



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 4, 2024 – 08:48 AM EST

PDB ID : 1NY6
Title : Crystal structure of sigm54 activator (AAA+ ATPase) in the active state
Authors : Lee, S.Y.; de la Torre, A.; Kustu, S.; Nixon, B.T.; Wemmer, D.E.
Deposited on : 2003-02-11
Resolution : 3.10 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.36
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36

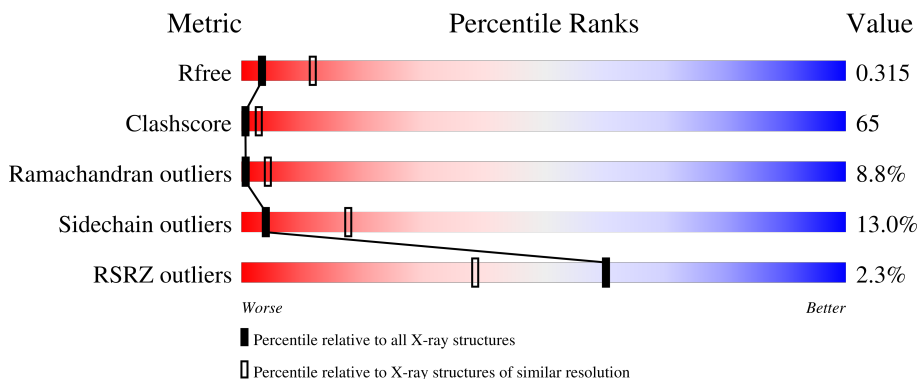
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.10 Å.

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



| Metric | Whole archive (#Entries) | Similar resolution (#Entries, resolution range(Å)) |
|-----------------------|-----------------------------|---|
| R_{free} | 130704 | 1094 (3.10-3.10) |
| Clashscore | 141614 | 1184 (3.10-3.10) |
| Ramachandran outliers | 138981 | 1141 (3.10-3.10) |
| Sidechain outliers | 138945 | 1141 (3.10-3.10) |
| RSRZ outliers | 127900 | 1067 (3.10-3.10) |

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 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 electron density. The numeric value is given above the bar.

| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1 | A | 267 | |
| 1 | B | 267 | |
| 1 | C | 267 | |
| 1 | D | 267 | |
| 1 | E | 267 | |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|----------------------------|
| 1 | F | 267 | <p>3% 21% 54% 16% • 7%</p> |
| 1 | G | 267 | <p>3% 23% 59% 10% • 7%</p> |
| 1 | H | 267 | <p>5% 22% 57% 12% • 8%</p> |
| 1 | I | 267 | <p>2% 28% 51% 13% 7%</p> |
| 1 | J | 267 | <p>6% 36% 48% 8% 7%</p> |
| 1 | K | 267 | <p>2% 27% 52% 13% • 7%</p> |
| 1 | L | 267 | <p>1% 13% 58% 19% • 8%</p> |
| 1 | M | 267 | <p>1% 21% 56% 14% • 7%</p> |
| 1 | N | 267 | <p>1% 27% 52% 11% • 7%</p> |

2 Entry composition [i](#)

There are 2 unique types of molecules in this entry. The entry contains 28041 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called transcriptional regulator (NtrC family).

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|---------------|-----------|----------|----------|--------|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 1 | A | 247 | Total 1979 | C 1278 | N 333 | O 364 | S 4 | 0 | 0 | 0 |
| 1 | B | 243 | Total 1940 | C 1250 | N 329 | O 357 | S 4 | 0 | 0 | 0 |
| 1 | C | 248 | Total 1988 | C 1283 | N 334 | O 367 | S 4 | 0 | 0 | 0 |
| 1 | D | 247 | Total 1979 | C 1278 | N 333 | O 364 | S 4 | 0 | 0 | 0 |
| 1 | E | 248 | Total 1988 | C 1283 | N 334 | O 367 | S 4 | 0 | 0 | 0 |
| 1 | F | 248 | Total 1988 | C 1283 | N 334 | O 367 | S 4 | 0 | 0 | 0 |
| 1 | G | 248 | Total 1988 | C 1283 | N 334 | O 367 | S 4 | 0 | 0 | 0 |
| 1 | H | 245 | Total 1954 | C 1259 | N 331 | O 360 | S 4 | 0 | 0 | 0 |
| 1 | I | 247 | Total 1966 | C 1268 | N 333 | O 361 | S 4 | 0 | 0 | 0 |
| 1 | J | 247 | Total 1975 | C 1276 | N 333 | O 362 | S 4 | 0 | 0 | 0 |
| 1 | K | 248 | Total 1988 | C 1283 | N 334 | O 367 | S 4 | 0 | 0 | 0 |
| 1 | L | 246 | Total 1972 | C 1273 | N 332 | O 363 | S 4 | 0 | 0 | 0 |
| 1 | M | 247 | Total 1979 | C 1278 | N 333 | O 364 | S 4 | 0 | 0 | 0 |
| 1 | N | 247 | Total 1979 | C 1278 | N 333 | O 364 | S 4 | 0 | 0 | 0 |

There are 14 discrepancies between the modelled and reference sequences:

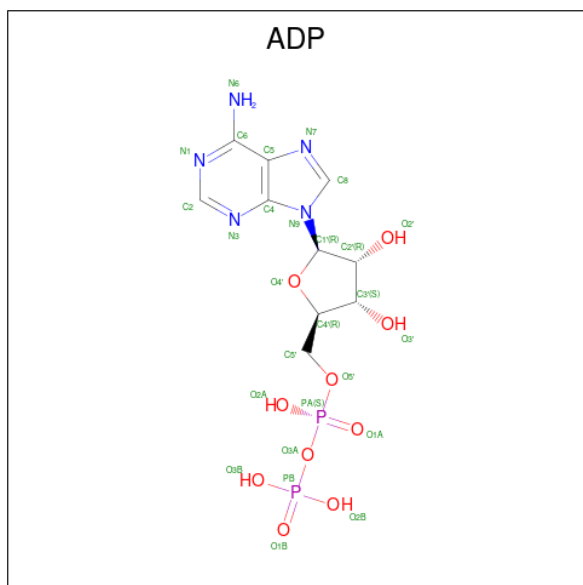
| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|-----------------------|------------|
| A | 121 | MET | - | initiating methionine | UNP O67198 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|-----------------------|------------|
| B | 121 | MET | - | initiating methionine | UNP O67198 |
| C | 121 | MET | - | initiating methionine | UNP O67198 |
| D | 121 | MET | - | initiating methionine | UNP O67198 |
| E | 121 | MET | - | initiating methionine | UNP O67198 |
| F | 121 | MET | - | initiating methionine | UNP O67198 |
| G | 121 | MET | - | initiating methionine | UNP O67198 |
| H | 121 | MET | - | initiating methionine | UNP O67198 |
| I | 121 | MET | - | initiating methionine | UNP O67198 |
| J | 121 | MET | - | initiating methionine | UNP O67198 |
| K | 121 | MET | - | initiating methionine | UNP O67198 |
| L | 121 | MET | - | initiating methionine | UNP O67198 |
| M | 121 | MET | - | initiating methionine | UNP O67198 |
| N | 121 | MET | - | initiating methionine | UNP O67198 |

- Molecule 2 is ADENOSINE-5'-DIPHOSPHATE (three-letter code: ADP) (formula: $C_{10}H_{15}N_5O_{10}P_2$).



| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|---|----|---|---------|---------|
| | | | Total | C | N | O | P | | |
| 2 | A | 1 | Total | C | N | O | P | 0 | 0 |
| | | | 27 | 10 | 5 | 10 | 2 | | |
| 2 | B | 1 | Total | C | N | O | P | 0 | 0 |
| | | | 27 | 10 | 5 | 10 | 2 | | |
| 2 | C | 1 | Total | C | N | O | P | 0 | 0 |
| | | | 27 | 10 | 5 | 10 | 2 | | |
| 2 | D | 1 | Total | C | N | O | P | 0 | 0 |
| | | | 27 | 10 | 5 | 10 | 2 | | |

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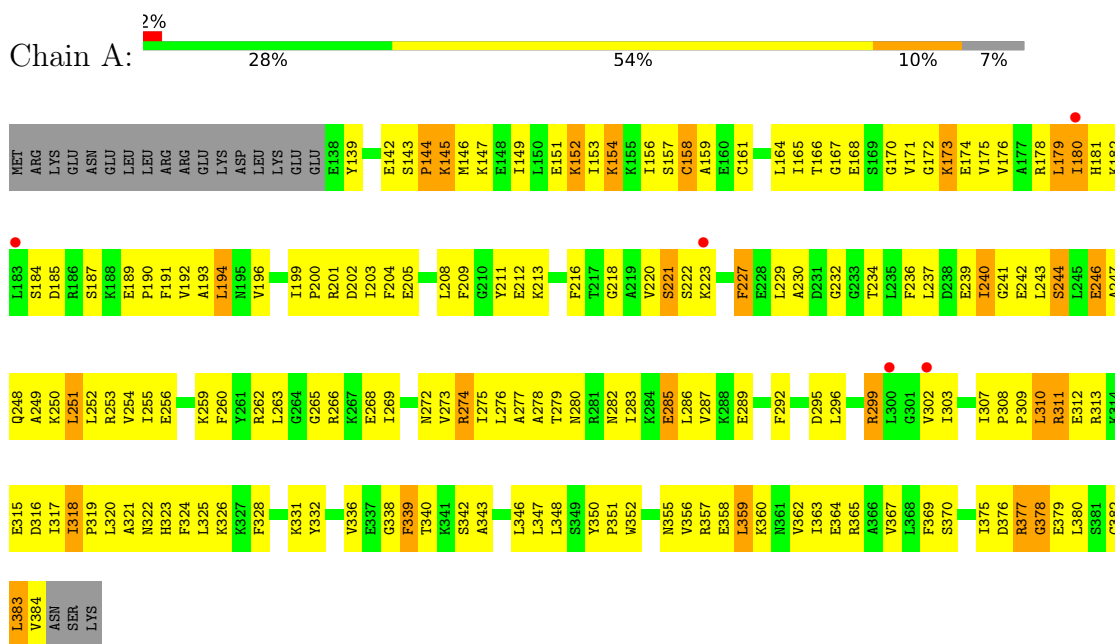
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| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf |
|-----|-------|----------|-------------|---------|--------|---------|--------|---------|---------|
| | | | Total | C | N | O | P | | |
| 2 | E | 1 | Total 27 | C 10 | N 5 | O 10 | P 2 | 0 | 0 |
| 2 | F | 1 | Total 27 | C 10 | N 5 | O 10 | P 2 | 0 | 0 |
| 2 | G | 1 | Total 27 | C 10 | N 5 | O 10 | P 2 | 0 | 0 |
| 2 | H | 1 | Total 27 | C 10 | N 5 | O 10 | P 2 | 0 | 0 |
| 2 | I | 1 | Total 27 | C 10 | N 5 | O 10 | P 2 | 0 | 0 |
| 2 | J | 1 | Total 27 | C 10 | N 5 | O 10 | P 2 | 0 | 0 |
| 2 | K | 1 | Total 27 | C 10 | N 5 | O 10 | P 2 | 0 | 0 |
| 2 | L | 1 | Total 27 | C 10 | N 5 | O 10 | P 2 | 0 | 0 |
| 2 | M | 1 | Total 27 | C 10 | N 5 | O 10 | P 2 | 0 | 0 |
| 2 | N | 1 | Total 27 | C 10 | N 5 | O 10 | P 2 | 0 | 0 |

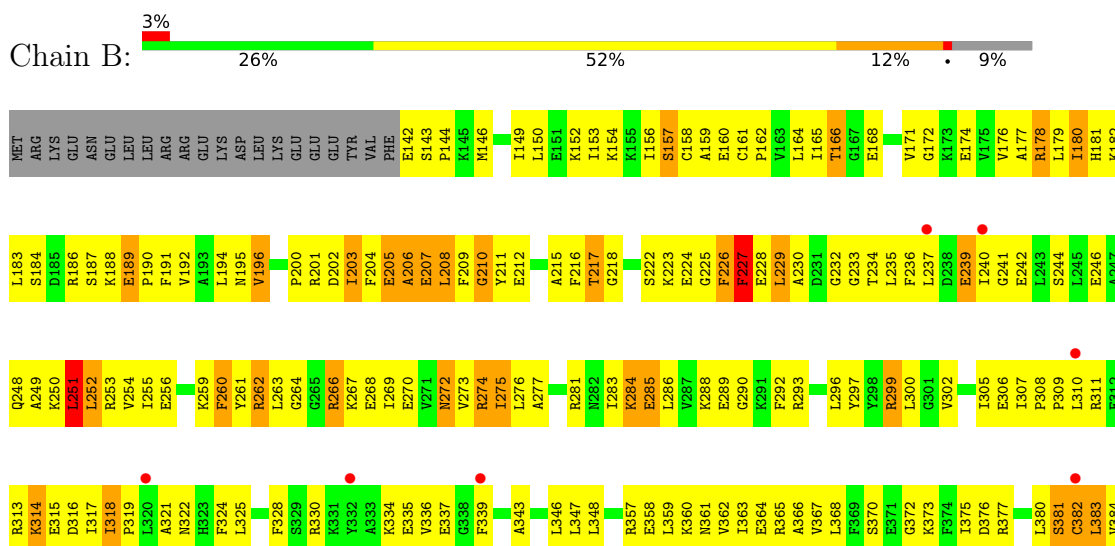
3 Residue-property plots

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 electron 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 dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). 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: transcriptional regulator (NtrC family)



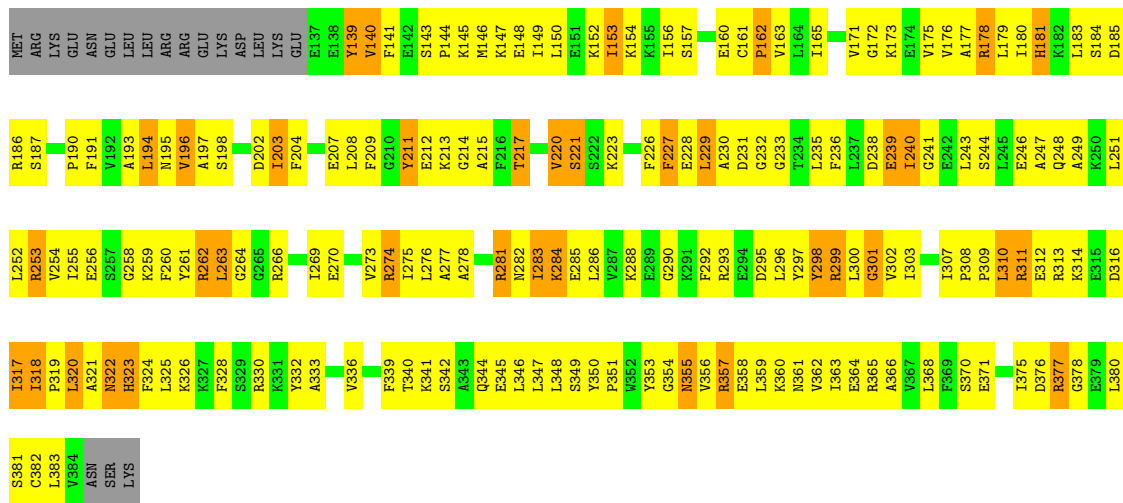
- Molecule 1: transcriptional regulator (NtrC family)



ASN
SER
LYS

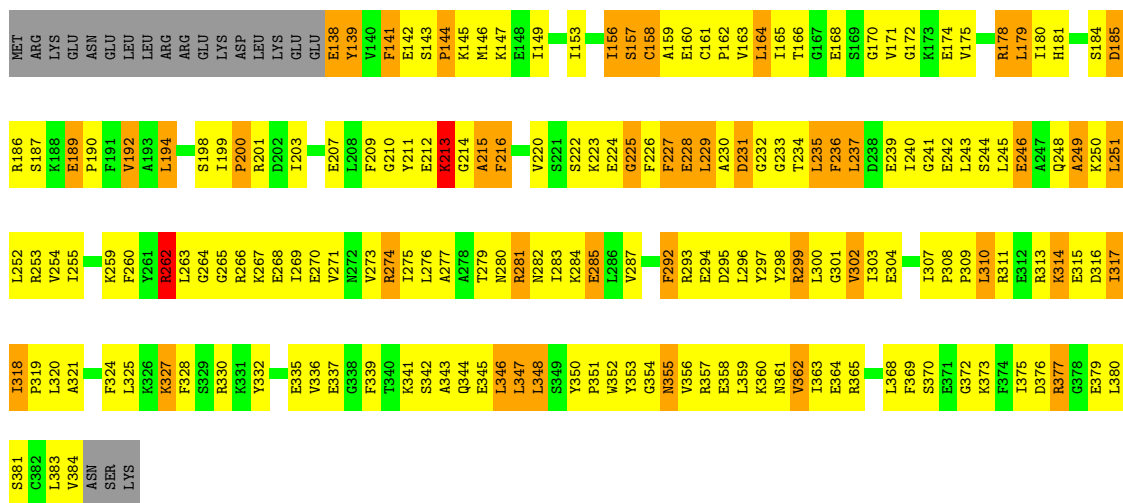
• Molecule 1: transcriptional regulator (NtrC family)

Chain C: 25% 54% 14% 7%



• Molecule 1: transcriptional regulator (NtrC family)

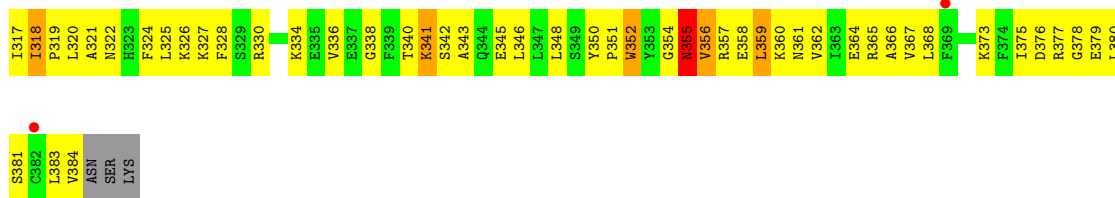
Chain D: 23% 52% 17% 7%



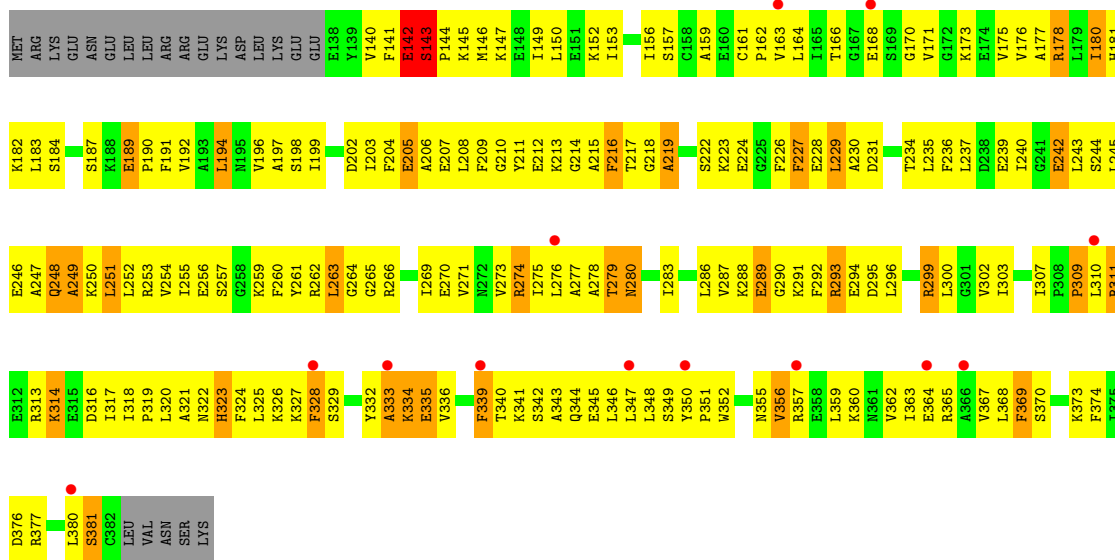
• Molecule 1: transcriptional regulator (NtrC family)

Chain E: 3% 16% 57% 19% 7%

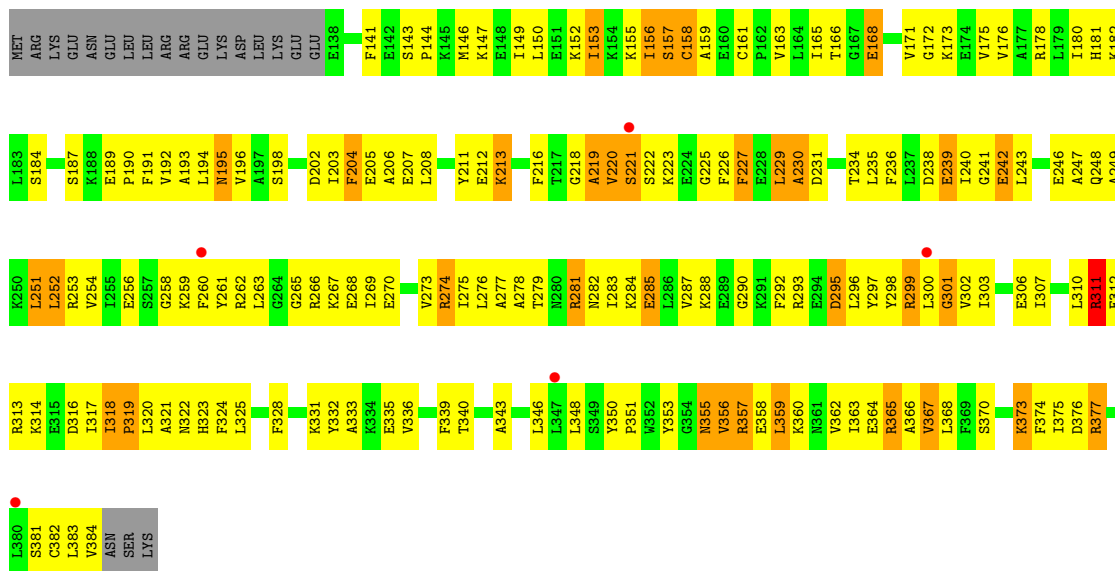




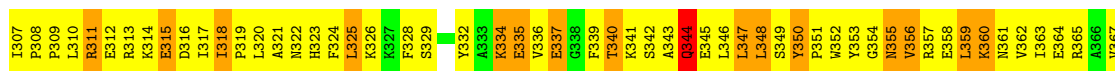
• Molecule 1: transcriptional regulator (NtrC family)



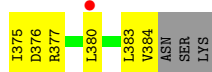
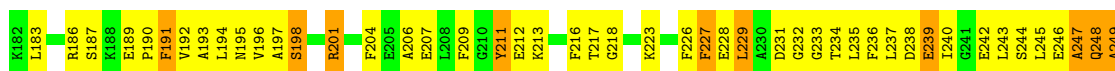
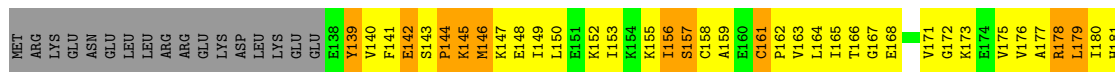
• Molecule 1: transcriptional regulator (NtrC family)



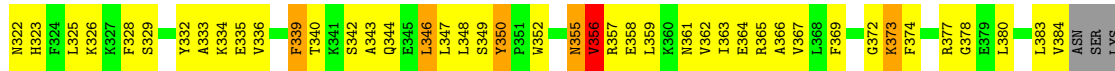
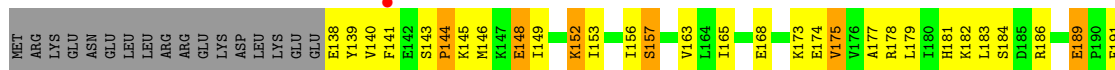
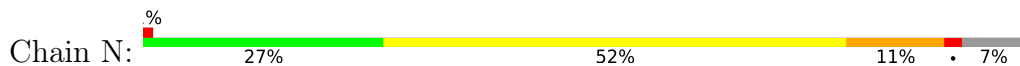
• Molecule 1: transcriptional regulator (NtrC family)



● Molecule 1: transcriptional regulator (NtrC family)



● Molecule 1: transcriptional regulator (NtrC family)



4 Data and refinement statistics

| Property | Value | Source |
|---|---|------------------|
| Space group | P 1 | Depositor |
| Cell constants a, b, c, α , β , γ | 106.79Å 108.27Å 110.02Å 70.25° 85.90° 73.27° | Depositor |
| Resolution (Å) | 19.98 – 3.10 62.44 – 3.00 | Depositor EDS |
| % Data completeness (in resolution range) | 97.6 (19.98-3.10) 97.5 (62.44-3.00) | Depositor EDS |
| R_{merge} | 0.06 | Depositor |
| R_{sym} | (Not available) | Depositor |
| $\langle I/\sigma(I) \rangle$ ¹ | 1.30 (at 3.01Å) | Xtrriage |
| Refinement program | CNS 1.1 | Depositor |
| R, R_{free} | 0.266 , 0.329 0.256 , 0.315 | Depositor DCC |
| R_{free} test set | 8701 reflections (10.04%) | wwPDB-VP |
| Wilson B-factor (Å ²) | 94.2 | Xtrriage |
| Anisotropy | 0.079 | Xtrriage |
| Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²) | 0.29 , 86.2 | EDS |
| L-test for twinning ² | $\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.32$ | Xtrriage |
| Estimated twinning fraction | 0.006 for -l,-k,-h | Xtrriage |
| F_o, F_c correlation | 0.92 | EDS |
| Total number of atoms | 28041 | wwPDB-VP |
| Average B, all atoms (Å ²) | 103.0 | wwPDB-VP |

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.32% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality i

5.1 Standard geometry i

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

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 | 0.45 | 0/2013 | 0.65 | 0/2700 |
| 1 | B | 0.48 | 0/1972 | 0.67 | 0/2644 |
| 1 | C | 0.55 | 0/2022 | 0.83 | 1/2712 (0.0%) |
| 1 | D | 0.55 | 0/2013 | 0.78 | 1/2700 (0.0%) |
| 1 | E | 0.62 | 0/2022 | 0.93 | 1/2712 (0.0%) |
| 1 | F | 0.53 | 0/2022 | 0.73 | 0/2712 |
| 1 | G | 0.47 | 0/2022 | 0.69 | 1/2712 (0.0%) |
| 1 | H | 0.45 | 0/1987 | 0.96 | 2/2665 (0.1%) |
| 1 | I | 0.45 | 0/1999 | 0.68 | 0/2681 |
| 1 | J | 0.42 | 0/2009 | 0.63 | 0/2695 |
| 1 | K | 0.47 | 0/2022 | 0.70 | 1/2712 (0.0%) |
| 1 | L | 0.63 | 0/2006 | 0.87 | 1/2690 (0.0%) |
| 1 | M | 0.52 | 0/2013 | 0.74 | 0/2700 |
| 1 | N | 0.45 | 0/2013 | 0.69 | 1/2700 (0.0%) |
| All | All | 0.51 | 0/28135 | 0.76 | 9/37735 (0.0%) |

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 | H | 0 | 2 |

There are no bond length outliers.

All (9) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|---------|--------|-------------|----------|
| 1 | H | 143 | SER | C-N-CD | -34.04 | 45.71 | 120.60 |
| 1 | E | 190 | PRO | CA-N-CD | -20.80 | 82.37 | 111.50 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|--------|-------------|----------|
| 1 | C | 190 | PRO | CA-N-CD | -16.92 | 87.81 | 111.50 |
| 1 | H | 142 | GLU | O-C-N | -9.85 | 106.93 | 122.70 |
| 1 | D | 262 | ARG | NE-CZ-NH2 | -5.88 | 117.36 | 120.30 |
| 1 | K | 220 | VAL | N-CA-C | 5.84 | 126.76 | 111.00 |
| 1 | L | 383 | LEU | CA-CB-CG | -5.49 | 102.68 | 115.30 |
| 1 | G | 354 | GLY | N-CA-C | -5.48 | 99.40 | 113.10 |
| 1 | N | 262 | ARG | N-CA-C | -5.25 | 96.83 | 111.00 |

There are no chirality outliers.

All (2) planarity outliers are listed below:

| Mol | Chain | Res | Type | Group |
|-----|-------|-----|------|-------------------|
| 1 | H | 142 | GLU | Mainchain,Peptide |

5.2 Too-close contacts [i](#)

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

| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1 | A | 1979 | 0 | 2040 | 214 | 0 |
| 1 | B | 1940 | 0 | 2007 | 249 | 0 |
| 1 | C | 1988 | 0 | 2046 | 268 | 0 |
| 1 | D | 1979 | 0 | 2040 | 276 | 0 |
| 1 | E | 1988 | 0 | 2046 | 359 | 0 |
| 1 | F | 1988 | 0 | 2046 | 296 | 0 |
| 1 | G | 1988 | 0 | 2046 | 245 | 0 |
| 1 | H | 1954 | 0 | 2009 | 281 | 0 |
| 1 | I | 1966 | 0 | 2022 | 250 | 0 |
| 1 | J | 1975 | 0 | 2036 | 193 | 0 |
| 1 | K | 1988 | 0 | 2046 | 246 | 0 |
| 1 | L | 1972 | 0 | 2031 | 382 | 0 |
| 1 | M | 1979 | 0 | 2040 | 301 | 0 |
| 1 | N | 1979 | 0 | 2040 | 271 | 0 |
| 2 | A | 27 | 0 | 12 | 2 | 0 |
| 2 | B | 27 | 0 | 12 | 1 | 0 |
| 2 | C | 27 | 0 | 12 | 4 | 0 |
| 2 | D | 27 | 0 | 12 | 6 | 0 |
| 2 | E | 27 | 0 | 12 | 3 | 0 |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 2 | F | 27 | 0 | 12 | 7 | 0 |
| 2 | G | 27 | 0 | 12 | 0 | 0 |
| 2 | H | 27 | 0 | 12 | 3 | 0 |
| 2 | I | 27 | 0 | 12 | 5 | 0 |
| 2 | J | 27 | 0 | 12 | 1 | 0 |
| 2 | K | 27 | 0 | 12 | 1 | 0 |
| 2 | L | 27 | 0 | 12 | 6 | 0 |
| 2 | M | 27 | 0 | 12 | 6 | 0 |
| 2 | N | 27 | 0 | 12 | 2 | 0 |
| All | All | 28041 | 0 | 28663 | 3697 | 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 65.

