| 6:C:4018:GLN:HG2  | 6:C:4022:LYS:HE3  | 1.98                     | 0.46              |
| 1:A:106:GLN:HG3   | 1:A:115:ARG:HH21  | 1.81                     | 0.46              |
| 1:A:420:LEU:HA    | 1:A:425:ILE:O     | 2.16                     | 0.46              |
| 2:B:65:ASP:O      | 2:B:79:VAL:N      | 2.49                     | 0.46              |
| 2:B:460:SER:HB2   | 2:B:525:LYS:CB    | 2.42                     | 0.46              |
| 6:C:115:TYR:HA    | 6:C:131:LEU:CD2   | 2.46                     | 0.46              |
| 6:C:615:ALA:O     | 6:C:616:LYS:C     | 2.56                     | 0.46              |
| 6:C:632:GLU:HG3   | 6:C:633:ILE:N     | 2.31                     | 0.46              |
| 6:C:741:ILE:HD12  | 6:C:745:VAL:HA    | 1.97                     | 0.46              |
| 6:C:989:MET:SD    | 6:C:1034:ARG:HG2  | 2.56                     | 0.46              |
| 6:C:990:GLN:HB3   | 6:C:2776:ARG:HH11 | 1.79                     | 0.46              |
| 6:C:1141:LYS:HE2  | 6:C:1178:ARG:CZ   | 2.46                     | 0.46              |
| 6:C:1232:PRO:CB   | 6:C:1291:LEU:HB3  | 2.40                     | 0.46              |
| 6:C:1644:ALA:O    | 6:C:1648:LEU:HB3  | 2.15                     | 0.46              |
| 6:C:1689:LYS:O    | 6:C:1693:VAL:HG23 | 2.15                     | 0.46              |
| 6:C:1871:MET:HE3  | 6:C:1884:LEU:HB2  | 1.97                     | 0.46              |
| 6:C:2072:ARG:O    | 6:C:2076:VAL:N    | 2.49                     | 0.46              |
| 6:C:2242:VAL:CA   | 6:C:2245:TRP:CD1  | 2.95                     | 0.46              |
| 6:C:2254:ARG:HH21 | 6:C:2255:LEU:HD11 | 1.80                     | 0.46              |
| 6:C:2378:PHE:O    | 6:C:2381:ALA:HB3  | 2.15                     | 0.46              |
| 6:C:2439:ILE:HG22 | 6:C:2439:ILE:H    | 1.51                     | 0.46              |
| 6:C:3099:ALA:O    | 6:C:3103:ILE:HG22 | 2.16                     | 0.46              |
| 6:C:3126:LEU:HA   | 6:C:3129:LEU:HD12 | 1.98                     | 0.46              |
| 6:C:3176:MET:HA   | 6:C:3179:TRP:CB   | 2.44                     | 0.46              |
| 6:C:3381:ALA:O    | 6:C:3384:HIS:N    | 2.49                     | 0.46              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 6:C:3780:ALA:HB1 | 6:C:3784:ARG:NH1  | 2.27                     | 0.46              |
| 1:A:125:GLN:OE1  | 1:A:125:GLN:N     | 2.34                     | 0.46              |
| 1:A:278:GLN:NE2  | 4:D:1:DG:H3'      | 2.31                     | 0.46              |
| 1:A:284:PRO:HB2  | 5:E:32:DT:OP2     | 2.16                     | 0.46              |
| 1:A:362:LEU:HD11 | 2:B:269:GLN:HB2   | 1.97                     | 0.46              |
| 2:B:53:GLU:HG2   | 2:B:84:MET:O      | 2.16                     | 0.46              |
| 2:B:87:ASP:O     | 2:B:90:LEU:HB3    | 2.16                     | 0.46              |
| 2:B:297:LEU:HG   | 2:B:303:THR:O     | 2.16                     | 0.46              |
| 4:D:6:DT:N3      | 5:E:31:DA:C2      | 2.84                     | 0.46              |
| 4:D:7:DA:H2'     | 4:D:8:DT:C6       | 2.51                     | 0.46              |
| 5:E:36:DA:C5     | 5:E:37:DT:O4      | 2.69                     | 0.46              |
| 6:C:87:LYS:HE2   | 6:C:133:LYS:HE3   | 1.98                     | 0.46              |
| 6:C:129:ASP:O    | 6:C:133:LYS:HG2   | 2.15                     | 0.46              |
| 6:C:142:ARG:NH1  | 6:C:183:GLU:OE1   | 2.48                     | 0.46              |
| 6:C:449:TYR:HD2  | 6:C:454:GLN:HG2   | 1.80                     | 0.46              |
| 6:C:487:LEU:O    | 6:C:490:ILE:HB    | 2.15                     | 0.46              |
| 6:C:574:LYS:O    | 6:C:577:GLU:HG2   | 2.16                     | 0.46              |
| 6:C:644:PRO:HD2  | 6:C:645:TRP:CD1   | 2.50                     | 0.46              |
| 6:C:923:ASP:HA   | 6:C:926:THR:OG1   | 2.16                     | 0.46              |
| 6:C:1076:LEU:C   | 6:C:1127:CYS:SG   | 2.99                     | 0.46              |
| 6:C:1402:LEU:O   | 6:C:1406:LEU:HG   | 2.16                     | 0.46              |
| 6:C:1465:HIS:O   | 6:C:1468:LEU:N    | 2.49                     | 0.46              |
| 6:C:1762:MET:HG3 | 6:C:1864:ASP:HB2  | 1.98                     | 0.46              |
| 6:C:1879:VAL:HA  | 6:C:1920:TYR:CE1  | 2.50                     | 0.46              |
| 6:C:2152:ASN:CB  | 6:C:2153:THR:HA   | 2.40                     | 0.46              |
| 6:C:2245:TRP:HB3 | 6:C:2249:LEU:CD1  | 2.46                     | 0.46              |
| 6:C:2382:VAL:HA  | 6:C:2385:LEU:HD22 | 1.98                     | 0.46              |
| 6:C:2444:PRO:HG2 | 6:C:2445:LYS:HE3  | 1.97                     | 0.46              |
| 6:C:2873:PRO:HD2 | 6:C:2876:VAL:HG11 | 1.97                     | 0.46              |
| 6:C:2911:ARG:HB2 | 6:C:2914:ALA:CB   | 2.46                     | 0.46              |
| 6:C:3067:LYS:HA  | 6:C:3070:HIS:HD2  | 1.81                     | 0.46              |
| 6:C:3326:GLN:HG2 | 6:C:3389:VAL:HG13 | 1.97                     | 0.46              |
| 6:C:3400:SER:HB3 | 6:C:3409:VAL:HA   | 1.98                     | 0.46              |
| 6:C:3505:LEU:HG  | 6:C:3510:GLN:NE2  | 2.30                     | 0.46              |
| 6:C:3554:PHE:HB3 | 6:C:3557:ARG:HH21 | 1.80                     | 0.46              |
| 6:C:3703:GLY:O   | 6:C:3704:GLN:HB2  | 2.16                     | 0.46              |
| 6:C:4068:HIS:HD2 | 6:C:4074:PHE:CZ   | 2.33                     | 0.46              |
| 6:C:4073:ALA:CA  | 6:C:4119:ARG:HH22 | 2.29                     | 0.46              |
| 6:C:4127:TRP:CH2 | 6:C:4128:MET:HB2  | 2.51                     | 0.46              |
| 1:A:88:TYR:CD1   | 1:A:89:GLY:N      | 2.84                     | 0.46              |
| 1:A:369:TYR:OH   | 1:A:372:GLU:OE1   | 2.31                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:386:LEU:HD21  | 1:A:431:GLY:O     | 2.15                     | 0.46              |
| 2:B:40:MET:O      | 2:B:43:GLN:HB2    | 2.16                     | 0.46              |
| 2:B:111:LEU:HB3   | 2:B:150:ILE:HG21  | 1.98                     | 0.46              |
| 2:B:213:ILE:HG13  | 2:B:218:GLU:HB2   | 1.98                     | 0.46              |
| 2:B:353:ARG:HA    | 2:B:356:PHE:CD2   | 2.50                     | 0.46              |
| 2:B:464:ALA:HB1   | 2:B:473:LEU:HB3   | 1.98                     | 0.46              |
| 4:D:7:DA:C6       | 5:E:28:DA:N6      | 2.83                     | 0.46              |
| 6:C:202:GLY:O     | 6:C:205:LYS:HB3   | 2.16                     | 0.46              |
| 6:C:353:ASP:CA    | 6:C:1858:LEU:HD12 | 2.39                     | 0.46              |
| 6:C:734:LEU:HA    | 6:C:734:LEU:HD23  | 1.53                     | 0.46              |
| 6:C:780:ILE:HG22  | 6:C:785:MET:HE2   | 1.96                     | 0.46              |
| 6:C:1715:GLU:H    | 6:C:1715:GLU:CD   | 2.21                     | 0.46              |
| 6:C:1756:PRO:O    | 6:C:1892:LYS:NZ   | 2.49                     | 0.46              |
| 6:C:1884:LEU:HD23 | 6:C:1887:ASP:OD2  | 2.15                     | 0.46              |
| 6:C:2043:PHE:N    | 6:C:2043:PHE:CD1  | 2.82                     | 0.46              |
| 6:C:2210:VAL:HG13 | 6:C:2214:ARG:NH2  | 2.31                     | 0.46              |
| 6:C:2224:PHE:HA   | 6:C:2272:VAL:HG11 | 1.98                     | 0.46              |
| 6:C:2260:PHE:CE1  | 6:C:2270:ASN:HA   | 2.51                     | 0.46              |
| 6:C:2285:LEU:HD21 | 6:C:2332:GLU:HB2  | 1.97                     | 0.46              |
| 6:C:2324:GLY:HA2  | 6:C:2371:PHE:HA   | 1.98                     | 0.46              |
| 6:C:2348:GLN:O    | 6:C:2352:HIS:CD2  | 2.69                     | 0.46              |
| 6:C:2396:LEU:O    | 6:C:2397:CYS:C    | 2.59                     | 0.46              |
| 6:C:2457:PRO:O    | 6:C:2460:GLU:N    | 2.49                     | 0.46              |
| 6:C:2562:LEU:HD23 | 6:C:2562:LEU:HA   | 1.69                     | 0.46              |
| 6:C:2575:PRO:CA   | 6:C:2789:SER:HB3  | 2.43                     | 0.46              |
| 6:C:2954:GLN:O    | 6:C:2958:LEU:HG   | 2.16                     | 0.46              |
| 6:C:3432:SER:HB2  | 6:C:3435:ASP:HB2  | 1.98                     | 0.46              |
| 6:C:3690:PHE:CD1  | 6:C:3690:PHE:C    | 2.93                     | 0.46              |
| 6:C:3767:LEU:O    | 6:C:3768:PHE:C    | 2.56                     | 0.46              |
| 6:C:3932:MET:HA   | 6:C:3935:GLY:HA2  | 1.98                     | 0.46              |
| 1:A:93:ASP:OD1    | 1:A:102:ILE:HB    | 2.15                     | 0.46              |
| 1:A:285:PRO:HA    | 2:B:314:PHE:CE1   | 2.50                     | 0.46              |
| 1:A:340:PHE:CD2   | 1:A:408:PRO:HD2   | 2.51                     | 0.46              |
| 1:A:363:ARG:HD2   | 2:B:269:GLN:HE21  | 1.81                     | 0.46              |
| 2:B:20:MET:HE1    | 2:B:227:PHE:CE2   | 2.51                     | 0.46              |
| 4:D:4:DA:N3       | 4:D:5:DT:C6       | 2.84                     | 0.46              |
| 4:D:10:DG:C6      | 5:E:26:DC:N3      | 2.83                     | 0.46              |
| 6:C:224:LEU:O     | 6:C:227:LEU:HB3   | 2.16                     | 0.46              |
| 6:C:313:LEU:H     | 6:C:313:LEU:HG    | 1.27                     | 0.46              |
| 6:C:359:LEU:HD12  | 6:C:408:TYR:CE1   | 2.51                     | 0.46              |
| 6:C:486:GLY:O     | 6:C:490:ILE:HG13  | 2.16                     | 0.46              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 6:C:567:GLU:HG3   | 6:C:570:LYS:HE3  | 1.98                     | 0.46              |
| 6:C:657:SER:HB2   | 6:C:734:LEU:HD21 | 1.97                     | 0.46              |
| 6:C:916:GLU:CB    | 6:C:930:ALA:HB2  | 2.46                     | 0.46              |
| 6:C:1141:LYS:HE3  | 6:C:1179:PRO:CB  | 2.46                     | 0.46              |
| 6:C:1890:HIS:CD2  | 6:C:1937:ARG:HA  | 2.51                     | 0.46              |
| 6:C:2164:TRP:CZ3  | 6:C:2212:ALA:HB2 | 2.52                     | 0.46              |
| 6:C:2452:ARG:HG3  | 6:C:2453:GLU:N   | 2.30                     | 0.46              |
| 6:C:2469:CYS:SG   | 6:C:2470:ARG:N   | 2.88                     | 0.46              |
| 6:C:3272:TRP:O    | 6:C:3273:LEU:C   | 2.59                     | 0.46              |
| 6:C:3298:LEU:O    | 6:C:3299:THR:C   | 2.58                     | 0.46              |
| 6:C:3502:MET:SD   | 6:C:3506:LEU:HB2 | 2.56                     | 0.46              |
| 6:C:3595:GLU:HA   | 6:C:3598:LYS:HZ3 | 1.81                     | 0.46              |
| 6:C:3595:GLU:HA   | 6:C:3598:LYS:NZ  | 2.31                     | 0.46              |
| 6:C:3877:LYS:HZ2  | 6:C:3965:ARG:HG2 | 1.81                     | 0.46              |
| 6:C:4002:MET:HA   | 6:C:4005:PHE:CB  | 2.44                     | 0.46              |
| 6:C:4005:PHE:CD2  | 6:C:4006:VAL:N   | 2.85                     | 0.46              |
| 1:A:54:GLU:CD     | 1:A:56:GLU:H     | 2.24                     | 0.45              |
| 1:A:95:ASN:OD1    | 1:A:95:ASN:C     | 2.59                     | 0.45              |
| 1:A:142:SER:OG    | 1:A:182:LYS:NZ   | 2.44                     | 0.45              |
| 1:A:204:HIS:HA    | 1:A:211:PHE:CE2  | 2.51                     | 0.45              |
| 1:A:340:PHE:CE2   | 2:B:485:PRO:HB3  | 2.48                     | 0.45              |
| 1:A:346:MET:HE3   | 1:A:399:ARG:HB2  | 1.98                     | 0.45              |
| 1:A:353:LEU:HD21  | 1:A:415:PRO:HD2  | 1.98                     | 0.45              |
| 2:B:521:GLU:OE1   | 2:B:521:GLU:N    | 2.37                     | 0.45              |
| 4:D:1:DG:C2       | 5:E:36:DA:N1     | 2.84                     | 0.45              |
| 6:C:17:GLU:HG2    | 6:C:65:LEU:CD1   | 2.26                     | 0.45              |
| 6:C:138:PHE:HE2   | 6:C:180:LEU:HB3  | 1.81                     | 0.45              |
| 6:C:300:TRP:CE3   | 6:C:301:CYS:HB2  | 2.52                     | 0.45              |
| 6:C:487:LEU:HD21  | 6:C:620:PHE:HZ   | 1.80                     | 0.45              |
| 6:C:714:VAL:O     | 6:C:717:LYS:HB3  | 2.16                     | 0.45              |
| 6:C:885:ALA:O     | 6:C:888:ARG:N    | 2.48                     | 0.45              |
| 6:C:990:GLN:HB3   | 6:C:2776:ARG:NH1 | 2.31                     | 0.45              |
| 6:C:1029:CYS:HA   | 6:C:1032:CYS:CB  | 2.43                     | 0.45              |
| 6:C:1072:ALA:HB1  | 6:C:1074:LYS:CG  | 2.43                     | 0.45              |
| 6:C:1086:TYR:O    | 6:C:1088:GLU:N   | 2.49                     | 0.45              |
| 6:C:1356:TRP:HA   | 6:C:1359:LEU:CB  | 2.43                     | 0.45              |
| 6:C:1918:LEU:HD23 | 6:C:1921:ASP:OD2 | 2.16                     | 0.45              |
| 6:C:2088:LEU:HD11 | 6:C:2145:PHE:CD2 | 2.51                     | 0.45              |
| 6:C:2135:ASN:O    | 6:C:2139:PRO:HD2 | 2.16                     | 0.45              |
| 6:C:2311:ARG:NH1  | 6:C:2312:TYR:OH  | 2.49                     | 0.45              |
| 6:C:2330:VAL:HG22 | 6:C:2334:LYS:O   | 2.16                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2550:ILE:HG23 | 6:C:2847:THR:HA   | 1.97                     | 0.45              |
| 6:C:2559:THR:HG1  | 6:C:2560:ASN:H    | 1.64                     | 0.45              |
| 6:C:3096:VAL:HG23 | 6:C:3097:ASP:OD1  | 2.17                     | 0.45              |
| 6:C:3677:PRO:HA   | 6:C:3679:ASN:ND2  | 2.31                     | 0.45              |
| 6:C:3681:LYS:HA   | 6:C:3684:SER:CB   | 2.43                     | 0.45              |
| 6:C:3717:VAL:HB   | 6:C:3746:ARG:CZ   | 2.46                     | 0.45              |
| 6:C:3982:SER:HA   | 6:C:3985:VAL:HG23 | 1.98                     | 0.45              |
| 6:C:4000:ASN:O    | 6:C:4003:ASP:HB3  | 2.15                     | 0.45              |
| 6:C:4004:VAL:HA   | 6:C:4007:LYS:HB3  | 1.98                     | 0.45              |
| 6:C:4005:PHE:O    | 6:C:4009:PRO:HD3  | 2.16                     | 0.45              |
| 6:C:4013:TRP:CD2  | 6:C:4040:PRO:HG2  | 2.51                     | 0.45              |
| 1:A:71:TYR:OH     | 1:A:111:PRO:HA    | 2.17                     | 0.45              |
| 1:A:107:GLU:OE2   | 1:A:156:ASP:HB3   | 2.16                     | 0.45              |
| 1:A:121:GLN:HE22  | 1:A:134:MET:HE1   | 1.82                     | 0.45              |
| 1:A:340:PHE:HE2   | 2:B:485:PRO:CB    | 2.27                     | 0.45              |
| 1:A:397:LEU:HD12  | 1:A:411:VAL:O     | 2.16                     | 0.45              |
| 6:C:445:SER:HG    | 6:C:1821:ASP:CG   | 2.23                     | 0.45              |
| 6:C:471:LYS:HZ2   | 6:C:474:VAL:H     | 1.62                     | 0.45              |
| 6:C:634:LEU:HD21  | 6:C:667:TYR:CZ    | 2.52                     | 0.45              |
| 6:C:792:ILE:O     | 6:C:796:LEU:HG    | 2.16                     | 0.45              |
| 6:C:901:MET:HB2   | 6:C:2819:GLU:CD   | 2.41                     | 0.45              |
| 6:C:1011:GLU:O    | 6:C:1014:LEU:N    | 2.28                     | 0.45              |
| 6:C:1213:LYS:HB3  | 6:C:1214:GLU:OE1  | 2.17                     | 0.45              |
| 6:C:2441:LYS:HZ2  | 6:C:2441:LYS:HG3  | 1.57                     | 0.45              |
| 6:C:2786:LYS:HG2  | 6:C:2787:HIS:ND1  | 2.30                     | 0.45              |
| 6:C:2816:ILE:HG23 | 6:C:2817:LEU:N    | 2.31                     | 0.45              |
| 6:C:2817:LEU:HD13 | 6:C:2864:GLN:CD   | 2.41                     | 0.45              |
| 6:C:2948:GLY:HA2  | 6:C:2951:GLN:OE1  | 2.15                     | 0.45              |
| 6:C:3467:ARG:HA   | 6:C:3470:GLN:HB2  | 1.98                     | 0.45              |
| 6:C:3614:TYR:O    | 6:C:3625:LEU:HD21 | 2.16                     | 0.45              |
| 6:C:3844:THR:HB   | 6:C:3849:LYS:HZ2  | 1.81                     | 0.45              |
| 6:C:3868:VAL:HG11 | 6:C:4117:LEU:HB2  | 1.98                     | 0.45              |
| 1:A:99:PHE:O      | 1:A:102:ILE:HD12  | 2.16                     | 0.45              |
| 1:A:106:GLN:HE21  | 1:A:115:ARG:CZ    | 2.28                     | 0.45              |
| 1:A:329:LEU:HD11  | 2:B:497:ARG:HG3   | 1.98                     | 0.45              |
| 1:A:336:GLU:HA    | 1:A:339:ARG:NH1   | 2.32                     | 0.45              |
| 6:C:203:GLU:C     | 6:C:206:THR:HG1   | 2.21                     | 0.45              |
| 6:C:242:PRO:O     | 6:C:246:ARG:CB    | 2.64                     | 0.45              |
| 6:C:278:HIS:C     | 6:C:281:GLN:H     | 2.25                     | 0.45              |
| 6:C:282:PHE:HE2   | 6:C:319:PHE:CE1   | 2.34                     | 0.45              |
| 6:C:326:MET:C     | 6:C:330:ASN:HD22  | 2.23                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:461:ILE:HG22  | 6:C:465:PHE:CE2   | 2.50                     | 0.45              |
| 6:C:620:PHE:C     | 6:C:659:ARG:NH1   | 2.62                     | 0.45              |
| 6:C:916:GLU:HB3   | 6:C:930:ALA:HB2   | 1.96                     | 0.45              |
| 6:C:1762:MET:CG   | 6:C:1864:ASP:HB2  | 2.46                     | 0.45              |
| 6:C:2159:PRO:HA   | 6:C:2162:LYS:HD3  | 1.99                     | 0.45              |
| 6:C:2206:PRO:C    | 6:C:2207:LYS:HD2  | 2.41                     | 0.45              |
| 6:C:2361:ILE:HG23 | 6:C:2362:VAL:N    | 2.31                     | 0.45              |
| 6:C:2432:GLN:C    | 6:C:2435:CYS:HG   | 2.24                     | 0.45              |
| 6:C:2493:ASN:O    | 6:C:2497:GLU:HG3  | 2.16                     | 0.45              |
| 6:C:2827:SER:O    | 6:C:2830:ASN:HB2  | 2.17                     | 0.45              |
| 6:C:3098:ARG:O    | 6:C:3102:TYR:HD2  | 1.99                     | 0.45              |
| 6:C:3109:SER:O    | 6:C:3112:GLN:HB3  | 2.16                     | 0.45              |
| 6:C:3234:CYS:O    | 6:C:3237:SER:HB3  | 2.16                     | 0.45              |
| 6:C:3722:PHE:HE1  | 6:C:3740:ILE:HD13 | 1.81                     | 0.45              |
| 1:A:117:LEU:HA    | 1:A:120:ASP:OD2   | 2.16                     | 0.45              |
| 1:A:276:LEU:HD11  | 2:B:430:LEU:HG    | 1.97                     | 0.45              |
| 2:B:9:ALA:HB2     | 2:B:127:PHE:CD2   | 2.52                     | 0.45              |
| 2:B:242:ARG:NH1   | 2:B:243:HIS:HB2   | 2.31                     | 0.45              |
| 2:B:490:LEU:O     | 2:B:494:LEU:HG    | 2.17                     | 0.45              |
| 5:E:41:DA:H8      | 5:E:41:DA:O5'     | 1.99                     | 0.45              |
| 5:E:44:DA:H2'     | 5:E:45:DG:O4'     | 2.16                     | 0.45              |
| 6:C:33:GLN:HA     | 6:C:36:ARG:HB2    | 1.97                     | 0.45              |
| 6:C:37:GLY:O      | 6:C:41:GLU:N      | 2.49                     | 0.45              |
| 6:C:161:ALA:C     | 6:C:163:LYS:H     | 2.24                     | 0.45              |
| 6:C:187:SER:OG    | 6:C:188:GLU:N     | 2.49                     | 0.45              |
| 6:C:262:LEU:HD21  | 6:C:306:VAL:HB    | 1.98                     | 0.45              |
| 6:C:384:MET:C     | 6:C:386:VAL:N     | 2.71                     | 0.45              |
| 6:C:414:LEU:HD21  | 6:C:461:ILE:HA    | 1.98                     | 0.45              |
| 6:C:992:ILE:HA    | 6:C:995:PHE:CE2   | 2.51                     | 0.45              |
| 6:C:997:ASN:HA    | 6:C:1042:LYS:CD   | 2.46                     | 0.45              |
| 6:C:1057:LYS:HE3  | 6:C:1096:VAL:HG22 | 1.99                     | 0.45              |
| 6:C:1513:GLY:C    | 6:C:1516:GLU:HB3  | 2.42                     | 0.45              |
| 6:C:1656:ASP:OD1  | 6:C:1717:LEU:HA   | 2.17                     | 0.45              |
| 6:C:1740:VAL:HG13 | 6:C:1883:ARG:NH2  | 2.31                     | 0.45              |
| 6:C:1946:ASN:ND2  | 6:C:1994:VAL:HA   | 2.30                     | 0.45              |
| 6:C:2240:THR:O    | 6:C:2241:LEU:C    | 2.59                     | 0.45              |
| 6:C:2433:LYS:HD3  | 6:C:2461:PHE:CE1  | 2.52                     | 0.45              |
| 6:C:2507:ILE:O    | 6:C:2510:LEU:N    | 2.49                     | 0.45              |
| 6:C:3025:PRO:CA   | 6:C:3067:LYS:HD2  | 2.45                     | 0.45              |
| 6:C:3106:GLY:C    | 6:C:3109:SER:HB3  | 2.42                     | 0.45              |
| 6:C:3117:ILE:HG13 | 6:C:3118:ASP:N    | 2.31                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3120:LEU:HD13 | 6:C:3125:ARG:CZ   | 2.47                     | 0.45              |
| 6:C:3159:ARG:HG2  | 6:C:3161:LEU:N    | 2.32                     | 0.45              |
| 6:C:3172:LYS:HZ3  | 6:C:3172:LYS:HG3  | 1.34                     | 0.45              |
| 6:C:3287:ARG:HH22 | 6:C:3327:ASN:C    | 2.22                     | 0.45              |
| 6:C:3317:SER:HA   | 6:C:3319:ASN:HB3  | 1.98                     | 0.45              |
| 6:C:3691:LYS:HD2  | 6:C:3696:ARG:NH1  | 2.32                     | 0.45              |
| 1:A:36:ASP:OD2    | 1:A:162:SER:HB2   | 2.17                     | 0.45              |
| 1:A:37:SER:OG     | 1:A:164:LYS:HA    | 2.17                     | 0.45              |
| 1:A:70:VAL:HG13   | 1:A:74:LYS:NZ     | 2.31                     | 0.45              |
| 1:A:86:VAL:O      | 1:A:87:PHE:HD1    | 1.99                     | 0.45              |
| 1:A:145:GLU:HG3   | 1:A:148:TRP:CH2   | 2.52                     | 0.45              |
| 1:A:301:ARG:HG3   | 6:C:163:LYS:HB3   | 1.98                     | 0.45              |
| 1:A:418:GLU:OE1   | 2:B:438:LEU:HB2   | 2.17                     | 0.45              |
| 2:B:154:LEU:HD22  | 2:B:159:ILE:HG13  | 1.99                     | 0.45              |
| 2:B:252:THR:O     | 2:B:342:VAL:N     | 2.39                     | 0.45              |
| 2:B:532:LYS:HA    | 2:B:535:THR:OG1   | 2.16                     | 0.45              |
| 4:D:-7:DA:C2      | 4:D:-6:DT:C2      | 3.04                     | 0.45              |
| 5:E:17:DA:H2'     | 5:E:18:DG:C8      | 2.50                     | 0.45              |
| 6:C:16:GLN:O      | 6:C:20:SER:HB3    | 2.16                     | 0.45              |
| 6:C:278:HIS:HA    | 6:C:281:GLN:CD    | 2.42                     | 0.45              |
| 6:C:421:LEU:O     | 6:C:424:LEU:N     | 2.46                     | 0.45              |
| 6:C:454:GLN:O     | 6:C:457:CYS:HB2   | 2.17                     | 0.45              |
| 6:C:475:LEU:O     | 6:C:479:ILE:HG13  | 2.17                     | 0.45              |
| 6:C:665:GLY:H     | 6:C:740:ILE:HD11  | 1.82                     | 0.45              |
| 6:C:928:VAL:O     | 6:C:929:ALA:C     | 2.60                     | 0.45              |
| 6:C:995:PHE:HB3   | 6:C:1002:GLU:OE1  | 2.16                     | 0.45              |
| 6:C:997:ASN:HB2   | 6:C:1038:LYS:CE   | 2.46                     | 0.45              |
| 6:C:1013:ILE:HD13 | 6:C:1013:ILE:N    | 2.32                     | 0.45              |
| 6:C:1328:GLU:O    | 6:C:1332:TYR:CB   | 2.62                     | 0.45              |
| 6:C:1603:GLN:HA   | 6:C:1606:ARG:NH2  | 2.30                     | 0.45              |
| 6:C:1638:PRO:C    | 6:C:1641:THR:H    | 2.24                     | 0.45              |
| 6:C:1652:ILE:HD13 | 6:C:1709:GLU:OE2  | 2.16                     | 0.45              |
| 6:C:2097:LEU:C    | 6:C:2100:LEU:HB3  | 2.41                     | 0.45              |
| 6:C:2236:GLU:HA   | 6:C:2239:LYS:HB3  | 1.99                     | 0.45              |
| 6:C:2274:ILE:O    | 6:C:2275:GLN:C    | 2.57                     | 0.45              |
| 6:C:2291:GLN:HB3  | 6:C:2295:GLN:H    | 1.82                     | 0.45              |
| 6:C:2318:ALA:O    | 6:C:2322:VAL:HG23 | 2.15                     | 0.45              |
| 6:C:2559:THR:O    | 6:C:2563:LEU:HG   | 2.17                     | 0.45              |
| 6:C:2886:GLN:HE22 | 6:C:2925:GLU:HG2  | 1.81                     | 0.45              |
| 6:C:3064:PHE:HD1  | 6:C:3067:LYS:HE3  | 1.81                     | 0.45              |
| 6:C:3418:ASP:O    | 6:C:3422:GLN:HG2  | 2.17                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3565:GLY:HA2  | 6:C:3699:LEU:HD13 | 1.99                     | 0.45              |
| 6:C:3675:LYS:HB2  | 6:C:3676:PRO:HD3  | 1.98                     | 0.45              |
| 6:C:3710:LYS:HB2  | 6:C:3714:GLU:OE2  | 2.17                     | 0.45              |
| 6:C:3923:ARG:CZ   | 6:C:3941:ASP:H    | 2.28                     | 0.45              |
| 1:A:60:PHE:O      | 1:A:63:SER:HB2    | 2.17                     | 0.45              |
| 1:A:122:PHE:N     | 1:A:122:PHE:CD1   | 2.83                     | 0.45              |
| 2:B:68:LEU:HB2    | 2:B:74:TYR:CE2    | 2.51                     | 0.45              |
| 2:B:532:LYS:HE3   | 2:B:532:LYS:HB2   | 1.67                     | 0.45              |
| 4:D:9:DG:N1       | 5:E:27:DC:N1      | 2.61                     | 0.45              |
| 6:C:112:THR:HG1   | 6:C:157:TYR:HH    | 1.61                     | 0.45              |
| 6:C:217:LEU:HD23  | 6:C:220:LEU:HD12  | 1.98                     | 0.45              |
| 6:C:353:ASP:HA    | 6:C:1858:LEU:CD1  | 2.38                     | 0.45              |
| 6:C:549:ALA:O     | 6:C:552:SER:HB2   | 2.17                     | 0.45              |
| 6:C:610:ALA:O     | 6:C:614:PRO:HD2   | 2.16                     | 0.45              |
| 6:C:726:LEU:O     | 6:C:730:LEU:HG    | 2.17                     | 0.45              |
| 6:C:857:GLN:HA    | 6:C:3136:THR:HG21 | 1.98                     | 0.45              |
| 6:C:989:MET:HE3   | 6:C:1031:ARG:HD3  | 1.98                     | 0.45              |
| 6:C:1483:LEU:HG   | 6:C:1563:PHE:HE1  | 1.82                     | 0.45              |
| 6:C:1642:LYS:HE2  | 6:C:1642:LYS:HB2  | 1.73                     | 0.45              |
| 6:C:1648:LEU:O    | 6:C:1652:ILE:HG13 | 2.17                     | 0.45              |
| 6:C:1747:LEU:HD23 | 6:C:1747:LEU:HA   | 1.70                     | 0.45              |
| 6:C:2050:GLN:HG2  | 6:C:2051:SER:H    | 1.81                     | 0.45              |
| 6:C:2376:ASP:O    | 6:C:2379:MET:N    | 2.49                     | 0.45              |
| 6:C:2388:LYS:O    | 6:C:2391:GLY:CA   | 2.65                     | 0.45              |
| 6:C:2443:MET:HB2  | 6:C:2444:PRO:HD3  | 1.98                     | 0.45              |
| 6:C:2451:LEU:O    | 6:C:2455:LEU:HG   | 2.16                     | 0.45              |
| 6:C:2549:LYS:HB2  | 6:C:2549:LYS:HE3  | 1.35                     | 0.45              |
| 6:C:2557:LEU:H    | 6:C:2557:LEU:HG   | 1.51                     | 0.45              |
| 6:C:2806:LYS:C    | 6:C:2808:LEU:N    | 2.74                     | 0.45              |
| 6:C:2839:ASP:OD1  | 6:C:2839:ASP:N    | 2.49                     | 0.45              |
| 6:C:3004:HIS:CE1  | 6:C:3043:TYR:HA   | 2.51                     | 0.45              |
| 6:C:3247:ARG:NH2  | 6:C:3277:VAL:HG23 | 2.31                     | 0.45              |
| 6:C:3319:ASN:HA   | 6:C:3396:ALA:HB1  | 1.98                     | 0.45              |
| 6:C:3464:LYS:NZ   | 6:C:3468:LEU:HD11 | 2.31                     | 0.45              |
| 6:C:3477:GLU:O    | 6:C:3477:GLU:HG2  | 2.15                     | 0.45              |
| 6:C:3678:GLY:O    | 6:C:3680:LEU:HG   | 2.15                     | 0.45              |
| 6:C:3836:PRO:O    | 6:C:3840:LYS:HG3  | 2.17                     | 0.45              |
| 6:C:3923:ARG:HH22 | 6:C:3941:ASP:H    | 1.65                     | 0.45              |
| 6:C:3962:ARG:CZ   | 6:C:4124:TRP:CD2  | 2.99                     | 0.45              |
| 6:C:3983:ILE:N    | 6:C:3983:ILE:HD12 | 2.32                     | 0.45              |
| 1:A:43:ASP:HB3    | 1:A:170:THR:HB    | 1.98                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:353:LEU:HG    | 1:A:393:GLU:O     | 2.17                     | 0.45              |
| 1:A:534:TYR:OH    | 2:B:260:ARG:HG3   | 2.16                     | 0.45              |
| 2:B:7:LYS:HE2     | 2:B:126:LYS:O     | 2.15                     | 0.45              |
| 2:B:481:LYS:O     | 2:B:483:PRO:HD3   | 2.16                     | 0.45              |
| 6:C:138:PHE:CD2   | 6:C:180:LEU:HD13  | 2.51                     | 0.45              |
| 6:C:619:ASP:C     | 6:C:621:SER:H     | 2.25                     | 0.45              |
| 6:C:856:VAL:HG21  | 6:C:3110:PHE:CE1  | 2.51                     | 0.45              |
| 6:C:913:ARG:CZ    | 6:C:930:ALA:HA    | 2.47                     | 0.45              |
| 6:C:985:GLU:HG2   | 6:C:1031:ARG:NH2  | 2.31                     | 0.45              |
| 6:C:1017:ILE:HA   | 6:C:1022:ASP:OD1  | 2.16                     | 0.45              |
| 6:C:1108:MET:HA   | 6:C:1111:LEU:CD2  | 2.46                     | 0.45              |
| 6:C:1262:ALA:O    | 6:C:1344:PHE:HB2  | 2.16                     | 0.45              |
| 6:C:1280:GLN:HE21 | 6:C:1284:THR:HG23 | 1.81                     | 0.45              |
| 6:C:1472:SER:O    | 6:C:1476:HIS:HD2  | 1.99                     | 0.45              |
| 6:C:1694:THR:C    | 6:C:1697:PRO:HD2  | 2.42                     | 0.45              |
| 6:C:1730:PRO:N    | 6:C:1731:PRO:HD2  | 2.31                     | 0.45              |
| 6:C:1944:ALA:HA   | 6:C:1947:CYS:SG   | 2.57                     | 0.45              |
| 6:C:1946:ASN:HA   | 6:C:1949:ILE:CG2  | 2.38                     | 0.45              |
| 6:C:2263:LYS:HG3  | 6:C:2270:ASN:HA   | 1.99                     | 0.45              |
| 6:C:2316:TYR:CG   | 6:C:2317:ALA:N    | 2.81                     | 0.45              |
| 6:C:2484:TYR:HB2  | 6:C:2499:PHE:HD1  | 1.82                     | 0.45              |
| 6:C:3117:ILE:HG13 | 6:C:3118:ASP:H    | 1.81                     | 0.45              |
| 6:C:3117:ILE:CG1  | 6:C:3128:LYS:HZ1  | 2.29                     | 0.45              |
| 6:C:3461:ALA:HB1  | 6:C:3465:PHE:CZ   | 2.52                     | 0.45              |
| 6:C:3612:ARG:O    | 6:C:3616:ALA:HB3  | 2.15                     | 0.45              |
| 6:C:4056:PRO:O    | 6:C:4059:ILE:HB   | 2.17                     | 0.45              |
| 6:C:4106:CYS:C    | 6:C:4110:GLN:HG3  | 2.41                     | 0.45              |
| 1:A:140:ASP:OD1   | 1:A:141:TYR:N     | 2.43                     | 0.45              |
| 1:A:512:GLU:O     | 1:A:516:LYS:HB3   | 2.16                     | 0.45              |
| 2:B:270:GLU:OE2   | 2:B:273:LYS:NZ    | 2.33                     | 0.45              |
| 2:B:399:LYS:HD2   | 4:D:10:DG:H21     | 1.82                     | 0.45              |
| 4:D:4:DA:C8       | 4:D:4:DA:OP2      | 2.70                     | 0.45              |
| 6:C:201:LEU:H     | 6:C:201:LEU:HG    | 1.59                     | 0.45              |
| 6:C:397:LEU:HA    | 6:C:1817:GLN:CD   | 2.41                     | 0.45              |
| 6:C:1066:LEU:O    | 6:C:1070:PRO:HD3  | 2.17                     | 0.45              |
| 6:C:1113:LEU:HB3  | 6:C:1163:LEU:HD12 | 1.99                     | 0.45              |
| 6:C:1636:ASP:OD1  | 6:C:1636:ASP:N    | 2.49                     | 0.45              |
| 6:C:1808:ASP:HA   | 6:C:1811:ARG:NE   | 2.20                     | 0.45              |
| 6:C:2114:GLU:HG3  | 6:C:2116:ASP:N    | 2.18                     | 0.45              |
| 6:C:2361:ILE:O    | 6:C:2364:LEU:HB2  | 2.16                     | 0.45              |
| 6:C:2571:ASP:H    | 6:C:2573:PRO:HD2  | 1.82                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2801:ASP:N    | 6:C:2801:ASP:OD1  | 2.45                     | 0.45              |
| 6:C:2836:LEU:HB3  | 6:C:2840:PHE:CE2  | 2.52                     | 0.45              |
| 6:C:2965:TYR:CD2  | 6:C:3002:TYR:CE2  | 3.05                     | 0.45              |
| 6:C:3464:LYS:HZ3  | 6:C:3468:LEU:HD11 | 1.82                     | 0.45              |
| 6:C:3633:ILE:HA   | 6:C:3637:GLY:HA3  | 1.99                     | 0.45              |
| 6:C:3789:ARG:CG   | 6:C:3938:ILE:HB   | 2.47                     | 0.45              |
| 6:C:3883:LEU:HD12 | 6:C:3966:GLN:O    | 2.17                     | 0.45              |
| 6:C:4121:TRP:CD2  | 6:C:4122:GLU:N    | 2.84                     | 0.45              |
| 1:A:193:LEU:HA    | 1:A:196:THR:OG1   | 2.16                     | 0.45              |
| 1:A:470:ARG:HG3   | 2:B:389:MET:HE1   | 1.98                     | 0.45              |
| 2:B:251:LEU:HD13  | 2:B:340:PHE:CE2   | 2.52                     | 0.45              |
| 2:B:373:ALA:O     | 2:B:377:LEU:HB2   | 2.17                     | 0.45              |
| 2:B:409:PHE:O     | 2:B:420:VAL:HG22  | 2.17                     | 0.45              |
| 2:B:463:LEU:HB3   | 2:B:476:LEU:O     | 2.17                     | 0.45              |
| 6:C:88:PHE:HA     | 6:C:91:ILE:HG12   | 1.99                     | 0.45              |
| 6:C:290:TYR:CZ    | 6:C:294:PHE:HB2   | 2.52                     | 0.45              |
| 6:C:674:VAL:HG12  | 6:C:743:LEU:HB2   | 1.99                     | 0.45              |
| 6:C:756:PHE:CD1   | 6:C:773:LEU:HD22  | 2.52                     | 0.45              |
| 6:C:1024:THR:HA   | 6:C:1027:ASP:OD2  | 2.17                     | 0.45              |
| 6:C:1152:ARG:HA   | 6:C:1155:ARG:HG3  | 1.98                     | 0.45              |
| 6:C:1238:GLN:OE1  | 6:C:1297:PHE:HB2  | 2.16                     | 0.45              |
| 6:C:1269:THR:HG23 | 6:C:1275:THR:HG21 | 1.99                     | 0.45              |
| 6:C:1516:GLU:CD   | 6:C:1574:ASN:HD21 | 2.25                     | 0.45              |
| 6:C:1699:PHE:HB2  | 6:C:1703:THR:HG23 | 1.99                     | 0.45              |
| 6:C:1863:PHE:CE2  | 6:C:1867:ILE:HG13 | 2.52                     | 0.45              |
| 6:C:1878:ASP:O    | 6:C:1881:TYR:HB2  | 2.16                     | 0.45              |
| 6:C:1921:ASP:CG   | 6:C:1959:LEU:HD22 | 2.42                     | 0.45              |
| 6:C:1933:LEU:HD23 | 6:C:1937:ARG:HE   | 1.82                     | 0.45              |
| 6:C:1952:ILE:CG1  | 6:C:1953:CYS:H    | 2.27                     | 0.45              |
| 6:C:2093:CYS:O    | 6:C:2097:LEU:HG   | 2.16                     | 0.45              |
| 6:C:2127:LYS:O    | 6:C:2130:HIS:CE1  | 2.70                     | 0.45              |
| 6:C:2214:ARG:HA   | 6:C:2217:ASN:HD22 | 1.82                     | 0.45              |
| 6:C:2851:PHE:C    | 6:C:2854:PHE:H    | 2.24                     | 0.45              |
| 6:C:2965:TYR:O    | 6:C:2966:SER:C    | 2.60                     | 0.45              |
| 6:C:3056:GLU:HA   | 6:C:3092:LEU:HD23 | 1.99                     | 0.45              |
| 6:C:3076:ALA:O    | 6:C:3079:GLU:HB3  | 2.17                     | 0.45              |
| 6:C:3161:LEU:HD13 | 6:C:3164:TRP:CH2  | 2.51                     | 0.45              |
| 6:C:3272:TRP:C    | 6:C:3276:TRP:CD1  | 2.94                     | 0.45              |
| 6:C:3319:ASN:ND2  | 6:C:3408:GLY:HA3  | 2.14                     | 0.45              |
| 6:C:3411:ASP:O    | 6:C:3415:THR:CB   | 2.65                     | 0.45              |
| 6:C:3543:LYS:NZ   | 6:C:3545:THR:HA   | 2.24                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3782:SER:C    | 6:C:3785:ALA:H    | 2.25                     | 0.45              |
| 6:C:3865:THR:CG2  | 6:C:4115:ASN:HB2  | 2.40                     | 0.45              |
| 6:C:3898:LEU:HD22 | 6:C:3901:ARG:CZ   | 2.47                     | 0.45              |
| 6:C:4017:GLU:HB3  | 6:C:4031:ILE:HD12 | 1.97                     | 0.45              |
| 6:C:4044:ILE:HG23 | 6:C:4048:LYS:HD3  | 1.99                     | 0.45              |
| 6:C:4061:CYS:O    | 6:C:4065:LEU:HG   | 2.16                     | 0.45              |
| 1:A:35:ARG:HG3    | 1:A:80:ARG:NE     | 2.31                     | 0.45              |
| 1:A:443:LYS:HA    | 1:A:446:MET:HE2   | 1.99                     | 0.45              |
| 1:A:470:ARG:HE    | 2:B:347:LYS:HG3   | 1.81                     | 0.45              |
| 1:A:485:GLN:OE1   | 2:B:333:TYR:HD2   | 1.99                     | 0.45              |
| 1:A:491:GLU:O     | 1:A:494:ALA:HB3   | 2.17                     | 0.45              |
| 2:B:65:ASP:HB3    | 2:B:78:THR:HG23   | 1.97                     | 0.45              |
| 2:B:108:LEU:HA    | 2:B:111:LEU:HB2   | 1.99                     | 0.45              |
| 2:B:142:PHE:HE2   | 2:B:200:GLN:NE2   | 2.11                     | 0.45              |
| 2:B:220:GLY:HA2   | 2:B:223:GLU:HB3   | 1.98                     | 0.45              |
| 2:B:327:ASP:O     | 2:B:331:MET:CB    | 2.65                     | 0.45              |
| 4:D:8:DT:C2'      | 4:D:9:DG:C8       | 2.98                     | 0.45              |
| 5:E:34:DC:N3      | 5:E:35:DC:C4      | 2.85                     | 0.45              |
| 6:C:33:GLN:HA     | 6:C:36:ARG:HD2    | 1.98                     | 0.45              |
| 6:C:79:ARG:NH2    | 6:C:121:ALA:HB3   | 2.31                     | 0.45              |
| 6:C:202:GLY:O     | 6:C:206:THR:HG23  | 2.17                     | 0.45              |
| 6:C:237:SER:H     | 6:C:279:ALA:HB2   | 1.82                     | 0.45              |
| 6:C:299:LYS:HA    | 6:C:303:HIS:CD2   | 2.52                     | 0.45              |
| 6:C:374:LYS:HG3   | 6:C:423:TYR:CE1   | 2.52                     | 0.45              |
| 6:C:421:LEU:HD22  | 6:C:428:PRO:HG3   | 1.99                     | 0.45              |
| 6:C:472:GLY:HA2   | 6:C:473:PRO:HD2   | 1.54                     | 0.45              |
| 6:C:796:LEU:HB3   | 6:C:800:LEU:HD12  | 1.99                     | 0.45              |
| 6:C:924:ARG:HG3   | 6:C:925:GLN:H     | 1.82                     | 0.45              |
| 6:C:1087:ARG:HG3  | 6:C:1134:LEU:HD21 | 1.99                     | 0.45              |
| 6:C:1356:TRP:HH2  | 6:C:1411:TYR:HD2  | 1.64                     | 0.45              |
| 6:C:1674:THR:O    | 6:C:1677:SER:HB2  | 2.16                     | 0.45              |
| 6:C:1676:ILE:O    | 6:C:1679:LEU:HB3  | 2.17                     | 0.45              |
| 6:C:2131:GLY:HA3  | 6:C:2141:ASN:ND2  | 2.32                     | 0.45              |
| 6:C:2196:TRP:CD1  | 6:C:2199:LEU:HB2  | 2.52                     | 0.45              |
| 6:C:2336:ILE:HG13 | 6:C:2337:LEU:H    | 1.80                     | 0.45              |
| 6:C:2413:PHE:CE1  | 6:C:2445:LYS:HG3  | 2.51                     | 0.45              |
| 6:C:2922:ARG:HD2  | 6:C:2930:TYR:CE1  | 2.52                     | 0.45              |
| 6:C:3026:ASP:C    | 6:C:3028:ASN:H    | 2.25                     | 0.45              |
| 6:C:3317:SER:C    | 6:C:3319:ASN:N    | 2.74                     | 0.45              |
| 6:C:3342:SER:O    | 6:C:3374:ILE:HD12 | 2.17                     | 0.45              |
| 6:C:3529:ILE:HG13 | 6:C:3532:PRO:CD   | 2.47                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3629:ARG:CG   | 6:C:3633:ILE:HB   | 2.47                     | 0.45              |
| 6:C:3649:SER:O    | 6:C:3652:LEU:HB3  | 2.17                     | 0.45              |
| 6:C:3723:ASP:HB2  | 6:C:3739:ILE:HG13 | 1.98                     | 0.45              |
| 6:C:3972:LEU:HD23 | 6:C:3972:LEU:HA   | 1.78                     | 0.45              |
| 6:C:3998:LEU:HD12 | 6:C:4001:THR:CB   | 2.39                     | 0.45              |
| 1:A:106:GLN:HE21  | 1:A:115:ARG:NE    | 2.14                     | 0.44              |
| 1:A:147:LEU:HB2   | 1:A:189:LYS:HD3   | 1.98                     | 0.44              |
| 1:A:276:LEU:HD21  | 2:B:430:LEU:HG    | 2.00                     | 0.44              |
| 1:A:317:LYS:HG2   | 1:A:318:ARG:N     | 2.30                     | 0.44              |
| 1:A:486:HIS:NE2   | 1:A:490:LEU:HD11  | 2.32                     | 0.44              |
| 4:D:-8:DT:C2      | 5:E:45:DG:N2      | 2.85                     | 0.44              |
| 6:C:363:ILE:O     | 6:C:364:ARG:C     | 2.59                     | 0.44              |
| 6:C:785:MET:HA    | 6:C:788:TYR:CD2   | 2.46                     | 0.44              |
| 6:C:886:TRP:CZ2   | 6:C:950:GLU:HG2   | 2.53                     | 0.44              |
| 6:C:931:CYS:HA    | 6:C:934:LEU:HB2   | 1.99                     | 0.44              |
| 6:C:1025:LEU:O    | 6:C:1028:PHE:HB3  | 2.17                     | 0.44              |
| 6:C:1036:PHE:CD2  | 6:C:1085:ILE:HG21 | 2.52                     | 0.44              |
| 6:C:1762:MET:HE1  | 6:C:1896:ILE:N    | 2.32                     | 0.44              |
| 6:C:1864:ASP:HA   | 6:C:1867:ILE:HB   | 1.97                     | 0.44              |
| 6:C:2042:GLN:NE2  | 6:C:2042:GLN:O    | 2.50                     | 0.44              |
| 6:C:2047:THR:O    | 6:C:2048:GLY:C    | 2.59                     | 0.44              |
| 6:C:2194:LEU:C    | 6:C:2196:TRP:H    | 2.25                     | 0.44              |
| 6:C:2256:ILE:CG1  | 6:C:2259:LYS:HZ3  | 2.30                     | 0.44              |
| 6:C:2284:ASP:N    | 6:C:2284:ASP:OD1  | 2.49                     | 0.44              |
| 6:C:2356:MET:HB3  | 6:C:2360:PHE:CE2  | 2.52                     | 0.44              |
| 6:C:2368:THR:HG23 | 6:C:2371:PHE:CD2  | 2.53                     | 0.44              |
| 6:C:2424:MET:HG3  | 6:C:2436:LEU:HD22 | 1.99                     | 0.44              |
| 6:C:2433:LYS:HB2  | 6:C:2433:LYS:HE2  | 1.73                     | 0.44              |
| 6:C:2898:LEU:HD23 | 6:C:2901:LEU:HB2  | 1.98                     | 0.44              |
| 6:C:2911:ARG:HD3  | 6:C:2913:LYS:HE2  | 1.99                     | 0.44              |
| 6:C:2919:ASP:N    | 6:C:2919:ASP:OD1  | 2.49                     | 0.44              |
| 6:C:3090:TYR:HB3  | 6:C:3095:ASP:OD1  | 2.17                     | 0.44              |
| 6:C:3133:GLN:O    | 6:C:3134:ALA:C    | 2.60                     | 0.44              |
| 6:C:3163:THR:HG23 | 6:C:3164:TRP:N    | 2.32                     | 0.44              |
| 6:C:3314:SER:N    | 6:C:3315:TYR:HB3  | 2.32                     | 0.44              |
| 6:C:3323:PHE:O    | 6:C:3326:GLN:N    | 2.50                     | 0.44              |
| 6:C:3585:PHE:O    | 6:C:3588:TRP:HB3  | 2.17                     | 0.44              |
| 6:C:3629:ARG:HG2  | 6:C:3630:ARG:N    | 2.31                     | 0.44              |
| 6:C:3726:VAL:HG23 | 6:C:3737:ARG:C    | 2.41                     | 0.44              |
| 6:C:3751:LEU:HG   | 6:C:3752:VAL:N    | 2.29                     | 0.44              |
| 6:C:3868:VAL:HB   | 6:C:4114:PRO:HB2  | 1.97                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:85:VAL:HG23   | 1:A:106:GLN:H     | 1.82                     | 0.44              |
| 1:A:144:SER:HA    | 1:A:147:LEU:HG    | 2.00                     | 0.44              |
| 1:A:247:ARG:HB3   | 1:A:488:ARG:HH21  | 1.81                     | 0.44              |
| 1:A:301:ARG:NH2   | 6:C:163:LYS:HA    | 2.32                     | 0.44              |
| 1:A:373:SER:OG    | 1:A:374:LEU:N     | 2.49                     | 0.44              |
| 2:B:490:LEU:O     | 2:B:493:CYS:HB2   | 2.17                     | 0.44              |
| 4:D:-6:DT:N3      | 4:D:-5:DT:N3      | 2.64                     | 0.44              |
| 4:D:17:DG:H1'     | 4:D:18:DC:C5      | 2.53                     | 0.44              |
| 6:C:77:GLU:HB2    | 6:C:78:PHE:CE1    | 2.52                     | 0.44              |
| 6:C:165:LYS:HB3   | 6:C:165:LYS:HE3   | 1.76                     | 0.44              |
| 6:C:188:GLU:HA    | 6:C:191:ASN:OD1   | 2.17                     | 0.44              |
| 6:C:194:GLU:OE2   | 6:C:230:LEU:HA    | 2.17                     | 0.44              |
| 6:C:414:LEU:O     | 6:C:415:GLN:C     | 2.60                     | 0.44              |
| 6:C:435:LEU:O     | 6:C:439:VAL:HG23  | 2.17                     | 0.44              |
| 6:C:663:ILE:O     | 6:C:666:PHE:HB3   | 2.18                     | 0.44              |
| 6:C:671:SER:O     | 6:C:675:ARG:HB3   | 2.17                     | 0.44              |
| 6:C:738:HIS:HE2   | 6:C:745:VAL:HG13  | 1.82                     | 0.44              |
| 6:C:850:GLU:CB    | 6:C:854:ARG:HH22  | 2.29                     | 0.44              |
| 6:C:1515:LEU:HD12 | 6:C:1516:GLU:N    | 2.33                     | 0.44              |
| 6:C:1602:ASP:OD1  | 6:C:1605:PHE:CD2  | 2.68                     | 0.44              |
| 6:C:2148:LYS:HD3  | 6:C:2163:HIS:NE2  | 2.33                     | 0.44              |
| 6:C:2278:GLY:O    | 6:C:2282:ALA:N    | 2.44                     | 0.44              |
| 6:C:2389:PHE:N    | 6:C:2389:PHE:CD1  | 2.83                     | 0.44              |
| 6:C:2801:ASP:N    | 6:C:2802:PRO:CD   | 2.80                     | 0.44              |
| 6:C:3031:TRP:HB2  | 6:C:3033:GLU:H    | 1.82                     | 0.44              |
| 6:C:3166:ASN:C    | 6:C:3186:ARG:HH12 | 2.24                     | 0.44              |
| 6:C:3345:PRO:HA   | 6:C:3349:ALA:HB3  | 2.00                     | 0.44              |
| 6:C:3357:ARG:CD   | 6:C:3380:ARG:HH12 | 2.30                     | 0.44              |
| 6:C:3493:TRP:NE1  | 6:C:3710:LYS:O    | 2.50                     | 0.44              |
| 6:C:3556:ALA:O    | 6:C:3559:LYS:HB3  | 2.17                     | 0.44              |
| 6:C:3584:LEU:CB   | 6:C:3617:LEU:HD11 | 2.47                     | 0.44              |
| 6:C:3667:LEU:HA   | 6:C:3670:MET:HG2  | 1.99                     | 0.44              |
| 6:C:3864:ARG:NH1  | 6:C:4077:TYR:CD1  | 2.86                     | 0.44              |
| 6:C:3959:MET:HE2  | 6:C:3961:PHE:O    | 2.18                     | 0.44              |
| 6:C:4065:LEU:O    | 6:C:4068:HIS:HB3  | 2.16                     | 0.44              |
| 1:A:392:LYS:NZ    | 2:B:462:SER:HG    | 2.14                     | 0.44              |
| 1:A:470:ARG:HA    | 2:B:345:PHE:HB2   | 1.99                     | 0.44              |
| 2:B:56:LEU:HG     | 2:B:58:LEU:HG     | 1.99                     | 0.44              |
| 2:B:74:TYR:H      | 2:B:109:ASP:CG    | 2.24                     | 0.44              |
| 2:B:81:ARG:NE     | 2:B:90:LEU:HD13   | 2.32                     | 0.44              |
| 2:B:99:GLN:OE1    | 2:B:99:GLN:N      | 2.49                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:340:PHE:CD1   | 2:B:395:TYR:HB2   | 2.53                     | 0.44              |
| 4:D:15:DG:H22     | 5:E:20:DT:P       | 2.39                     | 0.44              |
| 5:E:20:DT:OP2     | 5:E:21:DA:N6      | 2.50                     | 0.44              |
| 6:C:13:LEU:O      | 6:C:16:GLN:HG2    | 2.17                     | 0.44              |
| 6:C:53:LEU:HA     | 6:C:56:SER:OG     | 2.17                     | 0.44              |
| 6:C:113:SER:O     | 6:C:116:THR:HB    | 2.17                     | 0.44              |
| 6:C:269:SER:OG    | 6:C:270:ALA:N     | 2.49                     | 0.44              |
| 6:C:770:LEU:N     | 6:C:770:LEU:HD12  | 2.31                     | 0.44              |
| 6:C:1003:SER:C    | 6:C:1005:ASP:H    | 2.24                     | 0.44              |
| 6:C:1297:PHE:O    | 6:C:1300:SER:HB3  | 2.17                     | 0.44              |
| 6:C:1481:THR:HA   | 6:C:1484:LEU:HD23 | 1.98                     | 0.44              |
| 6:C:1564:SER:HA   | 6:C:1567:ILE:HD12 | 1.99                     | 0.44              |
| 6:C:1922:ALA:HA   | 6:C:1925:GLU:HB3  | 1.99                     | 0.44              |
| 6:C:1945:TYR:CE2  | 6:C:1994:VAL:HG11 | 2.52                     | 0.44              |
| 6:C:2086:ASP:HB3  | 6:C:2090:ARG:CG   | 2.47                     | 0.44              |
| 6:C:2225:HIS:O    | 6:C:2226:PRO:C    | 2.59                     | 0.44              |
| 6:C:2342:CYS:O    | 6:C:2343:GLU:C    | 2.60                     | 0.44              |
| 6:C:2389:PHE:HA   | 6:C:2392:VAL:HB   | 2.00                     | 0.44              |
| 6:C:2478:MET:O    | 6:C:2479:TRP:C    | 2.60                     | 0.44              |
| 6:C:2952:ILE:HD12 | 6:C:2965:TYR:CE1  | 2.52                     | 0.44              |
| 6:C:2960:GLU:OE2  | 6:C:2962:ARG:HB3  | 2.17                     | 0.44              |
| 6:C:3007:GLU:OE1  | 6:C:3050:LYS:N    | 2.34                     | 0.44              |
| 6:C:3163:THR:OG1  | 6:C:3234:CYS:SG   | 2.56                     | 0.44              |
| 6:C:3196:LYS:HA   | 6:C:3199:PRO:HD2  | 1.99                     | 0.44              |
| 6:C:3280:TYR:OH   | 6:C:3308:ASP:OD1  | 2.23                     | 0.44              |
| 6:C:3484:THR:HG1  | 6:C:3516:HIS:CE1  | 2.30                     | 0.44              |
| 6:C:3532:PRO:O    | 6:C:3535:ILE:HG13 | 2.18                     | 0.44              |
| 6:C:3754:GLY:HA2  | 6:C:3800:LEU:CB   | 2.47                     | 0.44              |
| 6:C:3860:LYS:CB   | 6:C:3863:ASN:HB3  | 2.34                     | 0.44              |
| 6:C:3898:LEU:HA   | 6:C:3898:LEU:HD23 | 1.69                     | 0.44              |
| 6:C:4012:ASP:O    | 6:C:4016:PHE:HB3  | 2.17                     | 0.44              |
| 6:C:4047:ALA:O    | 6:C:4051:LEU:CB   | 2.47                     | 0.44              |
| 1:A:238:LYS:O     | 1:A:242:LEU:HD13  | 2.17                     | 0.44              |
| 1:A:298:THR:CB    | 2:B:295:TYR:HA    | 2.48                     | 0.44              |
| 2:B:148:ASP:HA    | 2:B:151:ILE:HD12  | 1.99                     | 0.44              |
| 2:B:325:LYS:O     | 2:B:328:GLU:HB2   | 2.17                     | 0.44              |
| 2:B:386:ASP:OD1   | 2:B:387:LEU:N     | 2.51                     | 0.44              |
| 2:B:410:PRO:CA    | 2:B:419:LEU:HG    | 2.48                     | 0.44              |
| 6:C:79:ARG:NH1    | 6:C:127:ALA:HB2   | 2.32                     | 0.44              |
| 6:C:204:LEU:HD12  | 6:C:223:CYS:CB    | 2.47                     | 0.44              |
| 6:C:204:LEU:O     | 6:C:208:MET:HG3   | 2.18                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:446:PHE:CD2   | 6:C:449:TYR:CZ    | 3.06                     | 0.44              |
| 6:C:546:ALA:O     | 6:C:547:ASP:C     | 2.60                     | 0.44              |
| 6:C:628:GLU:HG3   | 6:C:628:GLU:O     | 2.16                     | 0.44              |
| 6:C:661:PRO:O     | 6:C:664:SER:N     | 2.50                     | 0.44              |
| 6:C:855:VAL:O     | 6:C:859:LEU:HG    | 2.17                     | 0.44              |
| 6:C:1018:VAL:HG13 | 6:C:1073:PHE:CE1  | 2.52                     | 0.44              |
| 6:C:1024:THR:O    | 6:C:1027:ASP:CB   | 2.64                     | 0.44              |
| 6:C:1256:TRP:CE3  | 6:C:1259:LEU:HD12 | 2.52                     | 0.44              |
| 6:C:1564:SER:HA   | 6:C:1567:ILE:HB   | 1.98                     | 0.44              |
| 6:C:1567:ILE:HG12 | 6:C:1571:LEU:HD11 | 2.00                     | 0.44              |
| 6:C:1583:MET:SD   | 6:C:1646:LEU:HD12 | 2.58                     | 0.44              |
| 6:C:1998:MET:HG3  | 6:C:1999:GLU:N    | 2.32                     | 0.44              |
| 6:C:2276:LEU:HA   | 6:C:2276:LEU:HD12 | 1.68                     | 0.44              |
| 6:C:2313:LYS:O    | 6:C:2315:VAL:HG22 | 2.18                     | 0.44              |
| 6:C:2341:LEU:HA   | 6:C:2344:LEU:HD12 | 2.00                     | 0.44              |
| 6:C:2397:CYS:HB3  | 6:C:2432:GLN:CD   | 2.42                     | 0.44              |
| 6:C:2454:LEU:O    | 6:C:2457:PRO:HD2  | 2.17                     | 0.44              |
| 6:C:2455:LEU:O    | 6:C:2458:VAL:HG23 | 2.18                     | 0.44              |
| 6:C:2472:GLN:NE2  | 6:C:2472:GLN:O    | 2.50                     | 0.44              |
| 6:C:2487:PRO:HD2  | 6:C:2489:SER:OG   | 2.18                     | 0.44              |
| 6:C:2537:ASP:HA   | 6:C:2540:LEU:HG   | 1.97                     | 0.44              |
| 6:C:2774:SER:HB2  | 6:C:2777:HIS:ND1  | 2.33                     | 0.44              |
| 6:C:2867:ALA:C    | 6:C:2869:LEU:N    | 2.69                     | 0.44              |
| 6:C:3011:LEU:O    | 6:C:3015:SER:HB2  | 2.18                     | 0.44              |
| 6:C:3061:LEU:HD13 | 6:C:3093:GLN:HE21 | 1.83                     | 0.44              |
| 6:C:3287:ARG:NH1  | 6:C:3330:LEU:HD23 | 2.32                     | 0.44              |
| 6:C:3423:GLN:O    | 6:C:3426:LYS:HB3  | 2.18                     | 0.44              |
| 6:C:3571:PHE:HE2  | 6:C:3690:PHE:HA   | 1.83                     | 0.44              |
| 6:C:3581:PRO:HG2  | 6:C:3633:ILE:HG12 | 1.99                     | 0.44              |
| 6:C:3861:GLY:O    | 6:C:3865:THR:HG23 | 2.17                     | 0.44              |
| 6:C:3871:PHE:N    | 6:C:3874:ARG:HH21 | 2.16                     | 0.44              |
| 6:C:3872:ARG:HH11 | 6:C:4117:LEU:HD12 | 1.82                     | 0.44              |
| 6:C:3972:LEU:HB2  | 6:C:3976:GLU:OE2  | 2.17                     | 0.44              |
| 6:C:4011:PHE:O    | 6:C:4016:PHE:N    | 2.50                     | 0.44              |
| 6:C:4016:PHE:HA   | 6:C:4019:LYS:HG3  | 1.99                     | 0.44              |
| 1:A:330:GLU:N     | 1:A:333:GLU:HB2   | 2.32                     | 0.44              |
| 1:A:338:LYS:HD2   | 1:A:406:ILE:CA    | 2.48                     | 0.44              |
| 4:D:-9:DC:C2      | 4:D:-8:DT:C6      | 3.05                     | 0.44              |
| 6:C:224:LEU:HD21  | 6:C:271:GLY:CA    | 2.47                     | 0.44              |
| 6:C:282:PHE:CG    | 6:C:283:SER:N     | 2.86                     | 0.44              |
| 6:C:290:TYR:CD1   | 6:C:293:LEU:HB2   | 2.53                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:554:ASN:O     | 6:C:557:SER:HB2   | 2.17                     | 0.44              |
| 6:C:585:ILE:C     | 6:C:587:THR:H     | 2.24                     | 0.44              |
| 6:C:585:ILE:H     | 6:C:588:VAL:HG22  | 1.82                     | 0.44              |
| 6:C:1063:LEU:HG   | 6:C:1063:LEU:H    | 1.54                     | 0.44              |
| 6:C:1445:ARG:NH1  | 6:C:1495:ASP:HB3  | 2.32                     | 0.44              |
| 6:C:1811:ARG:HG3  | 6:C:1812:LEU:HG   | 1.99                     | 0.44              |
| 6:C:1952:ILE:HG23 | 6:C:1956:PHE:CE1  | 2.52                     | 0.44              |
| 6:C:2163:HIS:HB3  | 6:C:2189:ILE:HD12 | 2.00                     | 0.44              |
| 6:C:2216:LEU:O    | 6:C:2217:ASN:C    | 2.60                     | 0.44              |
| 6:C:2227:LYS:HE2  | 6:C:2232:ARG:HA   | 1.99                     | 0.44              |
| 6:C:2281:MET:O    | 6:C:2283:ASN:N    | 2.51                     | 0.44              |
| 6:C:2554:PHE:CE1  | 6:C:2555:LEU:HG   | 2.53                     | 0.44              |
| 6:C:2787:HIS:NE2  | 6:C:2790:LEU:HG   | 2.32                     | 0.44              |
| 6:C:2894:GLU:HA   | 6:C:2898:LEU:HB2  | 1.98                     | 0.44              |
| 6:C:3013:TYR:O    | 6:C:3016:THR:HB   | 2.17                     | 0.44              |
| 6:C:3161:LEU:HD22 | 6:C:3164:TRP:NE1  | 2.31                     | 0.44              |
| 6:C:3325:ASP:O    | 6:C:3328:ILE:N    | 2.50                     | 0.44              |
| 6:C:3530:VAL:HG13 | 6:C:3531:TYR:N    | 2.32                     | 0.44              |
| 6:C:3555:VAL:HA   | 6:C:3558:ILE:HG12 | 1.99                     | 0.44              |
| 6:C:3582:GLU:HG2  | 6:C:3586:LYS:HE2  | 1.98                     | 0.44              |
| 6:C:3701:ILE:HG13 | 6:C:3719:ILE:HG22 | 1.99                     | 0.44              |
| 6:C:3775:LEU:HD22 | 6:C:3786:LEU:HB2  | 2.00                     | 0.44              |
| 1:A:36:ASP:HA     | 1:A:161:MET:CB    | 2.46                     | 0.44              |
| 1:A:39:ILE:CG2    | 1:A:166:ILE:HG23  | 2.48                     | 0.44              |
| 1:A:76:ILE:HG12   | 1:A:488:ARG:HH12  | 1.83                     | 0.44              |
| 1:A:90:THR:H      | 1:A:101:ASN:CA    | 2.30                     | 0.44              |
| 1:A:154:PHE:HE1   | 1:A:161:MET:SD    | 2.41                     | 0.44              |
| 1:A:179:ASP:OD2   | 1:A:182:LYS:N     | 2.51                     | 0.44              |
| 1:A:302:THR:CB    | 1:A:311:LEU:HB2   | 2.48                     | 0.44              |
| 1:A:304:ASN:HA    | 1:A:311:LEU:HG    | 1.99                     | 0.44              |
| 1:A:317:LYS:HB3   | 1:A:328:ILE:HD11  | 2.00                     | 0.44              |
| 1:A:367:PHE:CE1   | 1:A:431:GLY:HA3   | 2.53                     | 0.44              |
| 1:A:379:SER:O     | 1:A:383:SER:CB    | 2.58                     | 0.44              |
| 1:A:405:ASN:CG    | 1:A:406:ILE:N     | 2.74                     | 0.44              |
| 2:B:11:VAL:HG11   | 2:B:114:SER:HB3   | 1.99                     | 0.44              |
| 2:B:118:ILE:HD12  | 2:B:130:ARG:HD2   | 1.98                     | 0.44              |
| 2:B:242:ARG:CZ    | 2:B:245:ILE:HG13  | 2.48                     | 0.44              |
| 2:B:400:ARG:NH1   | 4:D:9:DG:H5''     | 2.32                     | 0.44              |
| 5:E:44:DA:C6      | 5:E:45:DG:C5      | 3.06                     | 0.44              |
| 6:C:318:SER:O     | 6:C:321:LYS:HB3   | 2.18                     | 0.44              |
| 6:C:355:ASN:HD21  | 6:C:357:LYS:CE    | 2.27                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:567:GLU:HB3   | 6:C:609:ALA:HB2   | 2.00                     | 0.44              |
| 6:C:862:LEU:HA    | 6:C:3169:PRO:CB   | 2.45                     | 0.44              |
| 6:C:907:LEU:H     | 6:C:2807:GLN:HE22 | 1.59                     | 0.44              |
| 6:C:963:LYS:NZ    | 6:C:1006:THR:N    | 2.65                     | 0.44              |
| 6:C:1088:GLU:HG3  | 6:C:1089:PHE:N    | 2.31                     | 0.44              |
| 6:C:1162:SER:H    | 6:C:1165:LEU:CD1  | 2.31                     | 0.44              |
| 6:C:1257:LEU:HD23 | 6:C:1257:LEU:HA   | 1.72                     | 0.44              |
| 6:C:1376:LEU:HD12 | 6:C:1377:CYS:N    | 2.32                     | 0.44              |
| 6:C:1603:GLN:HA   | 6:C:1606:ARG:HH22 | 1.82                     | 0.44              |
| 6:C:2002:LYS:N    | 6:C:2005:ILE:HG23 | 2.28                     | 0.44              |
| 6:C:2281:MET:C    | 6:C:2283:ASN:N    | 2.75                     | 0.44              |
| 6:C:2442:MET:HE3  | 6:C:2442:MET:HB2  | 1.83                     | 0.44              |
| 6:C:2518:GLN:O    | 6:C:2522:ARG:HB2  | 2.18                     | 0.44              |
| 6:C:2781:PRO:C    | 6:C:2784:GLN:H    | 2.26                     | 0.44              |
| 6:C:2791:ILE:HG22 | 6:C:2795:GLN:CG   | 2.47                     | 0.44              |
| 6:C:2817:LEU:HD22 | 6:C:2864:GLN:OE1  | 2.18                     | 0.44              |
| 6:C:2831:ASN:HA   | 6:C:2834:GLN:HG2  | 2.00                     | 0.44              |
| 6:C:2910:VAL:HG22 | 6:C:2911:ARG:H    | 1.82                     | 0.44              |
| 6:C:3019:ILE:HD12 | 6:C:3040:TYR:CE1  | 2.52                     | 0.44              |
| 6:C:3126:LEU:HD23 | 6:C:3126:LEU:HA   | 1.70                     | 0.44              |
| 6:C:3160:LEU:O    | 6:C:3163:THR:HG22 | 2.17                     | 0.44              |
| 6:C:3356:ALA:HB1  | 6:C:3384:HIS:ND1  | 2.32                     | 0.44              |
| 6:C:3359:ILE:HG22 | 6:C:3388:ALA:CB   | 2.47                     | 0.44              |
| 6:C:3401:TRP:HB2  | 6:C:3452:LYS:HZ1  | 1.82                     | 0.44              |
| 6:C:3464:LYS:HE2  | 6:C:3468:LEU:HD21 | 1.99                     | 0.44              |
| 6:C:3502:MET:SD   | 6:C:3517:SER:OG   | 2.60                     | 0.44              |
| 6:C:3681:LYS:HZ1  | 6:C:3725:ARG:HA   | 1.82                     | 0.44              |
| 6:C:3763:ARG:HH22 | 6:C:4009:PRO:N    | 2.16                     | 0.44              |
| 6:C:3811:THR:CA   | 6:C:3929:MET:HG2  | 2.46                     | 0.44              |
| 6:C:4111:ALA:C    | 6:C:4113:ASP:H    | 2.25                     | 0.44              |
| 1:A:317:LYS:HD3   | 1:A:329:LEU:C     | 2.43                     | 0.44              |
| 1:A:350:PHE:CE2   | 2:B:458:ILE:HA    | 2.53                     | 0.44              |
| 1:A:362:LEU:C     | 2:B:359:ASN:HA    | 2.43                     | 0.44              |
| 1:A:471:PHE:HE2   | 2:B:344:GLY:CA    | 2.24                     | 0.44              |
| 2:B:407:VAL:H     | 2:B:424:LEU:N     | 2.15                     | 0.44              |
| 2:B:524:THR:CA    | 2:B:527:GLN:HG2   | 2.40                     | 0.44              |
| 5:E:37:DT:H2"     | 5:E:38:DA:C6      | 2.53                     | 0.44              |
| 5:E:39:DA:N7      | 5:E:40:DT:C6      | 2.85                     | 0.44              |
| 6:C:92:PHE:HA     | 6:C:95:LYS:HG2    | 2.00                     | 0.44              |
| 6:C:138:PHE:CE2   | 6:C:177:LEU:HD22  | 2.52                     | 0.44              |
| 6:C:152:LEU:HD12  | 6:C:155:LYS:NZ    | 2.33                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:376:ILE:HD12  | 6:C:385:TYR:HE2   | 1.82                     | 0.44              |
| 6:C:424:LEU:HD22  | 6:C:426:THR:OG1   | 2.18                     | 0.44              |
| 6:C:437:HIS:NE2   | 6:C:1813:SER:HB2  | 2.32                     | 0.44              |
| 6:C:545:LEU:HA    | 6:C:548:GLU:CD    | 2.42                     | 0.44              |
| 6:C:628:GLU:OE2   | 6:C:630:CYS:HB2   | 2.18                     | 0.44              |
| 6:C:933:LEU:O     | 6:C:937:MET:HE2   | 2.18                     | 0.44              |
| 6:C:937:MET:O     | 6:C:940:PHE:HB3   | 2.17                     | 0.44              |
| 6:C:1406:LEU:HD13 | 6:C:1414:ILE:HG22 | 1.99                     | 0.44              |
| 6:C:1459:HIS:CE1  | 6:C:1509:GLN:HG3  | 2.51                     | 0.44              |
| 6:C:1752:LEU:HD23 | 6:C:1892:LYS:CE   | 2.48                     | 0.44              |
| 6:C:1798:LEU:N    | 6:C:1802:TYR:HB2  | 2.33                     | 0.44              |
| 6:C:2281:MET:C    | 6:C:2329:TYR:OH   | 2.60                     | 0.44              |
| 6:C:2778:GLY:C    | 6:C:2781:PRO:HD2  | 2.43                     | 0.44              |
| 6:C:2965:TYR:HA   | 6:C:2968:ALA:HB3  | 1.98                     | 0.44              |
| 6:C:3329:LEU:HB2  | 6:C:3389:VAL:CG2  | 2.47                     | 0.44              |
| 6:C:3443:PRO:O    | 6:C:3447:VAL:HG13 | 2.18                     | 0.44              |
| 6:C:3455:LYS:O    | 6:C:3456:LEU:HD12 | 2.17                     | 0.44              |
| 6:C:3462:ARG:HB2  | 6:C:3498:TRP:CZ3  | 2.53                     | 0.44              |
| 6:C:3467:ARG:HH11 | 6:C:4004:VAL:HB   | 1.83                     | 0.44              |
| 6:C:3588:TRP:HA   | 6:C:3799:ARG:HH22 | 1.81                     | 0.44              |
| 6:C:3758:LEU:HA   | 6:C:3760:GLN:CD   | 2.43                     | 0.44              |
| 6:C:3926:ASN:OD1  | 6:C:3927:ASN:N    | 2.51                     | 0.44              |
| 6:C:3963:LEU:HG   | 6:C:3964:THR:N    | 2.33                     | 0.44              |
| 6:C:4000:ASN:HA   | 6:C:4003:ASP:HB3  | 1.99                     | 0.44              |
| 1:A:442:ASP:O     | 2:B:267:ILE:HD13  | 2.18                     | 0.44              |
| 1:A:488:ARG:HD3   | 1:A:491:GLU:OE1   | 2.18                     | 0.44              |
| 2:B:72:ASP:OD1    | 2:B:72:ASP:C      | 2.61                     | 0.44              |
| 2:B:135:PHE:HA    | 2:B:164:PHE:H     | 1.83                     | 0.44              |
| 2:B:270:GLU:HG3   | 2:B:271:ARG:N     | 2.33                     | 0.44              |
| 5:E:24:DG:C6      | 5:E:25:DG:N7      | 2.86                     | 0.44              |
| 5:E:35:DC:H3'     | 5:E:35:DC:OP2     | 2.17                     | 0.44              |
| 6:C:584:GLU:HG3   | 6:C:589:GLY:HA3   | 1.99                     | 0.44              |
| 6:C:728:SER:OG    | 6:C:758:LEU:HD21  | 2.18                     | 0.44              |
| 6:C:1059:LEU:HA   | 6:C:1062:ARG:NH1  | 2.32                     | 0.44              |
| 6:C:1369:MET:HB3  | 6:C:1418:HIS:HB2  | 2.00                     | 0.44              |
| 6:C:1945:TYR:HE2  | 6:C:1994:VAL:HG11 | 1.82                     | 0.44              |
| 6:C:2086:ASP:HA   | 6:C:2089:ASN:HB2  | 1.98                     | 0.44              |
| 6:C:2190:VAL:HA   | 6:C:2193:ILE:CG1  | 2.42                     | 0.44              |
| 6:C:2254:ARG:O    | 6:C:2258:GLU:HG2  | 2.17                     | 0.44              |
| 6:C:3059:GLN:HE21 | 6:C:3063:THR:HG21 | 1.82                     | 0.44              |
| 6:C:3161:LEU:HA   | 6:C:3163:THR:HG22 | 1.99                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3279:SER:O    | 6:C:3282:ARG:HB2  | 2.18                     | 0.44              |
| 6:C:3545:THR:O    | 6:C:3552:LYS:HD2  | 2.18                     | 0.44              |
| 6:C:3728:VAL:HB   | 6:C:3734:ARG:C    | 2.43                     | 0.44              |
| 6:C:3828:TYR:O    | 6:C:3832:PRO:HD2  | 2.17                     | 0.44              |
| 6:C:3930:VAL:HA   | 6:C:3937:VAL:HA   | 1.99                     | 0.44              |
| 6:C:3952:PHE:CG   | 6:C:4030:GLU:HG2  | 2.53                     | 0.44              |