All (3697) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:235:LEU:HD12 | 1:D:236:PHE:N | 1.44 | 1.30 |
| 1:L:334:LYS:NZ | 1:L:367:VAL:HG13 | 1.51 | 1.24 |
| 1:E:177:ALA:CA | 1:E:180:ILE:HD12 | 1.69 | 1.21 |
| 1:E:240:ILE:CD1 | 1:E:277:ALA:HB1 | 1.72 | 1.18 |
| 1:F:318:ILE:HG13 | 1:F:319:PRO:HD3 | 1.23 | 1.17 |
| 1:E:177:ALA:HA | 1:E:180:ILE:CD1 | 1.76 | 1.15 |
| 1:E:240:ILE:HD11 | 1:E:277:ALA:CB | 1.77 | 1.14 |
| 1:C:220:VAL:HG12 | 1:C:221:SER:H | 1.11 | 1.14 |
| 1:D:262:ARG:HG2 | 1:D:262:ARG:HH11 | 1.05 | 1.13 |
| 1:L:350:TYR:CD2 | 1:L:351:PRO:HD2 | 1.82 | 1.13 |
| 1:F:340:THR:CG2 | 1:F:376:ASP:HB3 | 1.79 | 1.12 |
| 1:A:343:ALA:HB2 | 1:A:376:ASP:HA | 1.24 | 1.12 |
| 1:E:344:GLN:O | 1:E:348:LEU:HD12 | 1.48 | 1.11 |
| 1:B:283:ILE:HA | 1:B:286:LEU:HD12 | 1.22 | 1.11 |
| 1:G:259:LYS:HB3 | 1:G:267:LYS:HG3 | 1.14 | 1.11 |
| 1:L:140:VAL:HG11 | 1:L:320:LEU:HG | 1.21 | 1.10 |
| 1:L:343:ALA:HB2 | 1:L:376:ASP:HA | 1.29 | 1.10 |
| 1:G:320:LEU:HD22 | 1:G:359:LEU:HD13 | 1.31 | 1.10 |
| 1:H:214:GLY:H | 1:H:219:ALA:HB1 | 1.11 | 1.10 |
| 1:L:224:GLU:HA | 1:L:262:ARG:HH21 | 1.17 | 1.10 |
| 1:D:318:ILE:HG13 | 1:D:319:PRO:HD3 | 1.31 | 1.09 |
| 1:G:318:ILE:HG12 | 1:G:348:LEU:HD21 | 1.30 | 1.09 |
| 1:J:189:GLU:HG3 | 1:J:190:PRO:HD2 | 1.34 | 1.09 |
| 1:L:362:VAL:HG13 | 1:L:383:LEU:HD13 | 1.31 | 1.09 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:M:318:ILE:HG13 | 1:M:319:PRO:HD3 | 1.15 | 1.09 |
| 1:E:139:TYR:HB3 | 1:E:141:PHE:HE1 | 1.18 | 1.08 |
| 1:C:181:HIS:CD2 | 1:C:191:PHE:HB2 | 1.89 | 1.08 |
| 1:M:201:ARG:HB2 | 1:M:201:ARG:HH11 | 1.01 | 1.07 |
| 1:D:275:ILE:H | 1:D:275:ILE:HD12 | 1.20 | 1.07 |
| 1:C:178:ARG:HH11 | 1:C:178:ARG:HG3 | 1.16 | 1.06 |
| 1:M:194:LEU:HD21 | 1:M:237:LEU:HD23 | 1.34 | 1.06 |
| 1:C:318:ILE:HG13 | 1:C:319:PRO:HD3 | 1.33 | 1.06 |
| 1:N:240:ILE:HD11 | 1:N:277:ALA:HB1 | 1.09 | 1.06 |
| 1:B:275:ILE:HD12 | 1:B:275:ILE:H | 1.18 | 1.05 |
| 1:G:189:GLU:HG3 | 1:G:190:PRO:HD2 | 1.38 | 1.05 |
| 1:F:240:ILE:HD11 | 1:F:277:ALA:HB1 | 1.07 | 1.04 |
| 1:F:340:THR:HG21 | 1:F:376:ASP:HB3 | 1.34 | 1.04 |
| 1:A:318:ILE:HG12 | 1:A:348:LEU:HD21 | 1.40 | 1.04 |
| 1:H:343:ALA:HB2 | 1:H:376:ASP:HA | 1.34 | 1.03 |
| 1:E:176:VAL:HG12 | 1:E:180:ILE:HD11 | 1.32 | 1.03 |
| 1:H:293:ARG:HG2 | 1:H:293:ARG:HH11 | 1.21 | 1.03 |
| 1:L:143:SER:HB2 | 1:L:144:PRO:HD2 | 1.37 | 1.02 |
| 1:L:329:SER:HA | 1:L:334:LYS:HE2 | 1.38 | 1.02 |
| 1:M:211:TYR:HE1 | 1:M:223:LYS:HB2 | 1.18 | 1.01 |
| 1:E:325:LEU:O | 1:E:329:SER:HB2 | 1.59 | 1.01 |
| 1:D:164:LEU:HD12 | 1:D:165:ILE:H | 1.20 | 1.01 |
| 1:E:282:ASN:ND2 | 1:E:285:GLU:HB2 | 1.76 | 1.01 |
| 1:L:334:LYS:NZ | 1:L:367:VAL:CG1 | 2.24 | 1.01 |
| 1:L:139:TYR:HB3 | 1:L:141:PHE:CE2 | 1.95 | 1.01 |
| 1:D:240:ILE:HG13 | 1:D:277:ALA:HB1 | 1.44 | 1.00 |
| 1:E:309:PRO:HG2 | 1:E:312:GLU:HG3 | 1.40 | 1.00 |
| 1:H:318:ILE:HD11 | 1:H:348:LEU:HD11 | 1.43 | 1.00 |
| 1:I:318:ILE:HG13 | 1:I:319:PRO:HD3 | 1.44 | 1.00 |
| 1:N:282:ASN:HD22 | 1:N:285:GLU:HG2 | 1.26 | 0.99 |
| 1:K:198:SER:O | 1:K:199:ILE:HG13 | 1.61 | 0.99 |
| 1:J:282:ASN:HD22 | 1:J:285:GLU:HB2 | 1.27 | 0.98 |
| 1:M:243:LEU:HD22 | 1:M:247:ALA:HB1 | 1.45 | 0.98 |
| 1:M:180:ILE:HG21 | 1:M:276:LEU:HD11 | 1.43 | 0.98 |
| 1:I:194:LEU:HD23 | 1:I:194:LEU:H | 1.28 | 0.98 |
| 1:D:207:GLU:HB3 | 1:D:226:PHE:HE1 | 1.25 | 0.98 |
| 1:M:253:ARG:HG3 | 1:N:198:SER:HB2 | 1.47 | 0.97 |
| 1:A:325:LEU:O | 1:A:325:LEU:HD23 | 1.63 | 0.97 |
| 1:G:168:GLU:O | 1:G:171:VAL:HG23 | 1.63 | 0.97 |
| 1:J:224:GLU:HG2 | 1:J:225:GLY:H | 1.28 | 0.97 |
| 1:E:363:ILE:O | 1:E:367:VAL:HG23 | 1.63 | 0.97 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:J:201:ARG:HB2 | 1:J:201:ARG:HH11 | 1.27 | 0.97 |
| 1:C:235:LEU:HD12 | 1:C:236:PHE:N | 1.79 | 0.97 |
| 1:I:220:VAL:HG12 | 1:I:221:SER:H | 1.28 | 0.96 |
| 1:H:357:ARG:HH12 | 1:N:252:LEU:HD21 | 1.29 | 0.96 |
| 1:F:240:ILE:CD1 | 1:F:277:ALA:HB1 | 1.96 | 0.95 |
| 1:L:138:GLU:HG3 | 1:L:139:TYR:N | 1.77 | 0.95 |
| 1:B:217:THR:HG23 | 1:B:218:GLY:H | 1.30 | 0.95 |
| 1:E:201:ARG:HB2 | 1:E:201:ARG:HH11 | 1.32 | 0.95 |
| 1:L:334:LYS:HZ2 | 1:L:367:VAL:HG13 | 1.13 | 0.95 |
| 1:F:189:GLU:HG3 | 1:F:190:PRO:HD2 | 1.46 | 0.95 |
| 1:H:189:GLU:HG3 | 1:H:190:PRO:HD2 | 1.47 | 0.95 |
| 1:C:235:LEU:HD12 | 1:C:236:PHE:H | 1.32 | 0.95 |
| 1:I:261:TYR:HE1 | 1:J:199:ILE:HG12 | 1.30 | 0.95 |
| 1:J:216:PHE:H | 1:J:216:PHE:HD2 | 1.09 | 0.95 |
| 1:L:143:SER:HB2 | 1:L:144:PRO:CD | 1.95 | 0.95 |
| 1:E:325:LEU:HD21 | 1:E:336:VAL:HG12 | 1.49 | 0.94 |
| 1:K:164:LEU:HD12 | 1:K:165:ILE:H | 1.33 | 0.94 |
| 1:F:326:LYS:HE2 | 1:F:330:ARG:NH2 | 1.83 | 0.94 |
| 1:F:309:PRO:HG3 | 1:F:311:ARG:NH1 | 1.82 | 0.94 |
| 1:M:201:ARG:HB2 | 1:M:201:ARG:NH1 | 1.83 | 0.93 |
| 1:N:228:GLU:OE2 | 1:N:262:ARG:NE | 2.01 | 0.93 |
| 1:H:214:GLY:N | 1:H:219:ALA:HB1 | 1.81 | 0.93 |
| 1:N:281:ARG:H | 1:N:281:ARG:HD3 | 1.31 | 0.93 |
| 1:D:228:GLU:OE2 | 1:D:262:ARG:NE | 2.02 | 0.93 |
| 1:M:143:SER:HB2 | 1:M:144:PRO:HD2 | 1.51 | 0.93 |
| 1:H:302:VAL:HG12 | 1:H:303:ILE:HG13 | 1.49 | 0.93 |
| 1:B:314:LYS:H | 1:B:314:LYS:HD2 | 1.33 | 0.93 |
| 1:M:308:PRO:HG2 | 1:M:313:ARG:HD2 | 1.51 | 0.93 |
| 1:N:240:ILE:HD11 | 1:N:277:ALA:CB | 1.99 | 0.92 |
| 1:C:150:LEU:HG | 1:C:154:LYS:NZ | 1.83 | 0.92 |
| 1:N:201:ARG:HH11 | 1:N:201:ARG:HB2 | 1.33 | 0.92 |
| 1:H:176:VAL:HG21 | 1:H:307:ILE:HD11 | 1.50 | 0.92 |
| 1:E:214:GLY:HA2 | 1:E:219:ALA:HB3 | 1.52 | 0.92 |
| 1:I:343:ALA:HB2 | 1:I:376:ASP:HA | 1.52 | 0.92 |
| 1:D:164:LEU:HD12 | 1:D:165:ILE:N | 1.83 | 0.91 |
| 1:B:317:ILE:HB | 1:B:348:LEU:HD23 | 1.53 | 0.91 |
| 1:E:302:VAL:HG12 | 1:E:303:ILE:HG12 | 1.52 | 0.91 |
| 1:H:362:VAL:HG22 | 1:H:365:ARG:NH2 | 1.85 | 0.91 |
| 1:H:362:VAL:HG22 | 1:H:365:ARG:HH21 | 1.34 | 0.91 |
| 1:M:211:TYR:CE1 | 1:M:223:LYS:HB2 | 2.05 | 0.91 |
| 1:D:262:ARG:HG2 | 1:D:262:ARG:NH1 | 1.80 | 0.91 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:L:362:VAL:HG13 | 1:L:383:LEU:CD1 | 1.99 | 0.91 |
| 1:B:362:VAL:HG13 | 1:B:384:VAL:HG21 | 1.51 | 0.91 |
| 1:G:149:ILE:O | 1:G:153:ILE:HG12 | 1.69 | 0.91 |
| 1:G:212:GLU:HB2 | 1:G:262:ARG:O | 1.69 | 0.91 |
| 1:E:152:LYS:HG2 | 1:F:369:PHE:CE1 | 2.05 | 0.91 |
| 1:H:194:LEU:HD21 | 1:H:237:LEU:HD23 | 1.53 | 0.91 |
| 1:D:235:LEU:HD12 | 1:D:236:PHE:H | 1.16 | 0.91 |
| 1:K:264:GLY:HA2 | 1:L:207:GLU:OE2 | 1.71 | 0.91 |
| 1:E:177:ALA:HA | 1:E:180:ILE:HD12 | 0.92 | 0.90 |
| 1:K:201:ARG:HH11 | 1:K:201:ARG:HB2 | 1.37 | 0.90 |
| 1:E:139:TYR:HB3 | 1:E:141:PHE:CE1 | 2.07 | 0.90 |
| 1:K:213:LYS:HD2 | 1:K:220:VAL:O | 1.71 | 0.90 |
| 1:C:140:VAL:HG11 | 1:C:320:LEU:HD23 | 1.54 | 0.90 |
| 1:F:240:ILE:HD11 | 1:F:277:ALA:CB | 1.98 | 0.90 |
| 1:H:214:GLY:H | 1:H:219:ALA:CB | 1.83 | 0.90 |
| 1:L:329:SER:CA | 1:L:334:LYS:HE2 | 2.00 | 0.90 |
| 1:M:164:LEU:HD21 | 1:M:283:ILE:HG13 | 1.53 | 0.90 |
| 1:B:318:ILE:HG12 | 1:B:348:LEU:HD21 | 1.53 | 0.90 |
| 1:G:240:ILE:HG13 | 1:G:277:ALA:HB1 | 1.52 | 0.90 |
| 1:L:227:PHE:CE2 | 1:L:254:VAL:HG11 | 2.06 | 0.90 |
| 1:E:165:ILE:HD11 | 1:E:177:ALA:HB2 | 1.52 | 0.89 |
| 1:C:220:VAL:HG12 | 1:C:221:SER:N | 1.86 | 0.89 |
| 1:E:171:VAL:HG12 | 1:E:355:ASN:OD1 | 1.71 | 0.89 |
| 1:H:255:ILE:HG12 | 1:H:275:ILE:CD1 | 2.03 | 0.89 |
| 1:L:165:ILE:H | 1:L:278:ALA:HB2 | 1.35 | 0.89 |
| 1:E:354:GLY:HA3 | 1:E:358:GLU:HB2 | 1.54 | 0.88 |
| 1:E:365:ARG:HH11 | 1:E:383:LEU:HD22 | 1.38 | 0.88 |
| 1:H:156:ILE:HD12 | 1:H:303:ILE:HD13 | 1.54 | 0.88 |
| 1:H:234:THR:HG21 | 1:H:276:LEU:HD12 | 1.55 | 0.88 |
| 1:N:145:LYS:HA | 1:N:148:GLU:HG2 | 1.55 | 0.88 |
| 1:C:251:LEU:HD22 | 1:C:255:ILE:HD11 | 1.55 | 0.88 |
| 1:H:255:ILE:HG12 | 1:H:275:ILE:HD13 | 1.55 | 0.88 |
| 1:H:198:SER:HB2 | 1:N:250:LYS:HB2 | 1.55 | 0.88 |
| 1:M:318:ILE:HG23 | 1:M:348:LEU:HD21 | 1.55 | 0.88 |
| 1:I:240:ILE:HD11 | 1:I:277:ALA:HB1 | 1.55 | 0.88 |
| 1:G:224:GLU:HG2 | 1:G:225:GLY:H | 1.39 | 0.88 |
| 1:L:140:VAL:CG1 | 1:L:320:LEU:HG | 2.03 | 0.88 |
| 1:N:251:LEU:HD22 | 1:N:296:LEU:HD21 | 1.54 | 0.88 |
| 1:A:275:ILE:H | 1:A:275:ILE:HD12 | 1.38 | 0.88 |
| 1:E:227:PHE:CE2 | 1:E:254:VAL:HG11 | 2.09 | 0.88 |
| 1:E:240:ILE:HD11 | 1:E:277:ALA:HB1 | 0.91 | 0.88 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:J:343:ALA:HB2 | 1:J:376:ASP:HA | 1.56 | 0.88 |
| 1:F:201:ARG:HH11 | 1:F:201:ARG:HB2 | 1.37 | 0.88 |
| 1:H:143:SER:HA | 1:H:147:LYS:HE3 | 1.56 | 0.87 |
| 1:L:163:VAL:HG22 | 1:L:303:ILE:HG21 | 1.54 | 0.87 |
| 1:E:267:LYS:H | 1:E:267:LYS:HD2 | 1.38 | 0.87 |
| 1:J:318:ILE:HG13 | 1:J:319:PRO:HD3 | 1.54 | 0.87 |
| 1:F:347:LEU:HD21 | 1:F:380:LEU:HD12 | 1.57 | 0.87 |
| 1:I:189:GLU:HB3 | 1:I:190:PRO:HD2 | 1.56 | 0.87 |
| 1:B:240:ILE:HG13 | 1:B:277:ALA:HB1 | 1.55 | 0.87 |
| 1:F:153:ILE:HG23 | 1:F:180:ILE:HG12 | 1.57 | 0.87 |
| 1:L:189:GLU:HG3 | 1:L:190:PRO:HD2 | 1.57 | 0.87 |
| 1:F:223:LYS:O | 1:F:225:GLY:N | 2.07 | 0.86 |
| 1:M:318:ILE:CG1 | 1:M:319:PRO:HD3 | 2.03 | 0.86 |
| 1:I:220:VAL:HG12 | 1:I:221:SER:N | 1.90 | 0.86 |
| 1:L:347:LEU:O | 1:L:349:SER:N | 2.08 | 0.86 |
| 1:D:282:ASN:HD22 | 1:D:285:GLU:HB2 | 1.39 | 0.86 |
| 1:L:165:ILE:O | 1:L:278:ALA:HB1 | 1.75 | 0.86 |
| 1:B:189:GLU:HG3 | 1:B:190:PRO:HD2 | 1.57 | 0.86 |
| 1:M:181:HIS:CE1 | 1:M:187:SER:HA | 2.11 | 0.86 |
| 1:C:143:SER:O | 1:C:147:LYS:HB2 | 1.75 | 0.86 |
| 1:I:284:LYS:HE2 | 1:I:297:TYR:OH | 1.75 | 0.86 |
| 1:M:143:SER:O | 1:M:147:LYS:HB2 | 1.76 | 0.86 |
| 1:I:141:PHE:CB | 1:I:150:LEU:HD11 | 2.06 | 0.86 |
| 1:E:292:PHE:CZ | 1:E:296:LEU:HD12 | 2.11 | 0.86 |
| 1:L:239:GLU:O | 1:L:241:GLY:N | 2.07 | 0.86 |
| 1:N:325:LEU:O | 1:N:325:LEU:HD23 | 1.76 | 0.85 |
| 1:H:192:VAL:HG21 | 1:H:230:ALA:HB2 | 1.58 | 0.85 |
| 1:M:318:ILE:HG13 | 1:M:319:PRO:CD | 2.03 | 0.85 |
| 1:N:259:LYS:HG2 | 1:N:270:GLU:HB2 | 1.58 | 0.85 |
| 1:B:275:ILE:HD12 | 1:B:275:ILE:N | 1.91 | 0.85 |
| 1:F:143:SER:HB2 | 1:F:144:PRO:HD2 | 1.59 | 0.85 |
| 1:N:318:ILE:HG13 | 1:N:319:PRO:HD3 | 1.58 | 0.85 |
| 1:B:146:MET:HG3 | 1:B:313:ARG:HH21 | 1.41 | 0.85 |
| 1:A:362:VAL:HG13 | 1:A:383:LEU:HD12 | 1.59 | 0.85 |
| 1:D:143:SER:HB2 | 1:D:315:GLU:HB2 | 1.55 | 0.85 |
| 1:E:354:GLY:N | 1:E:358:GLU:OE1 | 2.10 | 0.85 |
| 1:K:318:ILE:HG12 | 1:K:348:LEU:HD21 | 1.58 | 0.84 |
| 1:I:141:PHE:CD2 | 1:I:150:LEU:HD21 | 2.11 | 0.84 |
| 1:M:256:GLU:HG2 | 1:M:257:SER:H | 1.41 | 0.84 |
| 1:E:150:LEU:HD12 | 1:E:150:LEU:O | 1.76 | 0.84 |
| 1:F:153:ILE:HG21 | 1:F:179:LEU:HD22 | 1.60 | 0.84 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:N:200:PRO:HG2 | 1:N:203:ILE:HD12 | 1.59 | 0.84 |
| 1:C:365:ARG:NH1 | 1:C:383:LEU:HD22 | 1.93 | 0.84 |
| 1:D:284:LYS:HG2 | 1:D:297:TYR:OH | 1.78 | 0.84 |
| 1:H:146:MET:HG2 | 1:H:313:ARG:CZ | 2.08 | 0.84 |
| 1:N:139:TYR:CE2 | 1:N:175:VAL:HG13 | 2.12 | 0.84 |
| 1:K:209:PHE:CD2 | 1:K:250:LYS:HD3 | 2.12 | 0.84 |
| 1:L:376:ASP:O | 1:L:378:GLY:N | 2.10 | 0.84 |
| 1:D:357:ARG:HD3 | 2:D:2:ADP:H5'2 | 1.59 | 0.84 |
| 1:L:141:PHE:CE1 | 1:L:150:LEU:HG | 2.12 | 0.84 |
| 1:L:334:LYS:CE | 1:L:367:VAL:HG13 | 2.08 | 0.84 |
| 1:K:139:TYR:O | 1:K:140:VAL:HG23 | 1.75 | 0.84 |
| 1:K:279:THR:HG21 | 1:K:283:ILE:HD11 | 1.59 | 0.84 |
| 1:N:146:MET:HE3 | 1:N:307:ILE:HG23 | 1.59 | 0.84 |
| 1:D:235:LEU:CD1 | 1:D:236:PHE:N | 2.38 | 0.83 |
| 1:J:365:ARG:HD2 | 1:J:383:LEU:HD22 | 1.60 | 0.83 |
| 1:C:178:ARG:HH11 | 1:C:178:ARG:CG | 1.90 | 0.83 |
| 1:C:300:LEU:O | 1:C:302:VAL:N | 2.10 | 0.83 |
| 1:L:229:LEU:HD13 | 1:L:229:LEU:C | 1.98 | 0.83 |
| 1:D:207:GLU:HB3 | 1:D:226:PHE:CE1 | 2.14 | 0.83 |
| 1:I:194:LEU:HD13 | 1:I:226:PHE:HD1 | 1.44 | 0.83 |
| 1:J:318:ILE:HG12 | 1:J:348:LEU:HD21 | 1.58 | 0.83 |
| 1:L:141:PHE:CD1 | 1:L:150:LEU:HG | 2.14 | 0.83 |
| 1:M:283:ILE:HA | 1:M:286:LEU:HD12 | 1.58 | 0.83 |
| 1:A:358:GLU:O | 1:A:362:VAL:HG23 | 1.78 | 0.83 |
| 1:H:194:LEU:HD23 | 1:H:194:LEU:H | 1.44 | 0.83 |
| 1:A:143:SER:HB2 | 1:A:144:PRO:HD2 | 1.61 | 0.82 |
| 1:L:240:ILE:O | 1:L:240:ILE:HG22 | 1.78 | 0.82 |
| 1:F:238:ASP:O | 1:F:239:GLU:HG2 | 1.79 | 0.82 |
| 1:L:140:VAL:HG11 | 1:L:320:LEU:CG | 2.07 | 0.82 |
| 1:L:240:ILE:HD11 | 1:L:277:ALA:HB3 | 1.59 | 0.82 |
| 1:L:163:VAL:HG22 | 1:L:303:ILE:CG2 | 2.09 | 0.82 |
| 1:F:240:ILE:O | 1:F:242:GLU:N | 2.13 | 0.82 |
| 1:G:263:LEU:CG | 1:G:264:GLY:H | 1.92 | 0.82 |
| 1:I:172:GLY:O | 1:I:176:VAL:HG23 | 1.80 | 0.82 |
| 1:J:200:PRO:HG2 | 1:J:203:ILE:HD12 | 1.59 | 0.82 |
| 1:N:245:LEU:HD22 | 1:N:293:ARG:HG3 | 1.60 | 0.82 |
| 1:K:207:GLU:OE1 | 1:K:207:GLU:HA | 1.78 | 0.82 |
| 1:C:181:HIS:HD2 | 1:C:191:PHE:CD1 | 1.98 | 0.82 |
| 1:F:343:ALA:O | 1:F:345:GLU:N | 2.12 | 0.82 |
| 1:H:168:GLU:HG3 | 1:H:311:ARG:HH22 | 1.44 | 0.82 |
| 1:K:186:ARG:HH22 | 1:K:272:ASN:ND2 | 1.78 | 0.82 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:211:TYR:CE1 | 1:D:223:LYS:HB3 | 2.14 | 0.82 |
| 1:F:194:LEU:HD23 | 1:F:194:LEU:H | 1.42 | 0.82 |
| 1:B:324:PHE:HD1 | 1:B:363:ILE:HD12 | 1.44 | 0.81 |
| 1:E:354:GLY:CA | 1:E:358:GLU:HB2 | 2.09 | 0.81 |
| 1:L:334:LYS:HE3 | 1:L:336:VAL:HB | 1.60 | 0.81 |
| 1:C:150:LEU:HG | 1:C:154:LYS:HZ2 | 1.43 | 0.81 |
| 1:C:240:ILE:HG12 | 1:C:277:ALA:HB1 | 1.60 | 0.81 |
| 1:D:309:PRO:HB2 | 1:D:311:ARG:HG2 | 1.61 | 0.81 |
| 1:E:309:PRO:HB2 | 1:E:311:ARG:HD3 | 1.61 | 0.81 |
| 1:H:197:ALA:O | 1:N:246:GLU:HA | 1.79 | 0.81 |
| 1:K:235:LEU:HB2 | 1:K:273:VAL:HG11 | 1.61 | 0.81 |
| 1:N:146:MET:CE | 1:N:307:ILE:HG23 | 2.10 | 0.81 |
| 1:C:181:HIS:HD2 | 1:C:191:PHE:HB2 | 1.38 | 0.81 |
| 1:E:310:LEU:O | 1:E:317:ILE:HD11 | 1.80 | 0.81 |
| 1:I:220:VAL:CG1 | 1:I:221:SER:H | 1.93 | 0.81 |
| 1:F:172:GLY:HA2 | 2:F:4:ADP:PA | 2.21 | 0.81 |
| 1:I:301:GLY:O | 1:J:365:ARG:NH2 | 2.14 | 0.81 |
| 1:M:207:GLU:O | 1:M:226:PHE:HD1 | 1.64 | 0.81 |
| 1:E:137:GLU:HG2 | 1:E:138:GLU:H | 1.45 | 0.81 |
| 1:E:358:GLU:O | 1:E:362:VAL:HG23 | 1.81 | 0.81 |
| 1:H:265:GLY:O | 1:H:266:ARG:HD3 | 1.80 | 0.81 |
| 1:I:143:SER:HB3 | 1:I:316:ASP:OD2 | 1.81 | 0.81 |
| 1:L:138:GLU:HG3 | 1:L:139:TYR:H | 1.44 | 0.81 |
| 1:I:240:ILE:CD1 | 1:I:277:ALA:HB1 | 2.10 | 0.81 |
| 1:K:216:PHE:CD1 | 1:K:219:ALA:HB2 | 2.16 | 0.81 |
| 1:C:227:PHE:CE2 | 1:C:254:VAL:HG11 | 2.15 | 0.81 |
| 1:A:240:ILE:HG13 | 1:A:277:ALA:HB1 | 1.61 | 0.81 |
| 1:E:138:GLU:HB2 | 1:E:323:HIS:NE2 | 1.95 | 0.81 |
| 1:G:231:ASP:OD1 | 1:G:271:VAL:HA | 1.81 | 0.81 |
| 1:I:252:LEU:HD13 | 1:I:296:LEU:HA | 1.60 | 0.81 |
| 1:K:204:PHE:HE2 | 1:K:208:LEU:HD12 | 1.47 | 0.80 |
| 1:B:321:ALA:HA | 1:B:363:ILE:HD11 | 1.63 | 0.80 |
| 1:N:165:ILE:O | 1:N:278:ALA:HA | 1.81 | 0.80 |
| 1:K:216:PHE:HD1 | 1:K:219:ALA:HB2 | 1.46 | 0.80 |
| 1:I:267:LYS:H | 1:I:267:LYS:HD2 | 1.46 | 0.80 |
| 1:M:249:ALA:HA | 1:M:293:ARG:HH12 | 1.46 | 0.80 |
| 1:B:178:ARG:HD2 | 1:B:191:PHE:CE2 | 2.16 | 0.80 |
| 1:E:316:ASP:O | 1:E:319:PRO:HD2 | 1.81 | 0.80 |
| 1:K:161:CYS:HB2 | 1:K:162:PRO:HD2 | 1.61 | 0.80 |
| 1:K:215:ALA:H | 1:K:219:ALA:CB | 1.95 | 0.80 |
| 1:L:350:TYR:CD2 | 1:L:351:PRO:CD | 2.62 | 0.80 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:279:THR:HG21 | 1:E:283:ILE:HD11 | 1.64 | 0.79 |
| 1:G:209:PHE:O | 1:G:225:GLY:HA3 | 1.82 | 0.79 |
| 1:L:141:PHE:HD2 | 1:L:141:PHE:N | 1.79 | 0.79 |
| 1:H:189:GLU:CG | 1:H:190:PRO:HD2 | 2.13 | 0.79 |
| 1:M:146:MET:HA | 1:M:146:MET:HE3 | 1.62 | 0.79 |
| 1:D:350:TYR:CD1 | 1:D:351:PRO:HD2 | 2.17 | 0.79 |
| 1:J:200:PRO:CG | 1:J:203:ILE:HD12 | 2.11 | 0.79 |
| 1:L:281:ARG:HD2 | 1:L:282:ASN:H | 1.46 | 0.79 |
| 1:L:334:LYS:HZ2 | 1:L:367:VAL:CG1 | 1.88 | 0.79 |
| 1:N:328:PHE:O | 1:N:367:VAL:HG11 | 1.82 | 0.79 |
| 1:C:181:HIS:CD2 | 1:C:191:PHE:HD1 | 2.01 | 0.79 |
| 1:L:339:PHE:CE2 | 1:L:375:ILE:HD11 | 2.18 | 0.79 |
| 1:N:359:LEU:O | 1:N:363:ILE:HG13 | 1.83 | 0.79 |
| 1:M:191:PHE:HE2 | 1:M:193:ALA:HB2 | 1.46 | 0.79 |
| 1:D:235:LEU:HD11 | 1:D:237:LEU:HD23 | 1.63 | 0.79 |
| 1:H:145:LYS:HB2 | 1:H:313:ARG:HH21 | 1.45 | 0.79 |
| 1:J:316:ASP:O | 1:J:319:PRO:HD2 | 1.80 | 0.79 |
| 1:K:143:SER:HB2 | 1:K:144:PRO:HD2 | 1.62 | 0.79 |
| 1:M:363:ILE:H | 1:M:363:ILE:CD1 | 1.96 | 0.79 |
| 1:B:318:ILE:HG13 | 1:B:319:PRO:HD3 | 1.63 | 0.79 |
| 1:D:235:LEU:CD1 | 1:D:236:PHE:H | 1.96 | 0.79 |
| 1:E:234:THR:HG23 | 1:E:274:ARG:HB3 | 1.65 | 0.79 |
| 1:M:167:GLY:O | 1:M:280:ASN:HA | 1.83 | 0.79 |
| 1:D:203:ILE:HG22 | 1:D:207:GLU:HG2 | 1.65 | 0.79 |
| 1:I:314:LYS:HA | 1:I:317:ILE:CD1 | 2.13 | 0.79 |
| 1:M:246:GLU:O | 1:M:249:ALA:HB3 | 1.83 | 0.79 |
| 1:C:153:ILE:HG21 | 1:C:179:LEU:HD22 | 1.64 | 0.79 |
| 1:F:309:PRO:HG3 | 1:F:311:ARG:HH12 | 1.47 | 0.79 |
| 1:E:196:VAL:O | 1:E:196:VAL:HG12 | 1.83 | 0.78 |
| 1:H:350:TYR:HB3 | 1:H:351:PRO:HA | 1.65 | 0.78 |
| 1:K:282:ASN:HD22 | 1:K:285:GLU:HB2 | 1.47 | 0.78 |
| 1:H:196:VAL:HA | 1:H:204:PHE:CE1 | 2.19 | 0.78 |
| 1:C:172:GLY:O | 1:C:176:VAL:HG23 | 1.83 | 0.78 |