| 6:C:4002:MET:O    | 6:C:4005:PHE:HB3  | 2.18                     | 0.44              |
| 6:C:4079:ALA:HA   | 6:C:4082:ARG:NH1  | 2.32                     | 0.44              |
| 6:C:4099:SER:HB3  | 6:C:4102:THR:HG1  | 1.83                     | 0.44              |
| 1:A:42:VAL:HB     | 1:A:87:PHE:CD1    | 2.53                     | 0.44              |
| 1:A:76:ILE:HG22   | 1:A:249:LYS:O     | 2.17                     | 0.44              |
| 1:A:404:ARG:HG3   | 5:E:37:DT:OP1     | 2.17                     | 0.44              |
| 1:A:404:ARG:HG3   | 5:E:36:DA:H3'     | 1.99                     | 0.44              |
| 1:A:487:PHE:HD1   | 1:A:488:ARG:NH1   | 2.16                     | 0.44              |
| 5:E:50:DT:H1'     | 5:E:51:DA:O4'     | 2.16                     | 0.44              |
| 6:C:333:MET:O     | 6:C:337:LYS:HE3   | 2.18                     | 0.44              |
| 6:C:352:VAL:HG11  | 6:C:364:ARG:HD2   | 2.00                     | 0.44              |
| 6:C:364:ARG:O     | 6:C:365:GLY:C     | 2.60                     | 0.44              |
| 6:C:458:CYS:O     | 6:C:462:VAL:HG12  | 2.17                     | 0.44              |
| 6:C:570:LYS:O     | 6:C:573:LEU:HB2   | 2.18                     | 0.44              |
| 6:C:657:SER:O     | 6:C:658:THR:C     | 2.61                     | 0.44              |
| 6:C:673:THR:O     | 6:C:677:ALA:CB    | 2.66                     | 0.44              |
| 6:C:673:THR:OG1   | 6:C:674:VAL:N     | 2.50                     | 0.44              |
| 6:C:970:LEU:HB3   | 6:C:981:ARG:HH11  | 1.83                     | 0.44              |
| 6:C:1006:THR:HA   | 6:C:1009:LEU:HB3  | 2.00                     | 0.44              |
| 6:C:1107:TYR:O    | 6:C:1111:LEU:HB3  | 2.12                     | 0.44              |
| 6:C:1367:HIS:N    | 6:C:1370:ARG:HH21 | 2.16                     | 0.44              |
| 6:C:1582:LEU:HD11 | 6:C:1597:LEU:HD13 | 2.00                     | 0.44              |
| 6:C:2052:TYR:HB3  | 6:C:2060:ARG:HH12 | 1.83                     | 0.44              |
| 6:C:3114:TYR:HA   | 6:C:3128:LYS:HE2  | 2.00                     | 0.44              |
| 6:C:3141:PHE:HZ   | 6:C:3192:LYS:CB   | 2.30                     | 0.44              |
| 6:C:3284:SER:HA   | 6:C:3287:ARG:CB   | 2.43                     | 0.44              |
| 6:C:3296:GLN:HA   | 6:C:3299:THR:CB   | 2.47                     | 0.44              |
| 6:C:3450:MET:HB3  | 6:C:3454:LEU:HB2  | 2.00                     | 0.44              |
| 6:C:3525:TYR:HA   | 6:C:3529:ILE:HG22 | 2.00                     | 0.44              |
| 6:C:3817:LEU:HD22 | 6:C:3829:LEU:HD13 | 1.99                     | 0.44              |
| 6:C:3923:ARG:CA   | 6:C:3927:ASN:HD22 | 2.31                     | 0.44              |
| 6:C:4017:GLU:CG   | 6:C:4031:ILE:HB   | 2.47                     | 0.44              |
| 6:C:4017:GLU:HG2  | 6:C:4031:ILE:HB   | 1.99                     | 0.44              |
| 1:A:184:SER:HA    | 1:A:187:ARG:CG    | 2.48                     | 0.43              |
| 1:A:206:LYS:NZ    | 1:A:209:GLY:H     | 2.16                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:277:VAL:HG22  | 1:A:278:GLN:H     | 1.83                     | 0.43              |
| 1:A:340:PHE:HE1   | 2:B:489:ARG:HD3   | 1.83                     | 0.43              |
| 2:B:65:ASP:O      | 2:B:79:VAL:HG23   | 2.18                     | 0.43              |
| 4:D:1:DG:C2       | 4:D:2:DG:C4       | 3.06                     | 0.43              |
| 5:E:45:DG:H5''    | 6:C:260:ILE:HA    | 2.00                     | 0.43              |
| 6:C:237:SER:HB2   | 6:C:241:ASP:OD2   | 2.18                     | 0.43              |
| 6:C:473:PRO:HB3   | 6:C:476:ARG:NH1   | 2.33                     | 0.43              |
| 6:C:613:HIS:CE1   | 6:C:655:LEU:HD13  | 2.53                     | 0.43              |
| 6:C:938:VAL:HG13  | 6:C:962:TYR:HE2   | 1.83                     | 0.43              |
| 6:C:1037:LEU:O    | 6:C:1041:ILE:HG13 | 2.17                     | 0.43              |
| 6:C:1428:ILE:HD12 | 6:C:1431:LEU:HD22 | 1.99                     | 0.43              |
| 6:C:1763:THR:HG21 | 6:C:1857:LYS:HD3  | 1.99                     | 0.43              |
| 6:C:1901:HIS:C    | 6:C:1903:SER:N    | 2.73                     | 0.43              |
| 6:C:2063:THR:HA   | 6:C:2066:PHE:CE2  | 2.53                     | 0.43              |
| 6:C:2116:ASP:O    | 6:C:2155:GLU:HA   | 2.17                     | 0.43              |
| 6:C:2212:ALA:HA   | 6:C:2215:LEU:HB3  | 1.99                     | 0.43              |
| 6:C:2319:ALA:HB1  | 6:C:2323:LEU:HD12 | 2.00                     | 0.43              |
| 6:C:2330:VAL:HG13 | 6:C:2335:ASN:OD1  | 2.17                     | 0.43              |
| 6:C:2401:VAL:O    | 6:C:2402:LEU:C    | 2.61                     | 0.43              |
| 6:C:2949:THR:O    | 6:C:2952:ILE:HG12 | 2.17                     | 0.43              |
| 6:C:3078:LEU:HD13 | 6:C:3082:TYR:HE2  | 1.83                     | 0.43              |
| 6:C:3113:ASN:O    | 6:C:3116:SER:OG   | 2.26                     | 0.43              |
| 6:C:3232:ARG:O    | 6:C:3235:LYS:N    | 2.50                     | 0.43              |
| 6:C:3477:GLU:HG2  | 6:C:3481:SER:OG   | 2.18                     | 0.43              |
| 6:C:3522:THR:HA   | 6:C:3525:TYR:HD2  | 1.83                     | 0.43              |
| 6:C:3578:LEU:HA   | 6:C:3630:ARG:CZ   | 2.48                     | 0.43              |
| 6:C:3633:ILE:O    | 6:C:3638:LYS:HG3  | 2.17                     | 0.43              |
| 6:C:3704:GLN:HB3  | 6:C:3794:VAL:HG21 | 2.00                     | 0.43              |
| 6:C:3819:THR:HG23 | 6:C:3882:LEU:HD22 | 2.00                     | 0.43              |
| 6:C:3840:LYS:HG2  | 6:C:4122:GLU:OE2  | 2.17                     | 0.43              |
| 1:A:112:GLY:O     | 1:A:115:ARG:HB2   | 2.18                     | 0.43              |
| 1:A:167:MET:HE1   | 1:A:203:MET:N     | 2.19                     | 0.43              |
| 1:A:279:LYS:HZ2   | 1:A:281:LEU:HD11  | 1.83                     | 0.43              |
| 1:A:365:SER:OG    | 1:A:434:LEU:HB2   | 2.18                     | 0.43              |
| 1:A:397:LEU:CD1   | 1:A:437:LEU:HD11  | 2.48                     | 0.43              |
| 1:A:438:PRO:HA    | 1:A:442:ASP:OD2   | 2.18                     | 0.43              |
| 2:B:10:VAL:HG12   | 2:B:12:LEU:HD12   | 2.00                     | 0.43              |
| 2:B:312:GLN:H     | 2:B:324:SER:HA    | 1.82                     | 0.43              |
| 2:B:355:PHE:CD1   | 2:B:355:PHE:N     | 2.83                     | 0.43              |
| 2:B:511:HIS:HA    | 2:B:514:ASN:HD22  | 1.83                     | 0.43              |
| 6:C:69:VAL:HG12   | 6:C:73:LEU:HD11   | 1.99                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:108:LYS:O     | 6:C:112:THR:OG1   | 2.36                     | 0.43              |
| 6:C:291:VAL:HA    | 6:C:294:PHE:HB3   | 1.99                     | 0.43              |
| 6:C:345:PHE:CE2   | 6:C:367:GLY:HA3   | 2.53                     | 0.43              |
| 6:C:625:ASN:O     | 6:C:663:ILE:HG22  | 2.18                     | 0.43              |
| 6:C:643:GLU:O     | 6:C:644:PRO:C     | 2.60                     | 0.43              |
| 6:C:785:MET:HG2   | 6:C:789:TYR:N     | 2.33                     | 0.43              |
| 6:C:799:TYR:C     | 6:C:801:LYS:N     | 2.74                     | 0.43              |
| 6:C:937:MET:HB2   | 6:C:937:MET:HE2   | 1.93                     | 0.43              |
| 6:C:1065:SER:OG   | 6:C:1066:LEU:N    | 2.46                     | 0.43              |
| 6:C:1153:LEU:HB3  | 6:C:1157:PHE:CZ   | 2.54                     | 0.43              |
| 6:C:1352:SER:N    | 6:C:1353:PRO:HD2  | 2.33                     | 0.43              |
| 6:C:1428:ILE:O    | 6:C:1431:LEU:HB3  | 2.18                     | 0.43              |
| 6:C:1606:ARG:HA   | 6:C:1609:ALA:O    | 2.19                     | 0.43              |
| 6:C:2286:PRO:HD2  | 6:C:2333:ARG:HH22 | 1.83                     | 0.43              |
| 6:C:2412:TYR:OH   | 6:C:2415:LEU:HB2  | 2.18                     | 0.43              |
| 6:C:2958:LEU:HD23 | 6:C:3989:ARG:NH1  | 2.33                     | 0.43              |
| 6:C:3009:LYS:HD2  | 6:C:3050:LYS:HE3  | 2.00                     | 0.43              |
| 6:C:3121:LEU:O    | 6:C:3124:SER:N    | 2.50                     | 0.43              |
| 6:C:3335:ARG:HG3  | 6:C:3340:ALA:HB3  | 1.99                     | 0.43              |
| 6:C:3507:ASP:OD2  | 6:C:3540:TYR:HA   | 2.19                     | 0.43              |
| 6:C:3608:LYS:HG3  | 6:C:3611:GLU:OE1  | 2.18                     | 0.43              |
| 6:C:3869:THR:HG22 | 6:C:3872:ARG:HH22 | 1.83                     | 0.43              |
| 6:C:3949:ALA:HA   | 6:C:3952:PHE:CZ   | 2.54                     | 0.43              |
| 6:C:4100:GLU:O    | 6:C:4103:GLN:HB2  | 2.18                     | 0.43              |
| 1:A:41:LEU:HD11   | 1:A:88:TYR:CD2    | 2.52                     | 0.43              |
| 1:A:88:TYR:CE1    | 1:A:146:VAL:HG21  | 2.53                     | 0.43              |
| 1:A:103:TYR:CZ    | 1:A:135:MET:O     | 2.71                     | 0.43              |
| 1:A:244:ARG:HA    | 1:A:247:ARG:CG    | 2.48                     | 0.43              |
| 2:B:400:ARG:CB    | 4:D:10:DG:H4'     | 2.48                     | 0.43              |
| 2:B:410:PRO:N     | 2:B:419:LEU:HG    | 2.33                     | 0.43              |
| 4:D:11:DC:C2      | 4:D:12:DC:C5      | 3.06                     | 0.43              |
| 6:C:446:PHE:HD1   | 6:C:448:GLN:HA    | 1.83                     | 0.43              |
| 6:C:653:LEU:HB2   | 6:C:656:GLN:OE1   | 2.17                     | 0.43              |
| 6:C:789:TYR:HB2   | 6:C:793:LEU:HG    | 2.01                     | 0.43              |
| 6:C:852:ARG:HH21  | 6:C:3111:MET:HA   | 1.83                     | 0.43              |
| 6:C:934:LEU:HA    | 6:C:937:MET:CB    | 2.49                     | 0.43              |
| 6:C:970:LEU:CB    | 6:C:981:ARG:HG3   | 2.48                     | 0.43              |
| 6:C:987:LEU:HG    | 6:C:990:GLN:CD    | 2.43                     | 0.43              |
| 6:C:1034:ARG:HH12 | 6:C:1038:LYS:N    | 2.15                     | 0.43              |
| 6:C:1351:THR:HB   | 6:C:1353:PRO:HD2  | 1.99                     | 0.43              |
| 6:C:1567:ILE:HA   | 6:C:1570:GLU:OE1  | 2.18                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1642:LYS:O    | 6:C:1646:LEU:HG   | 2.19                     | 0.43              |
| 6:C:1655:ILE:HG21 | 6:C:1681:ASP:HB3  | 2.00                     | 0.43              |
| 6:C:1934:LEU:H    | 6:C:1937:ARG:HB3  | 1.83                     | 0.43              |
| 6:C:2263:LYS:NZ   | 6:C:2270:ASN:HA   | 2.34                     | 0.43              |
| 6:C:2323:LEU:HA   | 6:C:2323:LEU:HD23 | 1.59                     | 0.43              |
| 6:C:2823:PHE:N    | 6:C:2823:PHE:CD1  | 2.82                     | 0.43              |
| 6:C:2834:GLN:O    | 6:C:2838:GLN:HG3  | 2.19                     | 0.43              |
| 6:C:3312:VAL:HB   | 6:C:3315:TYR:CB   | 2.48                     | 0.43              |
| 6:C:3333:THR:OG1  | 6:C:3385:LEU:HD13 | 2.19                     | 0.43              |
| 6:C:3345:PRO:HD3  | 6:C:3374:ILE:HD13 | 2.01                     | 0.43              |
| 6:C:3531:TYR:CE2  | 6:C:3535:ILE:HG23 | 2.53                     | 0.43              |
| 6:C:3811:THR:HG21 | 6:C:3926:ASN:HB2  | 1.99                     | 0.43              |
| 6:C:3962:ARG:NH1  | 6:C:4124:TRP:CE3  | 2.87                     | 0.43              |
| 6:C:4113:ASP:OD1  | 6:C:4115:ASN:HB3  | 2.17                     | 0.43              |
| 1:A:61:ASP:HA     | 1:A:64:ILE:CG1    | 2.48                     | 0.43              |
| 1:A:93:ASP:CG     | 1:A:94:LYS:N      | 2.76                     | 0.43              |
| 1:A:290:ARG:H     | 2:B:311:ILE:N     | 2.03                     | 0.43              |
| 1:A:368:VAL:CG2   | 1:A:434:LEU:HD21  | 2.47                     | 0.43              |
| 1:A:479:GLU:CD    | 1:A:481:PRO:HG3   | 2.43                     | 0.43              |
| 2:B:320:ILE:C     | 2:B:322:PRO:HD3   | 2.42                     | 0.43              |
| 2:B:357:MET:HG3   | 2:B:423:GLN:HB3   | 1.99                     | 0.43              |
| 2:B:466:LYS:CA    | 2:B:473:LEU:HG    | 2.49                     | 0.43              |
| 4:D:16:DG:H2''    | 4:D:17:DG:C6      | 2.52                     | 0.43              |
| 5:E:27:DC:N3      | 5:E:28:DA:C5      | 2.86                     | 0.43              |
| 5:E:35:DC:C2      | 5:E:36:DA:N7      | 2.86                     | 0.43              |
| 5:E:44:DA:H2''    | 5:E:45:DG:H5'     | 2.01                     | 0.43              |
| 6:C:123:CYS:N     | 6:C:127:ALA:HB3   | 2.32                     | 0.43              |
| 6:C:245:SER:OG    | 6:C:246:ARG:N     | 2.51                     | 0.43              |
| 6:C:265:TYR:OH    | 6:C:304:THR:HG21  | 2.19                     | 0.43              |
| 6:C:407:VAL:HG23  | 6:C:408:TYR:N     | 2.29                     | 0.43              |
| 6:C:852:ARG:NH2   | 6:C:3111:MET:HA   | 2.34                     | 0.43              |
| 6:C:865:GLN:H     | 6:C:865:GLN:HG2   | 1.67                     | 0.43              |
| 6:C:913:ARG:CD    | 6:C:930:ALA:HA    | 2.49                     | 0.43              |
| 6:C:968:VAL:HA    | 6:C:971:ARG:NE    | 2.33                     | 0.43              |
| 6:C:1018:VAL:HG13 | 6:C:1073:PHE:HE1  | 1.83                     | 0.43              |
| 6:C:1232:PRO:C    | 6:C:1291:LEU:HD22 | 2.44                     | 0.43              |
| 6:C:1347:THR:O    | 6:C:1351:THR:HG23 | 2.17                     | 0.43              |
| 6:C:1349:LEU:HB3  | 6:C:1405:ALA:HB1  | 2.01                     | 0.43              |
| 6:C:1372:LEU:HD12 | 6:C:1372:LEU:HA   | 1.84                     | 0.43              |
| 6:C:1651:LYS:HB3  | 6:C:1680:ALA:HB1  | 2.01                     | 0.43              |
| 6:C:1652:ILE:HG22 | 6:C:1653:LEU:HD23 | 2.01                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1653:LEU:O    | 6:C:1657:SER:CB   | 2.61                     | 0.43              |
| 6:C:1672:PHE:O    | 6:C:1676:ILE:HG12 | 2.18                     | 0.43              |
| 6:C:1722:PHE:O    | 6:C:1725:GLN:HB3  | 2.18                     | 0.43              |
| 6:C:2270:ASN:O    | 6:C:2273:GLY:N    | 2.51                     | 0.43              |
| 6:C:2416:LYS:C    | 6:C:2418:LYS:N    | 2.76                     | 0.43              |
| 6:C:2438:ILE:O    | 6:C:2440:TYR:N    | 2.51                     | 0.43              |
| 6:C:2496:GLN:HA   | 6:C:2499:PHE:HB3  | 2.00                     | 0.43              |
| 6:C:2502:ALA:C    | 6:C:2506:LEU:HG   | 2.43                     | 0.43              |
| 6:C:2804:ILE:O    | 6:C:2805:ALA:C    | 2.61                     | 0.43              |
| 6:C:2809:PHE:HA   | 6:C:2812:LEU:HD12 | 2.00                     | 0.43              |
| 6:C:3038:GLU:HG3  | 6:C:3041:LEU:HD22 | 1.99                     | 0.43              |
| 6:C:3168:TYR:N    | 6:C:3169:PRO:HD2  | 2.33                     | 0.43              |
| 6:C:3521:ILE:HG23 | 6:C:3522:THR:N    | 2.33                     | 0.43              |
| 6:C:3602:ASN:CB   | 6:C:3655:LYS:HB3  | 2.48                     | 0.43              |
| 6:C:3857:LEU:HA   | 6:C:4072:PRO:HB2  | 1.99                     | 0.43              |
| 6:C:4013:TRP:CZ2  | 6:C:4040:PRO:HB2  | 2.52                     | 0.43              |
| 1:A:82:LEU:HD23   | 1:A:108:LEU:C     | 2.43                     | 0.43              |
| 1:A:83:LEU:HD23   | 1:A:83:LEU:HA     | 1.78                     | 0.43              |
| 1:A:182:LYS:HA    | 1:A:185:ARG:NH1   | 2.33                     | 0.43              |
| 1:A:271:VAL:HG21  | 1:A:345:LEU:HD13  | 2.00                     | 0.43              |
| 1:A:274:TYR:CE2   | 1:A:369:TYR:HB3   | 2.54                     | 0.43              |
| 1:A:440:ALA:O     | 1:A:444:ARG:N     | 2.51                     | 0.43              |
| 1:A:465:ILE:O     | 1:A:469:LEU:HG    | 2.19                     | 0.43              |
| 1:A:514:MET:SD    | 2:B:255:SER:N     | 2.84                     | 0.43              |
| 2:B:332:LYS:HE2   | 2:B:332:LYS:HB3   | 1.87                     | 0.43              |
| 2:B:534:LYS:HE2   | 2:B:534:LYS:HB2   | 1.87                     | 0.43              |
| 5:E:32:DT:C2      | 5:E:33:DA:C8      | 3.07                     | 0.43              |
| 5:E:44:DA:H2'     | 5:E:45:DG:H8      | 1.81                     | 0.43              |
| 6:C:29:LEU:O      | 6:C:33:GLN:HG2    | 2.18                     | 0.43              |
| 6:C:257:ARG:O     | 6:C:264:ARG:NE    | 2.51                     | 0.43              |
| 6:C:410:MET:O     | 6:C:413:PHE:HB2   | 2.18                     | 0.43              |
| 6:C:469:ALA:O     | 6:C:1552:HIS:HE1  | 2.02                     | 0.43              |
| 6:C:616:LYS:HG3   | 6:C:620:PHE:CE2   | 2.53                     | 0.43              |
| 6:C:734:LEU:C     | 6:C:737:PRO:HD2   | 2.43                     | 0.43              |
| 6:C:775:GLU:O     | 6:C:778:ILE:HB    | 2.18                     | 0.43              |
| 6:C:1038:LYS:O    | 6:C:1041:ILE:HB   | 2.18                     | 0.43              |
| 6:C:1127:CYS:O    | 6:C:1130:ALA:HB3  | 2.18                     | 0.43              |
| 6:C:1272:GLY:HA3  | 6:C:1274:ARG:NH2  | 2.33                     | 0.43              |
| 6:C:1407:LYS:NZ   | 6:C:1415:LEU:HD13 | 2.33                     | 0.43              |
| 6:C:1445:ARG:HA   | 6:C:1448:LEU:HG   | 2.01                     | 0.43              |
| 6:C:1911:LEU:HD21 | 6:C:1916:ILE:HB   | 1.99                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2103:HIS:O    | 6:C:2106:ARG:N    | 2.48                     | 0.43              |
| 6:C:2328:ARG:NH1  | 6:C:2370:SER:HB3  | 2.14                     | 0.43              |
| 6:C:2449:VAL:O    | 6:C:2450:GLU:C    | 2.58                     | 0.43              |
| 6:C:2482:ASP:CA   | 6:C:2485:ARG:HH21 | 2.32                     | 0.43              |
| 6:C:2928:LYS:CE   | 6:C:3784:ARG:HH22 | 2.31                     | 0.43              |
| 6:C:3036:TYR:HE2  | 6:C:3040:TYR:CD2  | 2.36                     | 0.43              |
| 6:C:3247:ARG:CZ   | 6:C:3324:ARG:HH22 | 2.32                     | 0.43              |
| 6:C:3535:ILE:O    | 6:C:3538:GLU:HB3  | 2.19                     | 0.43              |
| 6:C:3538:GLU:HB2  | 6:C:3796:MET:C    | 2.43                     | 0.43              |
| 6:C:3726:VAL:HG21 | 6:C:3736:LYS:HB3  | 1.99                     | 0.43              |
| 6:C:3772:ASN:O    | 6:C:3775:LEU:HB2  | 2.19                     | 0.43              |
| 6:C:3864:ARG:CZ   | 6:C:4119:ARG:HD3  | 2.49                     | 0.43              |
| 6:C:4084:SER:C    | 6:C:4086:ASP:N    | 2.76                     | 0.43              |
| 1:A:193:LEU:HA    | 1:A:193:LEU:HD12  | 1.78                     | 0.43              |
| 1:A:270:SER:OG    | 1:A:371:GLU:OE1   | 2.28                     | 0.43              |
| 1:A:291:GLU:OE2   | 1:A:292:THR:HG23  | 2.19                     | 0.43              |
| 1:A:343:PRO:HG3   | 1:A:405:ASN:N     | 2.31                     | 0.43              |
| 1:A:350:PHE:CG    | 2:B:458:ILE:HG23  | 2.54                     | 0.43              |
| 1:A:370:PRO:HB2   | 1:A:372:GLU:OE2   | 2.19                     | 0.43              |
| 1:A:395:ALA:HB1   | 1:A:413:LEU:O     | 2.19                     | 0.43              |
| 2:B:153:SER:HA    | 2:B:156:LYS:HZ3   | 1.83                     | 0.43              |
| 2:B:268:LEU:HD13  | 2:B:360:GLN:HA    | 2.00                     | 0.43              |
| 2:B:407:VAL:HG12  | 2:B:423:GLN:C     | 2.44                     | 0.43              |
| 2:B:520:ALA:O     | 2:B:524:THR:CB    | 2.67                     | 0.43              |
| 6:C:243:GLN:N     | 6:C:243:GLN:CD    | 2.76                     | 0.43              |
| 6:C:253:LEU:HA    | 6:C:300:TRP:CE2   | 2.53                     | 0.43              |
| 6:C:548:GLU:H     | 6:C:548:GLU:HG3   | 1.40                     | 0.43              |
| 6:C:625:ASN:CG    | 6:C:626:LEU:N     | 2.76                     | 0.43              |
| 6:C:670:LEU:HD22  | 6:C:740:ILE:HG23  | 2.00                     | 0.43              |
| 6:C:849:GLU:O     | 6:C:852:ARG:N     | 2.50                     | 0.43              |
| 6:C:1029:CYS:O    | 6:C:1085:ILE:HD11 | 2.19                     | 0.43              |
| 6:C:1034:ARG:NH1  | 6:C:1038:LYS:N    | 2.66                     | 0.43              |
| 6:C:1711:ARG:HG3  | 6:C:1712:ARG:N    | 2.34                     | 0.43              |
| 6:C:1958:GLU:HA   | 6:C:1961:PHE:HB3  | 2.01                     | 0.43              |
| 6:C:2131:GLY:H    | 6:C:2140:LEU:HD12 | 1.83                     | 0.43              |
| 6:C:2152:ASN:O    | 6:C:2156:VAL:HG22 | 2.19                     | 0.43              |
| 6:C:2777:HIS:O    | 6:C:2780:LEU:HB3  | 2.18                     | 0.43              |
| 6:C:2880:CYS:C    | 6:C:2881:LEU:HD12 | 2.43                     | 0.43              |
| 6:C:2884:LEU:HD23 | 6:C:2884:LEU:HA   | 1.46                     | 0.43              |
| 6:C:3321:LEU:HD23 | 6:C:3324:ARG:HG3  | 2.00                     | 0.43              |
| 6:C:3497:SER:OG   | 6:C:3709:GLY:HA3  | 2.19                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3761:ASP:CG   | 6:C:3942:PHE:HB2  | 2.43                     | 0.43              |
| 6:C:4026:SER:C    | 6:C:4028:ILE:H    | 2.26                     | 0.43              |
| 6:C:4048:LYS:O    | 6:C:4051:LEU:HB3  | 2.19                     | 0.43              |
| 1:A:261:LEU:HB3   | 1:A:269:ILE:CG2   | 2.49                     | 0.43              |
| 1:A:409:TYR:CD1   | 2:B:484:ASN:HB3   | 2.54                     | 0.43              |
| 2:B:277:THR:HG22  | 2:B:279:VAL:HG13  | 2.01                     | 0.43              |
| 2:B:316:TYR:HD2   | 2:B:321:VAL:HG21  | 1.83                     | 0.43              |
| 4:D:9:DG:C2       | 5:E:27:DC:N3      | 2.86                     | 0.43              |
| 4:D:10:DG:C2      | 5:E:26:DC:O2      | 2.68                     | 0.43              |
| 6:C:321:LYS:O     | 6:C:322:GLN:C     | 2.60                     | 0.43              |
| 6:C:350:ARG:NH1   | 6:C:391:ARG:HH21  | 2.16                     | 0.43              |
| 6:C:364:ARG:C     | 6:C:368:LEU:HG    | 2.44                     | 0.43              |
| 6:C:390:GLN:O     | 6:C:391:ARG:C     | 2.61                     | 0.43              |
| 6:C:396:PHE:CE2   | 6:C:1817:GLN:HG3  | 2.54                     | 0.43              |
| 6:C:400:THR:HB    | 6:C:1817:GLN:CD   | 2.42                     | 0.43              |
| 6:C:408:TYR:N     | 6:C:408:TYR:CD2   | 2.87                     | 0.43              |
| 6:C:538:ASP:O     | 6:C:545:LEU:HD13  | 2.18                     | 0.43              |
| 6:C:613:HIS:HE1   | 6:C:653:LEU:CD2   | 2.31                     | 0.43              |
| 6:C:727:ALA:HA    | 6:C:730:LEU:HB2   | 2.01                     | 0.43              |
| 6:C:941:MET:HB3   | 6:C:941:MET:HE2   | 1.73                     | 0.43              |
| 6:C:1484:LEU:HD13 | 6:C:1519:PHE:CZ   | 2.53                     | 0.43              |
| 6:C:1580:LEU:HD11 | 6:C:1583:MET:SD   | 2.57                     | 0.43              |
| 6:C:1902:GLY:O    | 6:C:1906:THR:OG1  | 2.37                     | 0.43              |
| 6:C:1973:LYS:HZ3  | 6:C:1975:LEU:HB2  | 1.84                     | 0.43              |
| 6:C:2304:VAL:O    | 6:C:2307:MET:HB3  | 2.18                     | 0.43              |
| 6:C:2387:PRO:C    | 6:C:2389:PHE:N    | 2.76                     | 0.43              |
| 6:C:2409:THR:HG22 | 6:C:2410:GLU:H    | 1.84                     | 0.43              |
| 6:C:2424:MET:HG3  | 6:C:2436:LEU:HD13 | 2.01                     | 0.43              |
| 6:C:2952:ILE:HG21 | 6:C:2969:ALA:CB   | 2.35                     | 0.43              |
| 6:C:3043:TYR:C    | 6:C:3046:ARG:HB3  | 2.44                     | 0.43              |
| 6:C:3152:SER:H    | 6:C:3154:GLN:N    | 2.16                     | 0.43              |
| 6:C:3350:GLU:H    | 6:C:3350:GLU:CD   | 2.12                     | 0.43              |
| 6:C:3640:PHE:O    | 6:C:3643:HIS:HB2  | 2.18                     | 0.43              |
| 6:C:3978:GLY:O    | 6:C:3981:TYR:HB3  | 2.18                     | 0.43              |
| 6:C:4013:TRP:HB3  | 6:C:4035:GLU:OE1  | 2.19                     | 0.43              |
| 1:A:124:GLY:HA3   | 1:A:126:GLN:HE22  | 1.84                     | 0.43              |
| 1:A:252:ARG:HG3   | 1:A:253:LYS:H     | 1.84                     | 0.43              |
| 1:A:272:GLY:O     | 1:A:368:VAL:HA    | 2.19                     | 0.43              |
| 1:A:288:LEU:HD23  | 1:A:295:PRO:HA    | 2.00                     | 0.43              |
| 1:A:318:ARG:NH1   | 2:B:278:VAL:HG13  | 2.33                     | 0.43              |
| 1:A:422:ASP:N     | 1:A:422:ASP:OD1   | 2.50                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:273:LYS:HD2   | 2:B:273:LYS:N     | 2.34                     | 0.43              |
| 2:B:490:LEU:HD12  | 2:B:490:LEU:HA    | 1.75                     | 0.43              |
| 6:C:63:PHE:CD2    | 6:C:103:TYR:CG    | 3.07                     | 0.43              |
| 6:C:70:ARG:HH11   | 6:C:73:LEU:CB     | 2.32                     | 0.43              |
| 6:C:70:ARG:NH1    | 6:C:78:PHE:HB2    | 2.33                     | 0.43              |
| 6:C:139:ARG:CZ    | 6:C:180:LEU:HD21  | 2.49                     | 0.43              |
| 6:C:327:VAL:HG22  | 6:C:334:HIS:ND1   | 2.33                     | 0.43              |
| 6:C:549:ALA:O     | 6:C:553:VAL:HG23  | 2.19                     | 0.43              |
| 6:C:607:ASP:HA    | 6:C:610:ALA:CB    | 2.37                     | 0.43              |
| 6:C:756:PHE:HZ    | 6:C:776:TRP:CG    | 2.37                     | 0.43              |
| 6:C:977:ASP:HB3   | 6:C:979:VAL:CG2   | 2.43                     | 0.43              |
| 6:C:1125:GLN:HA   | 6:C:1128:CYS:CB   | 2.44                     | 0.43              |
| 6:C:1147:LYS:HD2  | 6:C:1180:GLN:C    | 2.44                     | 0.43              |
| 6:C:1232:PRO:HB2  | 6:C:1291:LEU:HD13 | 1.99                     | 0.43              |
| 6:C:1253:THR:HA   | 6:C:1257:LEU:CB   | 2.46                     | 0.43              |
| 6:C:1296:PHE:CE2  | 6:C:1361:LYS:HG2  | 2.52                     | 0.43              |
| 6:C:1602:ASP:O    | 6:C:1606:ARG:N    | 2.47                     | 0.43              |
| 6:C:1655:ILE:HA   | 6:C:1677:SER:CB   | 2.48                     | 0.43              |
| 6:C:1866:GLN:HA   | 6:C:1869:LYS:CG   | 2.49                     | 0.43              |
| 6:C:2389:PHE:O    | 6:C:2393:LEU:N    | 2.52                     | 0.43              |
| 6:C:2484:TYR:CB   | 6:C:2499:PHE:HD1  | 2.31                     | 0.43              |
| 6:C:2809:PHE:HA   | 6:C:2812:LEU:CD1  | 2.49                     | 0.43              |
| 6:C:2852:PRO:O    | 6:C:2855:VAL:HB   | 2.18                     | 0.43              |
| 6:C:3172:LYS:HE3  | 6:C:3241:LYS:C    | 2.44                     | 0.43              |
| 6:C:3273:LEU:HD22 | 6:C:3321:LEU:HD11 | 2.00                     | 0.43              |
| 6:C:3277:VAL:HB   | 6:C:3324:ARG:HH21 | 1.82                     | 0.43              |
| 6:C:3577:GLN:C    | 6:C:3630:ARG:NE   | 2.77                     | 0.43              |
| 6:C:3602:ASN:HA   | 6:C:3605:ASN:ND2  | 2.34                     | 0.43              |
| 6:C:3729:MET:O    | 6:C:3734:ARG:HA   | 2.18                     | 0.43              |
| 6:C:3740:ILE:HG13 | 6:C:3750:PHE:CD2  | 2.54                     | 0.43              |
| 6:C:3756:GLU:HG3  | 6:C:3758:LEU:HD12 | 2.00                     | 0.43              |
| 1:A:58:THR:OG1    | 1:A:60:PHE:HB3    | 2.19                     | 0.43              |
| 1:A:204:HIS:HB3   | 1:A:237:SER:CB    | 2.37                     | 0.43              |
| 1:A:296:VAL:HG11  | 2:B:295:TYR:CD1   | 2.50                     | 0.43              |
| 2:B:47:PHE:CE2    | 2:B:491:PHE:CG    | 3.06                     | 0.43              |
| 2:B:165:LEU:HD13  | 2:B:167:PHE:CD2   | 2.54                     | 0.43              |
| 6:C:224:LEU:HA    | 6:C:227:LEU:HD23  | 1.99                     | 0.43              |
| 6:C:286:LEU:HD23  | 6:C:286:LEU:HA    | 1.77                     | 0.43              |
| 6:C:300:TRP:O     | 6:C:304:THR:OG1   | 2.15                     | 0.43              |
| 6:C:389:ILE:HA    | 6:C:392:CYS:SG    | 2.59                     | 0.43              |
| 6:C:393:LYS:HZ1   | 6:C:1869:LYS:CE   | 2.32                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:468:LEU:HB3   | 6:C:476:ARG:HB3   | 1.99                     | 0.43              |
| 6:C:660:LEU:H     | 6:C:660:LEU:HG    | 1.61                     | 0.43              |
| 6:C:677:ALA:O     | 6:C:681:LYS:CB    | 2.67                     | 0.43              |
| 6:C:853:ILE:O     | 6:C:857:GLN:HG3   | 2.19                     | 0.43              |
| 6:C:1098:GLN:HA   | 6:C:1101:PHE:CD2  | 2.54                     | 0.43              |
| 6:C:1135:CYS:C    | 6:C:1138:ILE:HB   | 2.44                     | 0.43              |
| 6:C:1269:THR:HG21 | 6:C:1347:THR:HG22 | 2.00                     | 0.43              |
| 6:C:1689:LYS:HZ1  | 6:C:1727:ARG:HB3  | 1.82                     | 0.43              |
| 6:C:1857:LYS:C    | 6:C:1860:GLU:HB2  | 2.44                     | 0.43              |
| 6:C:2245:TRP:C    | 6:C:2249:LEU:HD11 | 2.44                     | 0.43              |
| 6:C:2281:MET:CE   | 6:C:2286:PRO:HG2  | 2.49                     | 0.43              |
| 6:C:2301:GLN:HE21 | 6:C:2305:ASN:CG   | 2.27                     | 0.43              |
| 6:C:2317:ALA:O    | 6:C:2318:ALA:C    | 2.61                     | 0.43              |
| 6:C:2501:LEU:HD12 | 6:C:2504:ASP:OD2  | 2.19                     | 0.43              |
| 6:C:2518:GLN:O    | 6:C:2522:ARG:HB3  | 2.18                     | 0.43              |
| 6:C:2912:GLY:O    | 6:C:2917:PRO:HD3  | 2.18                     | 0.43              |
| 6:C:2981:TRP:CE3  | 6:C:2987:THR:HB   | 2.54                     | 0.43              |
| 6:C:3096:VAL:HG23 | 6:C:3097:ASP:CG   | 2.43                     | 0.43              |
| 6:C:3184:THR:HG1  | 6:C:3185:ASN:H    | 1.65                     | 0.43              |
| 6:C:3392:ALA:HA   | 6:C:3395:GLU:CD   | 2.43                     | 0.43              |
| 6:C:3414:MET:O    | 6:C:3417:ALA:HB3  | 2.18                     | 0.43              |
| 6:C:3446:VAL:HA   | 6:C:3449:LYS:HD3  | 2.00                     | 0.43              |
| 6:C:3486:GLU:C    | 6:C:3490:VAL:HG22 | 2.43                     | 0.43              |
| 6:C:3495:PHE:CD1  | 6:C:3498:TRP:CE2  | 3.07                     | 0.43              |
| 6:C:3725:ARG:O    | 6:C:3739:ILE:HG12 | 2.18                     | 0.43              |
| 6:C:3923:ARG:CB   | 6:C:3962:ARG:HH22 | 2.32                     | 0.43              |
| 1:A:43:ASP:OD1    | 1:A:88:TYR:OH     | 2.27                     | 0.43              |
| 1:A:150:CYS:O     | 1:A:153:LEU:HB2   | 2.19                     | 0.43              |
| 1:A:310:LEU:HD23  | 1:A:312:LEU:HD11  | 2.01                     | 0.43              |
| 1:A:346:MET:O     | 1:A:398:CYS:HA    | 2.19                     | 0.43              |
| 2:B:47:PHE:CD1    | 2:B:47:PHE:N      | 2.84                     | 0.43              |
| 2:B:138:LEU:O     | 2:B:201:GLN:HA    | 2.19                     | 0.43              |
| 2:B:251:LEU:HB2   | 2:B:340:PHE:CD2   | 2.51                     | 0.43              |
| 2:B:368:ARG:O     | 2:B:369:ASP:HB2   | 2.19                     | 0.43              |
| 2:B:371:GLU:OE1   | 2:B:371:GLU:N     | 2.49                     | 0.43              |
| 2:B:466:LYS:HA    | 2:B:473:LEU:HG    | 2.01                     | 0.43              |
| 2:B:521:GLU:O     | 2:B:525:LYS:HG3   | 2.18                     | 0.43              |
| 5:E:34:DC:H6      | 5:E:34:DC:O5'     | 2.01                     | 0.43              |
| 6:C:247:GLU:O     | 6:C:248:ILE:C     | 2.61                     | 0.43              |
| 6:C:294:PHE:CE2   | 6:C:298:LEU:HD11  | 2.53                     | 0.43              |
| 6:C:376:ILE:HG13  | 6:C:380:ASP:HA    | 2.00                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:576:VAL:HG23  | 6:C:603:ILE:O     | 2.19                     | 0.43              |
| 6:C:715:ALA:O     | 6:C:716:VAL:C     | 2.60                     | 0.43              |
| 6:C:941:MET:HE1   | 6:C:962:TYR:CE1   | 2.53                     | 0.43              |
| 6:C:970:LEU:HD22  | 6:C:1031:ARG:NH2  | 2.34                     | 0.43              |
| 6:C:993:HIS:CD2   | 6:C:2776:ARG:HB2  | 2.54                     | 0.43              |
| 6:C:1013:ILE:HB   | 6:C:1028:PHE:HD1  | 1.82                     | 0.43              |
| 6:C:1110:SER:O    | 6:C:1114:ALA:HB2  | 2.19                     | 0.43              |
| 6:C:1121:LEU:HB3  | 6:C:1123:THR:HG23 | 2.00                     | 0.43              |
| 6:C:1224:PHE:HE1  | 6:C:1279:LEU:HD23 | 1.84                     | 0.43              |
| 6:C:1356:TRP:HA   | 6:C:1359:LEU:HD12 | 2.01                     | 0.43              |
| 6:C:1567:ILE:HA   | 6:C:1570:GLU:CD   | 2.43                     | 0.43              |
| 6:C:1962:TYR:CD2  | 6:C:1963:GLN:NE2  | 2.87                     | 0.43              |
| 6:C:1977:ILE:HG22 | 6:C:1978:PHE:N    | 2.33                     | 0.43              |
| 6:C:2234:ASN:O    | 6:C:2237:ILE:HB   | 2.19                     | 0.43              |
| 6:C:2246:LYS:HE2  | 6:C:2246:LYS:HB2  | 1.66                     | 0.43              |
| 6:C:2363:CYS:O    | 6:C:2364:LEU:C    | 2.62                     | 0.43              |
| 6:C:3159:ARG:HE   | 6:C:3162:ASN:ND2  | 2.16                     | 0.43              |
| 6:C:3278:GLN:O    | 6:C:3282:ARG:HG3  | 2.19                     | 0.43              |
| 6:C:3298:LEU:O    | 6:C:3302:LYS:HG3  | 2.18                     | 0.43              |
| 6:C:3495:PHE:HZ   | 6:C:3502:MET:HB2  | 1.83                     | 0.43              |
| 6:C:3571:PHE:CE2  | 6:C:3690:PHE:HA   | 2.54                     | 0.43              |
| 6:C:3603:LYS:HD3  | 6:C:3655:LYS:HD2  | 2.00                     | 0.43              |
| 6:C:3710:LYS:HA   | 6:C:3710:LYS:HD3  | 1.83                     | 0.43              |
| 6:C:3903:HIS:HA   | 6:C:3906:SER:OG   | 2.19                     | 0.43              |
| 6:C:3972:LEU:C    | 6:C:3974:MET:N    | 2.75                     | 0.43              |
| 1:A:85:VAL:C      | 1:A:105:LEU:HB3   | 2.43                     | 0.42              |
| 1:A:92:LYS:N      | 1:A:103:TYR:OH    | 2.50                     | 0.42              |
| 1:A:261:LEU:HB2   | 1:A:345:LEU:HB2   | 2.01                     | 0.42              |
| 1:A:300:THR:OG1   | 2:B:291:LYS:HG2   | 2.19                     | 0.42              |
| 1:A:336:GLU:HG3   | 1:A:339:ARG:NH2   | 2.33                     | 0.42              |
| 1:A:361:TYR:HD1   | 2:B:353:ARG:NH2   | 2.17                     | 0.42              |
| 1:A:404:ARG:CG    | 5:E:36:DA:H3'     | 2.49                     | 0.42              |
| 1:A:474:ARG:HG3   | 1:A:476:ASP:N     | 2.31                     | 0.42              |
| 2:B:15:ASP:HB2    | 2:B:59:PHE:HE1    | 1.81                     | 0.42              |
| 2:B:327:ASP:HA    | 2:B:330:GLN:NE2   | 2.34                     | 0.42              |
| 4:D:-8:DT:C2'     | 4:D:-7:DA:C8      | 2.92                     | 0.42              |
| 4:D:1:DG:N1       | 5:E:36:DA:C6      | 2.87                     | 0.42              |
| 4:D:6:DT:O4       | 4:D:7:DA:N6       | 2.52                     | 0.42              |
| 6:C:116:THR:O     | 6:C:119:ARG:HB3   | 2.19                     | 0.42              |
| 6:C:157:TYR:O     | 6:C:160:LEU:HG    | 2.19                     | 0.42              |
| 6:C:904:VAL:O     | 6:C:905:ILE:HG12  | 2.19                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:925:GLN:HG3   | 6:C:926:THR:CG2   | 2.45                     | 0.42              |
| 6:C:1003:SER:C    | 6:C:1005:ASP:N    | 2.76                     | 0.42              |
| 6:C:1014:LEU:HD12 | 6:C:1015:ASP:N    | 2.34                     | 0.42              |
| 6:C:1054:VAL:O    | 6:C:1059:LEU:HD21 | 2.19                     | 0.42              |
| 6:C:1085:ILE:O    | 6:C:1088:GLU:HG2  | 2.19                     | 0.42              |
| 6:C:1220:LEU:HD12 | 6:C:1274:ARG:HE   | 1.84                     | 0.42              |
| 6:C:1297:PHE:CD1  | 6:C:1297:PHE:N    | 2.84                     | 0.42              |
| 6:C:1415:LEU:H    | 6:C:1415:LEU:HG   | 1.61                     | 0.42              |
| 6:C:1707:LEU:C    | 6:C:1711:ARG:NH2  | 2.77                     | 0.42              |
| 6:C:1925:GLU:O    | 6:C:1928:ALA:HB3  | 2.19                     | 0.42              |
| 6:C:2022:PRO:HA   | 6:C:2041:SER:CB   | 2.49                     | 0.42              |
| 6:C:2189:ILE:O    | 6:C:2192:THR:HG22 | 2.18                     | 0.42              |
| 6:C:2361:ILE:HD12 | 6:C:2365:ASN:HD21 | 1.83                     | 0.42              |
| 6:C:2379:MET:HG3  | 6:C:2380:ASN:N    | 2.33                     | 0.42              |
| 6:C:2549:LYS:HD3  | 6:C:2554:PHE:HB3  | 2.00                     | 0.42              |
| 6:C:2998:SER:O    | 6:C:2999:LEU:C    | 2.61                     | 0.42              |
| 6:C:3031:TRP:CE3  | 6:C:3034:PRO:HD3  | 2.54                     | 0.42              |
| 6:C:3036:TYR:CE1  | 6:C:3039:THR:HB   | 2.54                     | 0.42              |
| 6:C:3160:LEU:O    | 6:C:3162:ASN:N    | 2.52                     | 0.42              |
| 6:C:3174:ASP:HB3  | 6:C:3783:GLN:HE21 | 1.84                     | 0.42              |
| 6:C:3192:LYS:HA   | 6:C:3195:GLU:CG   | 2.47                     | 0.42              |
| 6:C:3193:ILE:HG21 | 6:C:3231:ILE:HD13 | 2.01                     | 0.42              |
| 6:C:3252:PHE:HE1  | 6:C:3285:HIS:CB   | 2.32                     | 0.42              |
| 6:C:3568:ILE:HD11 | 6:C:3696:ARG:CZ   | 2.49                     | 0.42              |
| 6:C:3887:PHE:O    | 6:C:3890:MET:HB3  | 2.18                     | 0.42              |
| 6:C:3922:ASP:HB2  | 6:C:3943:GLY:N    | 2.34                     | 0.42              |
| 6:C:4073:ALA:HB1  | 6:C:4119:ARG:HH22 | 1.84                     | 0.42              |
| 1:A:277:VAL:HG21  | 2:B:429:ASP:OD1   | 2.19                     | 0.42              |
| 1:A:310:LEU:HG    | 1:A:311:LEU:H     | 1.83                     | 0.42              |
| 1:A:426:GLN:NE2   | 1:A:428:THR:C     | 2.76                     | 0.42              |
| 1:A:488:ARG:O     | 1:A:491:GLU:N     | 2.52                     | 0.42              |
| 4:D:-4:DA:H4'     | 6:C:169:THR:CG2   | 2.48                     | 0.42              |
| 6:C:311:ALA:O     | 6:C:312:ALA:C     | 2.62                     | 0.42              |
| 6:C:334:HIS:HB3   | 6:C:338:LEU:HB2   | 2.00                     | 0.42              |
| 6:C:745:VAL:HA    | 6:C:748:TYR:HE2   | 1.84                     | 0.42              |
| 6:C:1282:LEU:HD23 | 6:C:1287:GLN:HG3  | 2.00                     | 0.42              |
| 6:C:1356:TRP:CG   | 6:C:1359:LEU:HD12 | 2.54                     | 0.42              |
| 6:C:1732:GLY:O    | 6:C:1874:TYR:OH   | 2.36                     | 0.42              |
| 6:C:1908:GLY:HA3  | 6:C:1948:ALA:O    | 2.20                     | 0.42              |
| 6:C:2072:ARG:O    | 6:C:2076:VAL:HG13 | 2.18                     | 0.42              |
| 6:C:2198:GLY:O    | 6:C:2201:THR:HB   | 2.19                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2393:LEU:O    | 6:C:2394:LYS:HB3  | 2.19                     | 0.42              |
| 6:C:2536:LEU:O    | 6:C:2540:LEU:HG   | 2.19                     | 0.42              |
| 6:C:2865:HIS:CB   | 6:C:2868:LEU:HB2  | 2.38                     | 0.42              |
| 6:C:2874:ALA:C    | 6:C:2876:VAL:N    | 2.76                     | 0.42              |
| 6:C:2919:ASP:O    | 6:C:2923:TRP:HD1  | 2.03                     | 0.42              |
| 6:C:3462:ARG:CZ   | 6:C:3463:LEU:HD11 | 2.49                     | 0.42              |
| 6:C:3596:LEU:HB3  | 6:C:3657:SER:HA   | 2.01                     | 0.42              |
| 6:C:3761:ASP:OD2  | 6:C:3942:PHE:HB2  | 2.19                     | 0.42              |
| 6:C:3887:PHE:CD2  | 6:C:3897:PHE:CE1  | 3.07                     | 0.42              |
| 1:A:129:LYS:HA    | 1:A:132:GLN:OE1   | 2.18                     | 0.42              |
| 1:A:287:LYS:O     | 1:A:295:PRO:HA    | 2.20                     | 0.42              |
| 1:A:332:GLU:HA    | 1:A:335:GLU:OE2   | 2.19                     | 0.42              |
| 1:A:397:LEU:HD12  | 1:A:398:CYS:H     | 1.84                     | 0.42              |
| 1:A:484:GLN:HA    | 1:A:487:PHE:CZ    | 2.53                     | 0.42              |
| 2:B:37:VAL:HG22   | 2:B:231:LEU:HG    | 1.99                     | 0.42              |
| 2:B:165:LEU:HD13  | 2:B:167:PHE:CE2   | 2.55                     | 0.42              |
| 2:B:250:ARG:NH2   | 2:B:260:ARG:HH21  | 2.17                     | 0.42              |
| 4:D:-2:DT:N3      | 5:E:38:DA:C6      | 2.87                     | 0.42              |
| 5:E:38:DA:H1'     | 5:E:39:DA:C4      | 2.54                     | 0.42              |
| 6:C:32:HIS:CE1    | 6:C:81:CYS:SG     | 3.13                     | 0.42              |
| 6:C:75:SER:HB2    | 6:C:79:ARG:HG2    | 2.01                     | 0.42              |
| 6:C:532:ARG:NH1   | 6:C:535:LEU:HB3   | 2.34                     | 0.42              |
| 6:C:533:HIS:HA    | 6:C:536:SER:HB3   | 2.00                     | 0.42              |
| 6:C:738:HIS:NE2   | 6:C:748:TYR:CD2   | 2.82                     | 0.42              |
| 6:C:868:LYS:HE2   | 6:C:868:LYS:HB2   | 1.85                     | 0.42              |
| 6:C:963:LYS:O     | 6:C:964:ARG:C     | 2.62                     | 0.42              |
| 6:C:993:HIS:O     | 6:C:1038:LYS:HE3  | 2.19                     | 0.42              |
| 6:C:1224:PHE:CE2  | 6:C:1278:ALA:HB1  | 2.54                     | 0.42              |
| 6:C:1598:ASN:HA   | 6:C:1601:LEU:CG   | 2.44                     | 0.42              |
| 6:C:1606:ARG:HB3  | 6:C:1606:ARG:CZ   | 2.49                     | 0.42              |
| 6:C:1713:VAL:HA   | 6:C:1716:GLN:HB2  | 2.01                     | 0.42              |
| 6:C:1867:ILE:C    | 6:C:1870:LYS:H    | 2.27                     | 0.42              |
| 6:C:1873:TYR:H    | 6:C:1873:TYR:HD2  | 1.65                     | 0.42              |
| 6:C:1949:ILE:O    | 6:C:1952:ILE:HG22 | 2.19                     | 0.42              |
| 6:C:2218:PHE:O    | 6:C:2219:LEU:C    | 2.62                     | 0.42              |
| 6:C:2240:THR:OG1  | 6:C:2241:LEU:HG   | 2.19                     | 0.42              |
| 6:C:2276:LEU:O    | 6:C:2277:LEU:C    | 2.62                     | 0.42              |
| 6:C:2412:TYR:O    | 6:C:2412:TYR:CG   | 2.69                     | 0.42              |
| 6:C:2416:LYS:C    | 6:C:2418:LYS:H    | 2.27                     | 0.42              |
| 6:C:2477:LEU:HD23 | 6:C:2477:LEU:HA   | 1.69                     | 0.42              |
| 6:C:2939:LEU:H    | 6:C:2939:LEU:HG   | 1.59                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3066:ASP:C    | 6:C:3069:MET:H    | 2.22                     | 0.42              |
| 6:C:3167:ARG:HH21 | 6:C:3186:ARG:HB3  | 1.85                     | 0.42              |
| 6:C:3262:LEU:O    | 6:C:3265:GLU:N    | 2.52                     | 0.42              |
| 6:C:3626:GLY:O    | 6:C:3629:ARG:HB3  | 2.20                     | 0.42              |
| 6:C:3927:ASN:HA   | 6:C:3929:MET:HE3  | 2.01                     | 0.42              |
| 1:A:89:GLY:CA     | 1:A:101:ASN:HB3   | 2.50                     | 0.42              |
| 1:A:107:GLU:CD    | 1:A:108:LEU:N     | 2.78                     | 0.42              |
| 1:A:109:ASP:OD2   | 1:A:115:ARG:CZ    | 2.67                     | 0.42              |
| 1:A:129:LYS:O     | 1:A:132:GLN:HB2   | 2.19                     | 0.42              |
| 1:A:414:VAL:HG12  | 1:A:415:PRO:O     | 2.19                     | 0.42              |
| 5:E:31:DA:C2      | 5:E:32:DT:C2      | 3.08                     | 0.42              |
| 6:C:134:LEU:O     | 6:C:137:THR:HB    | 2.19                     | 0.42              |
| 6:C:236:LYS:HB2   | 6:C:278:HIS:CD2   | 2.55                     | 0.42              |
| 6:C:247:GLU:O     | 6:C:250:ASN:N     | 2.53                     | 0.42              |
| 6:C:252:VAL:HG11  | 6:C:268:PRO:HG3   | 2.00                     | 0.42              |
| 6:C:453:MET:O     | 6:C:456:VAL:HB    | 2.19                     | 0.42              |
| 6:C:718:MET:HE3   | 6:C:718:MET:HB2   | 1.81                     | 0.42              |
| 6:C:719:LYS:O     | 6:C:754:MET:HE2   | 2.19                     | 0.42              |
| 6:C:916:GLU:OE2   | 6:C:929:ALA:HB3   | 2.20                     | 0.42              |
| 6:C:1145:LEU:HD23 | 6:C:1145:LEU:HA   | 1.85                     | 0.42              |
| 6:C:1152:ARG:HA   | 6:C:1155:ARG:CG   | 2.48                     | 0.42              |
| 6:C:1173:LEU:HA   | 6:C:1173:LEU:HD23 | 1.80                     | 0.42              |
| 6:C:1271:ILE:HB   | 6:C:1274:ARG:HG3  | 2.01                     | 0.42              |
| 6:C:1568:ASN:O    | 6:C:1572:LEU:HG   | 2.19                     | 0.42              |
| 6:C:1598:ASN:CA   | 6:C:1601:LEU:HG   | 2.43                     | 0.42              |
| 6:C:2032:ALA:HB1  | 6:C:2036:LEU:HG   | 2.01                     | 0.42              |
| 6:C:2065:ARG:HB2  | 6:C:2066:PHE:CE1  | 2.54                     | 0.42              |
| 6:C:2076:VAL:HB   | 6:C:2079:ASP:OD2  | 2.20                     | 0.42              |
| 6:C:2225:HIS:O    | 6:C:2228:ARG:HB3  | 2.20                     | 0.42              |
| 6:C:2233:HIS:HA   | 6:C:2236:GLU:OE1  | 2.19                     | 0.42              |
| 6:C:2242:VAL:O    | 6:C:2245:TRP:CD1  | 2.70                     | 0.42              |
| 6:C:2378:PHE:CD1  | 6:C:2379:MET:N    | 2.88                     | 0.42              |
| 6:C:2576:MET:HA   | 6:C:2788:SER:OG   | 2.19                     | 0.42              |
| 6:C:2791:ILE:HA   | 6:C:2794:LEU:HD12 | 2.00                     | 0.42              |
| 6:C:2840:PHE:HA   | 6:C:2843:PHE:CB   | 2.49                     | 0.42              |
| 6:C:2923:TRP:HH2  | 6:C:2998:SER:HA   | 1.85                     | 0.42              |
| 6:C:2927:ALA:O    | 6:C:2931:ARG:NH1  | 2.53                     | 0.42              |
| 6:C:2934:GLY:O    | 6:C:2935:GLU:C    | 2.61                     | 0.42              |
| 6:C:2987:THR:O    | 6:C:2991:LYS:HB3  | 2.19                     | 0.42              |
| 6:C:2990:GLU:O    | 6:C:2994:TRP:HB3  | 2.19                     | 0.42              |
| 6:C:3495:PHE:HA   | 6:C:3498:TRP:CZ3  | 2.55                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3685:PRO:O    | 6:C:3688:SER:HB2  | 2.19                     | 0.42              |
| 6:C:3718:ARG:HB2  | 6:C:3743:HIS:HB2  | 2.02                     | 0.42              |
| 6:C:3965:ARG:O    | 6:C:3968:ILE:HG22 | 2.19                     | 0.42              |
| 6:C:4020:MET:O    | 6:C:4024:GLY:N    | 2.52                     | 0.42              |
| 1:A:66:CYS:SG     | 1:A:239:LEU:HD22  | 2.59                     | 0.42              |
| 1:A:176:HIS:CE1   | 1:A:179:ASP:O     | 2.72                     | 0.42              |
| 1:A:216:PHE:CD1   | 1:A:216:PHE:C     | 2.98                     | 0.42              |
| 1:A:411:VAL:CG1   | 1:A:436:PHE:HA    | 2.43                     | 0.42              |
| 1:A:486:HIS:HE1   | 2:B:323:PHE:CE2   | 2.37                     | 0.42              |
| 1:A:488:ARG:HD3   | 1:A:488:ARG:HA    | 1.91                     | 0.42              |
| 2:B:20:MET:O      | 2:B:31:PHE:HD2    | 2.02                     | 0.42              |
| 6:C:85:ILE:O      | 6:C:86:LEU:C      | 2.62                     | 0.42              |
| 6:C:276:ALA:O     | 6:C:322:GLN:NE2   | 2.53                     | 0.42              |
| 6:C:278:HIS:HA    | 6:C:281:GLN:HG3   | 2.00                     | 0.42              |
| 6:C:315:ALA:HA    | 6:C:318:SER:HB2   | 2.01                     | 0.42              |
| 6:C:369:PHE:CZ    | 6:C:373:CYS:HA    | 2.55                     | 0.42              |
| 6:C:614:PRO:O     | 6:C:617:PRO:HD2   | 2.19                     | 0.42              |
| 6:C:623:PHE:HD2   | 6:C:624:ILE:HB    | 1.84                     | 0.42              |
| 6:C:773:LEU:O     | 6:C:776:TRP:HB3   | 2.20                     | 0.42              |
| 6:C:1032:CYS:O    | 6:C:1036:PHE:N    | 2.50                     | 0.42              |
| 6:C:1171:TRP:HZ3  | 6:C:1176:CYS:SG   | 2.42                     | 0.42              |
| 6:C:1268:ASN:O    | 6:C:1274:ARG:HB2  | 2.19                     | 0.42              |
| 6:C:1517:LEU:O    | 6:C:1520:ALA:HB3  | 2.19                     | 0.42              |
| 6:C:1878:ASP:H    | 6:C:1881:TYR:HD2  | 1.66                     | 0.42              |
| 6:C:1968:SER:O    | 6:C:1971:PRO:HG2  | 2.19                     | 0.42              |
| 6:C:2304:VAL:O    | 6:C:2305:ASN:C    | 2.63                     | 0.42              |
| 6:C:2494:ASP:HA   | 6:C:2497:GLU:CG   | 2.49                     | 0.42              |
| 6:C:2890:ILE:HD11 | 6:C:2918:PRO:HA   | 2.02                     | 0.42              |
| 6:C:2913:LYS:O    | 6:C:2917:PRO:HG2  | 2.18                     | 0.42              |
| 6:C:2934:GLY:HA2  | 6:C:2937:ASP:HB3  | 2.01                     | 0.42              |
| 6:C:3077:ILE:HB   | 6:C:3081:HIS:CE1  | 2.55                     | 0.42              |
| 6:C:3121:LEU:O    | 6:C:3122:HIS:C    | 2.60                     | 0.42              |
| 6:C:3126:LEU:HA   | 6:C:3129:LEU:HB2  | 2.01                     | 0.42              |
| 6:C:3259:LEU:HD22 | 6:C:3282:ARG:NH1  | 2.26                     | 0.42              |
| 6:C:3314:SER:CA   | 6:C:3315:TYR:HB3  | 2.49                     | 0.42              |
| 6:C:3412:ALA:O    | 6:C:3415:THR:HB   | 2.19                     | 0.42              |
| 6:C:3487:ILE:HD13 | 6:C:3490:VAL:CG2  | 2.50                     | 0.42              |
| 6:C:3499:ILE:O    | 6:C:3500:SER:C    | 2.62                     | 0.42              |
| 6:C:3701:ILE:CG1  | 6:C:3719:ILE:HG22 | 2.49                     | 0.42              |
| 6:C:3775:LEU:HD13 | 6:C:3786:LEU:O    | 2.19                     | 0.42              |
| 6:C:3873:LYS:HA   | 6:C:3877:LYS:NZ   | 2.35                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3923:ARG:O    | 6:C:4124:TRP:CD1  | 2.72                     | 0.42              |
| 6:C:4044:ILE:O    | 6:C:4048:LYS:HB2  | 2.18                     | 0.42              |
| 6:C:4049:ARG:O    | 6:C:4052:ALA:HB3  | 2.20                     | 0.42              |
| 1:A:128:GLN:NE2   | 1:A:132:GLN:HE21  | 2.08                     | 0.42              |
| 1:A:220:ILE:HD12  | 1:A:220:ILE:N     | 2.34                     | 0.42              |
| 1:A:388:LYS:HZ1   | 2:B:451:LEU:HB3   | 1.84                     | 0.42              |
| 2:B:188:HIS:CE1   | 2:B:519:PRO:HG3   | 2.55                     | 0.42              |
| 2:B:246:HIS:HA    | 2:B:264:TYR:CE1   | 2.54                     | 0.42              |
| 2:B:377:LEU:O     | 2:B:381:ILE:HG13  | 2.20                     | 0.42              |
| 2:B:387:LEU:HB2   | 2:B:389:MET:HG2   | 2.02                     | 0.42              |
| 4:D:-15:DT:H2'    | 4:D:-14:DA:C8     | 2.54                     | 0.42              |
| 5:E:25:DG:C6      | 5:E:26:DC:C4      | 3.07                     | 0.42              |
| 5:E:28:DA:H8      | 5:E:28:DA:C5'     | 2.32                     | 0.42              |
| 6:C:79:ARG:HA     | 6:C:79:ARG:HD3    | 1.87                     | 0.42              |
| 6:C:241:ASP:O     | 6:C:244:THR:HB    | 2.20                     | 0.42              |
| 6:C:286:LEU:O     | 6:C:289:ASN:HB3   | 2.19                     | 0.42              |
| 6:C:649:PHE:HZ    | 6:C:717:LYS:HZ1   | 1.66                     | 0.42              |
| 6:C:670:LEU:HB3   | 6:C:740:ILE:HG23  | 2.01                     | 0.42              |
| 6:C:867:ASN:HD22  | 6:C:868:LYS:HZ2   | 1.66                     | 0.42              |
| 6:C:867:ASN:HD22  | 6:C:868:LYS:HZ3   | 1.67                     | 0.42              |
| 6:C:1051:LYS:O    | 6:C:1053:PRO:HD3  | 2.20                     | 0.42              |
| 6:C:1060:PHE:HB3  | 6:C:1064:TYR:CD2  | 2.54                     | 0.42              |
| 6:C:1092:GLU:OE2  | 6:C:1094:SER:N    | 2.52                     | 0.42              |
| 6:C:1157:PHE:HB2  | 6:C:1158:PRO:HD3  | 2.01                     | 0.42              |
| 6:C:1412:LYS:HD2  | 6:C:1415:LEU:HD12 | 2.02                     | 0.42              |
| 6:C:1417:THR:HA   | 6:C:1420:ARG:HB3  | 2.02                     | 0.42              |
| 6:C:1700:THR:O    | 6:C:1705:GLY:N    | 2.53                     | 0.42              |
| 6:C:2238:ILE:O    | 6:C:2239:LYS:C    | 2.63                     | 0.42              |
| 6:C:2242:VAL:C    | 6:C:2245:TRP:HD1  | 2.28                     | 0.42              |
| 6:C:2330:VAL:CG2  | 6:C:2335:ASN:HA   | 2.44                     | 0.42              |
| 6:C:2425:ARG:NH2  | 6:C:2456:ASN:HB2  | 2.33                     | 0.42              |
| 6:C:2436:LEU:O    | 6:C:2440:TYR:CE2  | 2.72                     | 0.42              |
| 6:C:2510:LEU:HD11 | 6:C:2523:ASN:OD1  | 2.19                     | 0.42              |
| 6:C:2791:ILE:H    | 6:C:2791:ILE:HG13 | 1.67                     | 0.42              |
| 6:C:2797:VAL:O    | 6:C:2798:ALA:C    | 2.61                     | 0.42              |
| 6:C:2829:LYS:O    | 6:C:2832:ILE:HB   | 2.19                     | 0.42              |
| 6:C:2920:VAL:CA   | 6:C:2923:TRP:HD1  | 2.33                     | 0.42              |
| 6:C:3417:ALA:HB2  | 6:C:3446:VAL:HB   | 2.01                     | 0.42              |
| 6:C:3555:VAL:O    | 6:C:3558:ILE:N    | 2.53                     | 0.42              |
| 6:C:3566:GLY:O    | 6:C:3569:GLN:HB2  | 2.19                     | 0.42              |
| 6:C:3602:ASN:ND2  | 6:C:3655:LYS:O    | 2.39                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3631:LYS:O    | 6:C:3635:THR:HG23 | 2.19                     | 0.42              |
| 6:C:3920:ILE:HG23 | 6:C:4124:TRP:HH2  | 1.83                     | 0.42              |
| 6:C:4066:LEU:HD12 | 6:C:4075:ARG:CZ   | 2.49                     | 0.42              |
| 6:C:4117:LEU:HD23 | 6:C:4117:LEU:HA   | 1.74                     | 0.42              |
| 1:A:63:SER:O      | 1:A:66:CYS:HB2    | 2.20                     | 0.42              |
| 1:A:129:LYS:O     | 1:A:132:GLN:N     | 2.53                     | 0.42              |
| 1:A:303:PHE:HD1   | 1:A:304:ASN:O     | 2.02                     | 0.42              |
| 1:A:352:PRO:HA    | 1:A:393:GLU:O     | 2.19                     | 0.42              |
| 1:A:383:SER:HG    | 1:A:384:ALA:H     | 1.66                     | 0.42              |
| 1:A:384:ALA:HA    | 1:A:387:ILE:HB    | 2.00                     | 0.42              |
| 1:A:508:LEU:CD2   | 2:B:394:ARG:HD2   | 2.50                     | 0.42              |
| 2:B:54:ILE:CA     | 2:B:83:LEU:HD23   | 2.49                     | 0.42              |
| 2:B:128:GLU:H     | 2:B:128:GLU:CD    | 2.25                     | 0.42              |
| 2:B:141:ARG:HA    | 2:B:141:ARG:HD3   | 1.83                     | 0.42              |
| 2:B:399:LYS:NZ    | 5:E:27:DC:H1'     | 2.34                     | 0.42              |
| 2:B:432:GLN:N     | 2:B:432:GLN:OE1   | 2.53                     | 0.42              |
| 6:C:82:ARG:HH12   | 6:C:117:LYS:HG3   | 1.84                     | 0.42              |
| 6:C:100:ILE:O     | 6:C:103:TYR:N     | 2.52                     | 0.42              |
| 6:C:361:ILE:O     | 6:C:362:ALA:C     | 2.62                     | 0.42              |
| 6:C:465:PHE:HD1   | 6:C:468:LEU:HD12  | 1.83                     | 0.42              |
| 6:C:649:PHE:CZ    | 6:C:652:GLU:HA    | 2.54                     | 0.42              |
| 6:C:650:SER:O     | 6:C:652:GLU:HG3   | 2.20                     | 0.42              |
| 6:C:673:THR:HB    | 6:C:707:PHE:HE2   | 1.80                     | 0.42              |
| 6:C:911:LEU:O     | 6:C:915:THR:HG23  | 2.20                     | 0.42              |
| 6:C:913:ARG:NH1   | 6:C:930:ALA:HA    | 2.35                     | 0.42              |
| 6:C:936:SER:CB    | 6:C:2791:ILE:HG12 | 2.49                     | 0.42              |
| 6:C:993:HIS:CE1   | 6:C:2777:HIS:CE1  | 3.08                     | 0.42              |
| 6:C:1112:ALA:HA   | 6:C:1115:HIS:NE2  | 2.35                     | 0.42              |
| 6:C:1232:PRO:HB2  | 6:C:1291:LEU:CB   | 2.43                     | 0.42              |
| 6:C:1387:GLY:CA   | 6:C:1391:VAL:HB   | 2.43                     | 0.42              |
| 6:C:1404:LYS:HA   | 6:C:1407:LYS:CG   | 2.50                     | 0.42              |
| 6:C:1427:SER:O    | 6:C:1431:LEU:HB2  | 2.19                     | 0.42              |
| 6:C:1524:LEU:HD11 | 6:C:1560:TYR:O    | 2.19                     | 0.42              |
| 6:C:1682:THR:HA   | 6:C:1685:ASP:OD2  | 2.19                     | 0.42              |
| 6:C:1888:ASP:O    | 6:C:1892:LYS:N    | 2.38                     | 0.42              |
| 6:C:2078:ASP:HB2  | 6:C:2135:ASN:ND2  | 2.24                     | 0.42              |
| 6:C:2202:PRO:HA   | 6:C:2206:PRO:CD   | 2.50                     | 0.42              |
| 6:C:2331:MET:HA   | 6:C:2335:ASN:OD1  | 2.20                     | 0.42              |
| 6:C:2439:ILE:HD13 | 6:C:2440:TYR:CE1  | 2.55                     | 0.42              |
| 6:C:2463:SER:HA   | 6:C:2470:ARG:HH21 | 1.82                     | 0.42              |
| 6:C:2473:MET:O    | 6:C:2476:ILE:HG12 | 2.19                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2555:LEU:O    | 6:C:2556:SER:C    | 2.62                     | 0.42              |
| 6:C:3040:TYR:HA   | 6:C:3043:TYR:CZ   | 2.54                     | 0.42              |
| 6:C:3045:ILE:O    | 6:C:3048:LYS:HG2  | 2.19                     | 0.42              |
| 6:C:3086:LEU:HD11 | 6:C:3102:TYR:CD1  | 2.54                     | 0.42              |
| 6:C:3129:LEU:HD23 | 6:C:3129:LEU:HA   | 1.76                     | 0.42              |
| 6:C:3155:VAL:CG1  | 6:C:3156:PRO:HD3  | 2.49                     | 0.42              |
| 6:C:3280:TYR:HB2  | 6:C:3324:ARG:HD2  | 2.02                     | 0.42              |
| 6:C:3313:SER:N    | 6:C:3315:TYR:HB2  | 2.28                     | 0.42              |
| 6:C:3316:LEU:HD12 | 6:C:3399:PRO:HB3  | 2.01                     | 0.42              |
| 6:C:3322:ALA:O    | 6:C:3392:ALA:HB1  | 2.20                     | 0.42              |
| 6:C:3424:LEU:HD23 | 6:C:3425:ARG:HH12 | 1.85                     | 0.42              |
| 6:C:3630:ARG:HA   | 6:C:3686:TRP:CE2  | 2.55                     | 0.42              |
| 6:C:3853:GLY:CA   | 6:C:3856:MET:HE2  | 2.50                     | 0.42              |
| 1:A:114:LYS:N     | 1:A:114:LYS:HD2   | 2.35                     | 0.42              |
| 1:A:278:GLN:OE1   | 4:D:1:DG:H3'      | 2.20                     | 0.42              |
| 1:A:292:THR:C     | 1:A:294:GLU:H     | 2.28                     | 0.42              |
| 1:A:338:LYS:HB3   | 1:A:406:ILE:O     | 2.20                     | 0.42              |
| 1:A:354:VAL:HA    | 1:A:357:LYS:HZ3   | 1.85                     | 0.42              |
| 1:A:365:SER:CB    | 1:A:434:LEU:HB2   | 2.50                     | 0.42              |
| 1:A:380:THR:CG2   | 2:B:446:PRO:HD3   | 2.50                     | 0.42              |
| 1:A:457:GLU:HG3   | 1:A:458:GLN:N     | 2.35                     | 0.42              |
| 1:A:487:PHE:CD1   | 1:A:488:ARG:NH1   | 2.88                     | 0.42              |
| 2:B:88:PHE:O      | 2:B:91:LEU:HB2    | 2.20                     | 0.42              |
| 2:B:151:ILE:HG22  | 2:B:155:LYS:NZ    | 2.35                     | 0.42              |
| 2:B:170:GLY:O     | 2:B:194:LEU:HD11  | 2.20                     | 0.42              |
| 2:B:205:LEU:O     | 2:B:209:LYS:HG3   | 2.20                     | 0.42              |
| 2:B:314:PHE:CB    | 2:B:321:VAL:HB    | 2.47                     | 0.42              |
| 2:B:464:ALA:N     | 2:B:475:ASP:HA    | 2.35                     | 0.42              |
| 6:C:147:PHE:CE2   | 6:C:148:LYS:HG3   | 2.55                     | 0.42              |
| 6:C:184:VAL:O     | 6:C:190:ILE:HD11  | 2.20                     | 0.42              |
| 6:C:315:ALA:O     | 6:C:318:SER:N     | 2.50                     | 0.42              |
| 6:C:362:ALA:O     | 6:C:363:ILE:C     | 2.62                     | 0.42              |
| 6:C:395:MET:HB2   | 6:C:413:PHE:HZ    | 1.84                     | 0.42              |
| 6:C:460:ALA:O     | 6:C:463:LYS:HB3   | 2.19                     | 0.42              |
| 6:C:530:LEU:O     | 6:C:531:PHE:C     | 2.63                     | 0.42              |
| 6:C:532:ARG:HA    | 6:C:532:ARG:HD2   | 1.64                     | 0.42              |
| 6:C:654:ILE:HG23  | 6:C:729:CYS:SG    | 2.59                     | 0.42              |
| 6:C:740:ILE:HD12  | 6:C:740:ILE:N     | 2.35                     | 0.42              |
| 6:C:1102:GLU:O    | 6:C:1105:VAL:N    | 2.53                     | 0.42              |
| 6:C:1119:LYS:HE2  | 6:C:1119:LYS:HB2  | 1.73                     | 0.42              |
| 6:C:1356:TRP:HH2  | 6:C:1411:TYR:CD2  | 2.38                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1400:VAL:CG1  | 6:C:1404:LYS:HE2  | 2.49                     | 0.42              |
| 6:C:1707:LEU:HD23 | 6:C:1707:LEU:HA   | 1.85                     | 0.42              |
| 6:C:1814:PHE:HA   | 6:C:1817:GLN:HB2  | 2.01                     | 0.42              |
| 6:C:1905:ILE:O    | 6:C:1951:VAL:HG11 | 2.20                     | 0.42              |
| 6:C:1975:LEU:HA   | 6:C:1976:LEU:HA   | 1.44                     | 0.42              |
| 6:C:2083:LEU:HD22 | 6:C:2178:GLY:H    | 1.85                     | 0.42              |
| 6:C:2562:LEU:O    | 6:C:2566:THR:HB   | 2.20                     | 0.42              |
| 6:C:2813:PHE:HA   | 6:C:2816:ILE:CG2  | 2.50                     | 0.42              |
| 6:C:2906:PRO:CG   | 6:C:2943:PHE:HB3  | 2.48                     | 0.42              |
| 6:C:2977:ASN:CA   | 6:C:2980:ASP:HB2  | 2.49                     | 0.42              |
| 6:C:3004:HIS:CE1  | 6:C:3042:PRO:HB2  | 2.55                     | 0.42              |
| 6:C:3147:LYS:HA   | 6:C:3150:ASN:OD1  | 2.20                     | 0.42              |
| 6:C:3530:VAL:C    | 6:C:3532:PRO:HD2  | 2.45                     | 0.42              |
| 6:C:3774:ILE:N    | 6:C:3774:ILE:HD12 | 2.35                     | 0.42              |
| 6:C:3880:ALA:HB1  | 6:C:3969:ASN:HB2  | 2.01                     | 0.42              |
| 6:C:4016:PHE:HA   | 6:C:4019:LYS:CG   | 2.50                     | 0.42              |
| 6:C:4055:ASN:HD21 | 6:C:4058:VAL:N    | 2.08                     | 0.42              |
| 1:A:129:LYS:O     | 1:A:130:ARG:C     | 2.63                     | 0.42              |
| 1:A:193:LEU:HD12  | 1:A:196:THR:HB    | 2.02                     | 0.42              |
| 1:A:193:LEU:O     | 1:A:196:THR:HB    | 2.20                     | 0.42              |
| 1:A:290:ARG:HB3   | 1:A:291:GLU:H     | 1.71                     | 0.42              |
| 1:A:337:LEU:HA    | 2:B:489:ARG:NH2   | 2.35                     | 0.42              |
| 1:A:338:LYS:HG2   | 1:A:407:PRO:HD3   | 2.02                     | 0.42              |
| 1:A:374:LEU:O     | 2:B:540:ILE:HD11  | 2.20                     | 0.42              |
| 2:B:53:GLU:OE1    | 2:B:125:LYS:HD2   | 2.20                     | 0.42              |
| 2:B:133:GLU:HB2   | 2:B:135:PHE:CE1   | 2.55                     | 0.42              |
| 2:B:152:HIS:HA    | 2:B:155:LYS:CG    | 2.49                     | 0.42              |
| 2:B:159:ILE:HD13  | 2:B:159:ILE:HA    | 1.85                     | 0.42              |
| 2:B:202:LYS:HA    | 2:B:205:LEU:HB3   | 2.02                     | 0.42              |
| 3:K:11:ALA:HA     | 3:K:14:ALA:HB3    | 2.01                     | 0.42              |
| 4:D:-8:DT:C4      | 4:D:-7:DA:N6      | 2.88                     | 0.42              |
| 4:D:7:DA:N6       | 5:E:28:DA:H61     | 2.18                     | 0.42              |
| 6:C:49:ALA:O      | 6:C:50:VAL:C      | 2.63                     | 0.42              |
| 6:C:87:LYS:HG2    | 6:C:133:LYS:CE    | 2.47                     | 0.42              |
| 6:C:92:PHE:O      | 6:C:95:LYS:HB2    | 2.19                     | 0.42              |
| 6:C:229:SER:O     | 6:C:232:CYS:HB2   | 2.20                     | 0.42              |