| 1:L:195:ASN:HB3 | 1:L:198:SER:OG | 1.84 | 0.78 |
| 1:E:269:ILE:H | 1:E:269:ILE:HD12 | 1.49 | 0.78 |
| 1:F:178:ARG:HH11 | 1:F:178:ARG:HG3 | 1.46 | 0.78 |
| 1:G:340:THR:OG1 | 1:G:342:SER:HB3 | 1.82 | 0.78 |
| 1:K:205:GLU:OE1 | 1:K:246:GLU:HB2 | 1.83 | 0.78 |
| 1:K:249:ALA:HB2 | 1:K:293:ARG:HH11 | 1.49 | 0.78 |
| 1:L:138:GLU:CG | 1:L:139:TYR:H | 1.93 | 0.78 |
| 1:M:146:MET:HG3 | 1:M:313:ARG:HE | 1.47 | 0.78 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:192:VAL:CG2 | 1:E:230:ALA:HB2 | 2.13 | 0.78 |
| 1:E:216:PHE:CD2 | 1:E:219:ALA:HB2 | 2.18 | 0.78 |
| 1:K:143:SER:HB2 | 1:K:315:GLU:HB2 | 1.64 | 0.78 |
| 1:M:281:ARG:HG2 | 1:M:286:LEU:HD21 | 1.66 | 0.78 |
| 1:A:189:GLU:HG3 | 1:A:190:PRO:HD2 | 1.66 | 0.78 |
| 1:N:200:PRO:CG | 1:N:203:ILE:HD12 | 2.14 | 0.78 |
| 1:A:139:TYR:CD2 | 1:A:175:VAL:HG13 | 2.19 | 0.78 |
| 1:D:192:VAL:O | 1:D:192:VAL:HG12 | 1.84 | 0.78 |
| 1:C:253:ARG:HG2 | 1:C:253:ARG:HH11 | 1.49 | 0.77 |
| 1:E:167:GLY:O | 1:E:173:LYS:HE3 | 1.84 | 0.77 |
| 1:H:356:VAL:HG11 | 2:H:14:ADP:C8 | 2.20 | 0.77 |
| 1:E:165:ILE:CD1 | 1:E:177:ALA:HB2 | 2.14 | 0.77 |
| 1:F:325:LEU:HD21 | 1:F:336:VAL:HG12 | 1.66 | 0.77 |
| 1:C:314:LYS:HA | 1:C:317:ILE:HG13 | 1.66 | 0.77 |
| 1:D:210:GLY:HA3 | 1:D:225:GLY:H | 1.48 | 0.77 |
| 1:L:311:ARG:HG2 | 1:L:351:PRO:O | 1.83 | 0.77 |
| 1:E:325:LEU:O | 1:E:325:LEU:HD23 | 1.85 | 0.77 |
| 1:F:357:ARG:HH11 | 1:F:357:ARG:HG3 | 1.49 | 0.77 |
| 1:B:275:ILE:H | 1:B:275:ILE:CD1 | 1.93 | 0.77 |
| 1:M:143:SER:CB | 1:M:144:PRO:HD2 | 2.11 | 0.77 |
| 1:E:203:ILE:O | 1:E:206:ALA:HB3 | 1.85 | 0.77 |
| 1:F:176:VAL:O | 1:F:180:ILE:HG13 | 1.84 | 0.77 |
| 1:L:350:TYR:HD2 | 1:L:352:TRP:H | 1.33 | 0.77 |
| 1:G:252:LEU:HB2 | 1:G:296:LEU:HD23 | 1.66 | 0.77 |
| 1:J:332:TYR:CE1 | 1:J:368:LEU:HD21 | 2.19 | 0.77 |
| 1:L:194:LEU:HD21 | 1:L:237:LEU:HD23 | 1.67 | 0.77 |
| 1:M:189:GLU:HG3 | 1:M:190:PRO:HD2 | 1.67 | 0.77 |
| 1:A:325:LEU:HD13 | 1:A:338:GLY:HA2 | 1.67 | 0.76 |
| 1:L:334:LYS:HZ3 | 1:L:367:VAL:CG1 | 1.95 | 0.76 |
| 1:N:245:LEU:HA | 1:N:248:GLN:HE21 | 1.48 | 0.76 |
| 1:G:263:LEU:CD2 | 1:G:264:GLY:H | 1.97 | 0.76 |
| 1:E:192:VAL:HG21 | 1:E:230:ALA:HB2 | 1.67 | 0.76 |
| 1:F:347:LEU:HD21 | 1:F:380:LEU:CD1 | 2.15 | 0.76 |
| 1:I:377:ARG:HD2 | 1:I:381:SER:HB3 | 1.68 | 0.76 |
| 1:L:140:VAL:O | 1:L:140:VAL:HG12 | 1.84 | 0.76 |
| 1:N:208:LEU:HA | 1:N:226:PHE:HB2 | 1.68 | 0.76 |
| 1:H:240:ILE:HG13 | 1:H:277:ALA:HB1 | 1.67 | 0.76 |
| 1:I:283:ILE:O | 1:I:287:VAL:HG23 | 1.84 | 0.76 |
| 1:K:325:LEU:HD13 | 1:K:338:GLY:HA2 | 1.68 | 0.76 |
| 1:L:314:LYS:HA | 1:L:317:ILE:CD1 | 2.15 | 0.76 |
| 1:A:252:LEU:HD13 | 1:A:296:LEU:HA | 1.67 | 0.76 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:176:VAL:O | 1:C:180:ILE:HG13 | 1.86 | 0.76 |
| 1:H:161:CYS:HB2 | 1:H:162:PRO:HD2 | 1.68 | 0.76 |
| 1:M:256:GLU:HG2 | 1:M:257:SER:N | 2.01 | 0.76 |
| 1:E:138:GLU:HB2 | 1:E:323:HIS:HE2 | 1.49 | 0.76 |
| 1:H:250:LYS:HG3 | 1:I:198:SER:HB2 | 1.66 | 0.76 |
| 1:F:157:SER:OG | 1:F:183:LEU:HB2 | 1.86 | 0.75 |
| 1:H:254:VAL:HG22 | 1:H:260:PHE:HB3 | 1.67 | 0.75 |
| 1:L:248:GLN:HE22 | 1:L:292:PHE:HA | 1.49 | 0.75 |
| 1:N:209:PHE:CD1 | 1:N:250:LYS:HD3 | 2.20 | 0.75 |
| 1:N:281:ARG:HD3 | 1:N:281:ARG:N | 1.99 | 0.75 |
| 1:I:173:LYS:HE3 | 2:I:8:ADP:O1B | 1.87 | 0.75 |
| 1:J:350:TYR:CD1 | 1:J:351:PRO:HD2 | 2.22 | 0.75 |
| 1:D:158:CYS:HA | 1:D:185:ASP:OD1 | 1.87 | 0.75 |
| 1:E:355:ASN:H | 1:E:355:ASN:HD22 | 1.34 | 0.75 |
| 1:G:263:LEU:HD23 | 1:G:264:GLY:H | 1.51 | 0.75 |
| 1:I:208:LEU:HD21 | 1:I:227:PHE:CD1 | 2.21 | 0.75 |
| 1:L:250:LYS:O | 1:L:253:ARG:HB3 | 1.87 | 0.75 |
| 1:M:139:TYR:HB3 | 2:M:12:ADP:N1 | 2.02 | 0.75 |
| 1:D:237:LEU:HD12 | 1:D:243:LEU:HD11 | 1.68 | 0.75 |
| 1:E:292:PHE:HE2 | 1:E:296:LEU:HB3 | 1.50 | 0.75 |
| 1:F:355:ASN:OD1 | 1:F:355:ASN:N | 2.17 | 0.75 |
| 1:L:141:PHE:N | 1:L:141:PHE:CD2 | 2.49 | 0.75 |
| 1:L:340:THR:CG2 | 1:L:376:ASP:HB3 | 2.15 | 0.75 |
| 1:M:227:PHE:CE2 | 1:M:273:VAL:HG21 | 2.22 | 0.75 |
| 1:I:253:ARG:NE | 1:J:198:SER:HB2 | 2.02 | 0.75 |
| 1:K:252:LEU:HB2 | 1:K:296:LEU:HD23 | 1.68 | 0.75 |
| 1:M:201:ARG:HH11 | 1:M:201:ARG:CB | 1.91 | 0.75 |
| 1:N:153:ILE:HG21 | 1:N:179:LEU:HD22 | 1.67 | 0.75 |
| 1:B:192:VAL:HG21 | 1:B:230:ALA:HB2 | 1.69 | 0.75 |
| 1:B:201:ARG:HB2 | 1:B:201:ARG:NH1 | 2.00 | 0.75 |
| 1:F:275:ILE:H | 1:F:275:ILE:HD12 | 1.52 | 0.75 |
| 1:G:245:LEU:HD22 | 1:G:248:GLN:NE2 | 2.01 | 0.75 |
| 1:I:297:TYR:HD2 | 1:I:298:TYR:CD1 | 2.04 | 0.75 |
| 1:J:282:ASN:ND2 | 1:J:285:GLU:HB2 | 2.00 | 0.75 |
| 1:J:365:ARG:HD2 | 1:J:383:LEU:CD2 | 2.16 | 0.75 |
| 1:K:302:VAL:HG21 | 1:L:361:ASN:HB3 | 1.68 | 0.75 |
| 1:N:240:ILE:CD1 | 1:N:277:ALA:HB1 | 2.05 | 0.75 |
| 1:B:176:VAL:O | 1:B:180:ILE:HG13 | 1.86 | 0.75 |
| 1:D:235:LEU:HD11 | 1:D:237:LEU:CD2 | 2.17 | 0.75 |
| 1:L:281:ARG:HD2 | 1:L:282:ASN:N | 2.01 | 0.75 |
| 1:N:143:SER:HB2 | 1:N:144:PRO:HD2 | 1.68 | 0.75 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:340:THR:OG1 | 1:A:376:ASP:HB3 | 1.87 | 0.74 |
| 1:E:292:PHE:CE2 | 1:E:296:LEU:HD12 | 2.22 | 0.74 |
| 1:H:320:LEU:HB3 | 1:H:324:PHE:HE1 | 1.52 | 0.74 |
| 1:M:347:LEU:HD21 | 1:M:380:LEU:HG | 1.69 | 0.74 |
| 1:F:311:ARG:HH11 | 1:F:311:ARG:HG2 | 1.52 | 0.74 |
| 1:I:176:VAL:O | 1:I:180:ILE:HG13 | 1.87 | 0.74 |
| 1:F:163:VAL:HG13 | 1:F:303:ILE:HG22 | 1.69 | 0.74 |
| 1:L:314:LYS:HA | 1:L:317:ILE:HD11 | 1.67 | 0.74 |
| 1:C:194:LEU:H | 1:C:194:LEU:CD2 | 2.00 | 0.74 |
| 1:M:171:VAL:HB | 1:M:307:ILE:HG22 | 1.68 | 0.74 |
| 1:G:189:GLU:HG2 | 1:G:232:GLY:O | 1.87 | 0.74 |
| 1:M:168:GLU:OE1 | 1:M:309:PRO:HB3 | 1.87 | 0.74 |
| 1:E:157:SER:HB3 | 1:E:183:LEU:O | 1.88 | 0.74 |
| 1:F:213:LYS:HD3 | 1:G:220:VAL:HG11 | 1.69 | 0.74 |
| 1:I:204:PHE:HE2 | 1:I:208:LEU:HD12 | 1.51 | 0.74 |
| 1:H:377:ARG:HG2 | 1:H:381:SER:HB3 | 1.70 | 0.74 |
| 1:I:256:GLU:HG2 | 1:I:299:ARG:HE | 1.51 | 0.74 |
| 1:L:315:GLU:N | 1:L:315:GLU:OE1 | 2.20 | 0.74 |
| 1:B:194:LEU:HD21 | 1:B:237:LEU:HD23 | 1.69 | 0.74 |
| 1:D:337:GLU:OE1 | 1:D:373:LYS:HD3 | 1.87 | 0.74 |
| 1:B:380:LEU:O | 1:B:384:VAL:HB | 1.88 | 0.74 |
| 1:C:165:ILE:HB | 1:C:278:ALA:HB2 | 1.67 | 0.74 |
| 1:F:340:THR:HG23 | 1:F:376:ASP:HB3 | 1.69 | 0.74 |
| 1:J:208:LEU:HA | 1:J:226:PHE:HB2 | 1.69 | 0.74 |
| 1:K:314:LYS:HA | 1:K:317:ILE:HG13 | 1.70 | 0.74 |
| 1:E:205:GLU:OE2 | 1:E:246:GLU:HB2 | 1.87 | 0.73 |
| 1:I:194:LEU:HD23 | 1:I:194:LEU:N | 2.02 | 0.73 |
| 1:J:172:GLY:O | 1:J:176:VAL:HG23 | 1.88 | 0.73 |
| 1:M:192:VAL:O | 1:M:235:LEU:HD12 | 1.87 | 0.73 |
| 1:L:176:VAL:O | 1:L:180:ILE:HG13 | 1.88 | 0.73 |
| 1:L:224:GLU:HA | 1:L:262:ARG:NH2 | 1.99 | 0.73 |
| 1:B:192:VAL:CG2 | 1:B:230:ALA:HB2 | 2.18 | 0.73 |
| 1:C:181:HIS:CE1 | 1:C:187:SER:HA | 2.24 | 0.73 |
| 1:D:143:SER:HB2 | 1:D:144:PRO:HD2 | 1.70 | 0.73 |
| 1:D:266:ARG:HH22 | 1:E:207:GLU:HG2 | 1.54 | 0.73 |
| 1:L:298:TYR:CE1 | 1:M:354:GLY:HA3 | 2.23 | 0.73 |
| 1:B:227:PHE:CE2 | 1:B:254:VAL:HG11 | 2.23 | 0.73 |
| 1:E:365:ARG:NH1 | 1:E:383:LEU:HD22 | 2.02 | 0.73 |
| 1:H:311:ARG:HG2 | 1:H:352:TRP:HA | 1.70 | 0.73 |
| 1:I:165:ILE:HB | 1:I:278:ALA:HB2 | 1.70 | 0.73 |
| 1:M:265:GLY:HA2 | 1:N:203:ILE:HD13 | 1.70 | 0.73 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:201:ARG:HB2 | 1:E:201:ARG:NH1 | 2.03 | 0.73 |
| 1:F:321:ALA:HA | 1:F:363:ILE:CD1 | 2.18 | 0.73 |
| 1:K:164:LEU:HD12 | 1:K:165:ILE:N | 2.03 | 0.73 |
| 1:L:352:TRP:CH2 | 1:L:362:VAL:HG21 | 2.23 | 0.73 |
| 1:M:363:ILE:N | 1:M:363:ILE:HD12 | 2.03 | 0.73 |
| 1:G:275:ILE:HD12 | 1:G:275:ILE:N | 2.04 | 0.73 |
| 1:L:343:ALA:HB2 | 1:L:376:ASP:CA | 2.15 | 0.73 |
| 1:N:357:ARG:HH12 | 1:N:361:ASN:CG | 1.92 | 0.73 |
| 1:N:363:ILE:O | 1:N:367:VAL:HG23 | 1.88 | 0.73 |
| 1:B:201:ARG:HB2 | 1:B:201:ARG:HH11 | 1.53 | 0.73 |
| 1:K:342:SER:OG | 1:K:377:ARG:HB2 | 1.88 | 0.73 |
| 1:B:365:ARG:HH11 | 1:B:383:LEU:HB3 | 1.52 | 0.73 |
| 1:D:248:GLN:HE22 | 1:D:292:PHE:HA | 1.54 | 0.73 |
| 1:E:236:PHE:HD1 | 1:E:276:LEU:O | 1.71 | 0.73 |
| 1:C:283:ILE:HG21 | 1:C:297:TYR:CD1 | 2.23 | 0.73 |
| 1:I:165:ILE:HG22 | 1:I:173:LYS:HG2 | 1.70 | 0.73 |
| 1:L:283:ILE:HB | 1:L:297:TYR:CZ | 2.24 | 0.73 |
| 1:D:244:SER:O | 1:D:248:GLN:HG3 | 1.88 | 0.72 |
| 1:A:309:PRO:HG3 | 1:A:311:ARG:NH1 | 2.04 | 0.72 |
| 1:C:140:VAL:O | 1:C:140:VAL:HG12 | 1.89 | 0.72 |
| 1:C:162:PRO:HG2 | 1:C:302:VAL:HG23 | 1.70 | 0.72 |
| 1:D:189:GLU:HG3 | 1:D:190:PRO:HD2 | 1.71 | 0.72 |
| 1:D:194:LEU:O | 1:D:194:LEU:HD23 | 1.89 | 0.72 |
| 1:H:321:ALA:HA | 1:H:363:ILE:CD1 | 2.18 | 0.72 |
| 1:N:239:GLU:O | 1:N:241:GLY:N | 2.23 | 0.72 |
| 1:F:309:PRO:HA | 1:F:355:ASN:HD22 | 1.51 | 0.72 |
| 1:L:240:ILE:HB | 1:L:279:THR:HG22 | 1.71 | 0.72 |
| 1:B:161:CYS:HB2 | 1:B:162:PRO:HD2 | 1.71 | 0.72 |
| 1:E:176:VAL:HG21 | 1:E:307:ILE:HD11 | 1.71 | 0.72 |
| 1:G:299:ARG:HA | 1:G:299:ARG:HE | 1.54 | 0.72 |
| 1:J:189:GLU:CG | 1:J:190:PRO:HD2 | 2.18 | 0.72 |
| 1:K:157:SER:OG | 1:K:183:LEU:HB2 | 1.90 | 0.72 |
| 1:M:282:ASN:ND2 | 1:M:285:GLU:HB2 | 2.04 | 0.72 |
| 1:E:236:PHE:HE1 | 1:E:278:ALA:HB2 | 1.52 | 0.72 |
| 1:J:269:ILE:HD12 | 1:J:269:ILE:N | 2.05 | 0.72 |
| 1:K:216:PHE:HD1 | 1:K:216:PHE:N | 1.88 | 0.72 |
| 1:B:186:ARG:HD3 | 1:B:232:GLY:O | 1.88 | 0.72 |
| 1:C:181:HIS:HD2 | 1:C:191:PHE:HD1 | 1.33 | 0.72 |
| 1:D:263:LEU:HD23 | 1:D:264:GLY:N | 2.04 | 0.72 |
| 1:F:357:ARG:HG2 | 2:F:4:ADP:H5'2 | 1.70 | 0.72 |
| 1:G:194:LEU:HD21 | 1:G:237:LEU:HD22 | 1.71 | 0.72 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:143:SER:N | 1:I:316:ASP:OD1 | 2.23 | 0.72 |
| 1:I:318:ILE:HG12 | 1:I:348:LEU:HD21 | 1.69 | 0.72 |
| 1:B:153:ILE:HG21 | 1:B:179:LEU:HD22 | 1.71 | 0.72 |
| 1:E:146:MET:CE | 1:E:149:ILE:HD12 | 2.20 | 0.72 |
| 1:G:310:LEU:HB2 | 1:G:355:ASN:CB | 2.19 | 0.72 |
| 1:H:208:LEU:HD23 | 1:H:209:PHE:CE1 | 2.25 | 0.72 |
| 1:I:261:TYR:CE1 | 1:J:199:ILE:HG12 | 2.20 | 0.72 |
| 1:M:265:GLY:HA2 | 1:N:203:ILE:CD1 | 2.20 | 0.72 |
| 1:N:357:ARG:HH12 | 1:N:361:ASN:ND2 | 1.88 | 0.72 |
| 1:F:279:THR:HG21 | 1:F:283:ILE:HD11 | 1.72 | 0.72 |
| 1:H:357:ARG:HG3 | 2:H:14:ADP:H5'2 | 1.72 | 0.72 |
| 1:J:201:ARG:HH11 | 1:J:201:ARG:CB | 2.02 | 0.72 |
| 1:F:362:VAL:HG13 | 1:F:383:LEU:HD12 | 1.71 | 0.71 |
| 1:J:168:GLU:OE1 | 1:J:309:PRO:HB3 | 1.90 | 0.71 |
| 1:M:253:ARG:HG3 | 1:N:198:SER:CB | 2.19 | 0.71 |
| 1:D:341:LYS:O | 1:D:345:GLU:HG3 | 1.90 | 0.71 |
| 1:E:347:LEU:HD21 | 1:E:380:LEU:CD1 | 2.19 | 0.71 |
| 1:F:173:LYS:H | 2:F:4:ADP:PB | 2.14 | 0.71 |
| 1:G:313:ARG:HB3 | 1:G:316:ASP:OD2 | 1.89 | 0.71 |
| 1:E:149:ILE:O | 1:E:152:LYS:N | 2.23 | 0.71 |
| 1:G:189:GLU:CG | 1:G:190:PRO:HD2 | 2.19 | 0.71 |
| 1:E:186:ARG:NH2 | 1:E:272:ASN:HD21 | 1.87 | 0.71 |
| 1:E:328:PHE:CE1 | 1:E:364:GLU:HB2 | 2.25 | 0.71 |
| 1:F:194:LEU:HD23 | 1:F:194:LEU:N | 2.04 | 0.71 |
| 1:F:321:ALA:HA | 1:F:363:ILE:HD11 | 1.72 | 0.71 |
| 1:I:254:VAL:HG22 | 1:I:260:PHE:HB3 | 1.71 | 0.71 |
| 1:I:335:GLU:O | 1:I:373:LYS:HG2 | 1.89 | 0.71 |
| 1:J:194:LEU:HD21 | 1:J:237:LEU:HD23 | 1.73 | 0.71 |
| 1:J:340:THR:OG1 | 1:J:376:ASP:HB2 | 1.90 | 0.71 |
| 1:L:334:LYS:HD3 | 1:L:367:VAL:HG13 | 1.70 | 0.71 |
| 1:B:174:GLU:HB3 | 2:B:7:ADP:O1A | 1.90 | 0.71 |
| 1:E:216:PHE:CE2 | 1:E:219:ALA:HB2 | 2.26 | 0.71 |
| 1:I:156:ILE:O | 1:I:158:CYS:N | 2.22 | 0.71 |
| 1:L:211:TYR:HE1 | 1:L:223:LYS:HD3 | 1.55 | 0.71 |
| 1:M:363:ILE:H | 1:M:363:ILE:HD12 | 1.55 | 0.71 |
| 1:L:138:GLU:OE1 | 1:L:323:HIS:NE2 | 2.24 | 0.71 |
| 1:M:180:ILE:CG2 | 1:M:276:LEU:HD11 | 2.18 | 0.71 |
| 1:F:314:LYS:HA | 1:F:317:ILE:HG13 | 1.72 | 0.71 |
| 1:K:269:ILE:HD12 | 1:K:269:ILE:H | 1.56 | 0.71 |
| 1:N:201:ARG:HB2 | 1:N:201:ARG:NH1 | 2.06 | 0.71 |
| 1:N:246:GLU:CD | 1:N:246:GLU:H | 1.89 | 0.71 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:234:THR:HG23 | 1:B:274:ARG:O | 1.90 | 0.71 |
| 1:C:194:LEU:H | 1:C:194:LEU:HD23 | 1.55 | 0.71 |
| 1:C:244:SER:O | 1:C:248:GLN:HG3 | 1.89 | 0.71 |
| 1:D:316:ASP:O | 1:D:319:PRO:HD2 | 1.90 | 0.71 |
| 1:N:145:LYS:CA | 1:N:148:GLU:HG2 | 2.19 | 0.71 |
| 1:N:339:PHE:CE2 | 1:N:347:LEU:HD11 | 2.25 | 0.71 |
| 1:E:355:ASN:HD22 | 1:E:355:ASN:N | 1.86 | 0.71 |
| 1:A:139:TYR:CE2 | 1:A:175:VAL:HG22 | 2.26 | 0.71 |
| 1:B:208:LEU:HG | 1:B:209:PHE:CD1 | 2.26 | 0.71 |
| 1:E:181:HIS:CD2 | 1:E:234:THR:OG1 | 2.43 | 0.71 |
| 1:F:201:ARG:HB2 | 1:F:201:ARG:NH1 | 2.06 | 0.71 |
| 1:G:178:ARG:HA | 1:G:191:PHE:HE1 | 1.56 | 0.71 |
| 1:D:308:PRO:HG2 | 1:D:313:ARG:HD2 | 1.72 | 0.70 |
| 1:E:236:PHE:HE1 | 1:E:278:ALA:CB | 2.03 | 0.70 |
| 1:K:282:ASN:ND2 | 1:K:285:GLU:HB2 | 2.06 | 0.70 |
| 1:E:231:ASP:OD2 | 1:E:271:VAL:HG12 | 1.90 | 0.70 |
| 1:F:153:ILE:HD12 | 1:F:180:ILE:HG12 | 1.73 | 0.70 |
| 1:I:239:GLU:HG2 | 1:I:281:ARG:HH21 | 1.56 | 0.70 |
| 1:A:254:VAL:HG22 | 1:A:260:PHE:HB3 | 1.73 | 0.70 |
| 1:C:220:VAL:CG1 | 1:C:221:SER:H | 1.90 | 0.70 |
| 1:E:267:LYS:HD2 | 1:E:267:LYS:N | 2.06 | 0.70 |
| 1:H:146:MET:HG2 | 1:H:313:ARG:NH1 | 2.05 | 0.70 |
| 1:M:211:TYR:HE1 | 1:M:223:LYS:CB | 2.02 | 0.70 |
| 1:E:214:GLY:HA2 | 1:E:219:ALA:CB | 2.20 | 0.70 |
| 1:B:204:PHE:HE2 | 1:B:208:LEU:HD22 | 1.55 | 0.70 |
| 1:E:173:LYS:NZ | 2:E:3:ADP:O1B | 2.23 | 0.70 |
| 1:B:194:LEU:HD21 | 1:B:237:LEU:CD2 | 2.22 | 0.70 |
| 1:B:337:GLU:HG2 | 1:B:373:LYS:HB3 | 1.73 | 0.70 |
| 1:C:252:LEU:HD13 | 1:C:296:LEU:HA | 1.73 | 0.70 |
| 1:E:137:GLU:HG2 | 1:E:138:GLU:HG2 | 1.74 | 0.70 |
| 1:E:310:LEU:HG | 1:E:317:ILE:HG12 | 1.72 | 0.70 |
| 1:E:313:ARG:HB3 | 1:E:316:ASP:OD2 | 1.91 | 0.70 |
| 1:L:211:TYR:CE1 | 1:L:223:LYS:HD3 | 2.27 | 0.70 |
| 1:M:249:ALA:HA | 1:M:293:ARG:NH1 | 2.07 | 0.70 |
| 1:H:215:ALA:HA | 1:I:211:TYR:OH | 1.92 | 0.70 |
| 1:K:302:VAL:HG13 | 1:L:365:ARG:HB2 | 1.73 | 0.70 |
| 1:G:198:SER:O | 1:G:199:ILE:HG13 | 1.91 | 0.70 |
| 1:L:138:GLU:CG | 1:L:139:TYR:N | 2.47 | 0.70 |
| 1:L:343:ALA:O | 1:L:345:GLU:N | 2.25 | 0.70 |
| 1:M:314:LYS:HA | 1:M:317:ILE:CD1 | 2.22 | 0.70 |
| 1:N:325:LEU:HD23 | 1:N:325:LEU:C | 2.11 | 0.70 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:277:ALA:CB | 1:E:300:LEU:HD13 | 2.22 | 0.70 |
| 1:J:284:LYS:HE2 | 1:J:297:TYR:OH | 1.92 | 0.70 |
| 1:K:361:ASN:HD22 | 1:K:361:ASN:N | 1.90 | 0.70 |
| 1:C:162:PRO:HG2 | 1:C:302:VAL:CG2 | 2.22 | 0.70 |
| 1:G:320:LEU:HD11 | 1:G:356:VAL:HG13 | 1.74 | 0.70 |
| 1:K:216:PHE:CD1 | 1:K:216:PHE:N | 2.58 | 0.70 |
| 1:N:235:LEU:HD12 | 1:N:236:PHE:N | 2.06 | 0.70 |
| 1:H:198:SER:HB2 | 1:N:250:LYS:CB | 2.22 | 0.69 |
| 1:B:244:SER:O | 1:B:248:GLN:HG3 | 1.92 | 0.69 |
| 1:L:207:GLU:OE1 | 1:L:207:GLU:HA | 1.90 | 0.69 |
| 1:M:299:ARG:HD3 | 1:N:357:ARG:NH2 | 2.08 | 0.69 |
| 1:J:254:VAL:HG22 | 1:J:260:PHE:HB3 | 1.74 | 0.69 |
| 1:A:189:GLU:CG | 1:A:190:PRO:HD2 | 2.22 | 0.69 |
| 1:J:383:LEU:HD23 | 1:J:383:LEU:N | 2.07 | 0.69 |
| 1:B:208:LEU:HG | 1:B:209:PHE:CE1 | 2.26 | 0.69 |
| 1:B:266:ARG:HB3 | 1:C:229:LEU:CD2 | 2.22 | 0.69 |
| 1:B:317:ILE:HB | 1:B:348:LEU:CD2 | 2.22 | 0.69 |
| 1:F:149:ILE:HD13 | 1:F:307:ILE:HD13 | 1.73 | 0.69 |
| 1:H:215:ALA:HB2 | 1:I:223:LYS:NZ | 2.07 | 0.69 |
| 1:E:303:ILE:HG22 | 1:E:303:ILE:O | 1.92 | 0.69 |
| 1:H:234:THR:HG21 | 1:H:276:LEU:CD1 | 2.21 | 0.69 |
| 1:I:240:ILE:HD11 | 1:I:277:ALA:CB | 2.22 | 0.69 |
| 1:L:322:ASN:HA | 1:L:339:PHE:HE1 | 1.55 | 0.69 |
| 1:L:340:THR:HG23 | 1:L:376:ASP:HB3 | 1.72 | 0.69 |
| 1:N:165:ILE:HB | 1:N:278:ALA:HB2 | 1.73 | 0.69 |
| 1:N:283:ILE:O | 1:N:287:VAL:HG23 | 1.91 | 0.69 |
| 1:C:161:CYS:HB2 | 1:C:302:VAL:HG11 | 1.74 | 0.69 |
| 1:C:300:LEU:O | 1:C:302:VAL:HG23 | 1.93 | 0.69 |
| 1:E:308:PRO:HG2 | 1:E:313:ARG:HD2 | 1.75 | 0.69 |
| 1:F:267:LYS:HD2 | 1:F:267:LYS:N | 2.08 | 0.69 |
| 1:I:172:GLY:HA2 | 2:I:8:ADP:O1A | 1.93 | 0.69 |
| 1:J:240:ILE:O | 1:J:242:GLU:N | 2.25 | 0.69 |
| 1:B:189:GLU:CG | 1:B:190:PRO:HD2 | 2.23 | 0.69 |
| 1:D:210:GLY:CA | 1:D:225:GLY:H | 2.04 | 0.69 |
| 1:E:171:VAL:HB | 1:E:307:ILE:HG22 | 1.75 | 0.69 |
| 1:F:346:LEU:HG | 1:F:377:ARG:HH11 | 1.56 | 0.69 |
| 1:G:310:LEU:HD22 | 1:G:317:ILE:HG12 | 1.74 | 0.69 |
| 1:I:207:GLU:OE1 | 1:I:207:GLU:HA | 1.92 | 0.69 |
| 1:M:350:TYR:CG | 1:M:351:PRO:HD2 | 2.27 | 0.69 |
| 1:A:369:PHE:HA | 1:G:155:LYS:HD3 | 1.75 | 0.69 |
| 1:D:227:PHE:HD2 | 1:D:273:VAL:HG21 | 1.58 | 0.69 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:J:144:PRO:HG2 | 1:J:145:LYS:H | 1.58 | 0.69 |
| 1:C:266:ARG:NH1 | 1:D:216:PHE:CZ | 2.58 | 0.69 |
| 1:F:172:GLY:O | 1:F:176:VAL:HG23 | 1.92 | 0.69 |
| 1:I:365:ARG:NE | 1:I:383:LEU:HD22 | 2.08 | 0.69 |
| 1:L:302:VAL:O | 1:M:365:ARG:HD3 | 1.93 | 0.69 |
| 1:C:236:PHE:CE2 | 1:C:238:ASP:HB2 | 2.28 | 0.68 |
| 1:I:256:GLU:HG2 | 1:I:299:ARG:NE | 2.08 | 0.68 |
| 1:K:208:LEU:HD22 | 1:K:209:PHE:CD1 | 2.28 | 0.68 |
| 1:A:237:LEU:HB2 | 1:A:240:ILE:CD1 | 2.23 | 0.68 |
| 1:A:325:LEU:CD1 | 1:A:338:GLY:HA2 | 2.23 | 0.68 |