| 6:C:241:ASP:HA    | 6:C:244:THR:OG1   | 2.19                     | 0.42              |
| 6:C:384:MET:O     | 6:C:386:VAL:N     | 2.52                     | 0.42              |
| 6:C:393:LYS:NZ    | 6:C:397:LEU:HD22  | 2.35                     | 0.42              |
| 6:C:567:GLU:HB2   | 6:C:1799:GLU:OE1  | 2.20                     | 0.42              |
| 6:C:592:GLU:HA    | 6:C:595:ASP:HB2   | 2.01                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:607:ASP:O     | 6:C:611:ASN:HB2   | 2.18                     | 0.42              |
| 6:C:858:MET:O     | 6:C:859:LEU:C     | 2.63                     | 0.42              |
| 6:C:917:LEU:HD21  | 6:C:930:ALA:HB1   | 2.01                     | 0.42              |
| 6:C:1010:LEU:HB2  | 6:C:1028:PHE:HE1  | 1.82                     | 0.42              |
| 6:C:1412:LYS:O    | 6:C:1416:GLU:HG3  | 2.19                     | 0.42              |
| 6:C:1634:ALA:O    | 6:C:1635:LYS:C    | 2.63                     | 0.42              |
| 6:C:1676:ILE:C    | 6:C:1679:LEU:HB3  | 2.45                     | 0.42              |
| 6:C:1695:LEU:HD22 | 6:C:1703:THR:OG1  | 2.20                     | 0.42              |
| 6:C:2002:LYS:HA   | 6:C:2005:ILE:CG1  | 2.49                     | 0.42              |
| 6:C:2084:GLU:HG3  | 6:C:2181:GLY:HA2  | 2.01                     | 0.42              |
| 6:C:2140:LEU:HA   | 6:C:2143:ARG:CD   | 2.48                     | 0.42              |
| 6:C:2208:ASP:OD1  | 6:C:2212:ALA:N    | 2.41                     | 0.42              |
| 6:C:2272:VAL:O    | 6:C:2273:GLY:C    | 2.63                     | 0.42              |
| 6:C:2451:LEU:O    | 6:C:2454:LEU:HB2  | 2.20                     | 0.42              |
| 6:C:2481:HIS:CE1  | 6:C:2499:PHE:O    | 2.72                     | 0.42              |
| 6:C:2928:LYS:HZ3  | 6:C:2959:ALA:HB2  | 1.85                     | 0.42              |
| 6:C:2936:TYR:HB2  | 6:C:2953:THR:CG2  | 2.50                     | 0.42              |
| 6:C:2969:ALA:HA   | 6:C:2972:TYR:CE1  | 2.55                     | 0.42              |
| 6:C:3009:LYS:O    | 6:C:3013:TYR:N    | 2.31                     | 0.42              |
| 6:C:3085:GLU:CA   | 6:C:3088:LEU:HB2  | 2.46                     | 0.42              |
| 6:C:3273:LEU:HA   | 6:C:3276:TRP:HD1  | 1.84                     | 0.42              |
| 6:C:3465:PHE:N    | 6:C:3466:PRO:HD2  | 2.34                     | 0.42              |
| 6:C:3467:ARG:NE   | 6:C:4003:ASP:OD2  | 2.53                     | 0.42              |
| 6:C:3492:CYS:HB2  | 6:C:3527:GLN:HB3  | 2.02                     | 0.42              |
| 6:C:3694:PHE:HB2  | 6:C:3697:ASN:HD22 | 1.84                     | 0.42              |
| 6:C:4079:ALA:O    | 6:C:4082:ARG:HB2  | 2.20                     | 0.42              |
| 6:C:4082:ARG:HB3  | 6:C:4091:ALA:HB2  | 2.00                     | 0.42              |
| 1:A:61:ASP:OD1    | 1:A:65:GLN:NE2    | 2.53                     | 0.42              |
| 1:A:113:ALA:O     | 1:A:116:ILE:HB    | 2.20                     | 0.42              |
| 1:A:176:HIS:CE1   | 1:A:182:LYS:HB2   | 2.55                     | 0.42              |
| 1:A:244:ARG:HH22  | 1:A:477:SER:HB2   | 1.85                     | 0.42              |
| 1:A:247:ARG:HB3   | 1:A:484:GLN:NE2   | 2.34                     | 0.42              |
| 1:A:256:LEU:HD21  | 5:E:38:DA:C4      | 2.54                     | 0.42              |
| 1:A:315:ASP:N     | 1:A:315:ASP:OD1   | 2.51                     | 0.42              |
| 1:A:358:LYS:O     | 2:B:411:HIS:CG    | 2.73                     | 0.42              |
| 1:A:364:PRO:HB2   | 1:A:365:SER:O     | 2.20                     | 0.42              |
| 1:A:448:PHE:HD1   | 2:B:416:TYR:CD2   | 2.37                     | 0.42              |
| 1:A:486:HIS:HA    | 1:A:489:ASN:ND2   | 2.35                     | 0.42              |
| 2:B:39:THR:O      | 2:B:42:VAL:HB     | 2.20                     | 0.42              |
| 2:B:251:LEU:HD12  | 2:B:252:THR:N     | 2.35                     | 0.42              |
| 2:B:496:HIS:CE1   | 2:B:503:GLU:HG3   | 2.45                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:E:22:DA:C4      | 5:E:23:DT:C6      | 3.07                     | 0.42              |
| 6:C:47:SER:HB2    | 6:C:51:LEU:HG     | 2.02                     | 0.42              |
| 6:C:75:SER:C      | 6:C:76:ILE:HG12   | 2.45                     | 0.42              |
| 6:C:224:LEU:CA    | 6:C:227:LEU:HB3   | 2.49                     | 0.42              |
| 6:C:756:PHE:N     | 6:C:756:PHE:HD1   | 2.18                     | 0.42              |
| 6:C:947:GLN:OE1   | 6:C:947:GLN:N     | 2.42                     | 0.42              |
| 6:C:1071:ASN:ND2  | 6:C:3743:HIS:O    | 2.53                     | 0.42              |
| 6:C:1113:LEU:HD21 | 6:C:1162:SER:O    | 2.20                     | 0.42              |
| 6:C:1412:LYS:O    | 6:C:1415:LEU:CB   | 2.64                     | 0.42              |
| 6:C:1897:ASN:O    | 6:C:1900:PHE:HB2  | 2.20                     | 0.42              |
| 6:C:1995:GLU:O    | 6:C:1998:MET:HG2  | 2.20                     | 0.42              |
| 6:C:2132:LYS:C    | 6:C:2137:ILE:HG13 | 2.45                     | 0.42              |
| 6:C:2256:ILE:HA   | 6:C:2259:LYS:CD   | 2.49                     | 0.42              |
| 6:C:2403:CYS:O    | 6:C:2404:ARG:C    | 2.59                     | 0.42              |
| 6:C:2439:ILE:CG2  | 6:C:2440:TYR:CZ   | 3.02                     | 0.42              |
| 6:C:2534:ASN:ND2  | 6:C:2537:ASP:HB2  | 2.32                     | 0.42              |
| 6:C:2539:LEU:O    | 6:C:2542:LEU:HB3  | 2.20                     | 0.42              |
| 6:C:2572:TYR:CE1  | 6:C:2790:LEU:HD23 | 2.54                     | 0.42              |
| 6:C:2891:ARG:HG3  | 6:C:2892:LEU:HD23 | 2.02                     | 0.42              |
| 6:C:2937:ASP:OD1  | 6:C:3975:LYS:HE3  | 2.20                     | 0.42              |
| 6:C:3335:ARG:CG   | 6:C:3341:LEU:HG   | 2.50                     | 0.42              |
| 6:C:3661:ASP:HA   | 6:C:3664:ASN:ND2  | 2.26                     | 0.42              |
| 6:C:3872:ARG:HH21 | 6:C:3873:LYS:CE   | 2.19                     | 0.42              |
| 6:C:3964:THR:N    | 6:C:3967:PHE:CD2  | 2.88                     | 0.42              |
| 6:C:3998:LEU:CD1  | 6:C:4002:MET:HG2  | 2.50                     | 0.42              |
| 1:A:118:GLU:HG2   | 1:A:119:LEU:HG    | 2.01                     | 0.41              |
| 1:A:278:GLN:HG3   | 4:D:2:DG:O5'      | 2.20                     | 0.41              |
| 1:A:324:SER:HG    | 2:B:88:PHE:HD2    | 1.68                     | 0.41              |
| 1:A:451:LYS:HE3   | 2:B:417:GLU:OE1   | 2.20                     | 0.41              |
| 1:A:459:VAL:HG22  | 1:A:463:LYS:HG3   | 2.02                     | 0.41              |
| 2:B:111:LEU:O     | 2:B:115:MET:HG3   | 2.20                     | 0.41              |
| 2:B:355:PHE:O     | 2:B:425:PRO:HG3   | 2.20                     | 0.41              |
| 2:B:512:ILE:O     | 2:B:516:LEU:HG    | 2.20                     | 0.41              |
| 4:D:1:DG:N2       | 4:D:2:DG:C2       | 2.88                     | 0.41              |
| 5:E:40:DT:H2'     | 5:E:41:DA:O4'     | 2.20                     | 0.41              |
| 6:C:88:PHE:HA     | 6:C:91:ILE:HD11   | 2.02                     | 0.41              |
| 6:C:188:GLU:O     | 6:C:191:ASN:HB2   | 2.20                     | 0.41              |
| 6:C:490:ILE:HG21  | 6:C:530:LEU:HD11  | 2.03                     | 0.41              |
| 6:C:652:GLU:OE1   | 6:C:722:LYS:NZ    | 2.38                     | 0.41              |
| 6:C:993:HIS:HE1   | 6:C:2777:HIS:CD2  | 2.37                     | 0.41              |
| 6:C:1163:LEU:HD22 | 6:C:1256:TRP:HD1  | 1.82                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1356:TRP:CH2  | 6:C:1410:PRO:HA   | 2.55                     | 0.41              |
| 6:C:2187:VAL:HG13 | 6:C:2188:GLU:N    | 2.35                     | 0.41              |
| 6:C:2260:PHE:CE1  | 6:C:2263:LYS:HG3  | 2.54                     | 0.41              |
| 6:C:2477:LEU:HA   | 6:C:2480:ILE:HG22 | 2.02                     | 0.41              |
| 6:C:2498:ILE:O    | 6:C:2499:PHE:C    | 2.62                     | 0.41              |
| 6:C:2513:GLU:N    | 6:C:2518:GLN:OE1  | 2.52                     | 0.41              |
| 6:C:2549:LYS:HD3  | 6:C:2554:PHE:CB   | 2.50                     | 0.41              |
| 6:C:3064:PHE:HA   | 6:C:3067:LYS:CG   | 2.40                     | 0.41              |
| 6:C:3080:LEU:HD13 | 6:C:3105:ASN:HB3  | 2.01                     | 0.41              |
| 6:C:3383:GLN:C    | 6:C:3386:SER:HG   | 2.25                     | 0.41              |
| 6:C:3490:VAL:O    | 6:C:3491:PRO:C    | 2.63                     | 0.41              |
| 6:C:3493:TRP:CD1  | 6:C:3711:PRO:HA   | 2.55                     | 0.41              |
| 6:C:3758:LEU:HD23 | 6:C:3761:ASP:HB2  | 2.02                     | 0.41              |
| 6:C:3763:ARG:HB3  | 6:C:4005:PHE:CE1  | 2.55                     | 0.41              |
| 6:C:3780:ALA:HA   | 6:C:3783:GLN:CD   | 2.44                     | 0.41              |
| 6:C:3781:CYS:HA   | 6:C:3786:LEU:HD12 | 2.02                     | 0.41              |
| 6:C:3844:THR:HB   | 6:C:3849:LYS:NZ   | 2.34                     | 0.41              |
| 6:C:3901:ARG:HD2  | 6:C:3971:MET:HA   | 2.02                     | 0.41              |
| 6:C:3950:THR:OG1  | 6:C:3957:GLU:O    | 2.31                     | 0.41              |
| 6:C:4012:ASP:C    | 6:C:4016:PHE:HB3  | 2.45                     | 0.41              |
| 1:A:34:GLY:O      | 1:A:35:ARG:HD3    | 2.20                     | 0.41              |
| 1:A:74:LYS:CG     | 1:A:83:LEU:HD11   | 2.45                     | 0.41              |
| 1:A:201:ASP:CG    | 1:A:221:ILE:HB    | 2.46                     | 0.41              |
| 1:A:277:VAL:HG22  | 1:A:278:GLN:N     | 2.35                     | 0.41              |
| 1:A:511:VAL:HG12  | 2:B:255:SER:HB3   | 2.01                     | 0.41              |
| 2:B:165:LEU:H     | 2:B:226:SER:HA    | 1.83                     | 0.41              |
| 2:B:191:SER:HB2   | 2:B:232:ARG:HH21  | 1.85                     | 0.41              |
| 2:B:384:LEU:CA    | 2:B:389:MET:HB2   | 2.48                     | 0.41              |
| 2:B:463:LEU:C     | 2:B:475:ASP:HA    | 2.46                     | 0.41              |
| 4:D:-12:DA:N1     | 5:E:48:DT:C2      | 2.88                     | 0.41              |
| 6:C:100:ILE:HG12  | 6:C:104:SER:CA    | 2.50                     | 0.41              |
| 6:C:637:LYS:O     | 6:C:641:PHE:HD2   | 2.03                     | 0.41              |
| 6:C:656:GLN:C     | 6:C:658:THR:H     | 2.28                     | 0.41              |
| 6:C:904:VAL:O     | 6:C:906:PHE:CD2   | 2.73                     | 0.41              |
| 6:C:987:LEU:HA    | 6:C:990:GLN:HG2   | 2.02                     | 0.41              |
| 6:C:1304:HIS:HA   | 6:C:1307:ILE:CG1  | 2.50                     | 0.41              |
| 6:C:1654:GLN:HE21 | 6:C:1673:THR:HA   | 1.85                     | 0.41              |
| 6:C:1762:MET:HG3  | 6:C:1863:PHE:HD2  | 1.85                     | 0.41              |
| 6:C:1917:LYS:HZ1  | 6:C:1957:ASN:HD22 | 1.68                     | 0.41              |
| 6:C:1920:TYR:O    | 6:C:1924:THR:OG1  | 2.21                     | 0.41              |
| 6:C:1925:GLU:CD   | 6:C:1959:LEU:HD12 | 2.45                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1938:ARG:O    | 6:C:1990:PHE:HE1  | 2.03                     | 0.41              |
| 6:C:2115:GLU:HA   | 6:C:2154:GLU:HB2  | 2.02                     | 0.41              |
| 6:C:2196:TRP:CB   | 6:C:2199:LEU:HB2  | 2.50                     | 0.41              |
| 6:C:2257:PHE:O    | 6:C:2258:GLU:C    | 2.62                     | 0.41              |
| 6:C:2325:LEU:O    | 6:C:2326:ILE:C    | 2.63                     | 0.41              |
| 6:C:2413:PHE:HD1  | 6:C:2442:MET:HG2  | 1.86                     | 0.41              |
| 6:C:2806:LYS:HA   | 6:C:2809:PHE:CE1  | 2.56                     | 0.41              |
| 6:C:2806:LYS:HA   | 6:C:2809:PHE:CZ   | 2.56                     | 0.41              |
| 6:C:2826:LEU:O    | 6:C:2829:LYS:HB2  | 2.20                     | 0.41              |
| 6:C:2840:PHE:C    | 6:C:2843:PHE:HB3  | 2.45                     | 0.41              |
| 6:C:2947:ILE:O    | 6:C:2951:GLN:HG3  | 2.21                     | 0.41              |
| 6:C:3036:TYR:CE2  | 6:C:3040:TYR:CD2  | 3.08                     | 0.41              |
| 6:C:3044:MET:HA   | 6:C:3047:SER:HB2  | 2.01                     | 0.41              |
| 6:C:3160:LEU:C    | 6:C:3162:ASN:N    | 2.76                     | 0.41              |
| 6:C:3274:VAL:O    | 6:C:3277:VAL:HG22 | 2.20                     | 0.41              |
| 6:C:3316:LEU:HD11 | 6:C:3403:CYS:HB2  | 2.02                     | 0.41              |
| 6:C:3685:PRO:C    | 6:C:3688:SER:H    | 2.28                     | 0.41              |
| 6:C:3732:LEU:HB2  | 6:C:4023:LYS:NZ   | 2.35                     | 0.41              |
| 6:C:3756:GLU:O    | 6:C:3800:LEU:HA   | 2.20                     | 0.41              |
| 6:C:3883:LEU:C    | 6:C:3970:LEU:HD13 | 2.45                     | 0.41              |
| 6:C:3923:ARG:HA   | 6:C:3927:ASN:HD22 | 1.86                     | 0.41              |
| 6:C:3947:GLY:HA3  | 6:C:4064:LEU:CD1  | 2.50                     | 0.41              |
| 6:C:4017:GLU:HA   | 6:C:4020:MET:HE3  | 2.01                     | 0.41              |
| 6:C:4106:CYS:SG   | 6:C:4107:LEU:N    | 2.94                     | 0.41              |
| 1:A:432:PHE:O     | 1:A:434:LEU:HD12  | 2.20                     | 0.41              |
| 1:A:489:ASN:CG    | 2:B:331:MET:HG3   | 2.44                     | 0.41              |
| 2:B:151:ILE:HG23  | 2:B:215:LEU:HB2   | 2.02                     | 0.41              |
| 2:B:206:GLU:OE2   | 2:B:209:LYS:NZ    | 2.32                     | 0.41              |
| 2:B:283:THR:OG1   | 2:B:284:LEU:N     | 2.53                     | 0.41              |
| 2:B:285:LYS:HB3   | 2:B:287:GLU:OE1   | 2.21                     | 0.41              |
| 5:E:22:DA:C8      | 5:E:23:DT:H71     | 2.56                     | 0.41              |
| 5:E:41:DA:N3      | 5:E:41:DA:H2'     | 2.36                     | 0.41              |
| 6:C:27:ALA:N      | 6:C:77:GLU:OE1    | 2.35                     | 0.41              |
| 6:C:135:LEU:HB3   | 6:C:176:GLU:OE2   | 2.19                     | 0.41              |
| 6:C:259:GLN:O     | 6:C:260:ILE:C     | 2.63                     | 0.41              |
| 6:C:465:PHE:CD1   | 6:C:468:LEU:HD12  | 2.55                     | 0.41              |
| 6:C:597:ALA:HB2   | 6:C:1080:LEU:HD11 | 2.02                     | 0.41              |
| 6:C:637:LYS:HA    | 6:C:641:PHE:HB3   | 2.01                     | 0.41              |
| 6:C:658:THR:HA    | 6:C:733:LEU:CD2   | 2.47                     | 0.41              |
| 6:C:779:TYR:HA    | 6:C:782:ARG:HB2   | 2.02                     | 0.41              |
| 6:C:1346:THR:HA   | 6:C:1349:LEU:HB2  | 2.02                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:1387:GLY:O    | 6:C:1392:MET:N    | 2.52                     | 0.41              |
| 6:C:1604:SER:O    | 6:C:1607:GLU:HB2  | 2.20                     | 0.41              |
| 6:C:1684:LEU:HD23 | 6:C:1687:HIS:ND1  | 2.34                     | 0.41              |
| 6:C:1715:GLU:HB3  | 6:C:1746:PHE:HE2  | 1.85                     | 0.41              |
| 6:C:2072:ARG:HG2  | 6:C:2075:THR:HG23 | 2.02                     | 0.41              |
| 6:C:2077:HIS:CD2  | 6:C:2077:HIS:C    | 2.98                     | 0.41              |
| 6:C:2207:LYS:C    | 6:C:2209:GLU:HG3  | 2.45                     | 0.41              |
| 6:C:2457:PRO:HA   | 6:C:2460:GLU:CG   | 2.49                     | 0.41              |
| 6:C:3120:LEU:HD13 | 6:C:3125:ARG:NE   | 2.34                     | 0.41              |
| 6:C:3179:TRP:CG   | 6:C:3249:GLN:NE2  | 2.83                     | 0.41              |
| 6:C:3254:LEU:C    | 6:C:3257:LYS:HB3  | 2.44                     | 0.41              |
| 6:C:3545:THR:O    | 6:C:3552:LYS:HB2  | 2.20                     | 0.41              |
| 6:C:3579:SER:HB3  | 6:C:3736:LYS:HG3  | 2.01                     | 0.41              |
| 6:C:3830:SER:O    | 6:C:3833:ARG:HG3  | 2.20                     | 0.41              |
| 6:C:3873:LYS:CA   | 6:C:3877:LYS:HZ3  | 2.33                     | 0.41              |
| 6:C:3883:LEU:HB2  | 6:C:3970:LEU:HB2  | 2.02                     | 0.41              |
| 6:C:3884:LYS:N    | 6:C:3970:LEU:HD13 | 2.35                     | 0.41              |
| 6:C:3985:VAL:O    | 6:C:3986:HIS:C    | 2.62                     | 0.41              |
| 1:A:49:PHE:CE1    | 1:A:137:HIS:HD2   | 2.38                     | 0.41              |
| 1:A:203:MET:HG2   | 1:A:237:SER:O     | 2.21                     | 0.41              |
| 1:A:255:ALA:HB2   | 2:B:433:TYR:OH    | 2.20                     | 0.41              |
| 1:A:482:VAL:HG22  | 2:B:333:TYR:HE2   | 1.85                     | 0.41              |
| 2:B:107:PHE:CE2   | 2:B:140:SER:HB2   | 2.47                     | 0.41              |
| 2:B:108:LEU:HD23  | 2:B:111:LEU:HD22  | 2.02                     | 0.41              |
| 2:B:339:CYS:H     | 2:B:396:ALA:HB3   | 1.84                     | 0.41              |
| 4:D:-12:DA:H2'    | 4:D:-11:DA:C8     | 2.55                     | 0.41              |
| 6:C:171:LEU:HA    | 6:C:174:VAL:HG23  | 2.01                     | 0.41              |
| 6:C:216:LYS:HZ2   | 6:C:216:LYS:HG2   | 1.63                     | 0.41              |
| 6:C:376:ILE:HG13  | 6:C:381:VAL:H     | 1.86                     | 0.41              |
| 6:C:482:VAL:HG13  | 6:C:485:GLN:OE1   | 2.20                     | 0.41              |
| 6:C:532:ARG:HD2   | 6:C:535:LEU:HB2   | 2.01                     | 0.41              |
| 6:C:738:HIS:NE2   | 6:C:745:VAL:HG13  | 2.36                     | 0.41              |
| 6:C:1346:THR:HA   | 6:C:1349:LEU:HD12 | 2.01                     | 0.41              |
| 6:C:1378:GLU:HG3  | 6:C:1382:ILE:HD11 | 2.01                     | 0.41              |
| 6:C:1486:LEU:HD21 | 6:C:1492:ALA:HB2  | 2.02                     | 0.41              |
| 6:C:1964:GLY:O    | 6:C:1967:PHE:HB3  | 2.21                     | 0.41              |
| 6:C:2099:ALA:HA   | 6:C:2102:LYS:HE2  | 2.03                     | 0.41              |
| 6:C:2167:PRO:HG2  | 6:C:2215:LEU:HD11 | 2.03                     | 0.41              |
| 6:C:2246:LYS:HG3  | 6:C:2246:LYS:HZ3  | 1.62                     | 0.41              |
| 6:C:2348:GLN:HG2  | 6:C:2352:HIS:HE2  | 1.84                     | 0.41              |
| 6:C:2382:VAL:HA   | 6:C:2385:LEU:CB   | 2.26                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2384:PHE:O    | 6:C:2385:LEU:C    | 2.64                     | 0.41              |
| 6:C:2547:SER:CB   | 6:C:2842:ARG:HH21 | 2.33                     | 0.41              |
| 6:C:2940:ARG:HB3  | 6:C:3975:LYS:NZ   | 2.36                     | 0.41              |
| 6:C:3011:LEU:HG   | 6:C:3047:SER:HA   | 2.02                     | 0.41              |
| 6:C:3037:GLN:HA   | 6:C:3040:TYR:CE2  | 2.55                     | 0.41              |
| 6:C:3268:THR:H    | 6:C:3271:ASP:CB   | 2.31                     | 0.41              |
| 6:C:3283:LEU:O    | 6:C:3285:HIS:N    | 2.54                     | 0.41              |
| 6:C:3462:ARG:NH1  | 6:C:3498:TRP:HB3  | 2.35                     | 0.41              |
| 6:C:3490:VAL:HG23 | 6:C:3494:GLN:HB2  | 2.02                     | 0.41              |
| 6:C:3621:LYS:HA   | 6:C:3629:ARG:HH11 | 1.85                     | 0.41              |
| 6:C:3721:GLY:C    | 6:C:3722:PHE:CG   | 2.98                     | 0.41              |
| 6:C:3789:ARG:HD2  | 6:C:3790:THR:H    | 1.85                     | 0.41              |
| 6:C:3931:ALA:HB3  | 6:C:3934:THR:HG22 | 2.02                     | 0.41              |
| 6:C:4121:TRP:CG   | 6:C:4122:GLU:N    | 2.88                     | 0.41              |
| 1:A:404:ARG:HD2   | 5:E:36:DA:OP2     | 2.21                     | 0.41              |
| 1:A:468:LYS:N     | 1:A:468:LYS:HD2   | 2.36                     | 0.41              |
| 2:B:122:THR:HG21  | 2:B:130:ARG:HD3   | 2.02                     | 0.41              |
| 2:B:186:GLY:O     | 2:B:514:ASN:HB3   | 2.21                     | 0.41              |
| 2:B:326:VAL:O     | 2:B:330:GLN:HG2   | 2.20                     | 0.41              |
| 2:B:390:VAL:HG12  | 2:B:409:PHE:CE1   | 2.55                     | 0.41              |
| 2:B:510:GLN:O     | 2:B:513:TRP:N     | 2.53                     | 0.41              |
| 5:E:25:DG:N1      | 5:E:26:DC:C4      | 2.88                     | 0.41              |
| 5:E:40:DT:H2'     | 5:E:41:DA:H8      | 1.81                     | 0.41              |
| 6:C:234:PHE:C     | 6:C:234:PHE:CD2   | 2.99                     | 0.41              |
| 6:C:277:LEU:CD1   | 6:C:279:ALA:HB3   | 2.50                     | 0.41              |
| 6:C:316:LEU:HD21  | 6:C:363:ILE:HG23  | 2.02                     | 0.41              |
| 6:C:421:LEU:HD23  | 6:C:421:LEU:HA    | 1.79                     | 0.41              |
| 6:C:530:LEU:H     | 6:C:530:LEU:CD1   | 2.33                     | 0.41              |
| 6:C:736:LEU:C     | 6:C:738:HIS:N     | 2.77                     | 0.41              |
| 6:C:973:ALA:CB    | 6:C:981:ARG:H     | 2.31                     | 0.41              |
| 6:C:1238:GLN:NE2  | 6:C:1297:PHE:O    | 2.53                     | 0.41              |
| 6:C:1239:PRO:HB2  | 6:C:1243:TYR:CE2  | 2.56                     | 0.41              |
| 6:C:1282:LEU:HB3  | 6:C:1287:GLN:CD   | 2.45                     | 0.41              |
| 6:C:1557:GLU:HA   | 6:C:1561:SER:HB2  | 2.03                     | 0.41              |
| 6:C:1722:PHE:HA   | 6:C:1725:GLN:OE1  | 2.21                     | 0.41              |
| 6:C:2001:LYS:CD   | 6:C:2002:LYS:HE2  | 2.50                     | 0.41              |
| 6:C:2144:LEU:HA   | 6:C:2144:LEU:HD23 | 1.66                     | 0.41              |
| 6:C:2194:LEU:C    | 6:C:2196:TRP:N    | 2.78                     | 0.41              |
| 6:C:2216:LEU:O    | 6:C:2220:MET:HG3  | 2.20                     | 0.41              |
| 6:C:2323:LEU:HA   | 6:C:2326:ILE:HB   | 2.00                     | 0.41              |
| 6:C:2379:MET:CA   | 6:C:2382:VAL:HG22 | 2.47                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2424:MET:CG   | 6:C:2436:LEU:HD22 | 2.51                     | 0.41              |
| 6:C:2481:HIS:CD2  | 6:C:2485:ARG:NH1  | 2.88                     | 0.41              |
| 6:C:2853:PRO:HA   | 6:C:2856:SER:CB   | 2.49                     | 0.41              |
| 6:C:3005:LEU:C    | 6:C:3046:ARG:HH21 | 2.28                     | 0.41              |
| 6:C:3010:SER:O    | 6:C:3014:CYS:HB2  | 2.20                     | 0.41              |
| 6:C:3062:LEU:HD12 | 6:C:3065:ILE:CG2  | 2.50                     | 0.41              |
| 6:C:3166:ASN:O    | 6:C:3186:ARG:NH2  | 2.34                     | 0.41              |
| 6:C:3173:MET:CG   | 6:C:3174:ASP:N    | 2.83                     | 0.41              |
| 6:C:3191:SER:OG   | 6:C:3192:LYS:N    | 2.54                     | 0.41              |
| 6:C:3246:ALA:O    | 6:C:3249:GLN:N    | 2.53                     | 0.41              |
| 6:C:3250:ASN:OD1  | 6:C:3285:HIS:NE2  | 2.54                     | 0.41              |
| 6:C:3264:LYS:HE2  | 6:C:3264:LYS:HB3  | 1.86                     | 0.41              |
| 6:C:3339:ASN:CA   | 6:C:3342:SER:HB2  | 2.50                     | 0.41              |
| 6:C:3386:SER:HA   | 6:C:3419:PHE:CE2  | 2.55                     | 0.41              |
| 6:C:3447:VAL:HA   | 6:C:3465:PHE:CE1  | 2.55                     | 0.41              |
| 6:C:3463:LEU:HD23 | 6:C:3463:LEU:HA   | 1.76                     | 0.41              |
| 6:C:3467:ARG:HH22 | 6:C:4000:ASN:CG   | 2.29                     | 0.41              |
| 6:C:3630:ARG:HA   | 6:C:3686:TRP:NE1  | 2.36                     | 0.41              |
| 6:C:4074:PHE:O    | 6:C:4077:TYR:N    | 2.53                     | 0.41              |
| 6:C:4102:THR:O    | 6:C:4103:GLN:C    | 2.62                     | 0.41              |
| 1:A:70:VAL:HG13   | 1:A:74:LYS:HZ1    | 1.85                     | 0.41              |
| 1:A:72:ILE:O      | 1:A:75:ILE:HB     | 2.21                     | 0.41              |
| 1:A:256:LEU:HD11  | 5:E:38:DA:N3      | 2.36                     | 0.41              |
| 1:A:263:LEU:HD21  | 1:A:381:LEU:HD21  | 2.02                     | 0.41              |
| 1:A:470:ARG:NE    | 2:B:347:LYS:HG3   | 2.36                     | 0.41              |
| 1:A:525:PHE:HA    | 1:A:528:LEU:HD12  | 2.02                     | 0.41              |
| 2:B:133:GLU:HB2   | 2:B:135:PHE:CZ    | 2.56                     | 0.41              |
| 2:B:262:ALA:HB3   | 2:B:365:PHE:O     | 2.20                     | 0.41              |
| 2:B:400:ARG:HG2   | 4:D:10:DG:H1'     | 2.02                     | 0.41              |
| 2:B:519:PRO:HB2   | 2:B:521:GLU:CD    | 2.45                     | 0.41              |
| 4:D:9:DG:C6       | 5:E:27:DC:C4      | 3.08                     | 0.41              |
| 5:E:19:DC:H1'     | 5:E:20:DT:H1'     | 2.02                     | 0.41              |
| 5:E:23:DT:C2      | 5:E:24:DG:C8      | 3.09                     | 0.41              |
| 6:C:66:LEU:HA     | 6:C:69:VAL:HB     | 2.03                     | 0.41              |
| 6:C:151:GLU:O     | 6:C:155:LYS:HG3   | 2.21                     | 0.41              |
| 6:C:173:LYS:HA    | 6:C:176:GLU:CB    | 2.31                     | 0.41              |
| 6:C:321:LYS:HE3   | 6:C:325:ASN:ND2   | 2.36                     | 0.41              |
| 6:C:325:ASN:O     | 6:C:329:LYS:HG3   | 2.21                     | 0.41              |
| 6:C:376:ILE:HA    | 6:C:379:LYS:O     | 2.20                     | 0.41              |
| 6:C:410:MET:O     | 6:C:411:PRO:C     | 2.64                     | 0.41              |
| 6:C:559:SER:O     | 6:C:562:HIS:N     | 2.53                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:850:GLU:HB3   | 6:C:854:ARG:CZ    | 2.50                     | 0.41              |
| 6:C:908:ASP:OD1   | 6:C:912:PRO:HD2   | 2.20                     | 0.41              |
| 6:C:1115:HIS:HD2  | 6:C:1119:LYS:HG2  | 1.85                     | 0.41              |
| 6:C:1133:HIS:CD2  | 6:C:1136:ARG:HH22 | 2.37                     | 0.41              |
| 6:C:1216:GLY:HA2  | 6:C:1219:PHE:HD2  | 1.85                     | 0.41              |
| 6:C:1498:GLN:O    | 6:C:1501:PRO:HD2  | 2.20                     | 0.41              |
| 6:C:1713:VAL:HA   | 6:C:1716:GLN:OE1  | 2.21                     | 0.41              |
| 6:C:1735:ARG:O    | 6:C:1736:PHE:HB2  | 2.21                     | 0.41              |
| 6:C:1985:LYS:HD2  | 6:C:2037:SER:HA   | 2.03                     | 0.41              |
| 6:C:2000:ARG:HD3  | 6:C:2051:SER:HA   | 2.03                     | 0.41              |
| 6:C:2094:MET:O    | 6:C:2095:ALA:C    | 2.64                     | 0.41              |
| 6:C:2148:LYS:NZ   | 6:C:2192:THR:HG21 | 2.36                     | 0.41              |
| 6:C:2938:VAL:O    | 6:C:2942:ILE:N    | 2.52                     | 0.41              |
| 6:C:3010:SER:HA   | 6:C:3013:TYR:HB3  | 2.03                     | 0.41              |
| 6:C:3021:SER:HA   | 6:C:3024:PRO:HG3  | 2.02                     | 0.41              |
| 6:C:3102:TYR:CD1  | 6:C:3105:ASN:ND2  | 2.89                     | 0.41              |
| 6:C:3293:CYS:O    | 6:C:3335:ARG:NE   | 2.54                     | 0.41              |
| 6:C:3503:VAL:HG21 | 6:C:3535:ILE:HB   | 2.03                     | 0.41              |
| 6:C:3536:SER:O    | 6:C:3540:TYR:N    | 2.53                     | 0.41              |
| 6:C:3581:PRO:CG   | 6:C:3633:ILE:HG12 | 2.51                     | 0.41              |
| 6:C:3723:ASP:OD1  | 6:C:3741:ARG:HG3  | 2.21                     | 0.41              |
| 6:C:3907:SER:O    | 6:C:3909:ALA:N    | 2.54                     | 0.41              |
| 6:C:3923:ARG:NH2  | 6:C:3941:ASP:N    | 2.67                     | 0.41              |
| 6:C:3981:TYR:O    | 6:C:3984:MET:N    | 2.54                     | 0.41              |
| 6:C:4051:LEU:HD13 | 6:C:4060:THR:OG1  | 2.20                     | 0.41              |
| 1:A:194:ARG:HE    | 1:A:222:SER:HA    | 1.84                     | 0.41              |
| 1:A:338:LYS:HE2   | 1:A:339:ARG:HH12  | 1.84                     | 0.41              |
| 1:A:352:PRO:HG2   | 1:A:355:LEU:HD12  | 2.02                     | 0.41              |
| 1:A:363:ARG:N     | 2:B:359:ASN:HA    | 2.35                     | 0.41              |
| 2:B:153:SER:HA    | 2:B:156:LYS:NZ    | 2.35                     | 0.41              |
| 2:B:153:SER:O     | 2:B:156:LYS:HB2   | 2.21                     | 0.41              |
| 2:B:529:PRO:O     | 2:B:533:ILE:HG12  | 2.20                     | 0.41              |
| 4:D:16:DG:H1'     | 4:D:17:DG:C2      | 2.56                     | 0.41              |
| 5:E:46:DT:H2'     | 5:E:47:DT:C5      | 2.54                     | 0.41              |
| 6:C:175:TYR:CE1   | 6:C:200:PHE:CD1   | 3.09                     | 0.41              |
| 6:C:325:ASN:O     | 6:C:328:ALA:HB3   | 2.21                     | 0.41              |
| 6:C:346:TYR:HA    | 6:C:349:ILE:CG1   | 2.50                     | 0.41              |
| 6:C:375:VAL:HG11  | 6:C:379:LYS:HE3   | 2.03                     | 0.41              |
| 6:C:401:ASP:OD1   | 6:C:401:ASP:N     | 2.53                     | 0.41              |
| 6:C:474:VAL:HG23  | 6:C:475:LEU:N     | 2.34                     | 0.41              |
| 6:C:484:HIS:CE1   | 6:C:556:SER:N     | 2.89                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:704:PHE:HA    | 6:C:707:PHE:HB3   | 2.02                     | 0.41              |
| 6:C:719:LYS:HG2   | 6:C:754:MET:HG2   | 2.01                     | 0.41              |
| 6:C:724:GLU:O     | 6:C:728:SER:HB2   | 2.20                     | 0.41              |
| 6:C:789:TYR:HD1   | 6:C:793:LEU:HD12  | 1.84                     | 0.41              |
| 6:C:938:VAL:HG22  | 6:C:962:TYR:CZ    | 2.56                     | 0.41              |
| 6:C:991:LEU:HG    | 6:C:995:PHE:HE2   | 1.85                     | 0.41              |
| 6:C:1157:PHE:O    | 6:C:1160:SER:HB2  | 2.21                     | 0.41              |
| 6:C:1169:VAL:O    | 6:C:1172:LEU:HB2  | 2.21                     | 0.41              |
| 6:C:1471:GLN:O    | 6:C:1475:LEU:HB2  | 2.21                     | 0.41              |
| 6:C:1758:LEU:CB   | 6:C:1761:LEU:HB3  | 2.51                     | 0.41              |
| 6:C:2241:LEU:HG   | 6:C:2241:LEU:H    | 1.40                     | 0.41              |
| 6:C:2243:GLU:C    | 6:C:2246:LYS:NZ   | 2.76                     | 0.41              |
| 6:C:2286:PRO:HB2  | 6:C:2290:PRO:HD3  | 2.03                     | 0.41              |
| 6:C:2289:ASP:C    | 6:C:2291:GLN:H    | 2.29                     | 0.41              |
| 6:C:2363:CYS:O    | 6:C:2367:VAL:HG23 | 2.21                     | 0.41              |
| 6:C:2481:HIS:CG   | 6:C:2506:LEU:HD11 | 2.56                     | 0.41              |
| 6:C:2857:CYS:HA   | 6:C:2860:ASP:OD2  | 2.20                     | 0.41              |
| 6:C:2887:PRO:O    | 6:C:2890:ILE:CB   | 2.53                     | 0.41              |
| 6:C:2927:ALA:O    | 6:C:2931:ARG:HB3  | 2.21                     | 0.41              |
| 6:C:2934:GLY:HA2  | 6:C:2937:ASP:HB2  | 2.02                     | 0.41              |
| 6:C:2948:GLY:HA2  | 6:C:2951:GLN:CD   | 2.45                     | 0.41              |
| 6:C:3077:ILE:O    | 6:C:3081:HIS:CD2  | 2.74                     | 0.41              |
| 6:C:3254:LEU:HA   | 6:C:3257:LYS:HB3  | 2.03                     | 0.41              |
| 6:C:3321:LEU:HD23 | 6:C:3321:LEU:HA   | 1.90                     | 0.41              |
| 6:C:3487:ILE:HD12 | 6:C:3494:GLN:C    | 2.46                     | 0.41              |
| 6:C:3505:LEU:HD12 | 6:C:3509:ASP:CB   | 2.49                     | 0.41              |
| 6:C:3530:VAL:HG13 | 6:C:3531:TYR:H    | 1.85                     | 0.41              |
| 6:C:3531:TYR:C    | 6:C:3533:PHE:N    | 2.78                     | 0.41              |
| 6:C:3568:ILE:HA   | 6:C:3571:PHE:HB3  | 2.02                     | 0.41              |
| 6:C:3613:MET:O    | 6:C:3616:ALA:N    | 2.54                     | 0.41              |
| 6:C:3631:LYS:HA   | 6:C:3631:LYS:HD3  | 1.86                     | 0.41              |
| 6:C:3652:LEU:CD2  | 6:C:3653:ARG:HH12 | 2.34                     | 0.41              |
| 6:C:3923:ARG:NH1  | 6:C:3941:ASP:HB2  | 2.36                     | 0.41              |
| 6:C:3982:SER:O    | 6:C:3986:HIS:ND1  | 2.54                     | 0.41              |
| 6:C:4113:ASP:HA   | 6:C:4114:PRO:HD2  | 1.94                     | 0.41              |
| 1:A:41:LEU:HD22   | 1:A:150:CYS:SG    | 2.61                     | 0.41              |
| 1:A:76:ILE:HG12   | 1:A:487:PHE:CE1   | 2.56                     | 0.41              |
| 1:A:130:ARG:O     | 1:A:134:MET:CB    | 2.66                     | 0.41              |
| 1:A:284:PRO:C     | 2:B:314:PHE:HE1   | 2.29                     | 0.41              |
| 1:A:488:ARG:HD3   | 1:A:491:GLU:CD    | 2.46                     | 0.41              |
| 1:A:523:ASP:O     | 1:A:524:GLU:C     | 2.63                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:99:GLN:HG2    | 2:B:101:GLY:H     | 1.86                     | 0.41              |
| 2:B:134:ILE:HB    | 2:B:163:PHE:CE1   | 2.55                     | 0.41              |
| 2:B:251:LEU:HD11  | 2:B:342:VAL:CG2   | 2.44                     | 0.41              |
| 4:D:15:DG:C2      | 4:D:16:DG:N1      | 2.89                     | 0.41              |
| 5:E:35:DC:N3      | 5:E:36:DA:C5      | 2.89                     | 0.41              |
| 5:E:44:DA:C2'     | 5:E:45:DG:O4'     | 2.68                     | 0.41              |
| 6:C:300:TRP:CZ3   | 6:C:301:CYS:HB2   | 2.55                     | 0.41              |
| 6:C:435:LEU:HD11  | 6:C:475:LEU:CD2   | 2.50                     | 0.41              |
| 6:C:437:HIS:ND1   | 6:C:1812:LEU:HA   | 2.36                     | 0.41              |
| 6:C:579:LEU:HB2   | 6:C:601:TRP:HH2   | 1.85                     | 0.41              |
| 6:C:1002:GLU:HA   | 6:C:1005:ASP:HB2  | 2.02                     | 0.41              |
| 6:C:1013:ILE:HB   | 6:C:1028:PHE:CD1  | 2.56                     | 0.41              |
| 6:C:1025:LEU:H    | 6:C:1025:LEU:HG   | 1.46                     | 0.41              |
| 6:C:1141:LYS:HA   | 6:C:1146:ASN:HD22 | 1.86                     | 0.41              |
| 6:C:1282:LEU:O    | 6:C:1287:GLN:HB2  | 2.20                     | 0.41              |
| 6:C:1904:CYS:O    | 6:C:1905:ILE:C    | 2.63                     | 0.41              |
| 6:C:2117:SER:CB   | 6:C:2158:ARG:H    | 2.27                     | 0.41              |
| 6:C:2146:LEU:HB3  | 6:C:2149:LEU:HD12 | 2.02                     | 0.41              |
| 6:C:2185:MET:HG2  | 6:C:2189:ILE:HG13 | 2.03                     | 0.41              |
| 6:C:2341:LEU:O    | 6:C:2345:VAL:HG23 | 2.21                     | 0.41              |
| 6:C:2435:CYS:SG   | 6:C:2436:LEU:HG   | 2.61                     | 0.41              |
| 6:C:2452:ARG:HA   | 6:C:2455:LEU:HD12 | 2.03                     | 0.41              |
| 6:C:2507:ILE:HG13 | 6:C:2510:LEU:HB3  | 2.03                     | 0.41              |
| 6:C:2834:GLN:O    | 6:C:2835:LYS:C    | 2.62                     | 0.41              |
| 6:C:2872:ASP:OD1  | 6:C:2877:SER:N    | 2.54                     | 0.41              |
| 6:C:3098:ARG:O    | 6:C:3102:TYR:CD2  | 2.74                     | 0.41              |
| 6:C:3190:LEU:O    | 6:C:3193:ILE:HB   | 2.20                     | 0.41              |
| 6:C:3632:PHE:HE2  | 6:C:3736:LYS:HZ1  | 1.68                     | 0.41              |
| 6:C:3704:GLN:HE21 | 6:C:3802:LEU:HD22 | 1.86                     | 0.41              |
| 6:C:3820:MET:HB3  | 6:C:3829:LEU:HD22 | 2.03                     | 0.41              |
| 6:C:3928:PHE:HA   | 6:C:3938:ILE:O    | 2.21                     | 0.41              |
| 1:A:74:LYS:HD2    | 1:A:79:ASP:HB2    | 2.03                     | 0.41              |
| 1:A:76:ILE:HG23   | 1:A:487:PHE:CE1   | 2.56                     | 0.41              |
| 1:A:90:THR:CG2    | 1:A:137:HIS:HA    | 2.50                     | 0.41              |
| 1:A:112:GLY:O     | 1:A:116:ILE:N     | 2.42                     | 0.41              |
| 1:A:189:LYS:O     | 1:A:192:ASP:HB2   | 2.20                     | 0.41              |
| 1:A:254:ARG:NH1   | 1:A:275:ASN:OD1   | 2.42                     | 0.41              |
| 1:A:277:VAL:HB    | 2:B:429:ASP:O     | 2.21                     | 0.41              |
| 2:B:76:ASN:HD22   | 2:B:104:GLN:C     | 2.29                     | 0.41              |
| 2:B:246:HIS:HE1   | 2:B:248:PRO:HA    | 1.86                     | 0.41              |
| 2:B:262:ALA:HB1   | 2:B:264:TYR:CZ    | 2.56                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:333:TYR:CG    | 2:B:334:LYS:N     | 2.89                     | 0.41              |
| 2:B:521:GLU:HG2   | 2:B:522:VAL:N     | 2.34                     | 0.41              |
| 4:D:15:DG:N2      | 4:D:16:DG:H1      | 2.19                     | 0.41              |
| 5:E:30:DA:C6      | 5:E:31:DA:C5      | 3.08                     | 0.41              |
| 5:E:31:DA:C6      | 5:E:32:DT:C4      | 3.09                     | 0.41              |
| 6:C:78:PHE:HD1    | 6:C:81:CYS:HG     | 1.66                     | 0.41              |
| 6:C:138:PHE:O     | 6:C:142:ARG:HG3   | 2.21                     | 0.41              |
| 6:C:178:LEU:HD23  | 6:C:178:LEU:HA    | 1.87                     | 0.41              |
| 6:C:322:GLN:O     | 6:C:323:VAL:C     | 2.64                     | 0.41              |
| 6:C:450:SER:O     | 6:C:454:GLN:HG3   | 2.21                     | 0.41              |
| 6:C:468:LEU:O     | 6:C:471:LYS:HB3   | 2.20                     | 0.41              |
| 6:C:557:SER:HA    | 6:C:616:LYS:HZ2   | 1.86                     | 0.41              |
| 6:C:631:ARG:NH2   | 6:C:668:LYS:HD3   | 2.35                     | 0.41              |
| 6:C:769:GLY:O     | 6:C:770:LEU:C     | 2.63                     | 0.41              |
| 6:C:955:ALA:O     | 6:C:956:PRO:C     | 2.64                     | 0.41              |
| 6:C:1066:LEU:O    | 6:C:1075:ARG:NH2  | 2.48                     | 0.41              |
| 6:C:1104:LEU:HG   | 6:C:1108:MET:HE3  | 2.02                     | 0.41              |
| 6:C:1134:LEU:O    | 6:C:1138:ILE:HD12 | 2.20                     | 0.41              |
| 6:C:1170:LYS:HA   | 6:C:1267:TYR:CZ   | 2.55                     | 0.41              |
| 6:C:1238:GLN:HE22 | 6:C:1297:PHE:HB3  | 1.85                     | 0.41              |
| 6:C:1358:LEU:HD22 | 6:C:1361:LYS:CE   | 2.48                     | 0.41              |
| 6:C:1386:ILE:O    | 6:C:1389:VAL:HG22 | 2.20                     | 0.41              |
| 6:C:1572:LEU:HD21 | 6:C:1603:GLN:HE21 | 1.86                     | 0.41              |
| 6:C:1632:TRP:CD1  | 6:C:1635:LYS:NZ   | 2.89                     | 0.41              |
| 6:C:1744:LYS:HD3  | 6:C:1883:ARG:NH2  | 2.33                     | 0.41              |
| 6:C:1894:SER:HB2  | 6:C:1896:ILE:HG12 | 2.03                     | 0.41              |
| 6:C:1916:ILE:HA   | 6:C:1919:CYS:HB2  | 2.03                     | 0.41              |
| 6:C:2049:VAL:O    | 6:C:2052:TYR:HB2  | 2.21                     | 0.41              |
| 6:C:2077:HIS:ND1  | 6:C:2138:VAL:HB   | 2.36                     | 0.41              |
| 6:C:2132:LYS:HB3  | 6:C:2132:LYS:HE2  | 1.87                     | 0.41              |
| 6:C:2148:LYS:HG2  | 6:C:2156:VAL:HG11 | 2.01                     | 0.41              |
| 6:C:2156:VAL:HG23 | 6:C:2160:TYR:CE1  | 2.55                     | 0.41              |
| 6:C:2368:THR:O    | 6:C:2371:PHE:HB3  | 2.21                     | 0.41              |
| 6:C:2388:LYS:O    | 6:C:2391:GLY:N    | 2.54                     | 0.41              |
| 6:C:2423:VAL:O    | 6:C:2426:HIS:N    | 2.25                     | 0.41              |
| 6:C:2457:PRO:HA   | 6:C:2460:GLU:HB2  | 2.03                     | 0.41              |
| 6:C:2870:SER:C    | 6:C:2872:ASP:N    | 2.76                     | 0.41              |
| 6:C:2892:LEU:O    | 6:C:2893:LEU:C    | 2.63                     | 0.41              |
| 6:C:2917:PRO:HB2  | 6:C:2918:PRO:CD   | 2.51                     | 0.41              |
| 6:C:2931:ARG:HB3  | 6:C:2931:ARG:CZ   | 2.50                     | 0.41              |
| 6:C:3004:HIS:CE1  | 6:C:3043:TYR:CD1  | 3.07                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:3125:ARG:O    | 6:C:3126:LEU:C    | 2.64                     | 0.41              |
| 6:C:3141:PHE:HZ   | 6:C:3192:LYS:HB3  | 1.85                     | 0.41              |
| 6:C:3166:ASN:CB   | 6:C:3186:ARG:HH12 | 2.32                     | 0.41              |
| 6:C:3309:GLU:OE2  | 6:C:3318:LYS:HA   | 2.21                     | 0.41              |
| 6:C:3357:ARG:HH11 | 6:C:3380:ARG:HH22 | 1.69                     | 0.41              |
| 6:C:3390:GLN:O    | 6:C:3393:GLU:HB3  | 2.21                     | 0.41              |
| 6:C:3487:ILE:HG21 | 6:C:3495:PHE:CB   | 2.51                     | 0.41              |
| 6:C:3525:TYR:OH   | 6:C:3562:LEU:HD22 | 2.21                     | 0.41              |
| 6:C:3630:ARG:HG2  | 6:C:3686:TRP:CZ3  | 2.56                     | 0.41              |
| 6:C:3760:GLN:CD   | 6:C:4019:LYS:HE2  | 2.46                     | 0.41              |
| 6:C:3853:GLY:HA2  | 6:C:3856:MET:HE2  | 2.02                     | 0.41              |
| 6:C:3873:LYS:O    | 6:C:3877:LYS:HG2  | 2.21                     | 0.41              |
| 6:C:3875:GLU:HG2  | 6:C:4127:TRP:O    | 2.21                     | 0.41              |
| 6:C:4073:ALA:CB   | 6:C:4119:ARG:HH22 | 2.33                     | 0.41              |
| 6:C:4100:GLU:O    | 6:C:4103:GLN:N    | 2.54                     | 0.41              |
| 1:A:151:ALA:O     | 1:A:154:PHE:HB3   | 2.20                     | 0.41              |
| 1:A:206:LYS:NZ    | 1:A:208:PRO:HA    | 2.36                     | 0.41              |
| 1:A:332:GLU:O     | 1:A:333:GLU:C     | 2.63                     | 0.41              |
| 1:A:388:LYS:O     | 1:A:391:GLU:HB2   | 2.21                     | 0.41              |
| 1:A:404:ARG:HD2   | 5:E:36:DA:P       | 2.61                     | 0.41              |
| 1:A:416:GLN:HA    | 1:A:433:GLN:NE2   | 2.34                     | 0.41              |
| 1:A:454:ALA:HB2   | 2:B:375:VAL:O     | 2.21                     | 0.41              |
| 1:A:529:VAL:HG23  | 1:A:530:TYR:HD2   | 1.84                     | 0.41              |
| 2:B:223:GLU:HA    | 2:B:225:TYR:CE2   | 2.56                     | 0.41              |
| 2:B:324:SER:H     | 2:B:327:ASP:CG    | 2.29                     | 0.41              |
| 5:E:26:DC:O3'     | 5:E:27:DC:H6      | 2.04                     | 0.41              |
| 5:E:46:DT:C2'     | 5:E:47:DT:H71     | 2.51                     | 0.41              |
| 6:C:115:TYR:OH    | 6:C:177:LEU:HD11  | 2.21                     | 0.41              |
| 6:C:139:ARG:HA    | 6:C:142:ARG:NE    | 2.34                     | 0.41              |
| 6:C:222:GLY:O     | 6:C:225:LYS:HB3   | 2.21                     | 0.41              |
| 6:C:282:PHE:CD1   | 6:C:283:SER:N     | 2.89                     | 0.41              |
| 6:C:381:VAL:O     | 6:C:384:MET:HB2   | 2.21                     | 0.41              |
| 6:C:530:LEU:H     | 6:C:530:LEU:HD12  | 1.86                     | 0.41              |
| 6:C:614:PRO:O     | 6:C:615:ALA:C     | 2.64                     | 0.41              |
| 6:C:620:PHE:O     | 6:C:621:SER:C     | 2.64                     | 0.41              |
| 6:C:750:PRO:HA    | 6:C:753:GLN:CB    | 2.44                     | 0.41              |
| 6:C:913:ARG:CZ    | 6:C:929:ALA:O     | 2.69                     | 0.41              |
| 6:C:1059:LEU:O    | 6:C:1062:ARG:HG2  | 2.21                     | 0.41              |
| 6:C:1358:LEU:O    | 6:C:1361:LYS:HB3  | 2.20                     | 0.41              |
| 6:C:1362:ASP:O    | 6:C:1365:ASN:ND2  | 2.54                     | 0.41              |
| 6:C:1630:ASP:HA   | 6:C:1633:TRP:CZ3  | 2.55                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:2235:LEU:O    | 6:C:2235:LEU:HD12 | 2.21                     | 0.41              |
| 6:C:2348:GLN:HG2  | 6:C:2352:HIS:HE1  | 1.80                     | 0.41              |
| 6:C:2362:VAL:HG23 | 6:C:2363:CYS:N    | 2.36                     | 0.41              |
| 6:C:2412:TYR:OH   | 6:C:2415:LEU:C    | 2.64                     | 0.41              |
| 6:C:2470:ARG:HB3  | 6:C:2474:TYR:CD2  | 2.56                     | 0.41              |
| 6:C:2540:LEU:O    | 6:C:2543:ASN:ND2  | 2.40                     | 0.41              |
| 6:C:2832:ILE:O    | 6:C:2833:THR:C    | 2.63                     | 0.41              |
| 6:C:2863:CYS:C    | 6:C:2868:LEU:HD21 | 2.46                     | 0.41              |
| 6:C:2866:ALA:C    | 6:C:2868:LEU:H    | 2.28                     | 0.41              |
| 6:C:2889:GLY:O    | 6:C:2890:ILE:C    | 2.64                     | 0.41              |
| 6:C:3040:TYR:O    | 6:C:3041:LEU:C    | 2.64                     | 0.41              |
| 6:C:3072:GLU:HA   | 6:C:3079:GLU:OE1  | 2.21                     | 0.41              |
| 6:C:3159:ARG:C    | 6:C:3161:LEU:N    | 2.77                     | 0.41              |
| 6:C:3183:ILE:HD11 | 6:C:3238:MET:HE3  | 2.02                     | 0.41              |
| 6:C:3307:LEU:HD11 | 6:C:3311:ASN:OD1  | 2.21                     | 0.41              |
| 6:C:3610:TYR:HE2  | 6:C:3655:LYS:HE3  | 1.86                     | 0.41              |
| 6:C:3747:GLU:N    | 6:C:3747:GLU:OE1  | 2.54                     | 0.41              |
| 6:C:3793:VAL:HA   | 6:C:3803:ILE:HA   | 2.02                     | 0.41              |
| 6:C:3875:GLU:HG2  | 6:C:4128:MET:HA   | 2.03                     | 0.41              |
| 6:C:3876:SER:OG   | 6:C:3965:ARG:HG2  | 2.21                     | 0.41              |
| 1:A:158:GLN:H     | 1:A:158:GLN:CD    | 2.26                     | 0.40              |
| 1:A:220:ILE:HD12  | 1:A:220:ILE:H     | 1.86                     | 0.40              |
| 1:A:392:LYS:HB3   | 1:A:392:LYS:HE2   | 1.88                     | 0.40              |
| 2:B:106:ASP:OD2   | 2:B:143:SER:OG    | 2.23                     | 0.40              |
| 2:B:303:THR:HG1   | 2:B:304:GLU:H     | 1.68                     | 0.40              |
| 2:B:406:GLY:HA2   | 2:B:423:GLN:OE1   | 2.20                     | 0.40              |
| 2:B:505:LEU:HD21  | 2:B:508:ILE:HG23  | 2.03                     | 0.40              |
| 2:B:524:THR:HA    | 2:B:527:GLN:CG    | 2.42                     | 0.40              |
| 5:E:30:DA:C5      | 5:E:31:DA:C5      | 3.09                     | 0.40              |
| 6:C:11:SER:O      | 6:C:15:LEU:CB     | 2.57                     | 0.40              |
| 6:C:66:LEU:O      | 6:C:67:VAL:C      | 2.63                     | 0.40              |
| 6:C:437:HIS:H     | 6:C:1812:LEU:HD22 | 1.87                     | 0.40              |
| 6:C:482:VAL:O     | 6:C:485:GLN:N     | 2.54                     | 0.40              |
| 6:C:486:GLY:O     | 6:C:487:LEU:C     | 2.64                     | 0.40              |
| 6:C:555:SER:O     | 6:C:559:SER:OG    | 2.18                     | 0.40              |
| 6:C:625:ASN:HB3   | 6:C:659:ARG:NH2   | 2.28                     | 0.40              |
| 6:C:637:LYS:HG3   | 6:C:641:PHE:CD2   | 2.56                     | 0.40              |
| 6:C:731:THR:O     | 6:C:734:LEU:CA    | 2.69                     | 0.40              |
| 6:C:766:ALA:HB1   | 6:C:768:VAL:HG23  | 2.01                     | 0.40              |
| 6:C:767:GLU:O     | 6:C:770:LEU:HB2   | 2.21                     | 0.40              |
| 6:C:886:TRP:CE3   | 6:C:954:GLY:HA3   | 2.56                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:944:LYS:NZ    | 6:C:2576:MET:SD   | 2.93                     | 0.40              |
| 6:C:960:GLN:O     | 6:C:963:LYS:HB2   | 2.21                     | 0.40              |
| 6:C:1154:PRO:O    | 6:C:1158:PRO:HD2  | 2.21                     | 0.40              |
| 6:C:1875:LYS:HD2  | 6:C:1903:SER:CA   | 2.47                     | 0.40              |
| 6:C:2073:ASP:O    | 6:C:2076:VAL:HG22 | 2.20                     | 0.40              |
| 6:C:2108:LEU:HD21 | 6:C:2120:ARG:HD3  | 2.03                     | 0.40              |
| 6:C:2174:SER:HB2  | 6:C:2177:ASN:CG   | 2.47                     | 0.40              |
| 6:C:2401:VAL:O    | 6:C:2405:VAL:HG22 | 2.21                     | 0.40              |
| 6:C:2484:TYR:CE1  | 6:C:2498:ILE:HG21 | 2.56                     | 0.40              |
| 6:C:2515:PRO:HD2  | 6:C:2518:GLN:CD   | 2.46                     | 0.40              |
| 6:C:2569:SER:O    | 6:C:2573:PRO:HG3  | 2.21                     | 0.40              |
| 6:C:2826:LEU:HA   | 6:C:2826:LEU:HD23 | 1.93                     | 0.40              |
| 6:C:2901:LEU:O    | 6:C:2903:ALA:N    | 2.54                     | 0.40              |
| 6:C:2915:ARG:HB3  | 6:C:2938:VAL:HG21 | 2.03                     | 0.40              |
| 6:C:3052:LEU:HG   | 6:C:3092:LEU:CD1  | 2.51                     | 0.40              |
| 6:C:3066:ASP:O    | 6:C:3069:MET:HB2  | 2.21                     | 0.40              |
| 6:C:3084:GLN:HB3  | 6:C:3087:SER:HB2  | 2.02                     | 0.40              |
| 6:C:3276:TRP:O    | 6:C:3277:VAL:C    | 2.63                     | 0.40              |
| 6:C:3410:ILE:O    | 6:C:3414:MET:HB2  | 2.21                     | 0.40              |
| 6:C:3459:ASN:HB3  | 6:C:3462:ARG:NE   | 2.35                     | 0.40              |
| 6:C:3687:MET:O    | 6:C:3689:ASP:O    | 2.40                     | 0.40              |
| 6:C:4058:VAL:HG12 | 6:C:4061:CYS:HB2  | 2.03                     | 0.40              |
| 1:A:49:PHE:CE1    | 1:A:137:HIS:CD2   | 3.09                     | 0.40              |
| 1:A:254:ARG:CZ    | 4:D:0:DT:O3'      | 2.69                     | 0.40              |
| 1:A:279:LYS:HB3   | 2:B:357:MET:HE1   | 2.03                     | 0.40              |
| 1:A:317:LYS:HD2   | 1:A:328:ILE:CG1   | 2.48                     | 0.40              |
| 1:A:351:LYS:H     | 1:A:395:ALA:H     | 1.67                     | 0.40              |
| 1:A:506:LEU:HD23  | 1:A:506:LEU:HA    | 1.89                     | 0.40              |
| 2:B:270:GLU:CG    | 2:B:271:ARG:N     | 2.84                     | 0.40              |
| 2:B:310:ILE:HG13  | 2:B:311:ILE:O     | 2.22                     | 0.40              |
| 2:B:327:ASP:HA    | 2:B:330:GLN:HE21  | 1.86                     | 0.40              |
| 3:K:12:ALA:O      | 3:K:15:ALA:HB3    | 2.21                     | 0.40              |
| 4:D:-5:DT:H2'     | 4:D:-4:DA:O4'     | 2.21                     | 0.40              |
| 4:D:4:DA:C2       | 5:E:33:DA:N3      | 2.89                     | 0.40              |
| 4:D:6:DT:C4       | 4:D:7:DA:N6       | 2.89                     | 0.40              |
| 4:D:11:DC:H2'     | 4:D:12:DC:C6      | 2.57                     | 0.40              |
| 5:E:20:DT:H6      | 5:E:20:DT:H2'     | 1.64                     | 0.40              |
| 6:C:62:ASP:HA     | 6:C:65:LEU:HD12   | 2.03                     | 0.40              |
| 6:C:73:LEU:HB3    | 6:C:78:PHE:HD2    | 1.86                     | 0.40              |
| 6:C:204:LEU:CD1   | 6:C:223:CYS:HB2   | 2.51                     | 0.40              |
| 6:C:481:THR:OG1   | 6:C:555:SER:HB3   | 2.22                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:575:ILE:HG13  | 6:C:578:LYS:CE    | 2.52                     | 0.40              |
| 6:C:612:LEU:C     | 6:C:615:ALA:H     | 2.28                     | 0.40              |
| 6:C:657:SER:O     | 6:C:660:LEU:N     | 2.54                     | 0.40              |
| 6:C:701:TYR:CD1   | 6:C:704:PHE:HE2   | 2.39                     | 0.40              |
| 6:C:789:TYR:HA    | 6:C:792:ILE:CB    | 2.48                     | 0.40              |
| 6:C:985:GLU:HB2   | 6:C:986:PRO:HD3   | 2.04                     | 0.40              |
| 6:C:1002:GLU:HA   | 6:C:1005:ASP:CG   | 2.46                     | 0.40              |
| 6:C:1010:LEU:O    | 6:C:1013:ILE:HB   | 2.21                     | 0.40              |
| 6:C:1132:ASP:O    | 6:C:1171:TRP:CZ2  | 2.74                     | 0.40              |
| 6:C:1163:LEU:HA   | 6:C:1256:TRP:CG   | 2.56                     | 0.40              |
| 6:C:1752:LEU:HD22 | 6:C:1757:MET:SD   | 2.61                     | 0.40              |
| 6:C:1876:ILE:HA   | 6:C:1907:GLU:HG3  | 2.02                     | 0.40              |
| 6:C:2104:MET:O    | 6:C:2107:SER:HB2  | 2.21                     | 0.40              |
| 6:C:2186:VAL:O    | 6:C:2187:VAL:C    | 2.65                     | 0.40              |
| 6:C:2253:TYR:C    | 6:C:2255:LEU:N    | 2.78                     | 0.40              |
| 6:C:2282:ALA:HB2  | 6:C:2321:GLU:OE2  | 2.21                     | 0.40              |
| 6:C:2306:ASN:O    | 6:C:2307:MET:C    | 2.64                     | 0.40              |
| 6:C:2313:LYS:H    | 6:C:2313:LYS:HG2  | 1.58                     | 0.40              |
| 6:C:2326:ILE:HG21 | 6:C:2326:ILE:HD13 | 1.73                     | 0.40              |
| 6:C:2387:PRO:HD3  | 6:C:2404:ARG:NH1  | 2.35                     | 0.40              |
| 6:C:2397:CYS:HB3  | 6:C:2432:GLN:HE22 | 1.87                     | 0.40              |
| 6:C:2446:LEU:CB   | 6:C:2451:LEU:HD12 | 2.49                     | 0.40              |
| 6:C:2482:ASP:HA   | 6:C:2485:ARG:HH21 | 1.86                     | 0.40              |
| 6:C:2814:SER:O    | 6:C:2818:LYS:HB3  | 2.22                     | 0.40              |
| 6:C:2962:ARG:HH21 | 6:C:3254:LEU:CG   | 2.30                     | 0.40              |
| 6:C:3143:SER:O    | 6:C:3146:SER:HB2  | 2.22                     | 0.40              |
| 6:C:3256:MET:HG3  | 6:C:3260:LYS:NZ   | 2.36                     | 0.40              |
| 6:C:3280:TYR:HD2  | 6:C:3324:ARG:HD2  | 1.85                     | 0.40              |
| 6:C:3301:LEU:HD12 | 6:C:3304:VAL:HB   | 2.03                     | 0.40              |
| 6:C:3774:ILE:HA   | 6:C:3777:GLN:CD   | 2.46                     | 0.40              |
| 6:C:4021:LEU:HB2  | 6:C:4031:ILE:HD13 | 2.03                     | 0.40              |
| 1:A:47:ALA:HA     | 1:A:50:GLU:CD     | 2.45                     | 0.40              |
| 1:A:317:LYS:HG3   | 1:A:330:GLU:OE1   | 2.21                     | 0.40              |
| 1:A:317:LYS:HD3   | 1:A:329:LEU:CA    | 2.51                     | 0.40              |
| 1:A:358:LYS:O     | 2:B:411:HIS:CE1   | 2.75                     | 0.40              |
| 1:A:376:ILE:HD12  | 2:B:444:TYR:CE1   | 2.56                     | 0.40              |
| 1:A:379:SER:OG    | 1:A:380:THR:N     | 2.54                     | 0.40              |
| 2:B:73:GLN:C      | 2:B:75:GLN:N      | 2.79                     | 0.40              |
| 2:B:225:TYR:HE1   | 2:B:233:LYS:HE3   | 1.86                     | 0.40              |
| 2:B:228:SER:OG    | 2:B:232:ARG:NH2   | 2.54                     | 0.40              |
| 2:B:315:ARG:HG3   | 2:B:319:ASP:C     | 2.47                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:B:407:VAL:H     | 2:B:424:LEU:H     | 1.69                     | 0.40              |
| 5:E:38:DA:C4      | 5:E:39:DA:C2      | 3.10                     | 0.40              |
| 6:C:15:LEU:CB     | 6:C:38:LEU:HD11   | 2.51                     | 0.40              |
| 6:C:172:GLU:HG3   | 6:C:173:LYS:N     | 2.37                     | 0.40              |
| 6:C:265:TYR:CZ    | 6:C:304:THR:HG21  | 2.57                     | 0.40              |
| 6:C:473:PRO:HA    | 6:C:476:ARG:CZ    | 2.52                     | 0.40              |
| 6:C:656:GLN:O     | 6:C:657:SER:C     | 2.64                     | 0.40              |
| 6:C:1082:PHE:CE1  | 6:C:1086:TYR:HE2  | 2.39                     | 0.40              |
| 6:C:1468:LEU:HD23 | 6:C:1471:GLN:OE1  | 2.21                     | 0.40              |
| 6:C:1938:ARG:HB3  | 6:C:1990:PHE:CD1  | 2.56                     | 0.40              |
| 6:C:1958:GLU:OE1  | 6:C:1961:PHE:HB3  | 2.22                     | 0.40              |
| 6:C:2214:ARG:HA   | 6:C:2217:ASN:ND2  | 2.35                     | 0.40              |
| 6:C:2345:VAL:HA   | 6:C:2348:GLN:OE1  | 2.21                     | 0.40              |
| 6:C:2349:LEU:O    | 6:C:2350:LYS:C    | 2.64                     | 0.40              |
| 6:C:2472:GLN:CD   | 6:C:2475:ASN:HD22 | 2.23                     | 0.40              |
| 6:C:2512:ASP:CB   | 6:C:2518:GLN:HB2  | 2.52                     | 0.40              |
| 6:C:3044:MET:HA   | 6:C:3047:SER:CB   | 2.51                     | 0.40              |
| 6:C:3122:HIS:C    | 6:C:3125:ARG:H    | 2.29                     | 0.40              |
| 6:C:3322:ALA:C    | 6:C:3392:ALA:HB1  | 2.46                     | 0.40              |
| 6:C:3326:GLN:HE22 | 6:C:3393:GLU:HB2  | 1.86                     | 0.40              |
| 6:C:3329:LEU:O    | 6:C:3333:THR:CB   | 2.70                     | 0.40              |
| 6:C:3464:LYS:HA   | 6:C:3467:ARG:NH2  | 2.36                     | 0.40              |
| 6:C:3630:ARG:HG2  | 6:C:3686:TRP:CH2  | 2.56                     | 0.40              |
| 6:C:3720:ALA:HB2  | 6:C:3743:HIS:HB2  | 2.02                     | 0.40              |
| 6:C:3723:ASP:HB2  | 6:C:3739:ILE:HG21 | 2.04                     | 0.40              |
| 6:C:3779:SER:O    | 6:C:3782:SER:N    | 2.54                     | 0.40              |
| 6:C:3841:ASP:C    | 6:C:3845:LYS:HZ3  | 2.30                     | 0.40              |
| 6:C:3863:ASN:HA   | 6:C:3866:GLU:CG   | 2.51                     | 0.40              |
| 1:A:35:ARG:HG3    | 1:A:80:ARG:CZ     | 2.51                     | 0.40              |
| 1:A:144:SER:HB3   | 1:A:189:LYS:HB3   | 2.03                     | 0.40              |
| 1:A:355:LEU:HD23  | 1:A:355:LEU:O     | 2.22                     | 0.40              |
| 1:A:451:LYS:HE2   | 1:A:453:MET:SD    | 2.61                     | 0.40              |
| 1:A:471:PHE:CE1   | 1:A:473:TYR:HD1   | 2.36                     | 0.40              |
| 2:B:247:TRP:CZ2   | 2:B:398:ASP:HB2   | 2.57                     | 0.40              |
| 2:B:315:ARG:HA    | 2:B:319:ASP:O     | 2.21                     | 0.40              |
| 2:B:491:PHE:CD1   | 2:B:494:LEU:HD12  | 2.52                     | 0.40              |
| 6:C:207:GLN:HG3   | 6:C:215:PRO:CB    | 2.52                     | 0.40              |
| 6:C:290:TYR:O     | 6:C:291:VAL:C     | 2.65                     | 0.40              |
| 6:C:530:LEU:HD12  | 6:C:530:LEU:N     | 2.37                     | 0.40              |
| 6:C:576:VAL:HG11  | 6:C:600:VAL:HB    | 2.03                     | 0.40              |
| 6:C:660:LEU:N     | 6:C:661:PRO:HD2   | 2.37                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:745:VAL:HA    | 6:C:748:TYR:CE2   | 2.57                     | 0.40              |
| 6:C:785:MET:HG2   | 6:C:789:TYR:H     | 1.86                     | 0.40              |
| 6:C:937:MET:HB3   | 6:C:962:TYR:OH    | 2.21                     | 0.40              |
| 6:C:1034:ARG:HH12 | 6:C:1038:LYS:CB   | 2.33                     | 0.40              |
| 6:C:1871:MET:O    | 6:C:1875:LYS:HB3  | 2.20                     | 0.40              |
| 6:C:1910:GLU:O    | 6:C:1912:THR:HG23 | 2.20                     | 0.40              |
| 6:C:1937:ARG:O    | 6:C:1941:HIS:HB2  | 2.21                     | 0.40              |
| 6:C:2040:MET:HA   | 6:C:2043:PHE:CE2  | 2.56                     | 0.40              |
| 6:C:2048:GLY:O    | 6:C:2051:SER:OG   | 2.36                     | 0.40              |
| 6:C:2050:GLN:CG   | 6:C:2051:SER:N    | 2.85                     | 0.40              |
| 6:C:2159:PRO:HA   | 6:C:2162:LYS:HB2  | 2.04                     | 0.40              |
| 6:C:2318:ALA:O    | 6:C:2319:ALA:C    | 2.62                     | 0.40              |
| 6:C:2467:THR:HA   | 6:C:2470:ARG:HG2  | 2.03                     | 0.40              |
| 6:C:2473:MET:O    | 6:C:2477:LEU:HG   | 2.22                     | 0.40              |
| 6:C:2502:ALA:O    | 6:C:2503:LYS:C    | 2.65                     | 0.40              |
| 6:C:2545:LEU:C    | 6:C:2548:PRO:HD2  | 2.46                     | 0.40              |
| 6:C:2795:GLN:O    | 6:C:2796:ALA:C    | 2.64                     | 0.40              |
| 6:C:2840:PHE:O    | 6:C:2844:LEU:HG   | 2.21                     | 0.40              |
| 6:C:2853:PRO:HA   | 6:C:2856:SER:OG   | 2.21                     | 0.40              |
| 6:C:2990:GLU:HA   | 6:C:2993:PHE:CD2  | 2.56                     | 0.40              |
| 6:C:3048:LYS:HA   | 6:C:3051:LEU:HD12 | 2.03                     | 0.40              |
| 6:C:3095:ASP:HB3  | 6:C:3098:ARG:NH1  | 2.36                     | 0.40              |
| 6:C:3196:LYS:C    | 6:C:3199:PRO:HD2  | 2.46                     | 0.40              |
| 6:C:3416:LEU:HD12 | 6:C:3419:PHE:HB3  | 2.03                     | 0.40              |
| 6:C:3534:ILE:CG2  | 6:C:3796:MET:HA   | 2.51                     | 0.40              |
| 6:C:3632:PHE:CE2  | 6:C:3683:CYS:HB3  | 2.57                     | 0.40              |
| 6:C:3905:ALA:O    | 6:C:3906:SER:C    | 2.64                     | 0.40              |
| 1:A:85:VAL:O      | 1:A:86:VAL:HG23   | 2.21                     | 0.40              |
| 1:A:121:GLN:HB3   | 1:A:122:PHE:CD1   | 2.56                     | 0.40              |
| 1:A:153:LEU:HA    | 1:A:156:ASP:OD1   | 2.22                     | 0.40              |
| 1:A:499:GLU:OE2   | 1:A:502:GLN:HB2   | 2.21                     | 0.40              |
| 1:A:515:ASN:HD22  | 2:B:256:ASN:ND2   | 2.19                     | 0.40              |
| 2:B:113:VAL:O     | 2:B:117:VAL:HG23  | 2.22                     | 0.40              |
| 2:B:132:ILE:H     | 2:B:159:ILE:HG23  | 1.86                     | 0.40              |
| 2:B:151:ILE:HG21  | 2:B:214:SER:HB3   | 2.02                     | 0.40              |
| 2:B:395:TYR:OH    | 2:B:397:TYR:HD1   | 2.03                     | 0.40              |
| 4:D:6:DT:N3       | 4:D:7:DA:C5       | 2.89                     | 0.40              |
| 5:E:17:DA:H8      | 5:E:18:DG:C5      | 2.40                     | 0.40              |
| 6:C:473:PRO:O     | 6:C:476:ARG:NH1   | 2.54                     | 0.40              |
| 6:C:553:VAL:O     | 6:C:554:ASN:C     | 2.64                     | 0.40              |
| 6:C:709:LYS:O     | 6:C:710:PHE:C     | 2.64                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:C:743:LEU:HD23  | 6:C:783:HIS:CE1   | 2.56                     | 0.40              |
| 6:C:886:TRP:CH2   | 6:C:950:GLU:HG2   | 2.56                     | 0.40              |
| 6:C:1069:HIS:HB3  | 6:C:3741:ARG:NE   | 2.14                     | 0.40              |
| 6:C:1154:PRO:HA   | 6:C:1157:PHE:CG   | 2.56                     | 0.40              |
| 6:C:1514:LEU:HD23 | 6:C:1514:LEU:HA   | 1.80                     | 0.40              |
| 6:C:2396:LEU:O    | 6:C:2400:VAL:CB   | 2.56                     | 0.40              |
| 6:C:2415:LEU:O    | 6:C:2418:LYS:HB2  | 2.22                     | 0.40              |
| 6:C:2795:GLN:HB2  | 6:C:2796:ALA:H    | 1.75                     | 0.40              |
| 6:C:2928:LYS:HD2  | 6:C:2928:LYS:HA   | 1.88                     | 0.40              |
| 6:C:3041:LEU:N    | 6:C:3042:PRO:HD2  | 2.36                     | 0.40              |
| 6:C:3095:ASP:OD1  | 6:C:3095:ASP:N    | 2.51                     | 0.40              |
| 6:C:3173:MET:HG3  | 6:C:3175:PRO:HD2  | 2.03                     | 0.40              |
| 6:C:3231:ILE:HD12 | 6:C:3231:ILE:HA   | 1.78                     | 0.40              |
| 6:C:3243:ILE:O    | 6:C:3278:GLN:NE2  | 2.55                     | 0.40              |
| 6:C:3500:SER:O    | 6:C:3501:HIS:C    | 2.65                     | 0.40              |
| 6:C:3558:ILE:CD1  | 6:C:3561:LYS:HZ2  | 2.35                     | 0.40              |
| 6:C:3718:ARG:HD2  | 6:C:3743:HIS:CE1  | 2.57                     | 0.40              |
| 6:C:3741:ARG:HA   | 6:C:3741:ARG:HD2  | 1.91                     | 0.40              |
| 6:C:3774:ILE:O    | 6:C:3777:GLN:N    | 2.55                     | 0.40              |
| 6:C:3930:VAL:N    | 6:C:3937:VAL:HG12 | 2.36                     | 0.40              |
| 6:C:3962:ARG:NH1  | 6:C:4124:TRP:CD2  | 2.90                     | 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     | 489/501 (98%)   | 411 (84%)  | 74 (15%)  | 4 (1%)   | 16          | 55  |
| 2   | B     | 522/536 (97%)   | 444 (85%)  | 71 (14%)  | 7 (1%)   | 10          | 43  |
| 3   | K     | 13/15 (87%)     | 12 (92%)   | 1 (8%)    | 0        | 100         | 100 |
| 6   | C     | 3608/4119 (88%) | 2742 (76%) | 764 (21%) | 102 (3%) | 4           | 24  |

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| Mol | Chain | Analysed        | Favoured   | Allowed   | Outliers | Percentiles |    |
|-----|-------|-----------------|------------|-----------|----------|-------------|----|
| All | All   | 4632/5171 (90%) | 3609 (78%) | 910 (20%) | 113 (2%) | 7           | 27 |

All (113) Ramachandran outliers are listed below:

| Mol | Chain | Res  | Type |
|-----|-------|------|------|
| 2   | B     | 368  | ARG  |
| 6   | C     | 430  | VAL  |
| 6   | C     | 473  | PRO  |
| 6   | C     | 905  | ILE  |
| 6   | C     | 1977 | ILE  |
| 6   | C     | 2400 | VAL  |
| 6   | C     | 3486 | GLU  |
| 6   | C     | 3690 | PHE  |
| 1   | A     | 406  | ILE  |
| 6   | C     | 76   | ILE  |
| 6   | C     | 442  | GLN  |
| 6   | C     | 1059 | LEU  |
| 6   | C     | 1116 | ALA  |
| 6   | C     | 1136 | ARG  |
| 6   | C     | 2145 | PHE  |
| 6   | C     | 2398 | LEU  |
| 6   | C     | 2795 | GLN  |
| 6   | C     | 4028 | ILE  |
| 1   | A     | 132  | GLN  |
| 1   | A     | 243  | LEU  |
| 2   | B     | 119  | GLN  |
| 6   | C     | 269  | SER  |
| 6   | C     | 300  | TRP  |
| 6   | C     | 416  | SER  |
| 6   | C     | 546  | ALA  |
| 6   | C     | 625  | ASN  |
| 6   | C     | 656  | GLN  |
| 6   | C     | 971  | ARG  |
| 6   | C     | 1076 | LEU  |
| 6   | C     | 1124 | ILE  |
| 6   | C     | 1172 | LEU  |
| 6   | C     | 1576 | ASP  |
| 6   | C     | 1995 | GLU  |
| 6   | C     | 2316 | TYR  |
| 6   | C     | 2471 | GLU  |
| 6   | C     | 2891 | ARG  |
| 6   | C     | 3061 | LEU  |