| 1:B:178:ARG:HD2 | 1:B:191:PHE:HE2 | 1.59 | 0.68 |
| 1:E:186:ARG:HB2 | 1:E:189:GLU:HB2 | 1.75 | 0.68 |
| 1:E:313:ARG:O | 1:E:315:GLU:N | 2.26 | 0.68 |
| 1:G:308:PRO:HG2 | 1:G:313:ARG:HD2 | 1.75 | 0.68 |
| 1:H:227:PHE:CE2 | 1:H:254:VAL:HG11 | 2.28 | 0.68 |
| 1:H:359:LEU:O | 1:H:359:LEU:HD23 | 1.94 | 0.68 |
| 1:J:220:VAL:HG12 | 1:J:221:SER:N | 2.09 | 0.68 |
| 1:M:244:SER:O | 1:M:247:ALA:HB3 | 1.92 | 0.68 |
| 1:A:161:CYS:O | 1:A:274:ARG:NH1 | 2.25 | 0.68 |
| 1:B:260:PHE:C | 1:B:260:PHE:HD1 | 1.97 | 0.68 |
| 1:D:302:VAL:HG12 | 1:D:303:ILE:HD13 | 1.75 | 0.68 |
| 1:E:350:TYR:CD1 | 1:E:384:VAL:HG13 | 2.28 | 0.68 |
| 1:F:242:GLU:HG2 | 1:F:281:ARG:HH22 | 1.58 | 0.68 |
| 1:M:216:PHE:O | 1:M:218:GLY:N | 2.26 | 0.68 |
| 1:M:240:ILE:HG23 | 1:M:243:LEU:HD12 | 1.75 | 0.68 |
| 1:N:240:ILE:HG23 | 1:N:243:LEU:HD12 | 1.74 | 0.68 |
| 1:B:246:GLU:HG3 | 1:C:197:ALA:O | 1.93 | 0.68 |
| 1:G:350:TYR:CD1 | 1:G:351:PRO:HD2 | 2.28 | 0.68 |
| 1:H:296:LEU:HD23 | 1:H:296:LEU:O | 1.92 | 0.68 |
| 1:H:318:ILE:HG13 | 1:H:348:LEU:HD21 | 1.75 | 0.68 |
| 1:I:350:TYR:CD1 | 1:I:351:PRO:HD2 | 2.28 | 0.68 |
| 1:B:321:ALA:HA | 1:B:363:ILE:CD1 | 2.23 | 0.68 |
| 1:D:240:ILE:CG1 | 1:D:277:ALA:HB1 | 2.22 | 0.68 |
| 1:E:365:ARG:NH1 | 1:E:383:LEU:HB3 | 2.08 | 0.68 |
| 1:M:175:VAL:HG23 | 2:M:12:ADP:O1A | 1.94 | 0.68 |
| 1:G:245:LEU:HD22 | 1:G:248:GLN:HE22 | 1.56 | 0.68 |
| 1:H:192:VAL:CG2 | 1:H:230:ALA:HB2 | 2.24 | 0.68 |
| 1:L:334:LYS:CD | 1:L:367:VAL:HG13 | 2.23 | 0.68 |
| 1:J:325:LEU:HD23 | 1:J:326:LYS:N | 2.09 | 0.68 |
| 1:M:261:TYR:HE2 | 1:N:199:ILE:HG12 | 1.58 | 0.68 |
| 1:N:140:VAL:HG11 | 1:N:320:LEU:HD23 | 1.75 | 0.68 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:186:ARG:HH22 | 1:E:272:ASN:ND2 | 1.91 | 0.68 |
| 1:G:320:LEU:O | 1:G:320:LEU:HD23 | 1.93 | 0.68 |
| 1:D:161:CYS:O | 1:D:274:ARG:NH1 | 2.26 | 0.68 |
| 1:F:299:ARG:HA | 1:F:299:ARG:HE | 1.59 | 0.68 |
| 1:H:318:ILE:HD13 | 1:H:344:GLN:HE21 | 1.59 | 0.68 |
| 1:C:181:HIS:CD2 | 1:C:191:PHE:CD1 | 2.78 | 0.68 |
| 1:H:170:GLY:C | 1:H:355:ASN:HB2 | 2.14 | 0.68 |
| 1:L:149:ILE:HD11 | 1:L:306:GLU:O | 1.93 | 0.68 |
| 1:L:285:GLU:OE2 | 1:L:289:GLU:HB2 | 1.94 | 0.68 |
| 1:N:139:TYR:CD2 | 1:N:175:VAL:HG13 | 2.29 | 0.68 |
| 1:A:170:GLY:O | 1:A:355:ASN:HB2 | 1.93 | 0.67 |
| 1:C:318:ILE:CG1 | 1:C:319:PRO:HD3 | 2.19 | 0.67 |
| 1:F:317:ILE:HG21 | 1:F:347:LEU:O | 1.94 | 0.67 |
| 1:K:196:VAL:HG22 | 1:K:204:PHE:CZ | 2.29 | 0.67 |
| 1:M:253:ARG:HD2 | 1:M:259:LYS:O | 1.93 | 0.67 |
| 1:A:292:PHE:CZ | 1:A:296:LEU:HD12 | 2.30 | 0.67 |
| 1:D:310:LEU:HD22 | 1:D:317:ILE:HG12 | 1.76 | 0.67 |
| 1:H:140:VAL:HG12 | 1:H:141:PHE:H | 1.60 | 0.67 |
| 1:I:208:LEU:HD21 | 1:I:227:PHE:HD1 | 1.57 | 0.67 |
| 1:M:267:LYS:H | 1:M:267:LYS:HD2 | 1.58 | 0.67 |
| 1:B:210:GLY:O | 1:B:263:LEU:N | 2.23 | 0.67 |
| 1:F:282:ASN:HD22 | 1:F:285:GLU:HB2 | 1.58 | 0.67 |
| 1:G:191:PHE:HE2 | 1:G:236:PHE:HB3 | 1.60 | 0.67 |
| 1:G:259:LYS:HB3 | 1:G:267:LYS:CG | 2.08 | 0.67 |
| 1:H:143:SER:HB2 | 1:H:316:ASP:OD1 | 1.95 | 0.67 |
| 1:I:314:LYS:HA | 1:I:317:ILE:HG13 | 1.76 | 0.67 |
| 1:L:350:TYR:CG | 1:L:351:PRO:HD2 | 2.29 | 0.67 |
| 1:L:365:ARG:CZ | 1:L:383:LEU:HD21 | 2.24 | 0.67 |
| 1:C:140:VAL:CG1 | 1:C:320:LEU:HD23 | 2.24 | 0.67 |
| 1:D:207:GLU:O | 1:D:225:GLY:HA2 | 1.94 | 0.67 |
| 1:E:320:LEU:O | 1:E:322:ASN:N | 2.27 | 0.67 |
| 1:H:216:PHE:CG | 1:H:216:PHE:O | 2.47 | 0.67 |
| 1:M:141:PHE:HD2 | 1:M:150:LEU:HB2 | 1.57 | 0.67 |
| 1:E:319:PRO:O | 1:E:322:ASN:HB2 | 1.94 | 0.67 |
| 1:L:240:ILE:O | 1:L:240:ILE:CG2 | 2.42 | 0.67 |
| 1:L:324:PHE:O | 1:L:328:PHE:HD1 | 1.77 | 0.67 |
| 1:B:164:LEU:HD12 | 1:B:165:ILE:H | 1.59 | 0.67 |
| 1:C:178:ARG:HG3 | 1:C:178:ARG:NH1 | 1.97 | 0.67 |
| 1:D:282:ASN:ND2 | 1:D:285:GLU:HB2 | 2.09 | 0.67 |
| 1:E:314:LYS:HA | 1:E:317:ILE:HD12 | 1.77 | 0.67 |
| 1:E:346:LEU:C | 1:E:348:LEU:H | 1.96 | 0.67 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:H:215:ALA:N | 1:I:223:LYS:NZ | 2.42 | 0.67 |
| 1:H:253:ARG:HH22 | 1:H:261:TYR:HE1 | 1.41 | 0.67 |
| 1:L:291:LYS:O | 1:L:291:LYS:HD3 | 1.94 | 0.67 |
| 1:D:362:VAL:HG12 | 1:D:362:VAL:O | 1.93 | 0.67 |
| 1:M:172:GLY:HA2 | 2:M:12:ADP:O1A | 1.94 | 0.67 |
| 1:I:141:PHE:CG | 1:I:150:LEU:HD11 | 2.29 | 0.67 |
| 1:N:152:LYS:HA | 1:N:152:LYS:HE3 | 1.77 | 0.67 |
| 1:N:363:ILE:HA | 1:N:366:ALA:HB3 | 1.76 | 0.67 |
| 1:E:212:GLU:O | 1:E:222:SER:HA | 1.95 | 0.67 |
| 1:F:138:GLU:CG | 1:F:139:TYR:H | 2.08 | 0.67 |
| 1:F:194:LEU:HD21 | 1:F:237:LEU:HD23 | 1.76 | 0.67 |
| 1:F:376:ASP:O | 1:F:378:GLY:N | 2.28 | 0.67 |
| 1:K:209:PHE:CE2 | 1:K:250:LYS:HD3 | 2.30 | 0.67 |
| 1:M:191:PHE:CE2 | 1:M:193:ALA:HB2 | 2.30 | 0.67 |
| 1:N:318:ILE:HG12 | 1:N:348:LEU:HD21 | 1.77 | 0.67 |
| 1:E:282:ASN:HD22 | 1:E:285:GLU:HB2 | 1.56 | 0.67 |
| 1:K:208:LEU:HD22 | 1:K:209:PHE:CE1 | 2.30 | 0.67 |
| 1:L:239:GLU:C | 1:L:241:GLY:H | 1.97 | 0.67 |
| 1:N:342:SER:OG | 1:N:377:ARG:HB2 | 1.94 | 0.67 |
| 1:F:308:PRO:HG2 | 1:F:313:ARG:HD2 | 1.77 | 0.66 |
| 1:J:324:PHE:CD1 | 1:J:360:LYS:HA | 2.30 | 0.66 |
| 1:K:206:ALA:HB1 | 1:K:211:TYR:HB3 | 1.76 | 0.66 |
| 1:K:240:ILE:HG13 | 1:K:277:ALA:HB1 | 1.77 | 0.66 |
| 1:K:266:ARG:HH22 | 1:L:207:GLU:CD | 1.97 | 0.66 |
| 1:L:229:LEU:O | 1:L:229:LEU:HD22 | 1.94 | 0.66 |
| 1:B:314:LYS:H | 1:B:314:LYS:CD | 2.03 | 0.66 |
| 1:D:316:ASP:C | 1:D:319:PRO:HD2 | 2.16 | 0.66 |
| 1:N:228:GLU:O | 1:N:231:ASP:N | 2.27 | 0.66 |
| 1:N:262:ARG:HG2 | 1:N:262:ARG:HH11 | 1.60 | 0.66 |
| 1:A:320:LEU:O | 1:A:323:HIS:N | 2.27 | 0.66 |
| 1:B:204:PHE:CE2 | 1:B:208:LEU:HD22 | 2.30 | 0.66 |
| 1:D:170:GLY:O | 1:D:355:ASN:HB2 | 1.96 | 0.66 |
| 1:D:296:LEU:O | 1:D:300:LEU:HG | 1.96 | 0.66 |
| 1:L:161:CYS:HB3 | 1:M:364:GLU:OE1 | 1.94 | 0.66 |
| 1:D:156:ILE:HD11 | 1:D:303:ILE:HG21 | 1.76 | 0.66 |
| 1:G:263:LEU:HG | 1:G:264:GLY:H | 1.58 | 0.66 |
| 1:G:315:GLU:OE1 | 1:G:315:GLU:N | 2.27 | 0.66 |
| 1:H:176:VAL:HG21 | 1:H:307:ILE:CD1 | 2.23 | 0.66 |
| 1:H:334:LYS:HG2 | 1:H:335:GLU:N | 2.11 | 0.66 |
| 1:M:149:ILE:O | 1:M:153:ILE:HG12 | 1.95 | 0.66 |
| 1:M:171:VAL:HB | 1:M:307:ILE:CG2 | 2.24 | 0.66 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:292:PHE:CZ | 1:C:296:LEU:HD12 | 2.30 | 0.66 |
| 1:F:178:ARG:HG3 | 1:F:178:ARG:NH1 | 2.09 | 0.66 |
| 1:F:196:VAL:HG13 | 1:F:204:PHE:HE1 | 1.61 | 0.66 |
| 1:I:141:PHE:CE2 | 1:I:150:LEU:HD21 | 2.30 | 0.66 |
| 1:I:153:ILE:HD11 | 1:I:176:VAL:HG13 | 1.78 | 0.66 |
| 1:I:269:ILE:N | 1:I:269:ILE:HD12 | 2.10 | 0.66 |
| 1:K:269:ILE:HD12 | 1:K:269:ILE:N | 2.10 | 0.66 |
| 1:L:153:ILE:HD11 | 1:L:176:VAL:HG13 | 1.78 | 0.66 |
| 1:L:318:ILE:HD12 | 1:L:319:PRO:HD3 | 1.76 | 0.66 |
| 1:M:254:VAL:HG22 | 1:M:260:PHE:HB3 | 1.77 | 0.66 |
| 1:J:212:GLU:HG3 | 1:J:265:GLY:HA2 | 1.78 | 0.66 |
| 1:N:346:LEU:HD12 | 1:N:377:ARG:HD2 | 1.76 | 0.66 |
| 1:C:236:PHE:HA | 1:C:276:LEU:O | 1.95 | 0.66 |
| 1:E:345:GLU:O | 1:E:348:LEU:HB2 | 1.94 | 0.66 |
| 1:G:252:LEU:HD22 | 1:G:293:ARG:HH12 | 1.61 | 0.66 |
| 1:H:215:ALA:H | 1:I:223:LYS:NZ | 1.94 | 0.66 |
| 1:K:309:PRO:O | 1:K:313:ARG:HD3 | 1.96 | 0.66 |
| 1:M:352:TRP:HA | 1:M:352:TRP:CE3 | 2.30 | 0.66 |
| 1:A:149:ILE:O | 1:A:153:ILE:HG12 | 1.96 | 0.66 |
| 1:H:309:PRO:O | 1:H:313:ARG:HG3 | 1.96 | 0.66 |
| 1:M:299:ARG:HD3 | 1:N:357:ARG:HH21 | 1.59 | 0.66 |
| 1:N:157:SER:HB3 | 1:N:184:SER:HA | 1.76 | 0.66 |
| 1:N:259:LYS:HD2 | 1:N:268:GLU:HG2 | 1.78 | 0.66 |
| 1:D:235:LEU:HD12 | 1:D:235:LEU:C | 2.16 | 0.65 |
| 1:E:146:MET:HE3 | 1:E:149:ILE:HD12 | 1.78 | 0.65 |
| 1:G:318:ILE:HG13 | 1:G:319:PRO:HD3 | 1.76 | 0.65 |
| 1:H:227:PHE:HE2 | 1:H:254:VAL:HG21 | 1.61 | 0.65 |
| 1:H:321:ALA:HA | 1:H:363:ILE:HD11 | 1.76 | 0.65 |
| 1:I:318:ILE:HG13 | 1:I:319:PRO:CD | 2.24 | 0.65 |
| 1:K:201:ARG:HB2 | 1:K:201:ARG:NH1 | 2.07 | 0.65 |
| 1:L:163:VAL:HB | 1:L:276:LEU:CD2 | 2.26 | 0.65 |
| 1:L:350:TYR:HD2 | 1:L:352:TRP:N | 1.95 | 0.65 |
| 1:L:352:TRP:HH2 | 1:L:362:VAL:HG21 | 1.60 | 0.65 |
| 1:B:204:PHE:O | 1:B:206:ALA:N | 2.29 | 0.65 |
| 1:B:330:ARG:HH11 | 1:B:330:ARG:HG3 | 1.61 | 0.65 |
| 1:C:150:LEU:HG | 1:C:154:LYS:HZ1 | 1.60 | 0.65 |
| 1:H:328:PHE:CD1 | 1:H:364:GLU:HG2 | 2.32 | 0.65 |
| 1:L:283:ILE:HG22 | 1:L:287:VAL:HG23 | 1.78 | 0.65 |
| 1:L:314:LYS:HA | 1:L:317:ILE:HG13 | 1.79 | 0.65 |
| 1:N:267:LYS:HD2 | 1:N:267:LYS:N | 2.12 | 0.65 |
| 1:A:282:ASN:ND2 | 1:A:285:GLU:HB2 | 2.11 | 0.65 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:308:PRO:HG2 | 1:C:313:ARG:HD2 | 1.78 | 0.65 |
| 1:D:236:PHE:O | 1:D:236:PHE:CG | 2.48 | 0.65 |
| 1:E:354:GLY:C | 1:E:358:GLU:HB2 | 2.17 | 0.65 |
| 1:I:143:SER:HB3 | 1:I:316:ASP:CG | 2.15 | 0.65 |
| 1:K:204:PHE:CE2 | 1:K:208:LEU:HD12 | 2.29 | 0.65 |
| 1:M:178:ARG:HH11 | 1:M:178:ARG:HG3 | 1.61 | 0.65 |
| 1:N:206:ALA:HB2 | 1:N:216:PHE:CZ | 2.31 | 0.65 |
| 1:A:363:ILE:O | 1:A:367:VAL:HG23 | 1.95 | 0.65 |
| 1:B:143:SER:HB2 | 1:B:144:PRO:HD2 | 1.78 | 0.65 |
| 1:E:177:ALA:N | 1:E:180:ILE:HD12 | 2.12 | 0.65 |
| 1:L:265:GLY:C | 1:L:266:ARG:HG2 | 2.17 | 0.65 |
| 1:M:146:MET:HE3 | 1:M:149:ILE:HD12 | 1.78 | 0.65 |
| 1:M:363:ILE:CD1 | 1:M:363:ILE:N | 2.59 | 0.65 |
| 1:H:270:GLU:O | 1:H:271:VAL:HG23 | 1.95 | 0.65 |
| 1:I:141:PHE:HB3 | 1:I:150:LEU:HD11 | 1.77 | 0.65 |
| 1:K:186:ARG:NH2 | 1:K:272:ASN:ND2 | 2.44 | 0.65 |
| 1:K:249:ALA:CB | 1:K:293:ARG:HH11 | 2.09 | 0.65 |
| 1:L:247:ALA:O | 1:L:251:LEU:HB2 | 1.97 | 0.65 |
| 1:N:251:LEU:HD23 | 1:N:251:LEU:C | 2.16 | 0.65 |
| 1:C:160:GLU:HA | 1:C:274:ARG:NH1 | 2.12 | 0.65 |
| 1:J:352:TRP:CZ2 | 1:J:359:LEU:HD23 | 2.32 | 0.65 |
| 1:A:139:TYR:HD2 | 1:A:175:VAL:HG13 | 1.60 | 0.65 |
| 1:C:318:ILE:HG13 | 1:C:319:PRO:CD | 2.20 | 0.65 |
| 1:E:176:VAL:O | 1:E:180:ILE:CD1 | 2.45 | 0.65 |
| 1:E:186:ARG:HH22 | 1:E:272:ASN:HD21 | 1.42 | 0.65 |
| 1:F:311:ARG:HB3 | 1:F:351:PRO:O | 1.97 | 0.65 |
| 1:A:244:SER:HB2 | 1:A:247:ALA:H | 1.61 | 0.65 |
| 1:E:316:ASP:C | 1:E:319:PRO:HD2 | 2.17 | 0.65 |
| 1:J:153:ILE:HG21 | 1:J:179:LEU:HD22 | 1.76 | 0.65 |
| 1:K:143:SER:CB | 1:K:315:GLU:HB2 | 2.27 | 0.65 |
| 1:L:314:LYS:HA | 1:L:317:ILE:CG1 | 2.27 | 0.65 |
| 1:A:145:LYS:O | 1:A:149:ILE:HG13 | 1.96 | 0.65 |
| 1:E:309:PRO:CG | 1:E:312:GLU:HG3 | 2.22 | 0.65 |
| 1:H:339:PHE:N | 1:H:339:PHE:CD1 | 2.65 | 0.65 |
| 1:H:360:LYS:O | 1:H:364:GLU:HG3 | 1.96 | 0.65 |
| 1:C:143:SER:OG | 1:C:144:PRO:HD2 | 1.97 | 0.65 |
| 1:C:181:HIS:HD2 | 1:C:191:PHE:CB | 2.09 | 0.65 |
| 1:D:181:HIS:HD2 | 1:D:234:THR:CB | 2.10 | 0.65 |
| 1:F:206:ALA:O | 1:F:210:GLY:N | 2.28 | 0.65 |
| 1:F:326:LYS:HE2 | 1:F:330:ARG:HH22 | 1.61 | 0.65 |
| 1:G:310:LEU:HD12 | 1:G:356:VAL:H | 1.61 | 0.65 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:H:196:VAL:HA | 1:H:204:PHE:HE1 | 1.62 | 0.65 |
| 1:K:310:LEU:CD2 | 1:K:317:ILE:HG12 | 2.27 | 0.65 |
| 1:N:358:GLU:O | 1:N:362:VAL:HG23 | 1.97 | 0.65 |
| 1:D:181:HIS:HD2 | 1:D:234:THR:HB | 1.61 | 0.64 |
| 1:E:143:SER:O | 1:E:147:LYS:HB2 | 1.97 | 0.64 |
| 1:G:209:PHE:CE1 | 1:G:250:LYS:HD3 | 2.32 | 0.64 |
| 1:G:340:THR:HG21 | 1:G:376:ASP:HB3 | 1.78 | 0.64 |
| 1:I:267:LYS:HD2 | 1:I:267:LYS:N | 2.11 | 0.64 |
| 1:K:240:ILE:HG22 | 1:K:292:PHE:HE1 | 1.62 | 0.64 |
| 1:L:178:ARG:HG3 | 1:L:178:ARG:HH11 | 1.62 | 0.64 |
| 1:L:194:LEU:HD23 | 1:L:194:LEU:H | 1.62 | 0.64 |
| 1:M:316:ASP:O | 1:M:320:LEU:HG | 1.97 | 0.64 |
| 1:A:259:LYS:HD3 | 1:A:268:GLU:OE1 | 1.96 | 0.64 |
| 1:A:377:ARG:HH21 | 1:L:285:GLU:HG2 | 1.62 | 0.64 |
| 1:B:283:ILE:CA | 1:B:286:LEU:HD12 | 2.14 | 0.64 |
| 1:C:191:PHE:CE2 | 1:C:193:ALA:HB2 | 2.31 | 0.64 |
| 1:E:137:GLU:HG2 | 1:E:138:GLU:N | 2.11 | 0.64 |
| 1:E:292:PHE:HZ | 1:E:296:LEU:HD12 | 1.58 | 0.64 |
| 1:F:157:SER:HB3 | 1:F:183:LEU:C | 2.17 | 0.64 |
| 1:G:178:ARG:HG2 | 1:G:191:PHE:CE1 | 2.33 | 0.64 |
| 1:A:180:ILE:O | 1:A:180:ILE:HG22 | 1.98 | 0.64 |
| 1:B:260:PHE:C | 1:B:260:PHE:CD1 | 2.68 | 0.64 |
| 1:D:246:GLU:CD | 1:D:246:GLU:H | 2.00 | 0.64 |
| 1:D:302:VAL:HG12 | 1:D:303:ILE:CD1 | 2.27 | 0.64 |
| 1:E:346:LEU:O | 1:E:348:LEU:N | 2.29 | 0.64 |
| 1:H:283:ILE:O | 1:H:287:VAL:HG23 | 1.96 | 0.64 |
| 1:J:308:PRO:HG2 | 1:J:313:ARG:HD2 | 1.78 | 0.64 |
| 1:K:275:ILE:N | 1:K:275:ILE:HD12 | 2.11 | 0.64 |
| 1:L:153:ILE:HG21 | 1:L:179:LEU:HD22 | 1.80 | 0.64 |
| 1:D:200:PRO:HG2 | 1:D:203:ILE:HB | 1.79 | 0.64 |
| 1:E:181:HIS:HD2 | 1:E:234:THR:OG1 | 1.80 | 0.64 |
| 1:F:163:VAL:HG13 | 1:F:303:ILE:CG2 | 2.27 | 0.64 |
| 1:F:356:VAL:HG11 | 2:F:4:ADP:C8 | 2.33 | 0.64 |
| 1:I:168:GLU:O | 1:I:171:VAL:HG23 | 1.97 | 0.64 |
| 1:L:160:GLU:C | 1:L:274:ARG:HE | 2.00 | 0.64 |
| 1:M:228:GLU:OE2 | 1:M:262:ARG:NH2 | 2.22 | 0.64 |
| 1:N:311:ARG:HH11 | 1:N:311:ARG:HG3 | 1.61 | 0.64 |
| 1:A:266:ARG:NH1 | 1:B:224:GLU:O | 2.30 | 0.64 |
| 1:B:176:VAL:O | 1:B:179:LEU:HB3 | 1.96 | 0.64 |
| 1:B:254:VAL:HG22 | 1:B:260:PHE:HB3 | 1.78 | 0.64 |
| 1:D:262:ARG:O | 1:D:265:GLY:N | 2.31 | 0.64 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:194:LEU:HD13 | 1:F:226:PHE:CD1 | 2.32 | 0.64 |
| 1:G:355:ASN:N | 1:G:355:ASN:ND2 | 2.45 | 0.64 |
| 1:I:208:LEU:HD23 | 1:I:208:LEU:C | 2.18 | 0.64 |
| 1:I:317:ILE:HB | 1:I:348:LEU:HD23 | 1.80 | 0.64 |
| 1:J:201:ARG:HB2 | 1:J:201:ARG:NH1 | 2.06 | 0.64 |
| 1:M:259:LYS:HA | 1:M:269:ILE:O | 1.98 | 0.64 |
| 1:A:292:PHE:CE2 | 1:A:296:LEU:HD12 | 2.32 | 0.64 |
| 1:B:284:LYS:H | 1:B:284:LYS:HD3 | 1.62 | 0.64 |
| 1:D:361:ASN:O | 1:D:363:ILE:N | 2.30 | 0.64 |
| 1:K:328:PHE:HB2 | 1:K:367:VAL:HG21 | 1.78 | 0.64 |
| 1:L:334:LYS:NZ | 1:L:367:VAL:HG22 | 2.12 | 0.64 |
| 1:N:282:ASN:O | 1:N:285:GLU:HB2 | 1.96 | 0.64 |
| 1:C:325:LEU:C | 1:C:325:LEU:HD23 | 2.18 | 0.64 |
| 1:E:310:LEU:HD23 | 1:E:352:TRP:CD1 | 2.33 | 0.64 |
| 1:L:172:GLY:O | 1:L:176:VAL:HG23 | 1.98 | 0.64 |
| 1:L:310:LEU:O | 1:L:313:ARG:N | 2.20 | 0.64 |
| 1:M:339:PHE:HB3 | 1:M:343:ALA:HB3 | 1.78 | 0.64 |
| 1:C:207:GLU:HG3 | 1:C:226:PHE:HE1 | 1.63 | 0.64 |
| 1:E:279:THR:OG1 | 1:E:280:ASN:N | 2.29 | 0.64 |
| 1:H:162:PRO:HB2 | 1:H:300:LEU:HD22 | 1.80 | 0.64 |
| 1:F:326:LYS:HE2 | 1:F:330:ARG:HH21 | 1.58 | 0.64 |
| 1:H:293:ARG:HH11 | 1:H:293:ARG:CG | 2.02 | 0.64 |
| 1:I:168:GLU:O | 1:I:173:LYS:HE2 | 1.98 | 0.64 |
| 1:I:299:ARG:O | 1:I:302:VAL:HG23 | 1.98 | 0.64 |
| 1:I:314:LYS:HA | 1:I:317:ILE:HD11 | 1.79 | 0.64 |
| 1:J:163:VAL:HG13 | 1:J:303:ILE:O | 1.98 | 0.64 |
| 1:K:303:ILE:HD11 | 1:L:368:LEU:HD13 | 1.79 | 0.64 |
| 1:N:245:LEU:HD23 | 1:N:248:GLN:NE2 | 2.13 | 0.64 |
| 1:B:236:PHE:HD1 | 1:B:276:LEU:O | 1.80 | 0.63 |
| 1:B:337:GLU:OE1 | 1:B:373:LYS:HD3 | 1.98 | 0.63 |
| 1:J:346:LEU:HD23 | 1:J:346:LEU:O | 1.97 | 0.63 |
| 1:F:335:GLU:O | 1:F:373:LYS:HA | 1.99 | 0.63 |
| 1:H:334:LYS:CG | 1:H:335:GLU:N | 2.62 | 0.63 |
| 1:I:153:ILE:HG23 | 1:I:180:ILE:HG12 | 1.79 | 0.63 |
| 1:L:171:VAL:HB | 1:L:307:ILE:HG22 | 1.81 | 0.63 |
| 1:N:194:LEU:O | 1:N:194:LEU:HD23 | 1.98 | 0.63 |
| 1:A:143:SER:HB3 | 1:A:316:ASP:OD1 | 1.98 | 0.63 |
| 1:J:189:GLU:HG2 | 1:J:232:GLY:O | 1.98 | 0.63 |
| 1:D:284:LYS:HG2 | 1:D:297:TYR:CZ | 2.33 | 0.63 |
| 1:F:337:GLU:OE1 | 1:F:373:LYS:HD3 | 1.99 | 0.63 |
| 1:G:280:ASN:OD1 | 1:G:281:ARG:HD3 | 1.97 | 0.63 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:H:293:ARG:HG2 | 1:H:293:ARG:NH1 | 2.01 | 0.63 |
| 1:H:309:PRO:HB3 | 1:H:311:ARG:CZ | 2.28 | 0.63 |
| 1:L:208:LEU:HD21 | 1:L:227:PHE:CD1 | 2.33 | 0.63 |
| 1:M:166:THR:O | 1:M:307:ILE:N | 2.29 | 0.63 |
| 1:A:204:PHE:HE2 | 1:A:243:LEU:HD21 | 1.63 | 0.63 |
| 1:B:143:SER:OG | 1:B:146:MET:HB2 | 1.97 | 0.63 |
| 1:C:365:ARG:HH11 | 1:C:383:LEU:HD22 | 1.63 | 0.63 |
| 1:D:163:VAL:HB | 1:D:276:LEU:HD22 | 1.80 | 0.63 |
| 1:D:365:ARG:HD2 | 1:D:383:LEU:CD2 | 2.29 | 0.63 |
| 1:E:259:LYS:HG2 | 1:E:270:GLU:HB2 | 1.81 | 0.63 |
| 1:F:196:VAL:HG13 | 1:F:204:PHE:CE1 | 2.34 | 0.63 |
| 1:K:157:SER:HB3 | 1:K:183:LEU:O | 1.98 | 0.63 |
| 1:M:181:HIS:HD2 | 1:M:234:THR:HB | 1.64 | 0.63 |
| 1:N:282:ASN:HD21 | 1:N:284:LYS:HB2 | 1.62 | 0.63 |
| 1:A:165:ILE:O | 1:A:278:ALA:HA | 1.99 | 0.63 |
| 1:A:377:ARG:HH21 | 1:L:285:GLU:CG | 2.11 | 0.63 |
| 1:B:204:PHE:O | 1:B:205:GLU:C | 2.37 | 0.63 |
| 1:B:250:LYS:HG3 | 1:C:198:SER:HB2 | 1.81 | 0.63 |
| 1:B:324:PHE:CD1 | 1:B:363:ILE:HD12 | 2.29 | 0.63 |
| 1:E:176:VAL:HG21 | 1:E:307:ILE:CD1 | 2.27 | 0.63 |
| 1:F:170:GLY:O | 1:F:172:GLY:N | 2.32 | 0.63 |
| 1:K:303:ILE:O | 1:K:303:ILE:HG22 | 1.98 | 0.63 |
| 1:L:165:ILE:N | 1:L:278:ALA:HB2 | 2.13 | 0.63 |
| 1:N:251:LEU:HD23 | 1:N:251:LEU:O | 1.98 | 0.63 |
| 1:F:313:ARG:O | 1:F:315:GLU:N | 2.32 | 0.63 |
| 1:I:211:TYR:CE1 | 1:I:223:LYS:HB2 | 2.33 | 0.63 |
| 1:K:201:ARG:HH11 | 1:K:201:ARG:CB | 2.09 | 0.63 |
| 1:B:237:LEU:HB2 | 1:B:240:ILE:HD11 | 1.79 | 0.63 |
| 1:B:264:GLY:HA2 | 1:C:207:GLU:OE2 | 1.98 | 0.63 |
| 1:C:275:ILE:HD12 | 1:C:275:ILE:N | 2.13 | 0.63 |