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| Mol | Chain | Res  | Type |
|-----|-------|------|------|
| 6   | C     | 4005 | PHE  |
| 6   | C     | 130  | LEU  |
| 6   | C     | 332  | GLU  |
| 6   | C     | 619  | ASP  |
| 6   | C     | 638  | GLN  |
| 6   | C     | 892  | LEU  |
| 6   | C     | 949  | PRO  |
| 6   | C     | 960  | GLN  |
| 6   | C     | 965  | THR  |
| 6   | C     | 1011 | GLU  |
| 6   | C     | 1028 | PHE  |
| 6   | C     | 1091 | GLU  |
| 6   | C     | 1442 | GLN  |
| 6   | C     | 1584 | GLN  |
| 6   | C     | 1703 | THR  |
| 6   | C     | 1863 | PHE  |
| 6   | C     | 1873 | TYR  |
| 6   | C     | 2047 | THR  |
| 6   | C     | 2100 | LEU  |
| 6   | C     | 2360 | PHE  |
| 6   | C     | 2540 | LEU  |
| 6   | C     | 2559 | THR  |
| 6   | C     | 2937 | ASP  |
| 6   | C     | 2993 | PHE  |
| 6   | C     | 3131 | SER  |
| 6   | C     | 3133 | GLN  |
| 6   | C     | 3135 | LEU  |
| 6   | C     | 3182 | ILE  |
| 6   | C     | 3415 | THR  |
| 6   | C     | 3420 | CYS  |
| 6   | C     | 3501 | HIS  |
| 6   | C     | 3573 | ASN  |
| 6   | C     | 3814 | ASP  |
| 6   | C     | 3907 | SER  |
| 6   | C     | 3997 | LEU  |
| 6   | C     | 4003 | ASP  |
| 2   | B     | 166  | PRO  |
| 6   | C     | 50   | VAL  |
| 6   | C     | 85   | ILE  |
| 6   | C     | 553  | VAL  |
| 6   | C     | 615  | ALA  |
| 6   | C     | 726  | LEU  |

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| Mol | Chain | Res  | Type |
|-----|-------|------|------|
| 6   | C     | 994  | TRP  |
| 6   | C     | 1111 | LEU  |
| 6   | C     | 2322 | VAL  |
| 6   | C     | 2998 | SER  |
| 6   | C     | 3142 | ILE  |
| 6   | C     | 3345 | PRO  |
| 6   | C     | 3468 | LEU  |
| 6   | C     | 3909 | ALA  |
| 6   | C     | 4076 | ASP  |
| 2   | B     | 279  | VAL  |
| 6   | C     | 69   | VAL  |
| 6   | C     | 635  | PRO  |
| 6   | C     | 1982 | ILE  |
| 6   | C     | 3911 | ILE  |
| 2   | B     | 294  | VAL  |
| 2   | B     | 512  | ILE  |
| 6   | C     | 784  | VAL  |
| 6   | C     | 853  | ILE  |
| 6   | C     | 2280 | VAL  |
| 6   | C     | 2520 | ILE  |
| 6   | C     | 2570 | PRO  |
| 6   | C     | 1045 | THR  |
| 6   | C     | 2137 | ILE  |
| 6   | C     | 2444 | PRO  |
| 6   | C     | 3077 | ILE  |
| 1   | A     | 402  | PRO  |
| 6   | C     | 1105 | VAL  |
| 6   | C     | 2498 | ILE  |
| 6   | C     | 2902 | PRO  |
| 6   | C     | 3692 | VAL  |
| 2   | B     | 533  | ILE  |
| 6   | C     | 768  | VAL  |
| 6   | C     | 3297 | VAL  |
| 6   | C     | 3677 | PRO  |