| 1:F:343:ALA:HB2 | 1:F:376:ASP:HA | 1.79 | 0.63 |
| 1:G:320:LEU:HD23 | 1:G:320:LEU:C | 2.20 | 0.63 |
| 1:K:161:CYS:O | 1:K:274:ARG:NH1 | 2.32 | 0.63 |
| 1:K:279:THR:HG21 | 1:K:283:ILE:CD1 | 2.27 | 0.63 |
| 1:M:354:GLY:O | 1:M:357:ARG:HB3 | 1.99 | 0.63 |
| 1:A:144:PRO:HG2 | 1:A:145:LYS:H | 1.63 | 0.63 |
| 1:D:161:CYS:HB2 | 1:D:162:PRO:HD2 | 1.81 | 0.63 |
| 1:E:269:ILE:HD12 | 1:E:269:ILE:N | 2.13 | 0.63 |
| 1:I:367:VAL:O | 1:I:367:VAL:HG12 | 1.98 | 0.63 |
| 1:L:336:VAL:HG21 | 1:L:370:SER:OG | 1.99 | 0.63 |
| 1:N:311:ARG:O | 1:N:312:GLU:HG2 | 1.99 | 0.63 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:299:ARG:HH21 | 1:A:302:VAL:HG21 | 1.63 | 0.62 |
| 1:E:173:LYS:NZ | 1:E:173:LYS:HB2 | 2.14 | 0.62 |
| 1:F:309:PRO:CG | 1:F:311:ARG:NH1 | 2.60 | 0.62 |
| 1:L:200:PRO:HG2 | 1:L:203:ILE:HD12 | 1.81 | 0.62 |
| 1:M:243:LEU:HD22 | 1:M:247:ALA:CB | 2.26 | 0.62 |
| 1:M:357:ARG:O | 1:M:361:ASN:HB2 | 2.00 | 0.62 |
| 1:C:160:GLU:OE2 | 1:C:186:ARG:NH2 | 2.32 | 0.62 |
| 1:E:344:GLN:O | 1:E:348:LEU:CD1 | 2.36 | 0.62 |
| 1:H:216:PHE:O | 1:H:218:GLY:N | 2.26 | 0.62 |
| 1:J:262:ARG:HG2 | 1:J:262:ARG:HH11 | 1.64 | 0.62 |
| 1:K:266:ARG:NH1 | 1:L:224:GLU:O | 2.32 | 0.62 |
| 1:M:186:ARG:HD3 | 1:M:233:GLY:HA2 | 1.80 | 0.62 |
| 1:M:281:ARG:CG | 1:M:286:LEU:HD21 | 2.29 | 0.62 |
| 1:N:234:THR:HG23 | 1:N:274:ARG:O | 1.99 | 0.62 |
| 1:A:234:THR:HG23 | 1:A:274:ARG:O | 1.99 | 0.62 |
| 1:B:207:GLU:O | 1:B:225:GLY:HA2 | 1.99 | 0.62 |
| 1:B:217:THR:HG23 | 1:B:218:GLY:N | 2.10 | 0.62 |
| 1:C:347:LEU:HD21 | 1:C:380:LEU:CD1 | 2.28 | 0.62 |
| 1:E:156:ILE:CD1 | 1:F:368:LEU:HD13 | 2.30 | 0.62 |
| 1:I:314:LYS:HA | 1:I:317:ILE:CG1 | 2.29 | 0.62 |
| 1:K:310:LEU:HD22 | 1:K:317:ILE:HG12 | 1.80 | 0.62 |
| 1:L:248:GLN:NE2 | 1:L:292:PHE:HA | 2.15 | 0.62 |
| 1:L:350:TYR:CD2 | 1:L:352:TRP:N | 2.66 | 0.62 |
| 1:N:282:ASN:HD22 | 1:N:285:GLU:CG | 2.08 | 0.62 |
| 1:A:157:SER:HB3 | 1:A:184:SER:HA | 1.81 | 0.62 |
| 1:E:196:VAL:HG11 | 1:E:243:LEU:HD23 | 1.82 | 0.62 |
| 1:F:365:ARG:HG2 | 1:F:369:PHE:CE2 | 2.34 | 0.62 |
| 1:H:142:GLU:HB3 | 1:H:146:MET:HB2 | 1.81 | 0.62 |
| 1:J:302:VAL:O | 1:J:303:ILE:HD13 | 2.00 | 0.62 |
| 1:C:228:GLU:O | 1:C:231:ASP:HB2 | 1.99 | 0.62 |
| 1:L:240:ILE:HD13 | 1:L:300:LEU:CD1 | 2.30 | 0.62 |
| 1:M:253:ARG:HH21 | 1:M:259:LYS:HE3 | 1.63 | 0.62 |
| 1:N:251:LEU:CD2 | 1:N:296:LEU:HD21 | 2.29 | 0.62 |
| 1:D:156:ILE:CD1 | 1:D:303:ILE:HG21 | 2.29 | 0.62 |
| 1:D:275:ILE:H | 1:D:275:ILE:CD1 | 2.00 | 0.62 |
| 1:I:189:GLU:OE1 | 1:I:189:GLU:HA | 1.99 | 0.62 |
| 1:J:341:LYS:O | 1:J:345:GLU:HG3 | 1.99 | 0.62 |
| 1:M:146:MET:HA | 1:M:146:MET:CE | 2.29 | 0.62 |
| 1:N:181:HIS:CD2 | 1:N:234:THR:HB | 2.35 | 0.62 |
| 1:B:250:LYS:O | 1:B:253:ARG:HG2 | 2.00 | 0.62 |
| 1:F:316:ASP:C | 1:F:319:PRO:HD2 | 2.19 | 0.62 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:240:ILE:CG1 | 1:G:277:ALA:HB1 | 2.25 | 0.62 |
| 1:I:171:VAL:HG11 | 1:I:307:ILE:O | 1.99 | 0.62 |
| 1:D:352:TRP:O | 1:D:355:ASN:N | 2.33 | 0.62 |
| 1:E:201:ARG:HH11 | 1:E:201:ARG:CB | 2.11 | 0.62 |
| 1:B:194:LEU:HD23 | 1:B:194:LEU:H | 1.64 | 0.62 |
| 1:C:178:ARG:CG | 1:C:178:ARG:NH1 | 2.53 | 0.62 |
| 1:E:189:GLU:HG2 | 1:E:232:GLY:O | 1.99 | 0.62 |
| 1:E:238:ASP:O | 1:E:239:GLU:HG2 | 1.99 | 0.62 |
| 1:K:316:ASP:O | 1:K:319:PRO:HD2 | 1.99 | 0.62 |
| 1:A:174:GLU:HG3 | 1:A:236:PHE:HE2 | 1.65 | 0.61 |
| 1:A:316:ASP:C | 1:A:319:PRO:HD2 | 2.20 | 0.61 |
| 1:B:251:LEU:HD22 | 1:B:255:ILE:HD11 | 1.82 | 0.61 |
| 1:F:326:LYS:O | 1:F:329:SER:HB3 | 2.00 | 0.61 |
| 1:H:309:PRO:HB2 | 1:H:311:ARG:HD2 | 1.82 | 0.61 |
| 1:I:171:VAL:HG12 | 1:I:307:ILE:CG2 | 2.30 | 0.61 |
| 1:J:157:SER:HB3 | 1:J:183:LEU:C | 2.19 | 0.61 |
| 1:L:266:ARG:NH2 | 1:M:207:GLU:OE2 | 2.33 | 0.61 |
| 1:M:157:SER:C | 1:M:159:ALA:H | 2.03 | 0.61 |
| 1:A:316:ASP:O | 1:A:319:PRO:HD2 | 2.00 | 0.61 |
| 1:D:143:SER:CB | 1:D:144:PRO:HD2 | 2.30 | 0.61 |
| 1:E:352:TRP:HE3 | 1:E:358:GLU:HG2 | 1.65 | 0.61 |
| 1:F:172:GLY:HA2 | 2:F:4:ADP:O3A | 1.99 | 0.61 |
| 1:G:320:LEU:HD21 | 1:G:324:PHE:CE1 | 2.36 | 0.61 |
| 1:A:240:ILE:HG12 | 1:A:278:ALA:O | 2.01 | 0.61 |
| 1:A:323:HIS:O | 1:A:326:LYS:HB3 | 2.00 | 0.61 |
| 1:C:266:ARG:NE | 1:D:203:ILE:HD12 | 2.15 | 0.61 |
| 1:D:236:PHE:CD1 | 1:D:236:PHE:C | 2.74 | 0.61 |
| 1:D:296:LEU:CD1 | 1:D:300:LEU:HD11 | 2.30 | 0.61 |
| 1:G:169:SER:O | 1:G:355:ASN:ND2 | 2.32 | 0.61 |
| 1:H:168:GLU:HG3 | 1:H:311:ARG:NH2 | 2.15 | 0.61 |
| 1:K:163:VAL:HB | 1:K:276:LEU:HD22 | 1.82 | 0.61 |
| 1:K:275:ILE:HD12 | 1:K:275:ILE:H | 1.63 | 0.61 |
| 1:K:340:THR:HG21 | 1:K:376:ASP:HB3 | 1.82 | 0.61 |
| 1:E:236:PHE:CE1 | 1:E:278:ALA:CB | 2.83 | 0.61 |
| 1:H:236:PHE:HD1 | 1:H:276:LEU:O | 1.83 | 0.61 |
| 1:I:157:SER:HB2 | 1:I:184:SER:HA | 1.82 | 0.61 |
| 1:I:259:LYS:HD3 | 1:I:268:GLU:OE1 | 2.00 | 0.61 |
| 1:K:340:THR:O | 1:K:344:GLN:HG3 | 2.00 | 0.61 |
| 1:N:322:ASN:O | 1:N:326:LYS:HB2 | 2.00 | 0.61 |
| 1:A:318:ILE:CG1 | 1:A:348:LEU:HD21 | 2.25 | 0.61 |
| 1:D:318:ILE:CG1 | 1:D:319:PRO:HD3 | 2.19 | 0.61 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:266:ARG:HA | 1:E:266:ARG:HE | 1.66 | 0.61 |
| 1:L:195:ASN:O | 1:L:197:ALA:N | 2.33 | 0.61 |
| 1:M:140:VAL:HB | 1:M:320:LEU:CD2 | 2.30 | 0.61 |
| 1:A:194:LEU:HD23 | 1:A:194:LEU:H | 1.64 | 0.61 |
| 1:C:139:TYR:HB2 | 1:C:141:PHE:CE1 | 2.36 | 0.61 |
| 1:E:155:LYS:HD3 | 1:F:369:PHE:HA | 1.83 | 0.61 |
| 1:E:216:PHE:H | 1:E:216:PHE:HD2 | 1.47 | 0.61 |
| 1:G:340:THR:C | 1:G:342:SER:N | 2.54 | 0.61 |
| 1:I:358:GLU:O | 1:I:362:VAL:HG23 | 2.00 | 0.61 |
| 1:K:163:VAL:HB | 1:K:276:LEU:CD2 | 2.31 | 0.61 |
| 1:M:248:GLN:HG3 | 1:M:293:ARG:HB2 | 1.81 | 0.61 |
| 1:N:200:PRO:HB2 | 1:N:202:ASP:OD1 | 2.01 | 0.61 |
| 1:N:303:ILE:O | 1:N:305:ILE:HG13 | 2.01 | 0.61 |
| 1:B:325:LEU:HD21 | 1:B:336:VAL:CG1 | 2.31 | 0.61 |
| 1:D:178:ARG:HG3 | 1:D:178:ARG:HH11 | 1.66 | 0.61 |
| 1:F:223:LYS:C | 1:F:225:GLY:H | 2.03 | 0.61 |
| 1:F:269:ILE:H | 1:F:269:ILE:HD12 | 1.66 | 0.61 |
| 1:F:314:LYS:O | 1:F:317:ILE:HG13 | 2.00 | 0.61 |
| 1:L:152:LYS:O | 1:L:155:LYS:N | 2.30 | 0.61 |
| 1:L:322:ASN:O | 1:L:325:LEU:N | 2.33 | 0.61 |
| 1:N:274:ARG:HG2 | 1:N:274:ARG:HH11 | 1.64 | 0.61 |
| 1:C:172:GLY:HA2 | 2:C:1:ADP:O1A | 2.00 | 0.61 |
| 1:C:266:ARG:HH21 | 1:D:203:ILE:HD11 | 1.66 | 0.61 |
| 1:E:316:ASP:O | 1:E:319:PRO:CD | 2.47 | 0.61 |
| 1:G:164:LEU:HD12 | 1:G:165:ILE:N | 2.16 | 0.61 |
| 1:G:261:TYR:CD1 | 1:G:261:TYR:N | 2.68 | 0.61 |
| 1:G:294:GLU:O | 1:G:297:TYR:HB3 | 2.00 | 0.61 |
| 1:N:383:LEU:O | 1:N:384:VAL:HG23 | 2.01 | 0.61 |
| 1:A:282:ASN:HD22 | 1:A:285:GLU:HB2 | 1.66 | 0.61 |
| 1:A:324:PHE:CE2 | 1:A:360:LYS:HG3 | 2.36 | 0.61 |
| 1:C:156:ILE:HD13 | 1:C:303:ILE:HG21 | 1.81 | 0.61 |
| 1:G:252:LEU:HD13 | 1:G:296:LEU:HA | 1.83 | 0.61 |
| 1:G:263:LEU:HD23 | 1:G:264:GLY:N | 2.16 | 0.61 |
| 1:F:284:LYS:HE2 | 1:F:297:TYR:OH | 2.00 | 0.61 |
| 1:I:181:HIS:CE1 | 1:I:191:PHE:HB2 | 2.36 | 0.61 |
| 1:J:216:PHE:CD2 | 1:J:216:PHE:N | 2.63 | 0.61 |
| 1:L:143:SER:HB3 | 1:L:316:ASP:OD2 | 2.01 | 0.61 |
| 1:L:146:MET:CE | 1:L:313:ARG:HE | 2.13 | 0.61 |
| 1:L:334:LYS:CE | 1:L:336:VAL:HB | 2.29 | 0.61 |
| 1:H:215:ALA:HB2 | 1:I:223:LYS:HZ3 | 1.64 | 0.60 |
| 1:H:323:HIS:O | 1:H:327:LYS:HB2 | 2.00 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:159:ALA:HB1 | 1:J:332:TYR:OH | 2.01 | 0.60 |
| 1:I:204:PHE:O | 1:I:207:GLU:N | 2.32 | 0.60 |
| 1:K:181:HIS:HD2 | 1:K:234:THR:OG1 | 1.84 | 0.60 |
| 1:K:316:ASP:O | 1:K:320:LEU:HG | 2.01 | 0.60 |
| 1:K:340:THR:CG2 | 1:K:376:ASP:HB3 | 2.31 | 0.60 |
| 1:L:365:ARG:HG3 | 1:L:369:PHE:HE2 | 1.66 | 0.60 |
| 1:N:178:ARG:HH11 | 1:N:178:ARG:HG3 | 1.65 | 0.60 |
| 1:F:209:PHE:HE2 | 1:F:254:VAL:HG21 | 1.67 | 0.60 |
| 1:G:318:ILE:O | 1:G:321:ALA:HB3 | 2.00 | 0.60 |
| 1:I:204:PHE:CE2 | 1:I:208:LEU:HD12 | 2.36 | 0.60 |
| 1:K:302:VAL:O | 1:K:302:VAL:HG12 | 2.01 | 0.60 |
| 1:M:195:ASN:HB3 | 1:M:198:SER:OG | 2.01 | 0.60 |
| 1:D:314:LYS:HA | 1:D:317:ILE:HG13 | 1.83 | 0.60 |
| 1:D:324:PHE:CD1 | 1:D:359:LEU:HD22 | 2.36 | 0.60 |
| 1:E:195:ASN:O | 1:E:197:ALA:N | 2.33 | 0.60 |
| 1:H:234:THR:CG2 | 1:H:276:LEU:HD12 | 2.29 | 0.60 |
| 1:I:203:ILE:O | 1:I:206:ALA:HB3 | 2.01 | 0.60 |
| 1:B:314:LYS:HD2 | 1:B:314:LYS:N | 2.12 | 0.60 |
| 1:C:163:VAL:HB | 1:C:276:LEU:CD2 | 2.31 | 0.60 |
| 1:C:303:ILE:HD13 | 1:D:365:ARG:HG3 | 1.84 | 0.60 |
| 1:D:189:GLU:CG | 1:D:190:PRO:HD2 | 2.30 | 0.60 |
| 1:I:171:VAL:HG12 | 1:I:307:ILE:HG22 | 1.81 | 0.60 |
| 1:J:313:ARG:HB3 | 1:J:316:ASP:OD2 | 2.02 | 0.60 |
| 1:J:365:ARG:CD | 1:J:383:LEU:HD22 | 2.30 | 0.60 |
| 1:B:235:LEU:HG | 1:B:237:LEU:HD21 | 1.82 | 0.60 |
| 1:B:256:GLU:OE2 | 1:C:357:ARG:HD3 | 2.01 | 0.60 |
| 1:B:328:PHE:HB2 | 1:B:367:VAL:HG21 | 1.83 | 0.60 |
| 1:C:311:ARG:HH21 | 1:C:353:TYR:HD2 | 1.46 | 0.60 |
| 1:J:262:ARG:HG2 | 1:J:262:ARG:NH1 | 2.16 | 0.60 |
| 1:K:302:VAL:CG2 | 1:L:361:ASN:HB3 | 2.31 | 0.60 |
| 1:L:140:VAL:HG21 | 1:L:320:LEU:HD23 | 1.84 | 0.60 |
| 1:L:314:LYS:O | 1:L:317:ILE:HG13 | 2.01 | 0.60 |
| 1:M:252:LEU:HD11 | 1:M:299:ARG:HG3 | 1.83 | 0.60 |
| 1:B:142:GLU:HG3 | 1:B:142:GLU:O | 2.01 | 0.60 |
| 1:E:189:GLU:CG | 1:E:232:GLY:O | 2.49 | 0.60 |
| 1:F:201:ARG:HH11 | 1:F:201:ARG:CB | 2.11 | 0.60 |
| 1:F:213:LYS:HB3 | 1:G:220:VAL:HG11 | 1.82 | 0.60 |
| 1:F:229:LEU:HD13 | 1:F:229:LEU:O | 2.02 | 0.60 |
| 1:G:310:LEU:HB2 | 1:G:355:ASN:HB2 | 1.83 | 0.60 |
| 1:K:176:VAL:HG21 | 1:K:307:ILE:HD11 | 1.84 | 0.60 |
| 1:K:248:GLN:O | 1:K:250:LYS:N | 2.35 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:194:LEU:CD2 | 1:C:235:LEU:HD11 | 2.32 | 0.60 |
| 1:C:207:GLU:HG3 | 1:C:226:PHE:CE1 | 2.36 | 0.60 |
| 1:G:263:LEU:CG | 1:G:264:GLY:N | 2.64 | 0.60 |
| 1:H:176:VAL:CG2 | 1:H:307:ILE:HD11 | 2.30 | 0.60 |
| 1:H:334:LYS:HE3 | 1:H:336:VAL:O | 2.00 | 0.60 |
| 1:L:138:GLU:O | 1:L:139:TYR:CG | 2.54 | 0.60 |
| 1:L:329:SER:CB | 1:L:334:LYS:HE2 | 2.30 | 0.60 |
| 1:N:283:ILE:HG23 | 1:N:292:PHE:CD1 | 2.37 | 0.60 |
| 1:A:339:PHE:CD1 | 1:A:339:PHE:N | 2.68 | 0.60 |
| 1:B:269:ILE:CG2 | 1:B:270:GLU:N | 2.64 | 0.60 |
| 1:C:172:GLY:HA2 | 2:C:1:ADP:PA | 2.41 | 0.60 |
| 1:E:168:GLU:HB2 | 1:E:171:VAL:CG1 | 2.32 | 0.60 |
| 1:F:350:TYR:HD2 | 1:F:352:TRP:CD2 | 2.19 | 0.60 |
| 1:N:282:ASN:ND2 | 1:N:285:GLU:HG2 | 2.09 | 0.60 |
| 1:A:237:LEU:HB2 | 1:A:240:ILE:HD13 | 1.84 | 0.60 |
| 1:E:239:GLU:HA | 1:E:279:THR:HA | 1.83 | 0.60 |
| 1:E:346:LEU:C | 1:E:348:LEU:N | 2.54 | 0.60 |
| 1:F:309:PRO:HA | 1:F:355:ASN:ND2 | 2.17 | 0.60 |
| 1:K:322:ASN:O | 1:K:326:LYS:HB2 | 2.02 | 0.60 |
| 1:M:339:PHE:HA | 1:M:375:ILE:O | 2.02 | 0.60 |
| 1:N:339:PHE:CD2 | 1:N:347:LEU:HD11 | 2.37 | 0.60 |
| 1:A:220:VAL:O | 1:A:221:SER:HB3 | 2.02 | 0.60 |
| 1:G:252:LEU:HD11 | 1:G:299:ARG:HG3 | 1.83 | 0.60 |
| 1:K:316:ASP:C | 1:K:319:PRO:HD2 | 2.22 | 0.60 |
| 1:L:347:LEU:HD21 | 1:L:380:LEU:HD11 | 1.84 | 0.60 |
| 1:N:194:LEU:H | 1:N:194:LEU:CD2 | 2.15 | 0.60 |
| 1:N:313:ARG:O | 1:N:315:GLU:N | 2.35 | 0.60 |
| 1:N:357:ARG:NH1 | 1:N:361:ASN:OD1 | 2.35 | 0.60 |
| 1:B:224:GLU:HG2 | 1:B:228:GLU:HB2 | 1.83 | 0.59 |
| 1:F:164:LEU:HD12 | 1:F:277:ALA:O | 2.02 | 0.59 |
| 1:F:341:LYS:O | 1:F:345:GLU:HG3 | 2.02 | 0.59 |
| 1:I:194:LEU:CD2 | 1:I:235:LEU:HD11 | 2.31 | 0.59 |
| 1:I:249:ALA:HB2 | 1:I:293:ARG:NH1 | 2.17 | 0.59 |
| 1:M:164:LEU:CD2 | 1:M:283:ILE:HG13 | 2.31 | 0.59 |
| 1:M:228:GLU:CD | 1:M:262:ARG:HH21 | 2.05 | 0.59 |
| 1:C:318:ILE:O | 1:C:321:ALA:HB3 | 2.02 | 0.59 |
| 1:D:283:ILE:HD12 | 1:D:292:PHE:CE1 | 2.37 | 0.59 |
| 1:D:341:LYS:HD2 | 1:D:345:GLU:OE2 | 2.01 | 0.59 |
| 1:G:163:VAL:HB | 1:G:276:LEU:CD2 | 2.32 | 0.59 |
| 1:G:341:LYS:O | 1:G:345:GLU:HG3 | 2.01 | 0.59 |
| 1:H:288:LYS:C | 1:H:290:GLY:H | 2.05 | 0.59 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:318:ILE:CG1 | 1:I:319:PRO:HD3 | 2.28 | 0.59 |
| 1:K:325:LEU:HD21 | 1:K:336:VAL:HG12 | 1.83 | 0.59 |
| 1:L:240:ILE:HD13 | 1:L:300:LEU:HD13 | 1.84 | 0.59 |
| 1:L:252:LEU:HD11 | 1:L:256:GLU:OE1 | 2.01 | 0.59 |
| 1:N:316:ASP:C | 1:N:319:PRO:HD2 | 2.23 | 0.59 |
| 1:A:328:PHE:HA | 1:A:331:LYS:HB3 | 1.83 | 0.59 |
| 1:B:150:LEU:HD11 | 1:B:154:LYS:HZ2 | 1.67 | 0.59 |
| 1:G:146:MET:CE | 1:G:149:ILE:HD12 | 2.31 | 0.59 |
| 1:G:210:GLY:HA2 | 1:G:224:GLU:O | 2.02 | 0.59 |
| 1:G:249:ALA:HA | 1:G:293:ARG:NH1 | 2.16 | 0.59 |
| 1:J:352:TRP:CZ3 | 1:J:358:GLU:HG2 | 2.37 | 0.59 |
| 1:K:165:ILE:O | 1:K:165:ILE:HG22 | 2.01 | 0.59 |
| 1:L:343:ALA:O | 1:L:344:GLN:C | 2.40 | 0.59 |
| 1:M:140:VAL:O | 1:M:141:PHE:HD1 | 1.85 | 0.59 |
| 1:M:145:LYS:O | 1:M:148:GLU:HB3 | 2.02 | 0.59 |
| 1:C:173:LYS:H | 2:C:1:ADP:PB | 2.25 | 0.59 |
| 1:C:322:ASN:O | 1:C:325:LEU:N | 2.35 | 0.59 |
| 1:C:365:ARG:O | 1:C:368:LEU:HB2 | 2.02 | 0.59 |
| 1:D:227:PHE:CD2 | 1:D:273:VAL:HG21 | 2.36 | 0.59 |
| 1:E:171:VAL:O | 1:E:307:ILE:HG21 | 2.02 | 0.59 |
| 1:E:283:ILE:O | 1:E:287:VAL:HG23 | 2.01 | 0.59 |
| 1:E:325:LEU:HD21 | 1:E:336:VAL:CG1 | 2.29 | 0.59 |
| 1:H:248:GLN:O | 1:H:249:ALA:C | 2.37 | 0.59 |
| 1:L:209:PHE:HE2 | 1:L:254:VAL:HG21 | 1.67 | 0.59 |
| 1:L:342:SER:OG | 1:L:376:ASP:HB2 | 2.02 | 0.59 |
| 1:N:139:TYR:HB3 | 1:N:141:PHE:HE1 | 1.67 | 0.59 |
| 1:N:267:LYS:O | 1:N:269:ILE:N | 2.35 | 0.59 |
| 1:N:335:GLU:O | 1:N:373:LYS:HA | 2.01 | 0.59 |
| 1:D:252:LEU:O | 1:D:255:ILE:HG13 | 2.01 | 0.59 |
| 1:F:346:LEU:HG | 1:F:377:ARG:NH1 | 2.17 | 0.59 |
| 1:H:145:LYS:HB2 | 1:H:313:ARG:NH2 | 2.17 | 0.59 |
| 1:I:310:LEU:HD22 | 1:I:317:ILE:HG12 | 1.83 | 0.59 |
| 1:N:320:LEU:O | 1:N:323:HIS:N | 2.35 | 0.59 |
| 1:A:191:PHE:CE2 | 1:A:193:ALA:HB2 | 2.36 | 0.59 |
| 1:B:210:GLY:C | 1:B:262:ARG:HG3 | 2.23 | 0.59 |
| 1:D:281:ARG:HH11 | 1:D:281:ARG:HG2 | 1.66 | 0.59 |
| 1:E:176:VAL:O | 1:E:180:ILE:HD12 | 2.03 | 0.59 |
| 1:E:176:VAL:CG1 | 1:E:180:ILE:HD11 | 2.21 | 0.59 |
| 1:G:325:LEU:HD23 | 1:G:325:LEU:C | 2.22 | 0.59 |
| 1:K:141:PHE:CE1 | 1:K:150:LEU:HD13 | 2.38 | 0.59 |
| 1:B:330:ARG:HG3 | 1:B:330:ARG:NH1 | 2.17 | 0.59 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:139:TYR:CD2 | 1:E:179:LEU:HD11 | 2.37 | 0.59 |
| 1:H:266:ARG:HB3 | 1:I:229:LEU:HD23 | 1.84 | 0.59 |
| 1:I:302:VAL:HG12 | 1:I:303:ILE:HG12 | 1.83 | 0.59 |
| 1:M:353:TYR:C | 1:M:355:ASN:H | 2.05 | 0.59 |
| 1:N:178:ARG:NE | 1:N:191:PHE:CE2 | 2.70 | 0.59 |
| 1:D:275:ILE:HD12 | 1:D:275:ILE:N | 2.04 | 0.59 |
| 1:F:318:ILE:HG13 | 1:F:319:PRO:CD | 2.16 | 0.59 |
| 1:H:194:LEU:HD23 | 1:H:194:LEU:N | 2.15 | 0.59 |
| 1:I:146:MET:SD | 1:I:313:ARG:CZ | 2.91 | 0.59 |
| 1:K:143:SER:O | 1:K:147:LYS:HB2 | 2.02 | 0.59 |
| 1:L:337:GLU:OE1 | 1:L:373:LYS:HD3 | 2.01 | 0.59 |
| 1:A:296:LEU:HD13 | 1:A:296:LEU:C | 2.23 | 0.59 |
| 1:E:347:LEU:HD21 | 1:E:380:LEU:HD13 | 1.84 | 0.59 |
| 1:H:339:PHE:HD1 | 1:H:339:PHE:H | 1.51 | 0.59 |
| 1:I:318:ILE:O | 1:I:321:ALA:HB3 | 2.02 | 0.59 |
| 1:A:164:LEU:HD12 | 1:A:165:ILE:N | 2.16 | 0.59 |
| 1:C:163:VAL:HB | 1:C:276:LEU:HD23 | 1.85 | 0.59 |
| 1:D:252:LEU:HA | 1:D:255:ILE:CD1 | 2.33 | 0.59 |
| 1:J:269:ILE:HD12 | 1:J:269:ILE:H | 1.68 | 0.59 |
| 1:M:161:CYS:HB2 | 1:M:302:VAL:HG11 | 1.83 | 0.59 |
| 1:M:191:PHE:CD2 | 1:M:191:PHE:C | 2.77 | 0.59 |
| 1:B:317:ILE:CB | 1:B:348:LEU:HD23 | 2.32 | 0.58 |
| 1:B:359:LEU:C | 1:B:361:ASN:H | 2.06 | 0.58 |
| 1:C:336:VAL:HG21 | 1:C:370:SER:CB | 2.33 | 0.58 |
| 1:H:214:GLY:N | 1:H:219:ALA:CB | 2.55 | 0.58 |
| 1:J:239:GLU:N | 1:J:278:ALA:O | 2.35 | 0.58 |
| 1:L:315:GLU:O | 1:L:319:PRO:HG2 | 2.03 | 0.58 |
| 1:L:343:ALA:O | 1:L:346:LEU:N | 2.36 | 0.58 |
| 1:N:325:LEU:HD12 | 1:N:339:PHE:CE1 | 2.38 | 0.58 |
| 1:A:194:LEU:HD21 | 1:A:237:LEU:HD22 | 1.86 | 0.58 |
| 1:E:166:THR:HG22 | 1:E:167:GLY:N | 2.18 | 0.58 |
| 1:E:209:PHE:HD1 | 1:E:209:PHE:H | 1.51 | 0.58 |
| 1:F:341:LYS:HA | 1:F:344:GLN:HB2 | 1.84 | 0.58 |
| 1:G:320:LEU:CD2 | 1:G:359:LEU:HD13 | 2.22 | 0.58 |
| 1:I:208:LEU:CD2 | 1:I:227:PHE:HD1 | 2.16 | 0.58 |
| 1:J:157:SER:HB3 | 1:J:184:SER:N | 2.18 | 0.58 |
| 1:L:145:LYS:O | 1:L:148:GLU:HB3 | 2.03 | 0.58 |
| 1:L:213:LYS:O | 1:L:219:ALA:HB1 | 2.03 | 0.58 |
| 1:A:172:GLY:O | 1:A:173:LYS:C | 2.40 | 0.58 |
| 1:B:171:VAL:HG21 | 1:B:307:ILE:HB | 1.84 | 0.58 |
| 1:C:249:ALA:O | 1:C:252:LEU:HB3 | 2.02 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:170:GLY:O | 1:E:356:VAL:HG23 | 2.03 | 0.58 |
| 1:E:253:ARG:HH11 | 1:E:253:ARG:HG3 | 1.68 | 0.58 |
| 1:F:252:LEU:HD13 | 1:F:296:LEU:HA | 1.84 | 0.58 |
| 1:F:359:LEU:O | 1:F:361:ASN:N | 2.35 | 0.58 |
| 1:N:192:VAL:CG2 | 1:N:230:ALA:HB2 | 2.34 | 0.58 |
| 1:B:208:LEU:CD2 | 1:B:209:PHE:HE1 | 2.16 | 0.58 |
| 1:B:292:PHE:CE2 | 1:B:296:LEU:HD12 | 2.37 | 0.58 |
| 1:D:266:ARG:HH22 | 1:E:207:GLU:CG | 2.16 | 0.58 |
| 1:E:342:SER:OG | 1:E:377:ARG:HB2 | 2.04 | 0.58 |
| 1:F:170:GLY:C | 1:F:172:GLY:H | 2.06 | 0.58 |