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

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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     | 448/455 (98%)   | 444 (99%)  | 4 (1%)   | 75          | 83 |
| 2   | B     | 474/481 (98%)   | 473 (100%) | 1 (0%)   | 92          | 94 |
| 6   | C     | 3238/3667 (88%) | 3186 (98%) | 52 (2%)  | 58          | 74 |
| All | All   | 4160/4603 (90%) | 4103 (99%) | 57 (1%)  | 62          | 75 |

All (57) residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res  | Type |
|-----|-------|------|------|
| 1   | A     | 143  | LEU  |
| 1   | A     | 213  | ILE  |
| 1   | A     | 376  | ILE  |
| 1   | A     | 394  | VAL  |
| 2   | B     | 540  | ILE  |
| 6   | C     | 100  | ILE  |
| 6   | C     | 149  | ILE  |
| 6   | C     | 241  | ASP  |
| 6   | C     | 260  | ILE  |
| 6   | C     | 361  | ILE  |
| 6   | C     | 461  | ILE  |
| 6   | C     | 479  | ILE  |
| 6   | C     | 569  | VAL  |
| 6   | C     | 646  | VAL  |
| 6   | C     | 663  | ILE  |
| 6   | C     | 737  | PRO  |
| 6   | C     | 1019 | ASP  |
| 6   | C     | 1033 | ILE  |
| 6   | C     | 1124 | ILE  |
| 6   | C     | 1491 | ILE  |
| 6   | C     | 1551 | ILE  |
| 6   | C     | 1876 | ILE  |
| 6   | C     | 2156 | VAL  |
| 6   | C     | 2203 | THR  |
| 6   | C     | 2235 | LEU  |
| 6   | C     | 2274 | ILE  |
| 6   | C     | 2284 | ASP  |
| 6   | C     | 2326 | ILE  |
| 6   | C     | 2330 | VAL  |
| 6   | C     | 2419 | ASP  |
| 6   | C     | 2439 | ILE  |
| 6   | C     | 2476 | ILE  |
| 6   | C     | 2480 | ILE  |
| 6   | C     | 2504 | ASP  |

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| Mol | Chain | Res  | Type |
|-----|-------|------|------|
| 6   | C     | 2507 | ILE  |
| 6   | C     | 2785 | ILE  |
| 6   | C     | 2808 | LEU  |
| 6   | C     | 2809 | PHE  |
| 6   | C     | 2816 | ILE  |
| 6   | C     | 2919 | ASP  |
| 6   | C     | 2920 | VAL  |
| 6   | C     | 3019 | ILE  |
| 6   | C     | 3045 | ILE  |
| 6   | C     | 3065 | ILE  |
| 6   | C     | 3077 | ILE  |
| 6   | C     | 3120 | LEU  |
| 6   | C     | 3178 | ILE  |
| 6   | C     | 3529 | ILE  |
| 6   | C     | 3534 | ILE  |
| 6   | C     | 3701 | ILE  |
| 6   | C     | 3706 | ASP  |
| 6   | C     | 3719 | ILE  |
| 6   | C     | 3812 | LEU  |
| 6   | C     | 3913 | ILE  |
| 6   | C     | 3940 | ILE  |
| 6   | C     | 4028 | ILE  |
| 6   | C     | 4044 | ILE  |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (107) such sidechains are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | A     | 106 | GLN  |
| 1   | A     | 110 | ASN  |
| 1   | A     | 121 | GLN  |
| 1   | A     | 128 | GLN  |
| 1   | A     | 163 | HIS  |
| 1   | A     | 359 | HIS  |
| 1   | A     | 360 | HIS  |
| 1   | A     | 405 | ASN  |
| 1   | A     | 426 | GLN  |
| 1   | A     | 484 | GLN  |
| 2   | B     | 45  | GLN  |
| 2   | B     | 103 | GLN  |
| 2   | B     | 104 | GLN  |
| 2   | B     | 131 | HIS  |
| 2   | B     | 162 | GLN  |

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| Mol | Chain | Res  | Type |
|-----|-------|------|------|
| 2   | B     | 200  | GLN  |
| 2   | B     | 243  | HIS  |
| 2   | B     | 256  | ASN  |
| 2   | B     | 330  | GLN  |
| 2   | B     | 496  | HIS  |
| 2   | B     | 527  | GLN  |
| 6   | C     | 74   | ASN  |
| 6   | C     | 98   | GLN  |
| 6   | C     | 136  | GLN  |
| 6   | C     | 207  | GLN  |
| 6   | C     | 303  | HIS  |
| 6   | C     | 322  | GLN  |
| 6   | C     | 334  | HIS  |
| 6   | C     | 336  | ASN  |
| 6   | C     | 344  | GLN  |
| 6   | C     | 356  | ASN  |
| 6   | C     | 454  | GLN  |
| 6   | C     | 562  | HIS  |
| 6   | C     | 613  | HIS  |
| 6   | C     | 753  | GLN  |
| 6   | C     | 783  | HIS  |
| 6   | C     | 867  | ASN  |
| 6   | C     | 978  | GLN  |
| 6   | C     | 993  | HIS  |
| 6   | C     | 1069 | HIS  |
| 6   | C     | 1115 | HIS  |
| 6   | C     | 1146 | ASN  |
| 6   | C     | 1231 | GLN  |
| 6   | C     | 1268 | ASN  |
| 6   | C     | 1280 | GLN  |
| 6   | C     | 1374 | GLN  |
| 6   | C     | 1390 | GLN  |
| 6   | C     | 1426 | GLN  |
| 6   | C     | 1435 | ASN  |
| 6   | C     | 1457 | GLN  |
| 6   | C     | 1459 | HIS  |
| 6   | C     | 1552 | HIS  |
| 6   | C     | 1555 | HIS  |
| 6   | C     | 1574 | ASN  |
| 6   | C     | 1589 | ASN  |
| 6   | C     | 1654 | GLN  |
| 6   | C     | 1866 | GLN  |

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| Mol | Chain | Res  | Type |
|-----|-------|------|------|
| 6   | C     | 1897 | ASN  |
| 6   | C     | 1901 | HIS  |
| 6   | C     | 1931 | ASN  |
| 6   | C     | 1957 | ASN  |
| 6   | C     | 1974 | ASN  |
| 6   | C     | 1980 | ASN  |
| 6   | C     | 2042 | GLN  |
| 6   | C     | 2089 | ASN  |
| 6   | C     | 2135 | ASN  |
| 6   | C     | 2163 | HIS  |
| 6   | C     | 2183 | HIS  |
| 6   | C     | 2266 | ASN  |
| 6   | C     | 2295 | GLN  |
| 6   | C     | 2301 | GLN  |
| 6   | C     | 2390 | HIS  |
| 6   | C     | 2432 | GLN  |
| 6   | C     | 2464 | HIS  |
| 6   | C     | 2472 | GLN  |
| 6   | C     | 2475 | ASN  |
| 6   | C     | 2481 | HIS  |
| 6   | C     | 2483 | ASN  |
| 6   | C     | 2514 | ASN  |
| 6   | C     | 2534 | ASN  |
| 6   | C     | 2830 | ASN  |
| 6   | C     | 2834 | GLN  |
| 6   | C     | 2886 | GLN  |
| 6   | C     | 2977 | ASN  |
| 6   | C     | 3003 | ASN  |
| 6   | C     | 3059 | GLN  |
| 6   | C     | 3070 | HIS  |
| 6   | C     | 3112 | GLN  |
| 6   | C     | 3148 | GLN  |
| 6   | C     | 3177 | ASN  |
| 6   | C     | 3263 | HIS  |
| 6   | C     | 3278 | GLN  |
| 6   | C     | 3296 | GLN  |
| 6   | C     | 3501 | HIS  |
| 6   | C     | 3643 | HIS  |
| 6   | C     | 3660 | ASN  |
| 6   | C     | 3664 | ASN  |
| 6   | C     | 3679 | ASN  |
| 6   | C     | 3697 | ASN  |

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| Mol | Chain | Res  | Type |
|-----|-------|------|------|
| 6   | C     | 3704 | GLN  |
| 6   | C     | 3783 | GLN  |
| 6   | C     | 3808 | ASN  |
| 6   | C     | 3822 | GLN  |
| 6   | C     | 3927 | ASN  |
| 6   | C     | 3944 | HIS  |
| 6   | C     | 3951 | GLN  |
| 6   | C     | 4103 | 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 oligosaccharides in this entry.

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

There are no ligands in this entry.

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

There are no such residues in this entry.

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

There are no chain breaks in this entry.

## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-6803. These allow visual inspection of the internal detail of the map and identification of artifacts.

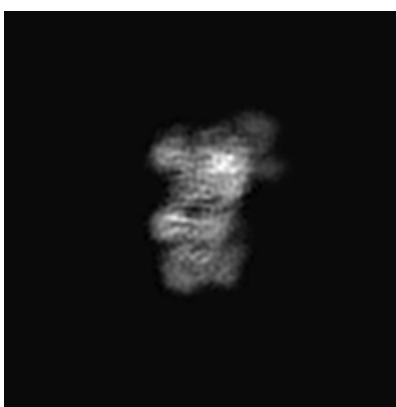
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

### 6.1 Orthogonal projections [i](#)

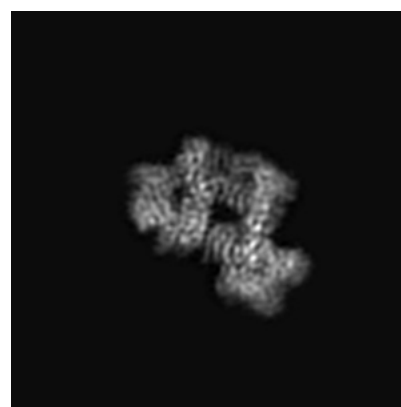
#### 6.1.1 Primary map



X



Y

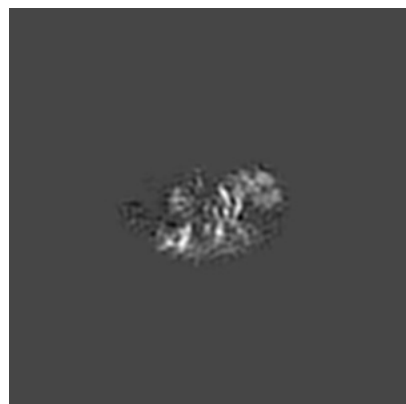


Z

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: 181



Y Index: 136

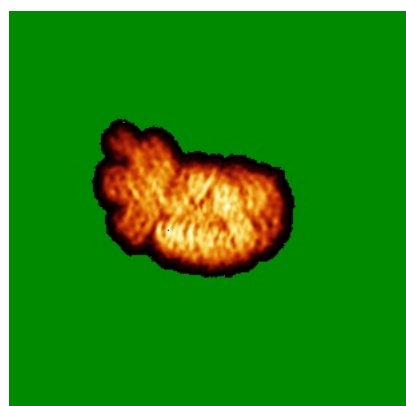


Z Index: 159

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

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

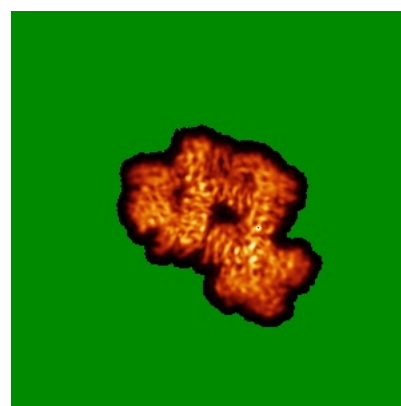
### 6.4.1 Primary map



X



Y

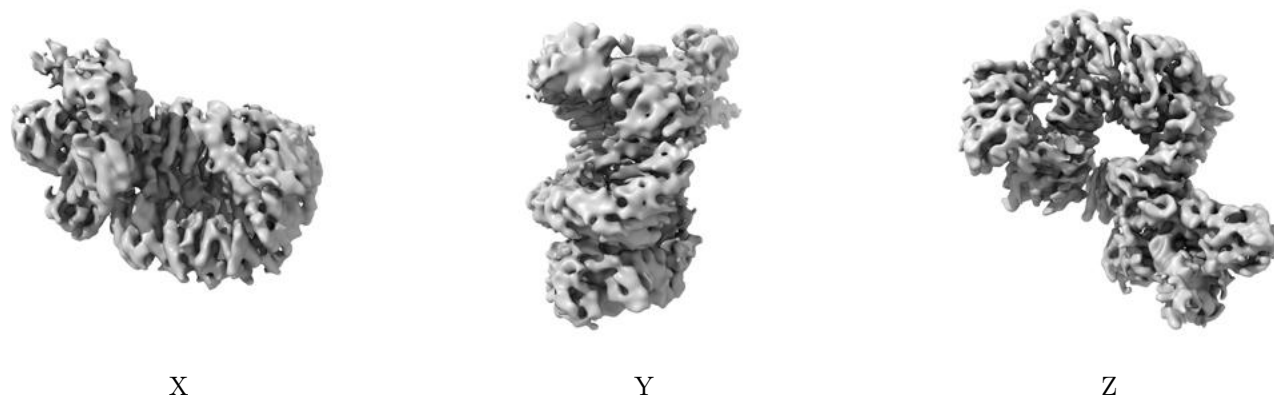


Z

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 0.03. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

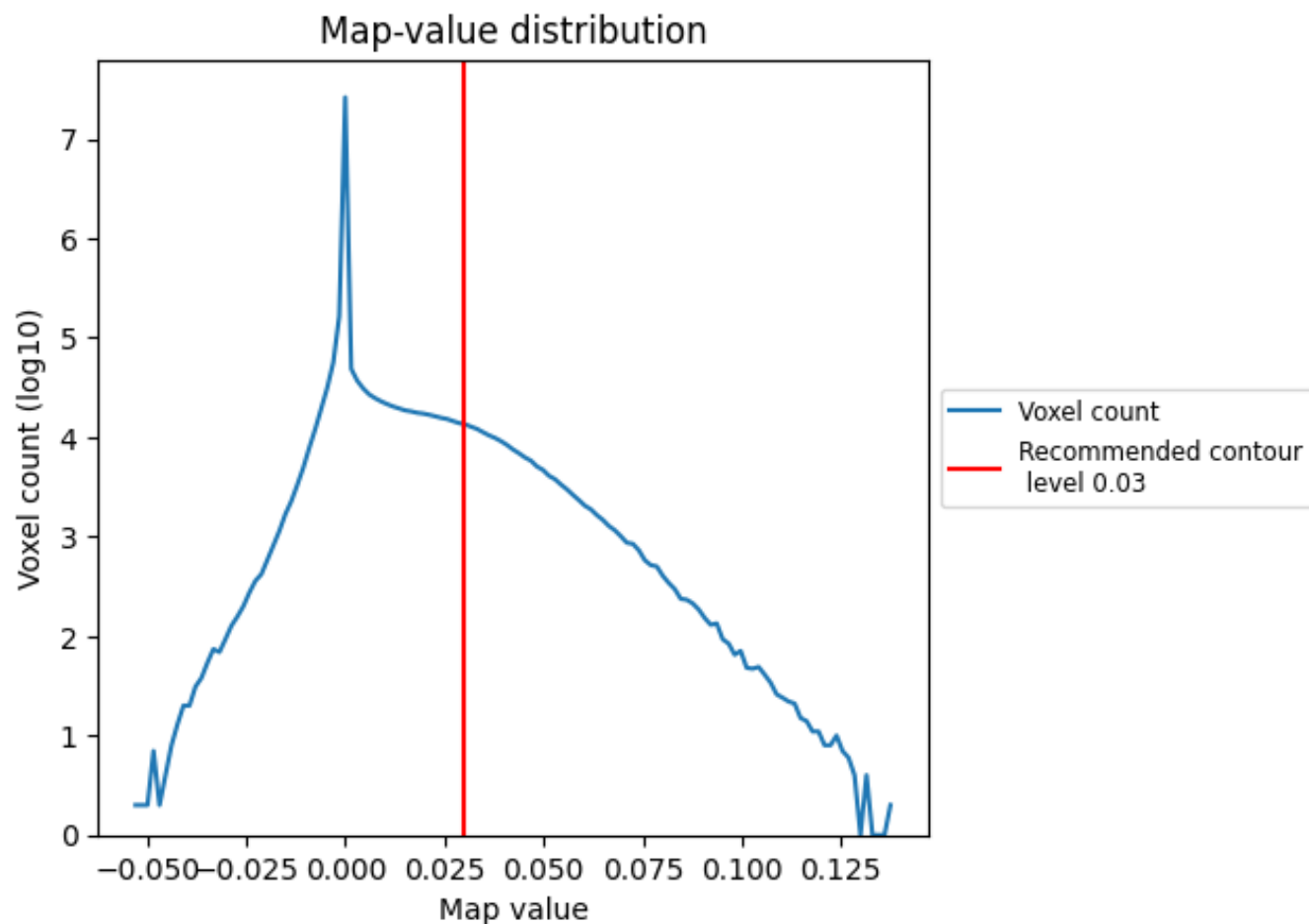
## 6.6 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

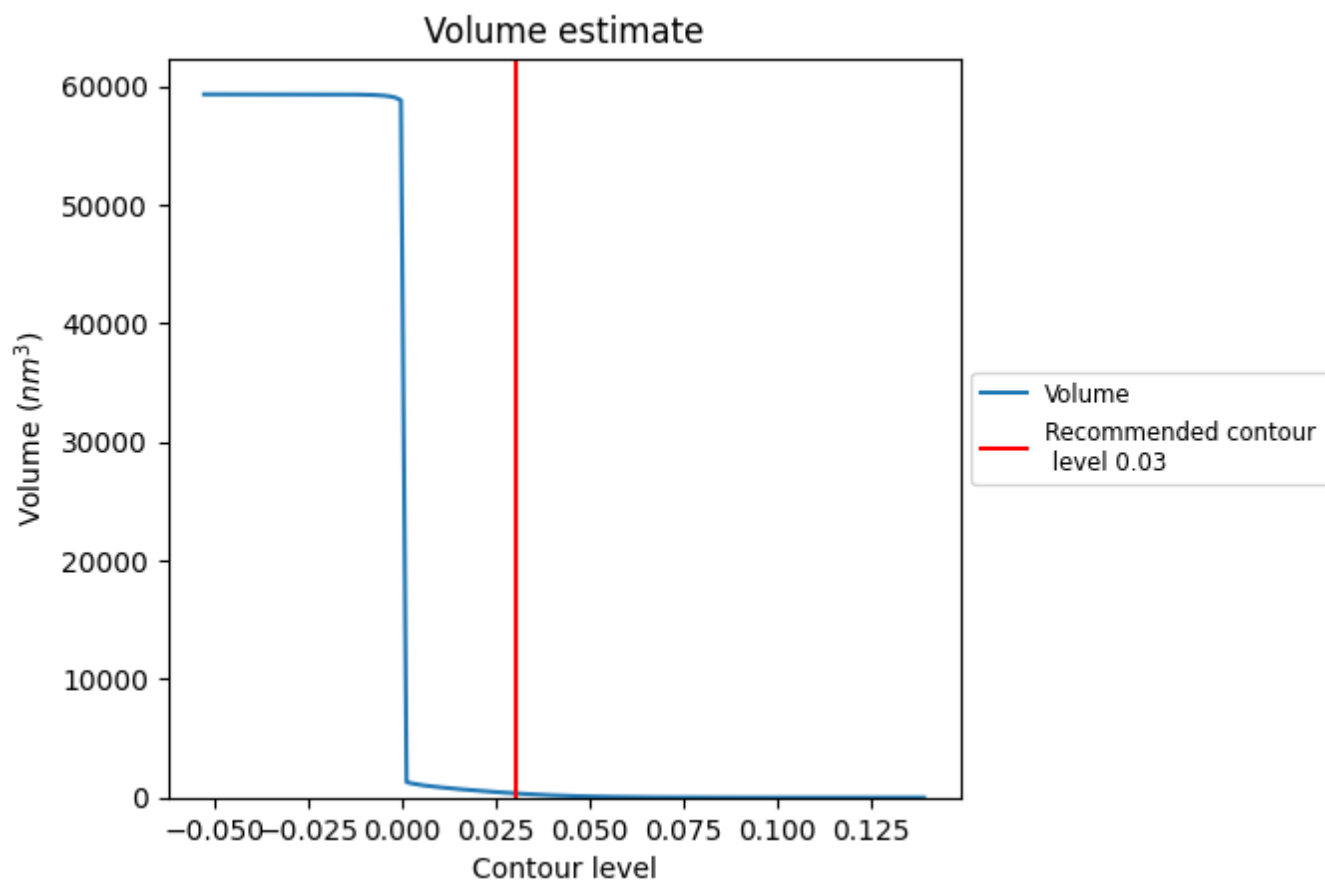
This section contains the results of statistical analysis of the map.

### 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.

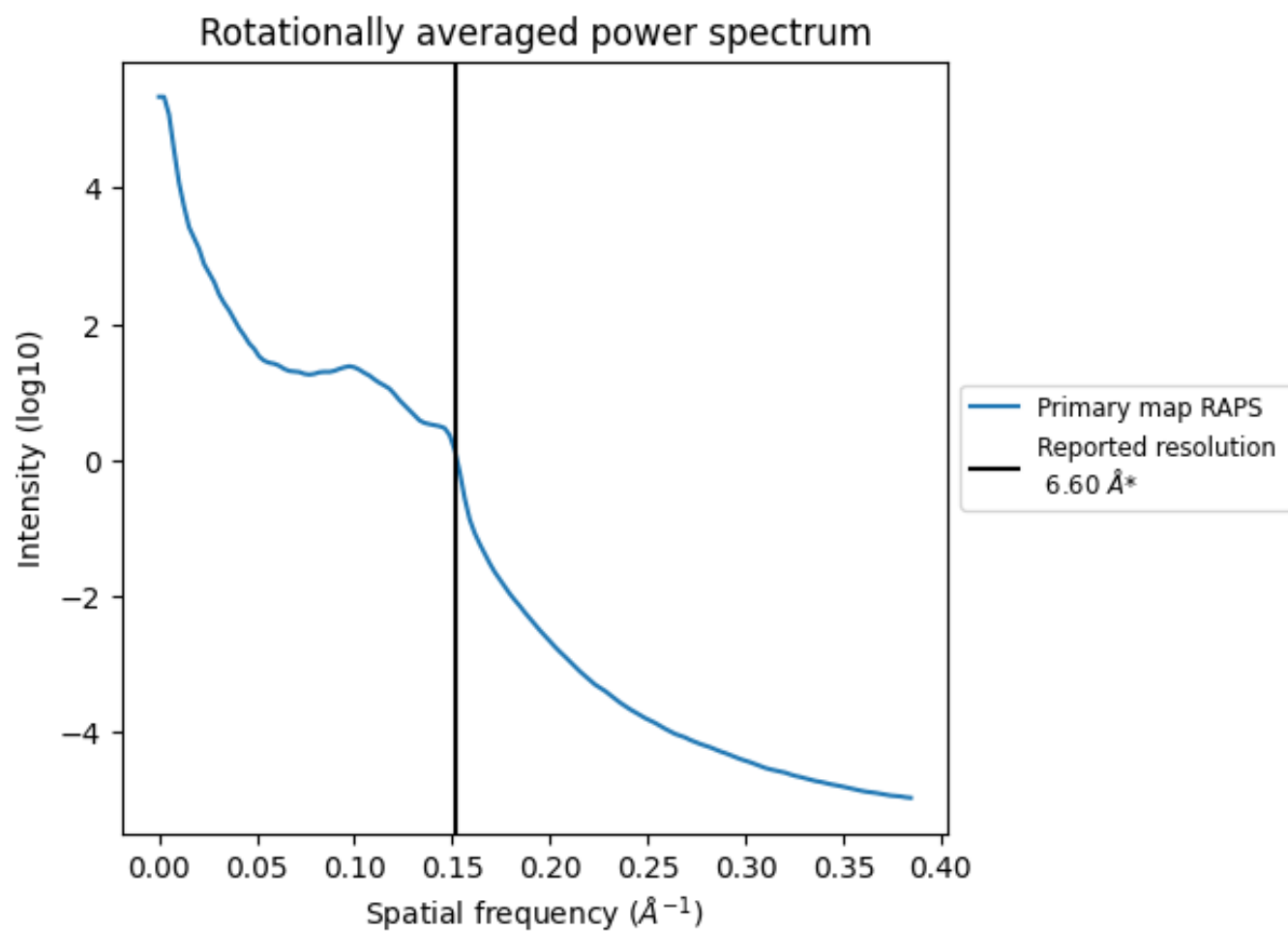
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 356 nm<sup>3</sup>; this corresponds to an approximate mass of 322 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 ⓘ

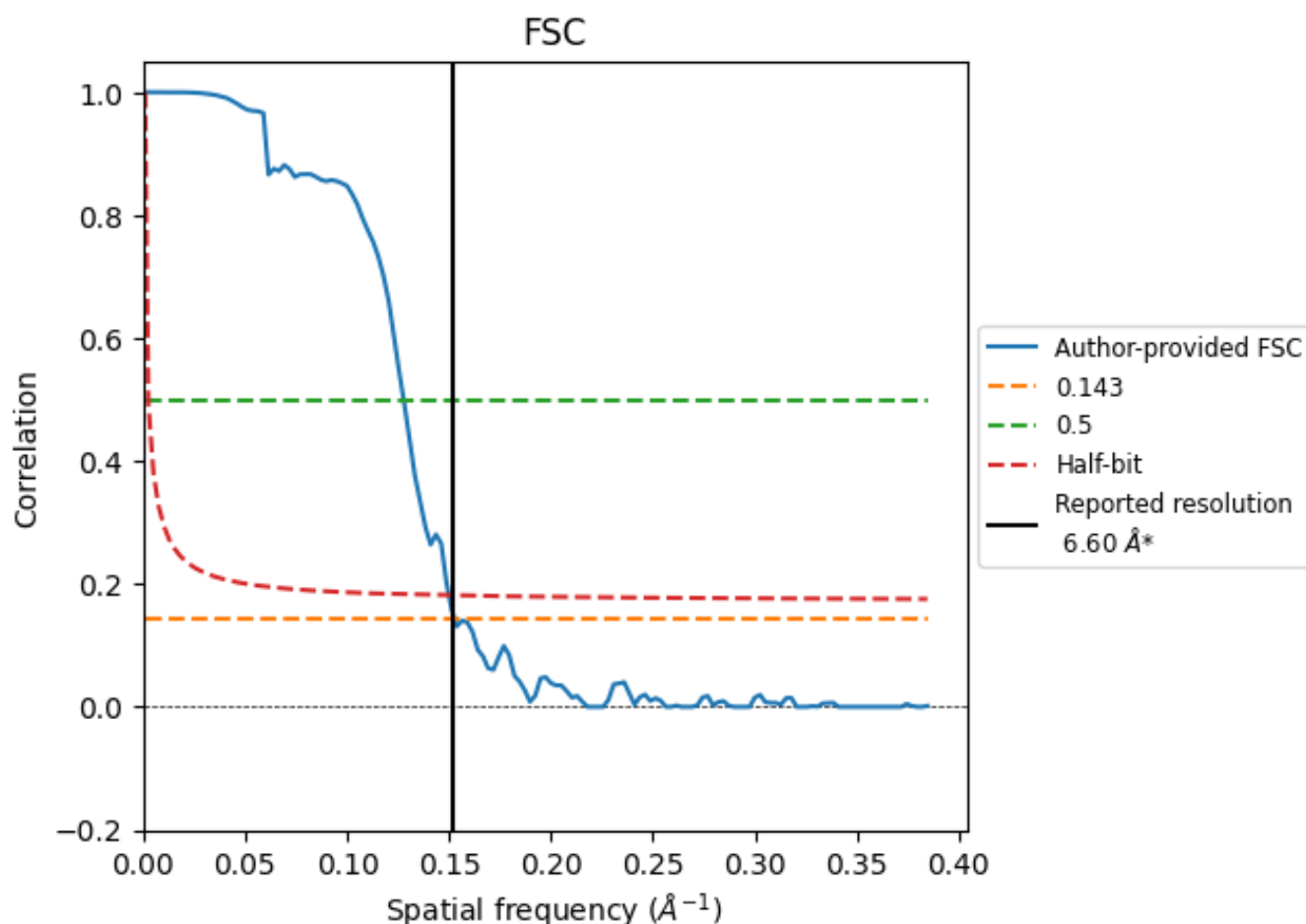


\*Reported resolution corresponds to spatial frequency of 0.152 Å<sup>-1</sup>

## 8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

### 8.1 FSC [i](#)



\*Reported resolution corresponds to spatial frequency of 0.152 Å<sup>-1</sup>

## 8.2 Resolution estimates [i](#)

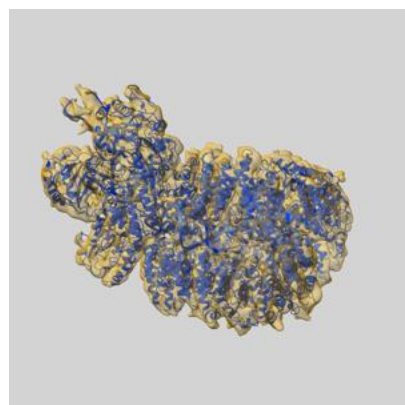
| Resolution estimate (Å)   | Estimation criterion (FSC cut-off) |      |          |
|---------------------------|------------------------------------|------|----------|
|                           | 0.143                              | 0.5  | Half-bit |
| Reported by author        | 6.60                               | -    | -        |
| Author-provided FSC curve | 6.55                               | 7.82 | 6.67     |
| Unmasked-calculated*      | -                                  | -    | -        |

\*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

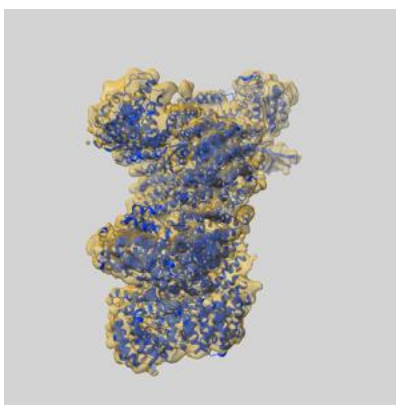
## 9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-6803 and PDB model 5Y3R. Per-residue inclusion information can be found in [section 3](#) on [page 4](#).

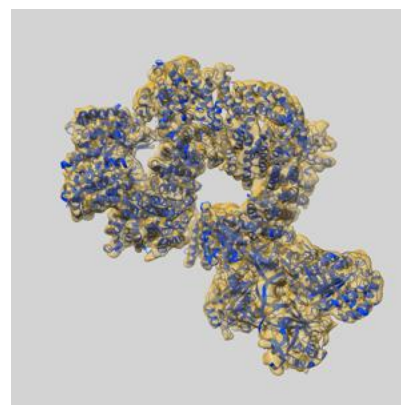
### 9.1 Map-model overlay [i](#)



X



Y



Z

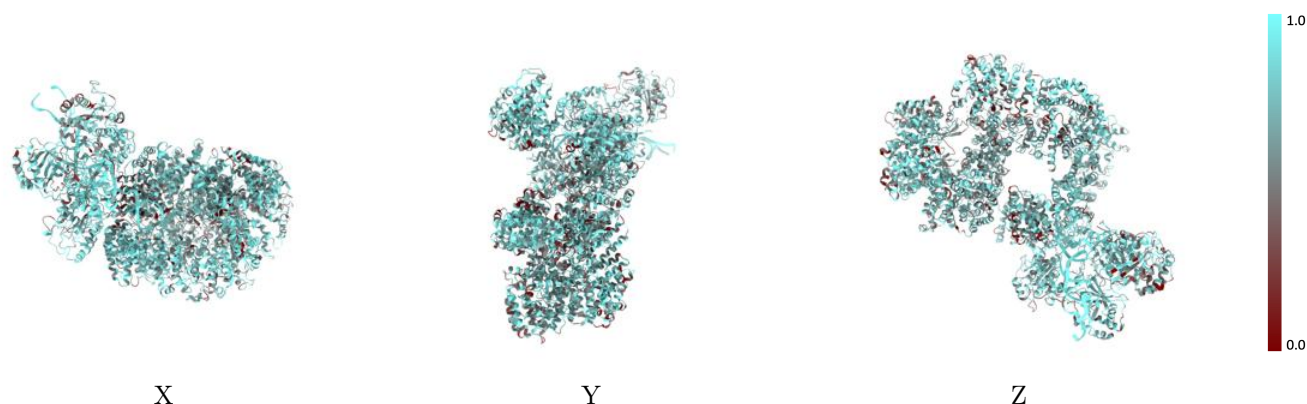
The images above show the 3D surface view of the map at the recommended contour level 0.03 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



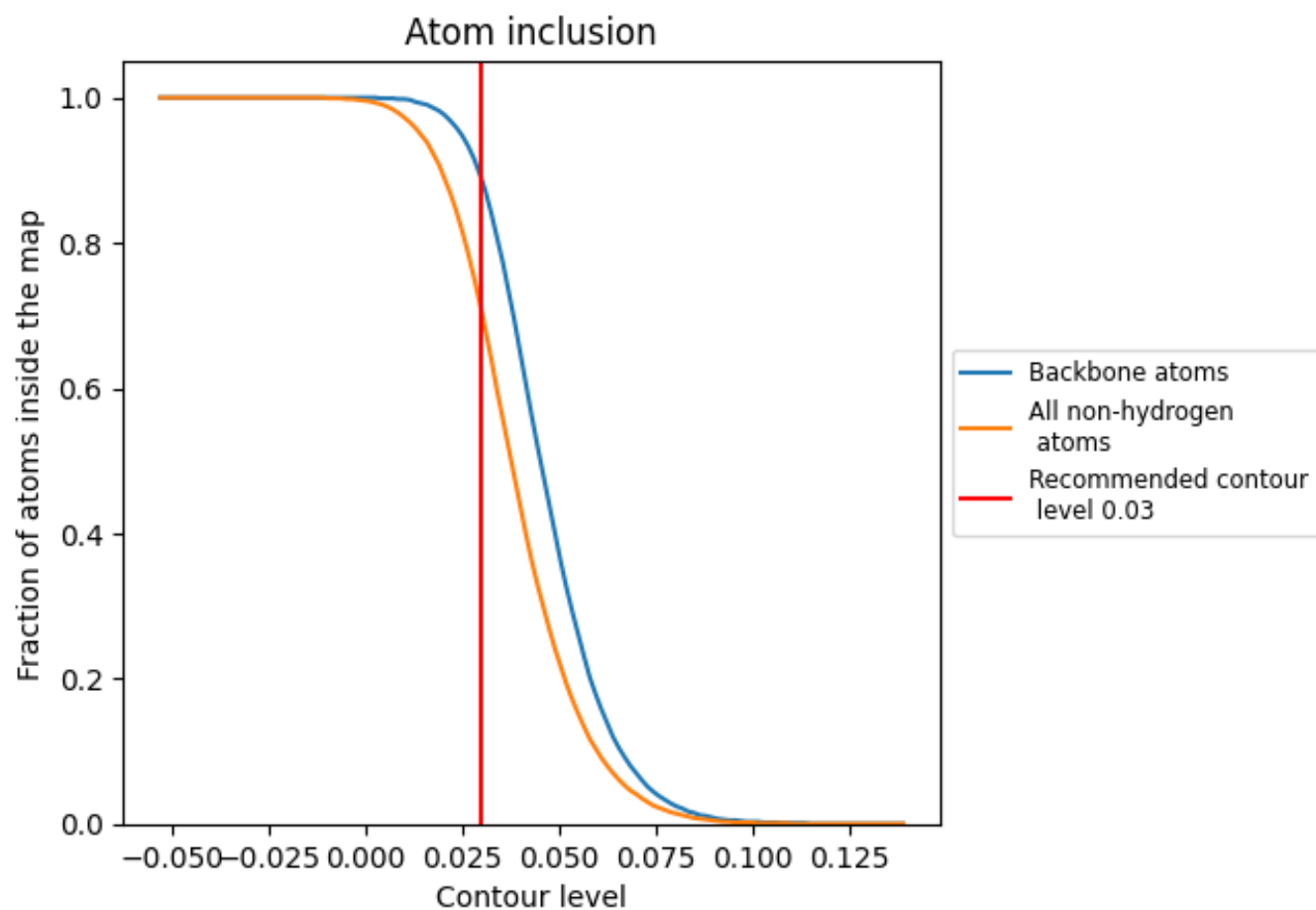
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.03).

## 9.4 Atom inclusion [i](#)



At the recommended contour level, 89% of all backbone atoms, 71% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.03) and Q-score for the entire model and for each chain.

| Chain | Atom inclusion     | Q-score            |
|-------|--------------------|--------------------|
| All   | <div></div> 0.7080 | <div></div> 0.2170 |
| A     | <div></div> 0.7480 | <div></div> 0.2360 |
| B     | <div></div> 0.7070 | <div></div> 0.2250 |
| C     | <div></div> 0.6940 | <div></div> 0.2110 |
| D     | <div></div> 0.9200 | <div></div> 0.2680 |
| E     | <div></div> 0.8910 | <div></div> 0.2590 |
| K     | <div></div> 0.4400 | <div></div> 0.2940 |

1.0

0.0

<0.0