| 1:M:248:GLN:O | 1:M:252:LEU:N | 2.31 | 0.58 |
| 1:M:266:ARG:HH21 | 1:M:267:LYS:NZ | 2.01 | 0.58 |
| 1:D:324:PHE:HD1 | 1:D:359:LEU:HD22 | 1.68 | 0.58 |
| 1:E:365:ARG:HD2 | 1:E:383:LEU:HD13 | 1.85 | 0.58 |
| 1:H:350:TYR:HB3 | 1:H:351:PRO:CA | 2.33 | 0.58 |
| 1:J:352:TRP:CE3 | 1:J:358:GLU:HG2 | 2.39 | 0.58 |
| 1:K:215:ALA:H | 1:K:219:ALA:HB1 | 1.66 | 0.58 |
| 1:M:164:LEU:HD21 | 1:M:283:ILE:CG1 | 2.31 | 0.58 |
| 1:A:143:SER:CB | 1:A:144:PRO:HD2 | 2.32 | 0.58 |
| 1:B:318:ILE:HD13 | 1:B:348:LEU:HD11 | 1.84 | 0.58 |
| 1:I:189:GLU:HB3 | 1:I:190:PRO:CD | 2.27 | 0.58 |
| 1:K:216:PHE:H | 1:K:219:ALA:CB | 2.17 | 0.58 |
| 1:K:314:LYS:HA | 1:K:317:ILE:CD1 | 2.34 | 0.58 |
| 1:L:146:MET:SD | 1:L:313:ARG:NE | 2.77 | 0.58 |
| 1:L:240:ILE:HB | 1:L:279:THR:CG2 | 2.33 | 0.58 |
| 1:L:315:GLU:CD | 1:L:315:GLU:H | 2.06 | 0.58 |
| 1:A:365:ARG:HD2 | 1:A:383:LEU:CD1 | 2.34 | 0.58 |
| 1:B:156:ILE:O | 1:B:158:CYS:N | 2.36 | 0.58 |
| 1:C:328:PHE:CE1 | 1:C:364:GLU:HB2 | 2.38 | 0.58 |
| 1:D:181:HIS:CD2 | 1:D:234:THR:OG1 | 2.57 | 0.58 |
| 1:D:301:GLY:O | 1:D:302:VAL:C | 2.41 | 0.58 |
| 1:G:242:GLU:HG2 | 1:G:281:ARG:NH2 | 2.19 | 0.58 |
| 1:K:237:LEU:HB2 | 1:K:240:ILE:HD11 | 1.85 | 0.58 |
| 1:N:186:ARG:HD3 | 1:N:232:GLY:O | 2.04 | 0.58 |
| 1:E:259:LYS:HE2 | 1:E:270:GLU:OE2 | 2.03 | 0.58 |
| 1:E:354:GLY:C | 1:E:358:GLU:CB | 2.72 | 0.58 |
| 1:F:149:ILE:CD1 | 1:F:307:ILE:HD13 | 2.32 | 0.58 |
| 1:G:231:ASP:HA | 1:G:273:VAL:HG22 | 1.85 | 0.58 |
| 1:H:311:ARG:O | 1:H:314:LYS:HE2 | 2.03 | 0.58 |
| 1:I:350:TYR:CG | 1:I:351:PRO:HD2 | 2.39 | 0.58 |
| 1:I:355:ASN:O | 1:I:358:GLU:N | 2.27 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:J:200:PRO:HG3 | 1:J:203:ILE:HD12 | 1.86 | 0.58 |
| 1:K:314:LYS:HA | 1:K:317:ILE:CG1 | 2.33 | 0.58 |
| 1:L:156:ILE:O | 1:L:158:CYS:N | 2.36 | 0.58 |
| 1:L:208:LEU:HD22 | 1:L:209:PHE:CD1 | 2.39 | 0.58 |
| 1:M:350:TYR:CD1 | 1:M:351:PRO:HD2 | 2.39 | 0.58 |
| 1:D:325:LEU:HD23 | 1:D:325:LEU:C | 2.23 | 0.58 |
| 1:H:332:TYR:O | 1:H:333:ALA:HB3 | 2.02 | 0.58 |
| 1:J:167:GLY:O | 1:J:280:ASN:HA | 2.04 | 0.58 |
| 1:M:140:VAL:C | 1:M:141:PHE:HD1 | 2.07 | 0.58 |
| 1:M:172:GLY:O | 1:M:176:VAL:HG23 | 2.04 | 0.58 |
| 1:M:324:PHE:CD1 | 1:M:359:LEU:HD23 | 2.38 | 0.58 |
| 1:M:352:TRP:HA | 1:M:352:TRP:HE3 | 1.69 | 0.58 |
| 1:N:146:MET:HE3 | 1:N:307:ILE:CG2 | 2.33 | 0.58 |
| 1:E:335:GLU:HG3 | 1:E:335:GLU:O | 2.04 | 0.58 |
| 1:K:265:GLY:O | 1:K:266:ARG:NE | 2.36 | 0.58 |
| 1:N:211:TYR:OH | 1:N:223:LYS:HG3 | 2.04 | 0.58 |
| 1:B:142:GLU:HG2 | 1:B:319:PRO:HG2 | 1.85 | 0.57 |
| 1:C:244:SER:O | 1:C:247:ALA:HB3 | 2.04 | 0.57 |
| 1:D:157:SER:C | 1:D:159:ALA:H | 2.07 | 0.57 |
| 1:E:214:GLY:CA | 1:E:219:ALA:HB3 | 2.29 | 0.57 |
| 1:F:194:LEU:HD13 | 1:F:226:PHE:HD1 | 1.67 | 0.57 |
| 1:G:211:TYR:HE1 | 1:G:263:LEU:HD13 | 1.69 | 0.57 |
| 1:G:318:ILE:CG1 | 1:G:319:PRO:HD3 | 2.34 | 0.57 |
| 1:J:211:TYR:CE2 | 1:J:223:LYS:HB3 | 2.39 | 0.57 |
| 1:K:349:SER:OG | 1:K:350:TYR:N | 2.36 | 0.57 |
| 1:D:296:LEU:HD11 | 1:D:300:LEU:HD11 | 1.86 | 0.57 |
| 1:M:246:GLU:H | 1:M:246:GLU:CD | 2.07 | 0.57 |
| 1:D:351:PRO:HB2 | 1:D:353:TYR:CE2 | 2.39 | 0.57 |
| 1:E:294:GLU:OE2 | 1:F:169:SER:HB3 | 2.05 | 0.57 |
| 1:F:160:GLU:OE2 | 1:F:186:ARG:NH2 | 2.37 | 0.57 |
| 1:F:275:ILE:HD12 | 1:F:275:ILE:N | 2.19 | 0.57 |
| 1:G:211:TYR:CE1 | 1:G:263:LEU:HD13 | 2.39 | 0.57 |
| 1:G:279:THR:HG21 | 1:G:283:ILE:HD11 | 1.86 | 0.57 |
| 1:I:196:VAL:HG13 | 1:I:204:PHE:CE1 | 2.39 | 0.57 |
| 1:L:376:ASP:C | 1:L:378:GLY:N | 2.58 | 0.57 |
| 1:M:340:THR:OG1 | 1:M:376:ASP:HA | 2.04 | 0.57 |
| 1:N:227:PHE:O | 1:N:228:GLU:C | 2.42 | 0.57 |
| 1:N:314:LYS:HB2 | 1:N:314:LYS:NZ | 2.19 | 0.57 |
| 1:A:158:CYS:HA | 1:A:185:ASP:OD2 | 2.04 | 0.57 |
| 1:A:275:ILE:H | 1:A:275:ILE:CD1 | 2.15 | 0.57 |
| 1:B:230:ALA:O | 1:B:273:VAL:HG22 | 2.05 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:266:ARG:NH2 | 1:C:207:GLU:OE2 | 2.34 | 0.57 |
| 1:H:140:VAL:HG12 | 1:H:141:PHE:N | 2.19 | 0.57 |
| 1:H:334:LYS:CG | 1:H:335:GLU:H | 2.18 | 0.57 |
| 1:K:192:VAL:HB | 1:K:230:ALA:HB2 | 1.87 | 0.57 |
| 1:L:334:LYS:NZ | 1:L:367:VAL:CG2 | 2.67 | 0.57 |
| 1:M:314:LYS:HA | 1:M:317:ILE:HD11 | 1.86 | 0.57 |
| 1:M:336:VAL:HG11 | 1:M:375:ILE:HG13 | 1.86 | 0.57 |
| 1:A:194:LEU:HD21 | 1:A:237:LEU:CD2 | 2.34 | 0.57 |
| 1:C:251:LEU:CD2 | 1:C:255:ILE:HD11 | 2.32 | 0.57 |
| 1:G:282:ASN:ND2 | 1:G:285:GLU:HB2 | 2.20 | 0.57 |
| 1:G:355:ASN:O | 1:G:357:ARG:N | 2.35 | 0.57 |
| 1:K:194:LEU:HD22 | 1:K:226:PHE:CD1 | 2.38 | 0.57 |
| 1:M:206:ALA:HB2 | 1:M:216:PHE:CZ | 2.39 | 0.57 |
| 1:N:201:ARG:HH11 | 1:N:201:ARG:CB | 2.11 | 0.57 |
| 1:E:176:VAL:O | 1:E:180:ILE:HG13 | 2.04 | 0.57 |
| 1:E:324:PHE:O | 1:E:326:LYS:N | 2.38 | 0.57 |
| 1:F:145:LYS:O | 1:F:148:GLU:HB3 | 2.05 | 0.57 |
| 1:F:343:ALA:C | 1:F:345:GLU:N | 2.58 | 0.57 |
| 1:F:359:LEU:O | 1:F:362:VAL:N | 2.38 | 0.57 |
| 1:H:324:PHE:HB2 | 1:H:363:ILE:HG21 | 1.86 | 0.57 |
| 1:I:340:THR:OG1 | 1:I:376:ASP:HB3 | 2.04 | 0.57 |
| 1:J:224:GLU:HG2 | 1:J:225:GLY:N | 2.10 | 0.57 |
| 1:H:146:MET:CG | 1:H:313:ARG:CZ | 2.82 | 0.57 |
| 1:H:161:CYS:SG | 1:H:303:ILE:CD1 | 2.93 | 0.57 |
| 1:H:161:CYS:SG | 1:H:303:ILE:HD12 | 2.45 | 0.57 |
| 1:H:235:LEU:HD23 | 1:H:236:PHE:N | 2.19 | 0.57 |
| 1:J:201:ARG:NH2 | 1:J:242:GLU:O | 2.38 | 0.57 |
| 1:B:315:GLU:OE1 | 1:B:315:GLU:N | 2.35 | 0.57 |
| 1:B:321:ALA:HB1 | 1:B:339:PHE:CZ | 2.40 | 0.57 |
| 1:F:143:SER:HB2 | 1:F:144:PRO:CD | 2.33 | 0.57 |
| 1:F:365:ARG:HD2 | 1:F:383:LEU:CD2 | 2.35 | 0.57 |
| 1:H:363:ILE:O | 1:H:367:VAL:HG23 | 2.04 | 0.57 |
| 1:J:181:HIS:CD2 | 1:J:191:PHE:HD1 | 2.23 | 0.57 |
| 1:N:146:MET:HE2 | 1:N:149:ILE:HD12 | 1.86 | 0.57 |
| 1:N:194:LEU:HD23 | 1:N:194:LEU:H | 1.70 | 0.57 |
| 1:C:310:LEU:HD22 | 1:C:317:ILE:HG12 | 1.86 | 0.57 |
| 1:D:181:HIS:HD2 | 1:D:234:THR:OG1 | 1.88 | 0.57 |
| 1:E:203:ILE:O | 1:E:203:ILE:HG22 | 2.05 | 0.57 |
| 1:E:355:ASN:N | 1:E:355:ASN:ND2 | 2.53 | 0.57 |
| 1:F:157:SER:O | 1:F:184:SER:HA | 2.05 | 0.57 |
| 1:I:263:LEU:HD23 | 1:I:263:LEU:C | 2.25 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:J:352:TRP:CH2 | 1:J:359:LEU:HD23 | 2.39 | 0.57 |
| 1:L:138:GLU:O | 1:L:139:TYR:CD1 | 2.58 | 0.57 |
| 1:L:218:GLY:O | 1:L:220:VAL:HG23 | 2.05 | 0.57 |
| 1:L:237:LEU:HB2 | 1:L:277:ALA:HB2 | 1.86 | 0.57 |
| 1:N:174:GLU:O | 1:N:177:ALA:N | 2.38 | 0.57 |
| 1:B:359:LEU:O | 1:B:361:ASN:N | 2.38 | 0.57 |
| 1:C:299:ARG:HG2 | 1:C:299:ARG:HH11 | 1.70 | 0.57 |
| 1:C:347:LEU:HD21 | 1:C:380:LEU:HD11 | 1.87 | 0.57 |
| 1:E:211:TYR:HD1 | 1:E:223:LYS:HE2 | 1.70 | 0.57 |
| 1:F:242:GLU:CG | 1:F:281:ARG:HH22 | 2.18 | 0.57 |
| 1:G:224:GLU:HG2 | 1:G:225:GLY:N | 2.16 | 0.57 |
| 1:I:182:LYS:O | 1:I:187:SER:HB3 | 2.04 | 0.57 |
| 1:J:363:ILE:O | 1:J:367:VAL:HG23 | 2.05 | 0.57 |
| 1:K:275:ILE:H | 1:K:275:ILE:CD1 | 2.18 | 0.57 |
| 1:M:244:SER:O | 1:M:248:GLN:NE2 | 2.38 | 0.57 |
| 1:N:352:TRP:HZ3 | 1:N:362:VAL:HG21 | 1.70 | 0.57 |
| 1:B:250:LYS:HZ3 | 1:B:253:ARG:NH2 | 2.02 | 0.56 |
| 1:B:325:LEU:HD23 | 1:B:325:LEU:O | 2.03 | 0.56 |
| 1:C:293:ARG:NH2 | 1:C:295:ASP:OD2 | 2.37 | 0.56 |
| 1:H:266:ARG:HB3 | 1:I:229:LEU:CD2 | 2.35 | 0.56 |
| 1:H:346:LEU:O | 1:H:346:LEU:HD23 | 2.04 | 0.56 |
| 1:I:351:PRO:HB2 | 1:I:353:TYR:CE2 | 2.40 | 0.56 |
| 1:K:143:SER:CB | 1:K:144:PRO:HD2 | 2.34 | 0.56 |
| 1:D:209:PHE:CD1 | 1:D:250:LYS:HD3 | 2.40 | 0.56 |
| 1:I:328:PHE:CZ | 1:I:364:GLU:HB2 | 2.40 | 0.56 |
| 1:A:139:TYR:CE2 | 1:A:175:VAL:HG13 | 2.41 | 0.56 |
| 1:A:232:GLY:HA2 | 1:A:272:ASN:HD22 | 1.69 | 0.56 |
| 1:B:285:GLU:OE2 | 1:K:349:SER:HB3 | 2.04 | 0.56 |
| 1:B:343:ALA:HB2 | 1:B:376:ASP:HA | 1.87 | 0.56 |
| 1:B:358:GLU:O | 1:B:362:VAL:HG23 | 2.05 | 0.56 |
| 1:C:231:ASP:C | 1:C:233:GLY:H | 2.09 | 0.56 |
| 1:C:324:PHE:CD1 | 1:C:360:LYS:HA | 2.41 | 0.56 |
| 1:E:152:LYS:HG2 | 1:F:369:PHE:HE1 | 1.66 | 0.56 |
| 1:E:226:PHE:O | 1:E:227:PHE:C | 2.44 | 0.56 |
| 1:E:254:VAL:HG22 | 1:E:260:PHE:HB3 | 1.88 | 0.56 |
| 1:G:207:GLU:HG2 | 1:G:226:PHE:CE1 | 2.41 | 0.56 |
| 1:H:347:LEU:HD21 | 1:H:380:LEU:HD13 | 1.87 | 0.56 |
| 1:K:190:PRO:HD2 | 1:K:233:GLY:HA3 | 1.86 | 0.56 |
| 1:L:287:VAL:HG12 | 1:L:288:LYS:N | 2.19 | 0.56 |
| 1:L:359:LEU:O | 1:L:362:VAL:N | 2.38 | 0.56 |
| 1:M:308:PRO:HG2 | 1:M:313:ARG:CD | 2.28 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:N:260:PHE:CD1 | 1:N:260:PHE:C | 2.78 | 0.56 |
| 1:N:296:LEU:HD13 | 1:N:300:LEU:HG | 1.88 | 0.56 |
| 1:N:302:VAL:O | 1:N:303:ILE:HD13 | 2.05 | 0.56 |
| 1:A:172:GLY:O | 1:A:175:VAL:N | 2.38 | 0.56 |
| 1:A:275:ILE:O | 1:A:276:LEU:HD23 | 2.05 | 0.56 |
| 1:A:285:GLU:O | 1:A:289:GLU:HG3 | 2.06 | 0.56 |
| 1:C:382:CYS:O | 1:C:383:LEU:HD23 | 2.06 | 0.56 |
| 1:D:163:VAL:HB | 1:D:276:LEU:CD2 | 2.36 | 0.56 |
| 1:E:171:VAL:CG1 | 1:E:355:ASN:OD1 | 2.51 | 0.56 |
| 1:I:152:LYS:O | 1:I:155:LYS:N | 2.37 | 0.56 |
| 1:K:178:ARG:HE | 1:K:191:PHE:HD2 | 1.51 | 0.56 |
| 1:L:251:LEU:O | 1:L:252:LEU:C | 2.42 | 0.56 |
| 1:M:194:LEU:HD21 | 1:M:237:LEU:CD2 | 2.23 | 0.56 |
| 1:M:261:TYR:CE2 | 1:N:199:ILE:HG12 | 2.39 | 0.56 |
| 1:M:280:ASN:OD1 | 1:M:281:ARG:N | 2.38 | 0.56 |
| 1:D:303:ILE:CD1 | 1:E:365:ARG:HG3 | 2.35 | 0.56 |
| 1:E:365:ARG:HG2 | 1:E:369:PHE:CE2 | 2.41 | 0.56 |
| 1:G:310:LEU:HB2 | 1:G:355:ASN:HB3 | 1.87 | 0.56 |
| 1:L:173:LYS:HB2 | 1:L:173:LYS:NZ | 2.21 | 0.56 |
| 1:M:244:SER:O | 1:M:247:ALA:CB | 2.53 | 0.56 |
| 1:A:179:LEU:C | 1:A:181:HIS:H | 2.07 | 0.56 |
| 1:B:366:ALA:O | 1:B:370:SER:HB3 | 2.06 | 0.56 |
| 1:E:186:ARG:NH2 | 1:E:272:ASN:ND2 | 2.50 | 0.56 |
| 1:F:366:ALA:O | 1:F:368:LEU:N | 2.39 | 0.56 |
| 1:G:275:ILE:N | 1:G:275:ILE:CD1 | 2.67 | 0.56 |
| 1:H:271:VAL:CG1 | 1:H:273:VAL:HG23 | 2.35 | 0.56 |
| 1:I:266:ARG:HH11 | 1:J:216:PHE:HE1 | 1.54 | 0.56 |
| 1:N:228:GLU:O | 1:N:230:ALA:N | 2.39 | 0.56 |
| 1:N:255:ILE:O | 1:N:255:ILE:HG22 | 2.05 | 0.56 |
| 1:A:376:ASP:O | 1:A:378:GLY:N | 2.38 | 0.56 |
| 1:B:365:ARG:NH1 | 1:B:383:LEU:O | 2.39 | 0.56 |
| 1:J:143:SER:O | 1:J:147:LYS:HB2 | 2.06 | 0.56 |
| 1:N:277:ALA:O | 1:N:278:ALA:HB2 | 2.05 | 0.56 |
| 1:N:303:ILE:O | 1:N:303:ILE:HG22 | 2.05 | 0.56 |
| 1:A:299:ARG:HE | 1:A:299:ARG:CA | 2.19 | 0.56 |
| 1:G:324:PHE:CD1 | 1:G:360:LYS:HA | 2.41 | 0.56 |
| 1:H:152:LYS:O | 1:H:156:ILE:HG12 | 2.05 | 0.56 |
| 1:H:194:LEU:HD13 | 1:H:226:PHE:CD2 | 2.40 | 0.56 |
| 1:H:324:PHE:CB | 1:H:363:ILE:HG21 | 2.36 | 0.56 |
| 1:H:357:ARG:NH1 | 1:N:252:LEU:HD21 | 2.10 | 0.56 |
| 1:K:157:SER:HB3 | 1:K:183:LEU:C | 2.26 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:178:ARG:NE | 1:K:191:PHE:CE2 | 2.74 | 0.56 |
| 1:K:200:PRO:HG2 | 1:K:203:ILE:CG1 | 2.35 | 0.56 |
| 1:B:203:ILE:HG22 | 1:B:203:ILE:O | 2.06 | 0.56 |
| 1:B:251:LEU:HD22 | 1:B:255:ILE:CD1 | 2.36 | 0.56 |
| 1:C:208:LEU:HD11 | 1:C:227:PHE:CD1 | 2.41 | 0.56 |
| 1:H:157:SER:OG | 1:H:183:LEU:HB2 | 2.06 | 0.56 |
| 1:H:254:VAL:CG2 | 1:H:260:PHE:HB3 | 2.34 | 0.56 |
| 1:M:176:VAL:O | 1:M:177:ALA:C | 2.44 | 0.56 |
| 1:N:316:ASP:O | 1:N:319:PRO:HD2 | 2.06 | 0.56 |
| 1:B:152:LYS:O | 1:B:156:ILE:HG12 | 2.06 | 0.56 |
| 1:C:252:LEU:HB2 | 1:C:296:LEU:HD23 | 1.88 | 0.56 |
| 1:D:186:ARG:O | 1:D:189:GLU:HB2 | 2.06 | 0.56 |
| 1:F:174:GLU:HG2 | 1:F:178:ARG:NH1 | 2.21 | 0.56 |
| 1:F:321:ALA:HB1 | 1:F:339:PHE:CZ | 2.41 | 0.56 |
| 1:F:357:ARG:HH11 | 1:F:357:ARG:CG | 2.17 | 0.56 |
| 1:G:173:LYS:O | 1:G:175:VAL:N | 2.38 | 0.56 |
| 1:J:152:LYS:O | 1:J:156:ILE:HG12 | 2.05 | 0.56 |
| 1:L:240:ILE:HD11 | 1:L:277:ALA:CB | 2.31 | 0.56 |
| 1:M:310:LEU:HD22 | 1:M:317:ILE:HG12 | 1.88 | 0.56 |
| 1:B:204:PHE:C | 1:B:206:ALA:N | 2.55 | 0.55 |
| 1:B:248:GLN:OE1 | 1:B:293:ARG:HG3 | 2.05 | 0.55 |
| 1:B:266:ARG:HB3 | 1:C:229:LEU:HD21 | 1.87 | 0.55 |
| 1:C:299:ARG:HH12 | 1:D:357:ARG:NH1 | 2.03 | 0.55 |
| 1:D:292:PHE:CE2 | 1:D:296:LEU:HD12 | 2.40 | 0.55 |
| 1:G:168:GLU:OE1 | 1:G:309:PRO:HB3 | 2.05 | 0.55 |
| 1:I:252:LEU:HD21 | 1:I:295:ASP:HB2 | 1.88 | 0.55 |
| 1:L:184:SER:O | 1:L:186:ARG:N | 2.39 | 0.55 |
| 1:M:253:ARG:CG | 1:N:198:SER:CB | 2.84 | 0.55 |
| 1:B:269:ILE:HG22 | 1:B:270:GLU:N | 2.19 | 0.55 |
| 1:G:203:ILE:O | 1:G:203:ILE:HG22 | 2.06 | 0.55 |
| 1:I:196:VAL:HA | 1:I:204:PHE:HE1 | 1.72 | 0.55 |
| 1:I:205:GLU:HG2 | 1:I:247:ALA:HB2 | 1.86 | 0.55 |
| 1:L:149:ILE:HD13 | 1:L:307:ILE:CD1 | 2.36 | 0.55 |
| 1:N:143:SER:CB | 1:N:144:PRO:HD2 | 2.31 | 0.55 |
| 1:C:253:ARG:HH11 | 1:C:253:ARG:CG | 2.19 | 0.55 |
| 1:D:171:VAL:HG21 | 1:D:307:ILE:HB | 1.89 | 0.55 |
| 1:F:347:LEU:CD2 | 1:F:380:LEU:HD12 | 2.34 | 0.55 |
| 1:H:299:ARG:O | 1:H:302:VAL:HG23 | 2.06 | 0.55 |
| 1:I:172:GLY:HA2 | 2:I:8:ADP:PA | 2.46 | 0.55 |
| 1:I:350:TYR:CE1 | 1:I:384:VAL:HB | 2.42 | 0.55 |
| 1:J:339:PHE:HB3 | 1:J:343:ALA:HB3 | 1.88 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:139:TYR:CE1 | 1:K:175:VAL:HG13 | 2.41 | 0.55 |
| 1:K:321:ALA:HA | 1:K:363:ILE:CD1 | 2.36 | 0.55 |
| 1:N:245:LEU:HD23 | 1:N:248:GLN:HE21 | 1.70 | 0.55 |
| 1:A:192:VAL:CG2 | 1:A:230:ALA:HB2 | 2.37 | 0.55 |
| 1:B:296:LEU:C | 1:B:296:LEU:HD13 | 2.26 | 0.55 |
| 1:F:355:ASN:O | 1:F:357:ARG:N | 2.34 | 0.55 |
| 1:F:365:ARG:HD2 | 1:F:383:LEU:HD21 | 1.88 | 0.55 |
| 1:J:216:PHE:HD2 | 1:J:216:PHE:N | 1.90 | 0.55 |
| 1:J:281:ARG:HG2 | 1:J:281:ARG:HH11 | 1.71 | 0.55 |
| 1:K:189:GLU:HA | 1:K:189:GLU:OE1 | 2.04 | 0.55 |
| 1:L:173:LYS:H | 2:L:11:ADP:PB | 2.29 | 0.55 |
| 1:M:211:TYR:N | 1:M:211:TYR:CD1 | 2.74 | 0.55 |
| 1:M:294:GLU:HG2 | 1:M:295:ASP:N | 2.22 | 0.55 |
| 1:A:143:SER:HB3 | 1:A:316:ASP:CG | 2.26 | 0.55 |
| 1:B:261:TYR:O | 1:B:262:ARG:C | 2.43 | 0.55 |
| 1:E:168:GLU:HB2 | 1:E:171:VAL:HG11 | 1.88 | 0.55 |
| 1:E:236:PHE:CE1 | 1:E:278:ALA:HB2 | 2.38 | 0.55 |
| 1:E:326:LYS:HE2 | 1:E:330:ARG:HH21 | 1.71 | 0.55 |
| 1:I:249:ALA:HB2 | 1:I:293:ARG:HH11 | 1.71 | 0.55 |
| 1:I:311:ARG:HG3 | 1:I:312:GLU:HG3 | 1.88 | 0.55 |
| 1:I:313:ARG:HB3 | 1:I:316:ASP:OD2 | 2.06 | 0.55 |
| 1:K:240:ILE:HG22 | 1:K:292:PHE:CE1 | 2.41 | 0.55 |
| 1:L:157:SER:HB2 | 1:L:183:LEU:O | 2.06 | 0.55 |
| 1:L:225:GLY:O | 1:L:226:PHE:C | 2.44 | 0.55 |
| 1:B:362:VAL:HG11 | 1:B:384:VAL:HG11 | 1.88 | 0.55 |
| 1:E:162:PRO:HG3 | 1:E:299:ARG:O | 2.06 | 0.55 |
| 1:F:194:LEU:HD23 | 1:F:236:PHE:O | 2.06 | 0.55 |
| 1:F:283:ILE:O | 1:F:286:LEU:N | 2.40 | 0.55 |
| 1:G:150:LEU:O | 1:G:153:ILE:HB | 2.06 | 0.55 |
| 1:H:346:LEU:HD12 | 1:H:377:ARG:HE | 1.71 | 0.55 |
| 1:I:161:CYS:O | 1:I:274:ARG:NH1 | 2.40 | 0.55 |
| 1:I:195:ASN:ND2 | 1:I:238:ASP:OD2 | 2.38 | 0.55 |
| 1:L:267:LYS:O | 1:L:269:ILE:HD12 | 2.05 | 0.55 |
| 1:L:328:PHE:CE2 | 1:L:364:GLU:HB2 | 2.41 | 0.55 |
| 1:L:342:SER:O | 1:L:377:ARG:HD2 | 2.07 | 0.55 |
| 1:A:325:LEU:HD23 | 1:A:325:LEU:C | 2.25 | 0.55 |
| 1:B:253:ARG:HG3 | 1:B:254:VAL:N | 2.21 | 0.55 |
| 1:C:292:PHE:CE2 | 1:C:296:LEU:HD12 | 2.41 | 0.55 |
| 1:D:203:ILE:CG2 | 1:D:207:GLU:HG2 | 2.37 | 0.55 |
| 1:D:332:TYR:CD1 | 1:D:368:LEU:HD21 | 2.41 | 0.55 |
| 1:F:142:GLU:OE1 | 1:F:142:GLU:HA | 2.06 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:J:220:VAL:CG1 | 1:J:221:SER:N | 2.68 | 0.55 |
| 1:L:339:PHE:CD2 | 1:L:375:ILE:HD11 | 2.41 | 0.55 |
| 1:M:141:PHE:CD2 | 1:M:150:LEU:HB2 | 2.41 | 0.55 |
| 1:B:164:LEU:HD12 | 1:B:165:ILE:N | 2.22 | 0.55 |
| 1:D:141:PHE:HE1 | 1:D:179:LEU:HD12 | 1.70 | 0.55 |
| 1:E:209:PHE:N | 1:E:209:PHE:CD1 | 2.74 | 0.55 |
| 1:E:244:SER:O | 1:E:246:GLU:N | 2.39 | 0.55 |
| 1:E:298:TYR:CE1 | 1:F:354:GLY:CA | 2.90 | 0.55 |
| 1:H:215:ALA:HB3 | 1:H:264:GLY:HA3 | 1.88 | 0.55 |
| 1:K:346:LEU:O | 1:K:346:LEU:HD23 | 2.07 | 0.55 |
| 1:L:311:ARG:HH11 | 1:L:353:TYR:HE2 | 1.53 | 0.55 |
| 1:N:192:VAL:HB | 1:N:230:ALA:HB2 | 1.87 | 0.55 |
| 1:D:149:ILE:O | 1:D:153:ILE:HG12 | 2.06 | 0.55 |
| 1:E:177:ALA:HB1 | 1:E:276:LEU:HD12 | 1.88 | 0.55 |
| 1:E:341:LYS:O | 1:E:341:LYS:HD3 | 2.07 | 0.55 |
| 1:F:156:ILE:O | 1:F:158:CYS:N | 2.39 | 0.55 |
| 1:G:153:ILE:HG23 | 1:G:180:ILE:HG12 | 1.89 | 0.55 |
| 1:G:252:LEU:CD1 | 1:G:299:ARG:HG3 | 2.37 | 0.55 |
| 1:H:271:VAL:HG12 | 1:H:273:VAL:HG23 | 1.88 | 0.55 |
| 1:C:240:ILE:HD12 | 1:C:243:LEU:HD12 | 1.88 | 0.55 |
| 1:E:267:LYS:H | 1:E:267:LYS:CD | 2.15 | 0.55 |
| 1:G:310:LEU:CD2 | 1:G:317:ILE:HG12 | 2.37 | 0.55 |
| 1:H:247:ALA:O | 1:H:248:GLN:C | 2.45 | 0.55 |
| 1:I:143:SER:HB2 | 1:I:144:PRO:HD2 | 1.89 | 0.55 |
| 1:I:292:PHE:HE2 | 1:I:296:LEU:HB3 | 1.71 | 0.55 |
| 1:I:336:VAL:HA | 1:I:373:LYS:O | 2.07 | 0.55 |
| 1:J:349:SER:OG | 1:J:350:TYR:N | 2.40 | 0.55 |
| 1:M:211:TYR:N | 1:M:211:TYR:HD1 | 2.05 | 0.55 |
| 1:M:256:GLU:O | 1:M:258:GLY:N | 2.40 | 0.55 |
| 1:D:271:VAL:HG23 | 1:D:273:VAL:HG23 | 1.88 | 0.54 |
| 1:G:191:PHE:CE2 | 1:G:193:ALA:HB2 | 2.42 | 0.54 |
| 1:G:261:TYR:HB3 | 1:G:266:ARG:C | 2.26 | 0.54 |
| 1:H:328:PHE:C | 1:H:367:VAL:HG11 | 2.27 | 0.54 |
| 1:L:165:ILE:HG22 | 1:L:173:LYS:HG2 | 1.89 | 0.54 |
| 1:N:152:LYS:O | 1:N:156:ILE:HG12 | 2.08 | 0.54 |
| 1:B:192:VAL:CG2 | 1:B:229:LEU:HD12 | 2.37 | 0.54 |
| 1:C:150:LEU:CG | 1:C:154:LYS:HZ1 | 2.20 | 0.54 |
| 1:C:376:ASP:O | 1:C:378:GLY:N | 2.41 | 0.54 |
| 1:F:311:ARG:HH11 | 1:F:311:ARG:CG | 2.18 | 0.54 |
| 1:G:235:LEU:HD21 | 1:G:237:LEU:HD21 | 1.89 | 0.54 |
| 1:J:318:ILE:CG1 | 1:J:348:LEU:HD21 | 2.34 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:234:THR:HG23 | 1:K:274:ARG:O | 2.07 | 0.54 |
| 1:K:325:LEU:CD1 | 1:K:338:GLY:HA2 | 2.35 | 0.54 |
| 1:L:152:LYS:O | 1:L:154:LYS:N | 2.40 | 0.54 |
| 1:A:208:LEU:HD22 | 1:A:209:PHE:CE1 | 2.43 | 0.54 |
| 1:C:258:GLY:O | 1:C:270:GLU:HA | 2.07 | 0.54 |
| 1:E:161:CYS:HB2 | 1:E:302:VAL:HG11 | 1.88 | 0.54 |
| 1:E:249:ALA:HA | 1:E:293:ARG:HH11 | 1.73 | 0.54 |
| 1:E:320:LEU:C | 1:E:322:ASN:N | 2.60 | 0.54 |
| 1:F:171:VAL:HG21 | 1:F:307:ILE:HB | 1.88 | 0.54 |
| 1:F:171:VAL:HG22 | 1:F:173:LYS:HG3 | 1.89 | 0.54 |
| 1:H:343:ALA:HB2 | 1:H:376:ASP:CA | 2.23 | 0.54 |
| 1:I:366:ALA:C | 1:I:368:LEU:H | 2.09 | 0.54 |
| 1:C:322:ASN:O | 1:C:323:HIS:C | 2.46 | 0.54 |
| 1:C:326:LYS:HE2 | 1:C:330:ARG:HH22 | 1.72 | 0.54 |
| 1:F:239:GLU:N | 1:F:278:ALA:O | 2.39 | 0.54 |
| 1:F:316:ASP:O | 1:F:319:PRO:HD2 | 2.07 | 0.54 |
| 1:G:260:PHE:HE2 | 1:G:271:VAL:HG11 | 1.73 | 0.54 |
| 1:H:226:PHE:O | 1:H:229:LEU:N | 2.41 | 0.54 |
| 1:H:287:VAL:CG1 | 1:H:294:GLU:HG2 | 2.38 | 0.54 |
| 1:H:316:ASP:HB3 | 1:H:320:LEU:HD11 | 1.90 | 0.54 |
| 1:I:251:LEU:O | 1:I:253:ARG:N | 2.40 | 0.54 |
| 1:I:279:THR:HG21 | 1:I:283:ILE:HD11 | 1.89 | 0.54 |
| 1:L:337:GLU:N | 1:L:373:LYS:O | 2.40 | 0.54 |
| 1:A:179:LEU:C | 1:A:181:HIS:N | 2.61 | 0.54 |
| 1:A:194:LEU:H | 1:A:194:LEU:CD2 | 2.21 | 0.54 |
| 1:B:235:LEU:CG | 1:B:237:LEU:HD21 | 2.38 | 0.54 |
| 1:C:324:PHE:CZ | 1:C:360:LYS:HB2 | 2.42 | 0.54 |
| 1:C:340:THR:HG21 | 1:C:376:ASP:HB3 | 1.89 | 0.54 |
| 1:D:157:SER:HB3 | 1:D:184:SER:HA | 1.89 | 0.54 |
| 1:E:196:VAL:O | 1:E:196:VAL:CG1 | 2.55 | 0.54 |
| 1:E:346:LEU:HB2 | 1:E:377:ARG:NH1 | 2.22 | 0.54 |
| 1:F:153:ILE:HD12 | 1:F:180:ILE:CG1 | 2.37 | 0.54 |
| 1:I:163:VAL:HB | 1:I:276:LEU:HD23 | 1.89 | 0.54 |
| 1:I:355:ASN:O | 1:I:357:ARG:N | 2.40 | 0.54 |
| 1:J:202:ASP:O | 1:J:202:ASP:CG | 2.45 | 0.54 |
| 1:K:216:PHE:H | 1:K:219:ALA:HB2 | 1.73 | 0.54 |
| 1:L:296:LEU:O | 1:L:299:ARG:N | 2.36 | 0.54 |
| 1:D:343:ALA:HB2 | 1:D:376:ASP:HA | 1.90 | 0.54 |
| 1:M:293:ARG:O | 1:M:296:LEU:HB3 | 2.07 | 0.54 |
| 1:M:347:LEU:HD21 | 1:M:380:LEU:CG | 2.36 | 0.54 |
| 1:N:204:PHE:CD2 | 1:N:204:PHE:O | 2.61 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:310:LEU:HD13 | 1:A:317:ILE:HG12 | 1.90 | 0.54 |
| 1:B:160:GLU:CA | 1:B:274:ARG:HH12 | 2.21 | 0.54 |
| 1:C:251:LEU:O | 1:C:255:ILE:HG13 | 2.07 | 0.54 |
| 1:E:173:LYS:HB2 | 1:E:173:LYS:HZ3 | 1.73 | 0.54 |
| 1:F:194:LEU:N | 1:F:194:LEU:CD2 | 2.71 | 0.54 |
| 1:F:195:ASN:HA | 1:F:238:ASP:HB3 | 1.88 | 0.54 |
| 1:F:199:ILE:HD13 | 1:F:207:GLU:HG2 | 1.89 | 0.54 |
| 1:F:325:LEU:CD2 | 1:F:336:VAL:HG12 | 2.36 | 0.54 |
| 1:G:296:LEU:O | 1:G:296:LEU:HD13 | 2.08 | 0.54 |
| 1:L:174:GLU:O | 1:L:177:ALA:HB3 | 2.07 | 0.54 |
| 1:N:186:ARG:NH1 | 1:N:232:GLY:O | 2.40 | 0.54 |
| 1:B:227:PHE:O | 1:B:230:ALA:N | 2.40 | 0.54 |
| 1:B:365:ARG:NH1 | 1:B:383:LEU:HB3 | 2.22 | 0.54 |
| 1:E:311:ARG:CG | 1:E:351:PRO:O | 2.56 | 0.54 |
| 1:G:144:PRO:HG2 | 1:G:145:LYS:H | 1.73 | 0.54 |
| 1:G:211:TYR:HE1 | 1:G:215:ALA:HB3 | 1.71 | 0.54 |
| 1:H:339:PHE:N | 1:H:339:PHE:HD1 | 2.04 | 0.54 |
| 1:K:162:PRO:HG3 | 1:K:299:ARG:O | 2.08 | 0.54 |
| 1:K:192:VAL:O | 1:K:192:VAL:HG12 | 2.06 | 0.54 |
| 1:K:361:ASN:N | 1:K:361:ASN:ND2 | 2.54 | 0.54 |
| 1:L:339:PHE:HE2 | 1:L:375:ILE:HD11 | 1.70 | 0.54 |
| 1:A:234:THR:HG21 | 1:A:276:LEU:CD1 | 2.38 | 0.54 |
| 1:A:244:SER:O | 1:A:248:GLN:HG3 | 2.07 | 0.54 |
| 1:A:309:PRO:HG3 | 1:A:311:ARG:HH11 | 1.70 | 0.54 |
| 1:B:249:ALA:HB2 | 1:B:293:ARG:HH11 | 1.73 | 0.54 |
| 1:D:294:GLU:OE1 | 1:D:298:TYR:HE1 | 1.90 | 0.54 |
| 1:E:351:PRO:O | 1:E:352:TRP:C | 2.46 | 0.54 |
| 1:F:315:GLU:N | 1:F:315:GLU:OE1 | 2.31 | 0.54 |
| 1:G:181:HIS:HE1 | 1:G:187:SER:O | 1.91 | 0.54 |
| 1:I:253:ARG:NE | 1:J:198:SER:CB | 2.71 | 0.54 |
| 1:L:165:ILE:HB | 1:L:278:ALA:CB | 2.38 | 0.54 |
| 1:B:292:PHE:CZ | 1:B:296:LEU:HD12 | 2.43 | 0.54 |
| 1:F:343:ALA:O | 1:F:344:GLN:C | 2.46 | 0.54 |
| 1:G:252:LEU:CD2 | 1:G:293:ARG:HH12 | 2.21 | 0.54 |
| 1:I:321:ALA:HA | 1:I:363:ILE:CD1 | 2.38 | 0.54 |
| 1:I:336:VAL:HG11 | 1:I:375:ILE:HD11 | 1.90 | 0.54 |
| 1:K:275:ILE:O | 1:K:276:LEU:HD23 | 2.07 | 0.54 |
| 1:L:329:SER:HA | 1:L:334:LYS:HG3 | 1.88 | 0.54 |
| 1:M:191:PHE:C | 1:M:191:PHE:HD2 | 2.10 | 0.54 |
| 1:M:274:ARG:HD3 | 1:M:276:LEU:HD21 | 1.90 | 0.54 |
| 1:M:281:ARG:HG2 | 1:M:281:ARG:HH11 | 1.72 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:N:279:THR:HG23 | 1:N:280:ASN:N | 2.22 | 0.54 |
| 1:C:150:LEU:O | 1:C:154:LYS:HG3 | 2.07 | 0.53 |
| 1:C:298:TYR:HE2 | 1:D:358:GLU:OE2 | 1.90 | 0.53 |
| 1:L:305:ILE:HG23 | 1:L:307:ILE:HD11 | 1.90 | 0.53 |
| 1:L:329:SER:HA | 1:L:334:LYS:CG | 2.38 | 0.53 |
| 1:N:313:ARG:C | 1:N:315:GLU:H | 2.12 | 0.53 |
| 1:A:275:ILE:HD12 | 1:A:275:ILE:N | 2.16 | 0.53 |
| 1:C:243:LEU:O | 1:C:248:GLN:NE2 | 2.37 | 0.53 |
| 1:C:261:TYR:O | 1:C:262:ARG:C | 2.46 | 0.53 |
| 1:E:211:TYR:CD2 | 1:E:263:LEU:HB2 | 2.43 | 0.53 |
| 1:G:152:LYS:O | 1:G:156:ILE:HG12 | 2.08 | 0.53 |
| 1:G:176:VAL:O | 1:G:177:ALA:C | 2.46 | 0.53 |
| 1:I:230:ALA:O | 1:I:273:VAL:HG22 | 2.08 | 0.53 |
| 1:L:204:PHE:CE2 | 1:L:208:LEU:HD12 | 2.43 | 0.53 |
| 1:L:342:SER:O | 1:L:377:ARG:HB2 | 2.09 | 0.53 |
| 1:M:176:VAL:O | 1:M:179:LEU:N | 2.39 | 0.53 |
| 1:M:195:ASN:ND2 | 1:M:238:ASP:OD2 | 2.41 | 0.53 |
| 1:D:159:ALA:CB | 1:E:332:TYR:HE2 | 2.21 | 0.53 |
| 1:D:209:PHE:HE2 | 1:D:227:PHE:CE1 | 2.27 | 0.53 |
| 1:E:269:ILE:H | 1:E:269:ILE:CD1 | 2.19 | 0.53 |
| 1:F:153:ILE:HG21 | 1:F:179:LEU:CD2 | 2.36 | 0.53 |
| 1:I:211:TYR:CZ | 1:I:223:LYS:HB2 | 2.43 | 0.53 |
| 1:I:266:ARG:HD2 | 1:J:216:PHE:HE1 | 1.74 | 0.53 |
| 1:L:139:TYR:HB3 | 1:L:141:PHE:CD2 | 2.41 | 0.53 |
| 1:L:326:LYS:O | 1:L:329:SER:HB3 | 2.08 | 0.53 |
| 1:L:376:ASP:C | 1:L:378:GLY:H | 2.11 | 0.53 |
| 1:M:286:LEU:HA | 1:M:289:GLU:OE1 | 2.07 | 0.53 |
| 1:N:209:PHE:CE1 | 1:N:250:LYS:HB3 | 2.43 | 0.53 |
| 1:A:252:LEU:HD22 | 1:A:295:ASP:OD1 | 2.09 | 0.53 |
| 1:A:325:LEU:HD12 | 1:A:339:PHE:CE1 | 2.43 | 0.53 |
| 1:D:259:LYS:HE2 | 1:D:270:GLU:OE2 | 2.07 | 0.53 |
| 1:D:308:PRO:O | 1:D:313:ARG:HD2 | 2.08 | 0.53 |
| 1:F:365:ARG:NH1 | 1:F:383:LEU:HD22 | 2.24 | 0.53 |
| 1:I:194:LEU:HD13 | 1:I:226:PHE:CD1 | 2.32 | 0.53 |
| 1:J:262:ARG:HD3 | 1:J:269:ILE:HD11 | 1.90 | 0.53 |
| 1:K:384:VAL:O | 1:K:384:VAL:HG12 | 2.07 | 0.53 |
| 1:L:159:ALA:CB | 1:M:368:LEU:HD21 | 2.38 | 0.53 |
| 1:A:237:LEU:HB2 | 1:A:240:ILE:HD11 | 1.91 | 0.53 |
| 1:A:313:ARG:HB3 | 1:A:316:ASP:OD2 | 2.08 | 0.53 |
| 1:A:347:LEU:HD21 | 1:A:380:LEU:HD11 | 1.91 | 0.53 |
| 1:B:160:GLU:HA | 1:B:274:ARG:NH1 | 2.23 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:201:ARG:HH11 | 1:B:201:ARG:CB | 2.20 | 0.53 |
| 1:C:215:ALA:C | 1:C:217:THR:H | 2.12 | 0.53 |
| 1:C:236:PHE:HE2 | 1:C:238:ASP:HB2 | 1.71 | 0.53 |
| 1:G:261:TYR:HD2 | 1:G:263:LEU:O | 1.91 | 0.53 |
| 1:H:240:ILE:HG23 | 1:H:243:LEU:HD12 | 1.90 | 0.53 |
| 1:I:325:LEU:HD23 | 1:I:325:LEU:C | 2.28 | 0.53 |
| 1:J:224:GLU:CG | 1:J:225:GLY:H | 2.06 | 0.53 |
| 1:J:309:PRO:CB | 1:J:311:ARG:NH1 | 2.72 | 0.53 |
| 1:K:269:ILE:H | 1:K:269:ILE:CD1 | 2.20 | 0.53 |
| 1:B:240:ILE:HG13 | 1:B:277:ALA:CB | 2.32 | 0.53 |
| 1:B:251:LEU:O | 1:B:252:LEU:C | 2.47 | 0.53 |
| 1:C:309:PRO:CB | 1:C:311:ARG:NH1 | 2.72 | 0.53 |
| 1:F:215:ALA:HB3 | 1:F:219:ALA:HB3 | 1.91 | 0.53 |
| 1:F:343:ALA:C | 1:F:345:GLU:H | 2.12 | 0.53 |
| 1:I:194:LEU:N | 1:I:194:LEU:CD2 | 2.72 | 0.53 |
| 1:K:148:GLU:O | 1:K:151:GLU:HB2 | 2.08 | 0.53 |
| 1:L:173:LYS:NZ | 2:L:11:ADP:PB | 2.81 | 0.53 |
| 1:L:228:GLU:O | 1:L:231:ASP:N | 2.40 | 0.53 |
| 1:L:267:LYS:O | 1:L:269:ILE:CD1 | 2.57 | 0.53 |
| 1:M:252:LEU:HA | 1:M:255:ILE:HD12 | 1.90 | 0.53 |
| 1:C:140:VAL:CB | 1:C:320:LEU:HD23 | 2.39 | 0.53 |
| 1:E:156:ILE:HD11 | 1:E:303:ILE:HD12 | 1.91 | 0.53 |
| 1:E:239:GLU:C | 1:E:241:GLY:H | 2.11 | 0.53 |
| 1:H:340:THR:HG22 | 1:H:341:LYS:N | 2.23 | 0.53 |
| 1:I:216:PHE:CZ | 1:I:218:GLY:HA3 | 2.44 | 0.53 |
| 1:J:195:ASN:HB3 | 1:J:198:SER:OG | 2.08 | 0.53 |
| 1:L:354:GLY:HA3 | 1:L:358:GLU:HB2 | 1.91 | 0.53 |
| 1:M:358:GLU:O | 1:M:359:LEU:C | 2.46 | 0.53 |
| 1:A:142:GLU:HA | 1:A:147:LYS:HE2 | 1.91 | 0.53 |
| 1:A:223:LYS:NZ | 1:G:266:ARG:HD2 | 2.24 | 0.53 |
| 1:A:346:LEU:HD21 | 1:A:384:VAL:O | 2.08 | 0.53 |
| 1:C:259:LYS:HA | 1:C:269:ILE:O | 2.08 | 0.53 |
| 1:E:292:PHE:CE2 | 1:E:296:LEU:HB3 | 2.37 | 0.53 |
| 1:G:340:THR:C | 1:G:342:SER:H | 2.12 | 0.53 |
| 1:H:355:ASN:O | 1:H:357:ARG:N | 2.42 | 0.53 |
| 1:I:300:LEU:O | 1:I:302:VAL:N | 2.42 | 0.53 |
| 1:L:173:LYS:NZ | 2:L:11:ADP:O1B | 2.41 | 0.53 |
| 1:L:318:ILE:CD1 | 1:L:319:PRO:HD3 | 2.39 | 0.53 |
| 1:N:292:PHE:CZ | 1:N:296:LEU:HD12 | 2.43 | 0.53 |
| 1:B:191:PHE:HE1 | 1:B:276:LEU:HD12 | 1.74 | 0.53 |
| 1:B:359:LEU:C | 1:B:361:ASN:N | 2.61 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:146:MET:CE | 1:C:313:ARG:NH2 | 2.72 | 0.53 |
| 1:C:314:LYS:HA | 1:C:317:ILE:CG1 | 2.37 | 0.53 |
| 1:C:336:VAL:HG21 | 1:C:370:SER:HB2 | 1.91 | 0.53 |
| 1:D:335:GLU:O | 1:D:373:LYS:HA | 2.09 | 0.53 |
| 1:E:166:THR:HG22 | 1:E:167:GLY:H | 1.74 | 0.53 |
| 1:E:279:THR:CG2 | 1:E:283:ILE:HD11 | 2.36 | 0.53 |
| 1:E:282:ASN:ND2 | 1:E:285:GLU:CB | 2.64 | 0.53 |
| 1:E:305:ILE:HG22 | 1:E:305:ILE:O | 2.08 | 0.53 |
| 1:F:282:ASN:ND2 | 1:F:285:GLU:HB2 | 2.24 | 0.53 |
| 1:F:300:LEU:C | 1:F:302:VAL:H | 2.12 | 0.53 |
| 1:F:354:GLY:O | 1:F:358:GLU:N | 2.36 | 0.53 |
| 1:G:340:THR:O | 1:G:342:SER:N | 2.41 | 0.53 |
| 1:I:213:LYS:O | 1:I:220:VAL:O | 2.26 | 0.53 |
| 1:M:181:HIS:ND1 | 1:M:187:SER:HA | 2.24 | 0.53 |
| 1:A:325:LEU:HD21 | 1:A:336:VAL:HG12 | 1.90 | 0.53 |
| 1:D:284:LYS:HE2 | 1:D:297:TYR:OH | 2.09 | 0.53 |
| 1:D:299:ARG:NH2 | 1:D:302:VAL:HG21 | 2.24 | 0.53 |
| 1:H:309:PRO:HB2 | 1:H:311:ARG:CD | 2.39 | 0.53 |
| 1:J:200:PRO:HG2 | 1:J:203:ILE:CD1 | 2.36 | 0.53 |
| 1:J:245:LEU:HD23 | 1:J:248:GLN:NE2 | 2.24 | 0.53 |
| 1:J:266:ARG:NH1 | 1:K:224:GLU:O | 2.41 | 0.53 |
| 1:L:152:LYS:C | 1:L:154:LYS:N | 2.60 | 0.53 |
| 1:L:229:LEU:C | 1:L:229:LEU:CD1 | 2.74 | 0.53 |
| 1:L:248:GLN:OE1 | 1:L:293:ARG:N | 2.34 | 0.53 |
| 1:L:318:ILE:CG1 | 1:L:319:PRO:HD3 | 2.39 | 0.53 |
| 1:L:318:ILE:O | 1:L:321:ALA:HB3 | 2.09 | 0.53 |
| 1:A:283:ILE:O | 1:A:287:VAL:HG23 | 2.09 | 0.52 |
| 1:B:284:LYS:H | 1:B:284:LYS:CD | 2.18 | 0.52 |
| 1:C:254:VAL:CG2 | 1:C:260:PHE:HB3 | 2.38 | 0.52 |
| 1:E:176:VAL:C | 1:E:180:ILE:HD12 | 2.28 | 0.52 |
| 1:G:322:ASN:O | 1:G:326:LYS:HB2 | 2.09 | 0.52 |
| 1:H:226:PHE:O | 1:H:227:PHE:C | 2.46 | 0.52 |
| 1:H:286:LEU:HD22 | 1:H:291:LYS:HD3 | 1.91 | 0.52 |
| 1:L:229:LEU:HD13 | 1:L:229:LEU:O | 2.08 | 0.52 |
| 1:L:250:LYS:NZ | 1:L:263:LEU:HG | 2.23 | 0.52 |
| 1:M:141:PHE:O | 1:M:142:GLU:C | 2.47 | 0.52 |
| 1:M:195:ASN:O | 1:M:197:ALA:N | 2.42 | 0.52 |
| 1:M:204:PHE:HE2 | 1:M:243:LEU:HD21 | 1.74 | 0.52 |
| 1:M:234:THR:HG23 | 1:M:276:LEU:HD23 | 1.91 | 0.52 |
| 1:C:365:ARG:NE | 1:C:383:LEU:HD13 | 2.24 | 0.52 |
| 1:E:273:VAL:O | 1:E:275:ILE:HD12 | 2.09 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:171:VAL:HG23 | 1:F:171:VAL:O | 2.07 | 0.52 |
| 1:H:250:LYS:O | 1:H:251:LEU:C | 2.47 | 0.52 |
| 1:I:171:VAL:CG1 | 1:I:307:ILE:HG22 | 2.39 | 0.52 |
| 1:J:145:LYS:O | 1:J:149:ILE:HG13 | 2.10 | 0.52 |
| 1:J:178:ARG:HH11 | 1:J:178:ARG:HG3 | 1.74 | 0.52 |
| 1:J:336:VAL:HG21 | 1:J:367:VAL:HG13 | 1.90 | 0.52 |
| 1:K:296:LEU:O | 1:K:296:LEU:HD13 | 2.09 | 0.52 |
| 1:M:238:ASP:O | 1:M:239:GLU:HB3 | 2.10 | 0.52 |
| 1:B:150:LEU:HD11 | 1:B:154:LYS:NZ | 2.24 | 0.52 |
| 1:C:145:LYS:O | 1:C:148:GLU:HB3 | 2.08 | 0.52 |
| 1:C:181:HIS:ND1 | 1:C:181:HIS:C | 2.63 | 0.52 |
| 1:E:318:ILE:O | 1:E:322:ASN:ND2 | 2.42 | 0.52 |
| 1:F:203:ILE:O | 1:F:206:ALA:HB3 | 2.09 | 0.52 |
| 1:G:229:LEU:O | 1:G:229:LEU:HD13 | 2.09 | 0.52 |
| 1:G:343:ALA:O | 1:G:346:LEU:HB3 | 2.09 | 0.52 |
| 1:M:155:LYS:O | 1:M:156:ILE:C | 2.48 | 0.52 |
| 1:C:139:TYR:O | 1:C:139:TYR:HD1 | 1.92 | 0.52 |
| 1:E:381:SER:C | 1:E:383:LEU:H | 2.13 | 0.52 |
| 1:F:140:VAL:HG11 | 1:F:320:LEU:HG | 1.90 | 0.52 |
| 1:J:194:LEU:HD23 | 1:J:236:PHE:O | 2.09 | 0.52 |
| 1:J:350:TYR:HD2 | 1:J:352:TRP:CD2 | 2.27 | 0.52 |
| 1:L:172:GLY:HA2 | 2:L:11:ADP:O1A | 2.09 | 0.52 |
| 1:B:288:LYS:C | 1:B:290:GLY:H | 2.13 | 0.52 |
| 1:E:195:ASN:C | 1:E:197:ALA:H | 2.13 | 0.52 |
| 1:F:240:ILE:C | 1:F:242:GLU:H | 2.12 | 0.52 |
| 1:F:313:ARG:O | 1:F:314:LYS:C | 2.46 | 0.52 |
| 1:G:263:LEU:HG | 1:G:264:GLY:N | 2.23 | 0.52 |
| 1:I:163:VAL:HB | 1:I:276:LEU:CD2 | 2.40 | 0.52 |
| 1:J:352:TRP:HZ3 | 1:J:362:VAL:HG21 | 1.74 | 0.52 |
| 1:K:208:LEU:HD21 | 1:K:227:PHE:CE1 | 2.45 | 0.52 |
| 1:L:143:SER:CB | 1:L:316:ASP:OD2 | 2.57 | 0.52 |
| 1:L:252:LEU:HD12 | 1:L:252:LEU:O | 2.10 | 0.52 |
| 1:M:236:PHE:HA | 1:M:276:LEU:O | 2.10 | 0.52 |
| 1:M:351:PRO:O | 1:M:352:TRP:HB2 | 2.09 | 0.52 |
| 1:N:163:VAL:HB | 1:N:276:LEU:CD2 | 2.39 | 0.52 |
| 1:A:212:GLU:O | 1:A:213:LYS:C | 2.48 | 0.52 |
| 1:A:251:LEU:O | 1:A:255:ILE:HG13 | 2.10 | 0.52 |
| 1:A:299:ARG:HE | 1:A:299:ARG:HA | 1.74 | 0.52 |
| 1:B:215:ALA:HB1 | 1:B:264:GLY:HA3 | 1.92 | 0.52 |
| 1:E:139:TYR:HE2 | 1:E:179:LEU:HD21 | 1.74 | 0.52 |
| 1:F:175:VAL:HG12 | 1:F:176:VAL:N | 2.23 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:173:LYS:O | 1:G:176:VAL:N | 2.40 | 0.52 |
| 1:G:228:GLU:HG3 | 1:G:260:PHE:HZ | 1.74 | 0.52 |
| 1:G:346:LEU:HD21 | 1:G:384:VAL:HG21 | 1.91 | 0.52 |
| 1:I:252:LEU:HD13 | 1:I:296:LEU:CA | 2.37 | 0.52 |
| 1:J:194:LEU:HD23 | 1:J:194:LEU:H | 1.75 | 0.52 |
| 1:K:208:LEU:HD11 | 1:K:237:LEU:HD11 | 1.91 | 0.52 |
| 1:L:171:VAL:HG12 | 1:L:309:PRO:HA | 1.90 | 0.52 |
| 1:L:194:LEU:HD13 | 1:L:226:PHE:CD1 | 2.45 | 0.52 |
| 1:L:308:PRO:O | 1:L:313:ARG:HD3 | 2.10 | 0.52 |
| 1:M:248:GLN:HG3 | 1:M:293:ARG:CB | 2.39 | 0.52 |
| 1:N:355:ASN:O | 1:N:358:GLU:N | 2.41 | 0.52 |
| 1:A:240:ILE:C | 1:A:242:GLU:H | 2.13 | 0.52 |
| 1:E:320:LEU:O | 1:E:321:ALA:C | 2.47 | 0.52 |
| 1:E:332:TYR:OH | 1:E:364:GLU:OE1 | 2.21 | 0.52 |
| 1:E:359:LEU:HD22 | 1:E:363:ILE:CG1 | 2.39 | 0.52 |
| 1:F:186:ARG:HD3 | 1:F:232:GLY:O | 2.09 | 0.52 |
| 1:F:223:LYS:O | 1:F:223:LYS:HG3 | 2.10 | 0.52 |
| 1:H:194:LEU:N | 1:H:194:LEU:CD2 | 2.72 | 0.52 |
| 1:I:204:PHE:O | 1:I:207:GLU:HB2 | 2.10 | 0.52 |
| 1:I:366:ALA:O | 1:I:370:SER:HB3 | 2.09 | 0.52 |
| 1:L:171:VAL:HG23 | 1:L:307:ILE:HG21 | 1.92 | 0.52 |
| 1:L:237:LEU:HB2 | 1:L:277:ALA:CB | 2.39 | 0.52 |
| 1:L:325:LEU:O | 1:L:329:SER:HB2 | 2.10 | 0.52 |
| 1:N:254:VAL:C | 1:N:256:GLU:H | 2.12 | 0.52 |
| 1:A:310:LEU:HD11 | 1:A:359:LEU:HD12 | 1.92 | 0.52 |
| 1:B:179:LEU:O | 1:B:181:HIS:N | 2.43 | 0.52 |
| 1:D:209:PHE:O | 1:D:262:ARG:HD2 | 2.10 | 0.52 |
| 1:E:303:ILE:HD13 | 1:F:365:ARG:HG3 | 1.91 | 0.52 |
| 1:F:383:LEU:N | 1:F:383:LEU:HD23 | 2.23 | 0.52 |
| 1:H:362:VAL:CG2 | 1:H:365:ARG:HH21 | 2.14 | 0.52 |
| 1:K:149:ILE:HA | 1:K:152:LYS:HE3 | 1.90 | 0.52 |
| 1:K:299:ARG:HA | 1:L:361:ASN:ND2 | 2.25 | 0.52 |
| 1:K:323:HIS:O | 1:K:326:LYS:HB3 | 2.10 | 0.52 |
| 1:A:144:PRO:HD3 | 1:A:315:GLU:OE2 | 2.09 | 0.52 |
| 1:E:236:PHE:CE1 | 1:E:278:ALA:HB3 | 2.44 | 0.52 |
| 1:H:223:LYS:NZ | 1:N:264:GLY:HA3 | 2.25 | 0.52 |
| 1:I:302:VAL:O | 1:J:365:ARG:NE | 2.43 | 0.52 |
| 1:K:324:PHE:CD1 | 1:K:360:LYS:HA | 2.45 | 0.52 |
| 1:L:218:GLY:O | 1:L:220:VAL:N | 2.35 | 0.52 |
| 1:L:382:CYS:HB2 | 1:L:383:LEU:HG | 1.92 | 0.52 |
| 1:M:141:PHE:CE2 | 1:M:150:LEU:HD13 | 2.45 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:M:294:GLU:HG2 | 1:M:295:ASP:H | 1.75 | 0.52 |
| 1:N:262:ARG:HG2 | 1:N:262:ARG:NH1 | 2.22 | 0.52 |
| 1:N:305:ILE:HG22 | 1:N:307:ILE:HD11 | 1.92 | 0.52 |
| 1:A:139:TYR:CD2 | 1:A:175:VAL:CG1 | 2.92 | 0.52 |
| 1:D:368:LEU:C | 1:D:370:SER:H | 2.13 | 0.52 |
| 1:E:213:LYS:HB2 | 1:E:213:LYS:NZ | 2.25 | 0.52 |
| 1:E:326:LYS:HE2 | 1:E:330:ARG:NH2 | 2.25 | 0.52 |
| 1:G:166:THR:HG22 | 1:G:279:THR:HG22 | 1.92 | 0.52 |
| 1:J:173:LYS:O | 1:J:176:VAL:HB | 2.10 | 0.52 |
| 1:J:176:VAL:O | 1:J:180:ILE:HG13 | 2.10 | 0.52 |
| 1:K:347:LEU:HD21 | 1:K:380:LEU:HD11 | 1.91 | 0.52 |
| 1:L:310:LEU:O | 1:L:312:GLU:N | 2.43 | 0.52 |
| 1:M:273:VAL:O | 1:M:273:VAL:HG23 | 2.10 | 0.52 |
| 1:M:340:THR:C | 1:M:342:SER:H | 2.13 | 0.52 |
| 1:N:146:MET:CE | 1:N:149:ILE:HD12 | 2.40 | 0.52 |
| 1:N:350:TYR:HD2 | 1:N:352:TRP:H | 1.58 | 0.52 |
| 1:A:166:THR:HG22 | 1:A:279:THR:HG22 | 1.92 | 0.51 |
| 1:B:146:MET:HG3 | 1:B:313:ARG:NH2 | 2.20 | 0.51 |
| 1:B:192:VAL:HG21 | 1:B:229:LEU:HD12 | 1.92 | 0.51 |
| 1:C:321:ALA:HA | 1:C:363:ILE:CD1 | 2.40 | 0.51 |
| 1:D:350:TYR:CD1 | 1:D:384:VAL:HG13 | 2.45 | 0.51 |
| 1:H:342:SER:OG | 1:H:376:ASP:HB2 | 2.09 | 0.51 |
| 1:J:340:THR:HG1 | 1:J:376:ASP:HB2 | 1.76 | 0.51 |
| 1:K:152:LYS:O | 1:K:156:ILE:HG12 | 2.10 | 0.51 |
| 1:K:198:SER:O | 1:K:199:ILE:CG1 | 2.47 | 0.51 |
| 1:K:227:PHE:CZ | 1:K:254:VAL:HG11 | 2.44 | 0.51 |
| 1:K:279:THR:CG2 | 1:K:283:ILE:HD11 | 2.36 | 0.51 |
| 1:L:288:LYS:C | 1:L:290:GLY:H | 2.12 | 0.51 |
| 1:L:355:ASN:O | 1:L:358:GLU:N | 2.43 | 0.51 |
| 1:M:139:TYR:N | 1:M:139:TYR:CD1 | 2.77 | 0.51 |
| 1:N:365:ARG:HG3 | 1:N:369:PHE:CE2 | 2.45 | 0.51 |
| 1:D:159:ALA:CB | 1:E:332:TYR:CE2 | 2.93 | 0.51 |
| 1:D:350:TYR:CG | 1:D:384:VAL:HG13 | 2.46 | 0.51 |
| 1:E:361:ASN:ND2 | 1:E:361:ASN:N | 2.57 | 0.51 |
| 1:F:239:GLU:HA | 1:F:279:THR:HA | 1.93 | 0.51 |
| 1:F:351:PRO:HB2 | 1:F:353:TYR:CE2 | 2.45 | 0.51 |
| 1:H:255:ILE:HD13 | 1:H:300:LEU:HD21 | 1.93 | 0.51 |
| 1:I:275:ILE:HD12 | 1:I:275:ILE:N | 2.26 | 0.51 |
| 1:J:209:PHE:HE2 | 1:J:254:VAL:HG21 | 1.74 | 0.51 |
| 1:A:365:ARG:HH11 | 1:A:383:LEU:HD22 | 1.76 | 0.51 |
| 1:B:168:GLU:OE2 | 1:B:311:ARG:NH2 | 2.44 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:226:PHE:HA | 1:D:229:LEU:HB2 | 1.92 | 0.51 |
| 1:D:281:ARG:HG2 | 1:D:281:ARG:NH1 | 2.23 | 0.51 |
| 1:F:283:ILE:HG21 | 1:F:297:TYR:HD1 | 1.76 | 0.51 |
| 1:J:299:ARG:HA | 1:J:299:ARG:HE | 1.76 | 0.51 |
| 1:K:143:SER:HB2 | 1:K:315:GLU:CB | 2.37 | 0.51 |
| 1:M:324:PHE:HD1 | 1:M:359:LEU:HD23 | 1.75 | 0.51 |
| 1:M:324:PHE:CE1 | 1:M:360:LYS:HB2 | 2.45 | 0.51 |
| 1:N:174:GLU:O | 1:N:175:VAL:C | 2.49 | 0.51 |
| 1:N:204:PHE:O | 1:N:204:PHE:CG | 2.60 | 0.51 |
| 1:A:192:VAL:HG21 | 1:A:230:ALA:HB2 | 1.91 | 0.51 |
| 1:B:178:ARG:NH1 | 1:B:191:PHE:CD2 | 2.79 | 0.51 |
| 1:B:285:GLU:O | 1:B:288:LYS:N | 2.42 | 0.51 |
| 1:C:181:HIS:HE1 | 1:C:187:SER:HA | 1.69 | 0.51 |
| 1:D:240:ILE:O | 1:D:242:GLU:N | 2.43 | 0.51 |
| 1:E:156:ILE:O | 1:E:158:CYS:N | 2.40 | 0.51 |
| 1:E:241:GLY:HA3 | 1:E:281:ARG:NH2 | 2.24 | 0.51 |
| 1:E:302:VAL:HG23 | 1:F:361:ASN:OD1 | 2.09 | 0.51 |
| 1:F:171:VAL:HG12 | 1:F:355:ASN:HD22 | 1.75 | 0.51 |
| 1:G:352:TRP:HA | 1:G:358:GLU:OE1 | 2.11 | 0.51 |
| 1:H:194:LEU:H | 1:H:194:LEU:CD2 | 2.18 | 0.51 |
| 1:H:227:PHE:CD1 | 1:H:235:LEU:CD1 | 2.93 | 0.51 |
| 1:H:360:LYS:HG2 | 1:H:364:GLU:OE2 | 2.10 | 0.51 |
| 1:J:269:ILE:N | 1:J:269:ILE:CD1 | 2.74 | 0.51 |
| 1:L:174:GLU:O | 1:L:177:ALA:N | 2.43 | 0.51 |
| 1:L:204:PHE:O | 1:L:207:GLU:N | 2.42 | 0.51 |
| 1:A:365:ARG:HD2 | 1:A:383:LEU:HD11 | 1.92 | 0.51 |
| 1:H:231:ASP:CG | 1:H:271:VAL:HG13 | 2.31 | 0.51 |
| 1:H:255:ILE:HG12 | 1:H:275:ILE:HD11 | 1.89 | 0.51 |
| 1:H:346:LEU:HD12 | 1:H:377:ARG:HG2 | 1.93 | 0.51 |
| 1:I:300:LEU:C | 1:I:302:VAL:H | 2.13 | 0.51 |
| 1:I:321:ALA:HA | 1:I:363:ILE:HD11 | 1.91 | 0.51 |
| 1:L:181:HIS:HD2 | 1:L:234:THR:HB | 1.73 | 0.51 |
| 1:A:143:SER:HB2 | 1:A:144:PRO:CD | 2.37 | 0.51 |
| 1:D:356:VAL:HG11 | 2:D:2:ADP:C8 | 2.45 | 0.51 |
| 1:F:174:GLU:O | 1:F:177:ALA:N | 2.44 | 0.51 |
| 1:F:239:GLU:HG3 | 1:F:239:GLU:O | 2.11 | 0.51 |
| 1:H:177:ALA:O | 1:H:178:ARG:C | 2.49 | 0.51 |
| 1:H:227:PHE:HD1 | 1:H:235:LEU:HD12 | 1.74 | 0.51 |
| 1:H:256:GLU:OE2 | 1:I:357:ARG:HD3 | 2.11 | 0.51 |
| 1:H:332:TYR:CZ | 1:H:370:SER:HB2 | 2.44 | 0.51 |
| 1:K:209:PHE:C | 1:K:225:GLY:HA3 | 2.31 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:L:322:ASN:HA | 1:L:339:PHE:CE1 | 2.40 | 0.51 |
| 1:M:266:ARG:HH21 | 1:M:267:LYS:HZ3 | 1.58 | 0.51 |
| 1:M:368:LEU:O | 1:M:368:LEU:HD13 | 2.10 | 0.51 |
| 1:B:189:GLU:HB3 | 1:B:233:GLY:HA2 | 1.92 | 0.51 |
| 1:F:192:VAL:CG2 | 1:F:230:ALA:HB2 | 2.40 | 0.51 |
| 1:F:376:ASP:O | 1:F:377:ARG:C | 2.49 | 0.51 |
| 1:J:365:ARG:HD2 | 1:J:383:LEU:CD1 | 2.41 | 0.51 |
| 1:K:147:LYS:HD3 | 1:K:150:LEU:HD23 | 1.93 | 0.51 |
| 1:L:170:GLY:C | 1:L:172:GLY:H | 2.14 | 0.51 |
| 1:M:157:SER:O | 1:M:159:ALA:N | 2.43 | 0.51 |
| 1:N:240:ILE:HG23 | 1:N:243:LEU:CD1 | 2.40 | 0.51 |
| 1:N:334:LYS:HB3 | 1:N:336:VAL:HG23 | 1.92 | 0.51 |
| 1:C:230:ALA:O | 1:C:233:GLY:N | 2.41 | 0.51 |
| 1:E:249:ALA:HB2 | 1:E:293:ARG:HD2 | 1.92 | 0.51 |
| 1:E:262:ARG:HG3 | 1:E:269:ILE:CD1 | 2.41 | 0.51 |
| 1:E:298:TYR:CE1 | 1:F:354:GLY:HA3 | 2.46 | 0.51 |
| 1:F:323:HIS:HD1 | 1:F:323:HIS:C | 2.15 | 0.51 |
| 1:I:256:GLU:CG | 1:I:299:ARG:HE | 2.23 | 0.51 |
| 1:D:265:GLY:O | 1:D:266:ARG:NE | 2.27 | 0.51 |
| 1:E:178:ARG:O | 1:E:181:HIS:HB3 | 2.11 | 0.51 |
| 1:E:279:THR:HG21 | 1:E:283:ILE:CD1 | 2.38 | 0.51 |
| 1:F:315:GLU:O | 1:F:319:PRO:HG2 | 2.11 | 0.51 |
| 1:H:150:LEU:HD12 | 1:H:150:LEU:O | 2.10 | 0.51 |
| 1:I:192:VAL:CG2 | 1:I:230:ALA:HB2 | 2.41 | 0.51 |
| 1:I:203:ILE:HG22 | 1:I:207:GLU:HG2 | 1.92 | 0.51 |
| 1:J:309:PRO:HB2 | 1:J:311:ARG:NH1 | 2.26 | 0.51 |
| 1:J:340:THR:CG2 | 1:J:376:ASP:HB3 | 2.41 | 0.51 |
| 1:J:346:LEU:HD23 | 1:J:346:LEU:C | 2.31 | 0.51 |
| 1:K:273:VAL:O | 1:K:275:ILE:HD12 | 2.11 | 0.51 |
| 1:N:243:LEU:HB3 | 1:N:248:GLN:HG2 | 1.92 | 0.51 |
| 1:B:236:PHE:CD1 | 1:B:276:LEU:O | 2.62 | 0.51 |
| 1:C:360:LYS:HG2 | 1:C:361:ASN:ND2 | 2.25 | 0.51 |
| 1:D:318:ILE:HG12 | 1:D:348:LEU:HD21 | 1.92 | 0.51 |
| 1:F:209:PHE:C | 1:F:225:GLY:HA3 | 2.31 | 0.51 |
| 1:F:223:LYS:C | 1:F:225:GLY:N | 2.63 | 0.51 |
| 1:F:310:LEU:C | 1:F:312:GLU:H | 2.14 | 0.51 |
| 1:G:198:SER:C | 1:G:199:ILE:HG13 | 2.31 | 0.51 |
| 1:G:340:THR:HG23 | 1:G:375:ILE:O | 2.11 | 0.51 |
| 1:G:359:LEU:HD23 | 1:G:359:LEU:O | 2.11 | 0.51 |
| 1:H:182:LYS:HA | 1:H:187:SER:HB2 | 1.93 | 0.51 |
| 1:M:248:GLN:HA | 1:M:251:LEU:HB3 | 1.93 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:N:325:LEU:HD11 | 1:N:336:VAL:HG12 | 1.93 | 0.51 |
| 1:A:339:PHE:CZ | 1:A:363:ILE:HD13 | 2.46 | 0.50 |
| 1:B:176:VAL:HG12 | 1:B:180:ILE:HD11 | 1.93 | 0.50 |
| 1:B:181:HIS:O | 1:B:184:SER:N | 2.39 | 0.50 |
| 1:E:340:THR:O | 1:E:344:GLN:HG3 | 2.11 | 0.50 |
| 1:E:357:ARG:O | 1:E:358:GLU:C | 2.46 | 0.50 |
| 1:F:209:PHE:CE2 | 1:F:254:VAL:HG21 | 2.46 | 0.50 |
| 1:G:256:GLU:HG2 | 1:G:299:ARG:HH11 | 1.76 | 0.50 |
| 1:G:336:VAL:HA | 1:G:373:LYS:O | 2.11 | 0.50 |
| 1:J:157:SER:OG | 1:J:183:LEU:HB2 | 2.11 | 0.50 |
| 1:J:220:VAL:CG1 | 1:J:221:SER:H | 2.25 | 0.50 |
| 1:K:209:PHE:CD1 | 1:K:209:PHE:N | 2.79 | 0.50 |
| 1:L:181:HIS:HA | 1:L:184:SER:OG | 2.11 | 0.50 |
| 1:L:352:TRP:CZ3 | 1:L:358:GLU:HG2 | 2.46 | 0.50 |
| 1:N:145:LYS:HA | 1:N:148:GLU:CG | 2.36 | 0.50 |
| 1:N:292:PHE:HZ | 1:N:296:LEU:HD12 | 1.76 | 0.50 |
| 1:F:214:GLY:O | 1:F:215:ALA:HB2 | 2.11 | 0.50 |
| 1:F:363:ILE:O | 1:F:366:ALA:N | 2.44 | 0.50 |
| 1:H:149:ILE:O | 1:H:153:ILE:HG12 | 2.11 | 0.50 |
| 1:H:170:GLY:O | 1:H:355:ASN:HB2 | 2.12 | 0.50 |
| 1:J:143:SER:CB | 1:J:144:PRO:HD2 | 2.40 | 0.50 |
| 1:J:157:SER:O | 1:J:184:SER:HA | 2.12 | 0.50 |
| 1:L:283:ILE:HG21 | 1:L:297:TYR:CD1 | 2.46 | 0.50 |
| 1:L:328:PHE:O | 1:L:332:TYR:HD1 | 1.94 | 0.50 |
| 1:L:358:GLU:O | 1:L:362:VAL:HG23 | 2.11 | 0.50 |
| 1:M:143:SER:CB | 1:M:144:PRO:CD | 2.85 | 0.50 |
| 1:M:209:PHE:HE2 | 1:M:227:PHE:HE1 | 1.59 | 0.50 |
| 1:M:251:LEU:HD22 | 1:M:255:ILE:HG13 | 1.93 | 0.50 |
| 1:M:346:LEU:HD12 | 1:M:380:LEU:HB3 | 1.93 | 0.50 |
| 1:N:311:ARG:HG3 | 1:N:311:ARG:NH1 | 2.25 | 0.50 |
| 1:B:249:ALA:CB | 1:B:293:ARG:HH11 | 2.25 | 0.50 |
| 1:B:310:LEU:CD1 | 1:B:359:LEU:HD12 | 2.41 | 0.50 |
| 1:D:186:ARG:HD3 | 1:D:233:GLY:HA2 | 1.93 | 0.50 |
| 1:D:315:GLU:N | 1:D:315:GLU:OE1 | 2.41 | 0.50 |
| 1:F:223:LYS:O | 1:F:223:LYS:CG | 2.59 | 0.50 |
| 1:G:167:GLY:H | 1:G:173:LYS:HD3 | 1.76 | 0.50 |
| 1:G:178:ARG:HA | 1:G:191:PHE:CE1 | 2.42 | 0.50 |
| 1:H:230:ALA:O | 1:H:273:VAL:HG22 | 2.11 | 0.50 |
| 1:K:186:ARG:HB2 | 1:K:189:GLU:HB2 | 1.94 | 0.50 |
| 1:M:145:LYS:HD2 | 1:M:308:PRO:HG3 | 1.92 | 0.50 |
| 1:N:211:TYR:CZ | 1:N:223:LYS:HB2 | 2.46 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:166:THR:HB | 1:B:306:GLU:OE2 | 2.11 | 0.50 |
| 1:C:309:PRO:HB2 | 1:C:311:ARG:NH1 | 2.26 | 0.50 |
| 1:C:347:LEU:HD21 | 1:C:380:LEU:HD12 | 1.92 | 0.50 |
| 1:E:176:VAL:C | 1:E:180:ILE:CD1 | 2.80 | 0.50 |
| 1:E:191:PHE:HD1 | 1:E:234:THR:HB | 1.75 | 0.50 |
| 1:F:310:LEU:O | 1:F:312:GLU:N | 2.41 | 0.50 |
| 1:G:154:LYS:O | 1:G:157:SER:OG | 2.18 | 0.50 |
| 1:H:255:ILE:CG1 | 1:H:275:ILE:HD13 | 2.34 | 0.50 |
| 1:K:227:PHE:CE2 | 1:K:254:VAL:HG11 | 2.47 | 0.50 |
| 1:M:254:VAL:CG2 | 1:M:260:PHE:HB3 | 2.42 | 0.50 |
| 1:N:181:HIS:HD2 | 1:N:234:THR:CB | 2.24 | 0.50 |
| 1:F:179:LEU:O | 1:F:183:LEU:HG | 2.12 | 0.50 |
| 1:H:171:VAL:HB | 1:H:307:ILE:CG2 | 2.41 | 0.50 |
| 1:H:302:VAL:O | 1:I:365:ARG:HG3 | 2.11 | 0.50 |
| 1:I:194:LEU:HD22 | 1:I:235:LEU:HD11 | 1.93 | 0.50 |
| 1:K:267:LYS:O | 1:K:269:ILE:HD12 | 2.12 | 0.50 |
| 1:K:355:ASN:O | 1:K:356:VAL:C | 2.50 | 0.50 |
| 1:N:274:ARG:HG2 | 1:N:274:ARG:NH1 | 2.24 | 0.50 |
| 1:A:213:LYS:HG2 | 1:A:221:SER:N | 2.27 | 0.50 |
| 1:B:381:SER:O | 1:B:382:CYS:C | 2.49 | 0.50 |
| 1:D:189:GLU:CB | 1:D:190:PRO:HD2 | 2.42 | 0.50 |
| 1:D:342:SER:OG | 1:D:377:ARG:HB2 | 2.11 | 0.50 |
| 1:G:191:PHE:HD2 | 1:G:191:PHE:C | 2.15 | 0.50 |
| 1:G:224:GLU:CG | 1:G:225:GLY:H | 2.18 | 0.50 |
| 1:H:349:SER:HB2 | 1:H:350:TYR:CD1 | 2.46 | 0.50 |
| 1:I:189:GLU:OE1 | 1:I:190:PRO:HD3 | 2.11 | 0.50 |
| 1:I:311:ARG:HG2 | 1:I:311:ARG:HH11 | 1.77 | 0.50 |
| 1:I:365:ARG:CD | 1:I:383:LEU:HD22 | 2.42 | 0.50 |
| 1:K:237:LEU:CB | 1:K:240:ILE:HD11 | 2.41 | 0.50 |
| 1:L:211:TYR:N | 1:L:211:TYR:CD1 | 2.78 | 0.50 |
| 1:L:303:ILE:O | 1:L:303:ILE:HG22 | 2.12 | 0.50 |
| 1:L:334:LYS:HD2 | 1:L:336:VAL:CG2 | 2.42 | 0.50 |
| 1:M:299:ARG:CD | 1:N:357:ARG:HH21 | 2.24 | 0.50 |
| 1:N:149:ILE:O | 1:N:153:ILE:HG12 | 2.11 | 0.50 |
| 1:C:194:LEU:CD2 | 1:C:194:LEU:N | 2.68 | 0.50 |
| 1:C:262:ARG:O | 1:C:263:LEU:C | 2.48 | 0.50 |
| 1:D:146:MET:HA | 1:D:146:MET:HE3 | 1.93 | 0.50 |
| 1:E:280:ASN:OD1 | 1:E:280:ASN:O | 2.30 | 0.50 |
| 1:E:378:GLY:O | 1:E:381:SER:OG | 2.15 | 0.50 |
| 1:H:164:LEU:HD21 | 1:H:283:ILE:CD1 | 2.41 | 0.50 |
| 1:H:292:PHE:HE2 | 1:H:296:LEU:HB3 | 1.76 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:J:153:ILE:HD12 | 1:J:180:ILE:HG12 | 1.93 | 0.50 |
| 1:L:362:VAL:O | 1:L:365:ARG:HB3 | 2.12 | 0.50 |
| 1:M:359:LEU:O | 1:M:360:LYS:C | 2.50 | 0.50 |
| 1:N:325:LEU:O | 1:N:329:SER:HB2 | 2.12 | 0.50 |
| 1:A:189:GLU:HG2 | 1:A:232:GLY:O | 2.12 | 0.50 |
| 1:C:243:LEU:CD1 | 1:C:251:LEU:HD12 | 2.41 | 0.50 |
| 1:D:250:LYS:O | 1:D:254:VAL:HG23 | 2.12 | 0.50 |
| 1:F:309:PRO:O | 1:F:313:ARG:HD3 | 2.12 | 0.50 |
| 1:I:296:LEU:HD21 | 1:I:300:LEU:HD12 | 1.94 | 0.50 |
| 1:L:319:PRO:O | 1:L:322:ASN:HB2 | 2.11 | 0.50 |
| 1:L:324:PHE:CE2 | 1:L:360:LYS:HE2 | 2.47 | 0.50 |
| 1:N:194:LEU:HD21 | 1:N:237:LEU:HD23 | 1.93 | 0.50 |
| 1:N:245:LEU:HB2 | 1:N:246:GLU:OE2 | 2.12 | 0.50 |
| 1:A:339:PHE:H | 1:A:339:PHE:HD1 | 1.55 | 0.50 |
| 1:A:375:ILE:HG22 | 1:A:380:LEU:HD23 | 1.93 | 0.50 |
| 1:C:284:LYS:HG3 | 1:C:285:GLU:N | 2.26 | 0.50 |
| 1:C:325:LEU:HD23 | 1:C:326:LYS:N | 2.26 | 0.50 |
| 1:D:166:THR:HG22 | 1:D:279:THR:HG22 | 1.94 | 0.50 |
| 1:D:240:ILE:HG13 | 1:D:277:ALA:CB | 2.29 | 0.50 |
| 1:D:381:SER:HA | 1:D:384:VAL:O | 2.12 | 0.50 |
| 1:F:195:ASN:HB3 | 1:F:198:SER:OG | 2.11 | 0.50 |
| 1:H:156:ILE:HG22 | 1:H:274:ARG:HH22 | 1.76 | 0.50 |
| 1:K:161:CYS:N | 1:K:274:ARG:HH12 | 2.10 | 0.50 |
| 1:L:164:LEU:CD1 | 1:L:278:ALA:HA | 2.41 | 0.50 |
| 1:L:181:HIS:O | 1:L:184:SER:OG | 2.27 | 0.50 |
| 1:N:146:MET:HE1 | 1:N:307:ILE:HG23 | 1.88 | 0.50 |
| 1:N:157:SER:HB3 | 1:N:184:SER:CA | 2.41 | 0.50 |
| 1:C:179:LEU:O | 1:C:179:LEU:HD23 | 2.12 | 0.49 |
| 1:E:150:LEU:O | 1:E:154:LYS:HG3 | 2.12 | 0.49 |
| 1:E:179:LEU:C | 1:E:181:HIS:H | 2.16 | 0.49 |
| 1:G:148:GLU:O | 1:G:150:LEU:N | 2.45 | 0.49 |
| 1:G:233:GLY:O | 1:G:273:VAL:HG13 | 2.11 | 0.49 |
| 1:I:253:ARG:CD | 1:J:198:SER:HB2 | 2.42 | 0.49 |
| 1:K:230:ALA:O | 1:K:273:VAL:HG22 | 2.12 | 0.49 |
| 1:K:267:LYS:HD2 | 1:K:267:LYS:N | 2.26 | 0.49 |
| 1:M:347:LEU:HD21 | 1:M:380:LEU:CD1 | 2.42 | 0.49 |
| 1:N:340:THR:O | 1:N:344:GLN:N | 2.34 | 0.49 |
| 1:B:206:ALA:O | 1:B:210:GLY:N | 2.44 | 0.49 |
| 1:D:239:GLU:HA | 1:D:279:THR:HA | 1.94 | 0.49 |
| 1:D:275:ILE:O | 1:D:276:LEU:HD23 | 2.12 | 0.49 |
| 1:D:365:ARG:HD2 | 1:D:383:LEU:HD22 | 1.94 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:380:LEU:O | 1:D:384:VAL:N | 2.43 | 0.49 |
| 1:E:159:ALA:O | 1:E:274:ARG:NH1 | 2.45 | 0.49 |
| 1:F:138:GLU:HG3 | 1:F:139:TYR:H | 1.76 | 0.49 |
| 1:H:171:VAL:HB | 1:H:307:ILE:HG22 | 1.94 | 0.49 |
| 1:H:322:ASN:O | 1:H:326:LYS:HG3 | 2.12 | 0.49 |
| 1:I:208:LEU:C | 1:I:208:LEU:CD2 | 2.81 | 0.49 |
| 1:K:156:ILE:O | 1:K:159:ALA:N | 2.41 | 0.49 |
| 1:K:359:LEU:HD23 | 1:K:363:ILE:HG13 | 1.94 | 0.49 |
| 1:L:140:VAL:CG1 | 1:L:140:VAL:O | 2.56 | 0.49 |
| 1:M:212:GLU:CB | 1:M:264:GLY:HA3 | 2.42 | 0.49 |
| 1:M:342:SER:O | 1:M:377:ARG:HD2 | 2.12 | 0.49 |
| 1:D:171:VAL:HG23 | 1:D:172:GLY:N | 2.27 | 0.49 |
| 1:F:314:LYS:HA | 1:F:317:ILE:CG1 | 2.41 | 0.49 |
| 1:F:327:LYS:O | 1:F:330:ARG:N | 2.46 | 0.49 |
| 1:G:299:ARG:O | 1:G:302:VAL:HG23 | 2.12 | 0.49 |
| 1:G:365:ARG:HH11 | 1:G:383:LEU:HD22 | 1.77 | 0.49 |
| 1:G:381:SER:C | 1:G:383:LEU:H | 2.15 | 0.49 |
| 1:H:178:ARG:HH11 | 1:H:178:ARG:HG3 | 1.77 | 0.49 |
| 1:H:328:PHE:HB3 | 1:H:367:VAL:HG21 | 1.93 | 0.49 |
| 1:K:144:PRO:C | 1:K:146:MET:H | 2.16 | 0.49 |
| 1:L:236:PHE:HA | 1:L:276:LEU:O | 2.12 | 0.49 |
| 1:A:365:ARG:NH2 | 1:G:302:VAL:O | 2.44 | 0.49 |
| 1:F:172:GLY:HA2 | 2:F:4:ADP:O1A | 2.11 | 0.49 |
| 1:G:153:ILE:HG23 | 1:G:180:ILE:CG1 | 2.42 | 0.49 |
| 1:G:194:LEU:CD2 | 1:G:237:LEU:HD22 | 2.42 | 0.49 |
| 1:H:142:GLU:HB3 | 1:H:146:MET:CB | 2.43 | 0.49 |
| 1:H:237:LEU:HB2 | 1:H:240:ILE:HD11 | 1.93 | 0.49 |
| 1:H:320:LEU:O | 1:H:324:PHE:CD1 | 2.65 | 0.49 |
| 1:I:156:ILE:HG22 | 1:I:157:SER:N | 2.28 | 0.49 |
| 1:K:255:ILE:HD11 | 1:K:300:LEU:HD21 | 1.93 | 0.49 |
| 1:L:164:LEU:HA | 1:L:277:ALA:O | 2.12 | 0.49 |
| 1:M:212:GLU:HB3 | 1:M:264:GLY:HA3 | 1.94 | 0.49 |
| 1:M:227:PHE:HE2 | 1:M:273:VAL:HG21 | 1.71 | 0.49 |
| 1:M:234:THR:HG22 | 1:M:235:LEU:N | 2.28 | 0.49 |
| 1:M:252:LEU:CD1 | 1:M:299:ARG:HG3 | 2.42 | 0.49 |
| 1:N:181:HIS:HD2 | 1:N:234:THR:HB | 1.76 | 0.49 |
| 1:B:142:GLU:O | 1:B:143:SER:HB3 | 2.12 | 0.49 |
| 1:B:177:ALA:HB1 | 1:B:276:LEU:HD13 | 1.93 | 0.49 |
| 1:B:266:ARG:HB3 | 1:C:229:LEU:HD23 | 1.95 | 0.49 |
| 1:C:175:VAL:HG23 | 2:C:1:ADP:O1A | 2.13 | 0.49 |
| 1:E:324:PHE:O | 1:E:325:LEU:C | 2.51 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:363:ILE:O | 1:E:366:ALA:HB3 | 2.12 | 0.49 |
| 1:F:366:ALA:O | 1:F:369:PHE:N | 2.45 | 0.49 |
| 1:G:324:PHE:CE1 | 1:G:360:LYS:HA | 2.48 | 0.49 |
| 1:H:320:LEU:O | 1:H:324:PHE:HD1 | 1.94 | 0.49 |
| 1:I:249:ALA:CB | 1:I:293:ARG:NH1 | 2.75 | 0.49 |
| 1:I:251:LEU:O | 1:I:254:VAL:N | 2.45 | 0.49 |
| 1:L:158:CYS:O | 1:L:158:CYS:SG | 2.71 | 0.49 |
| 1:L:161:CYS:O | 1:L:274:ARG:NE | 2.45 | 0.49 |
| 1:L:379:GLU:C | 1:L:381:SER:H | 2.14 | 0.49 |
| 1:N:316:ASP:O | 1:N:320:LEU:HG | 2.12 | 0.49 |
| 1:A:192:VAL:HG21 | 1:A:229:LEU:HD12 | 1.94 | 0.49 |
| 1:B:157:SER:HB3 | 1:B:183:LEU:C | 2.32 | 0.49 |
| 1:B:216:PHE:O | 1:B:217:THR:C | 2.50 | 0.49 |
| 1:C:341:LYS:O | 1:C:345:GLU:HG3 | 2.12 | 0.49 |
| 1:D:262:ARG:O | 1:D:263:LEU:C | 2.51 | 0.49 |
| 1:F:225:GLY:O | 1:F:226:PHE:C | 2.51 | 0.49 |
| 1:J:324:PHE:O | 1:J:327:LYS:HB3 | 2.13 | 0.49 |
| 1:L:208:LEU:HD23 | 1:L:208:LEU:C | 2.33 | 0.49 |
| 1:L:320:LEU:O | 1:L:321:ALA:C | 2.50 | 0.49 |
| 1:L:347:LEU:HD23 | 1:L:347:LEU:N | 2.28 | 0.49 |
| 1:M:173:LYS:HB2 | 2:M:12:ADP:O2B | 2.12 | 0.49 |
| 1:M:207:GLU:O | 1:M:226:PHE:CD1 | 2.56 | 0.49 |
| 1:M:265:GLY:HA2 | 1:N:203:ILE:HD11 | 1.94 | 0.49 |
| 1:M:359:LEU:O | 1:M:363:ILE:HD13 | 2.12 | 0.49 |
| 1:N:200:PRO:O | 1:N:202:ASP:N | 2.46 | 0.49 |
| 1:N:239:GLU:O | 1:N:240:ILE:C | 2.51 | 0.49 |
| 1:A:143:SER:HA | 1:A:315:GLU:HB2 | 1.93 | 0.49 |
| 1:A:168:GLU:O | 1:A:171:VAL:HG22 | 2.13 | 0.49 |
| 1:A:244:SER:C | 1:A:246:GLU:N | 2.62 | 0.49 |
| 1:B:177:ALA:HA | 1:B:180:ILE:HD12 | 1.93 | 0.49 |
| 1:B:328:PHE:CE1 | 1:B:364:GLU:HB2 | 2.47 | 0.49 |
| 1:C:171:VAL:HG21 | 1:C:307:ILE:HB | 1.94 | 0.49 |
| 1:E:138:GLU:HB2 | 1:E:323:HIS:CD2 | 2.48 | 0.49 |
| 1:F:357:ARG:CG | 1:F:357:ARG:NH1 | 2.75 | 0.49 |
| 1:G:192:VAL:O | 1:G:235:LEU:HD12 | 2.13 | 0.49 |
| 1:G:248:GLN:OE1 | 1:G:292:PHE:HA | 2.12 | 0.49 |
| 1:G:327:LYS:O | 1:G:330:ARG:HB3 | 2.12 | 0.49 |
| 1:H:227:PHE:CE2 | 1:H:254:VAL:HG21 | 2.45 | 0.49 |
| 1:L:352:TRP:CZ3 | 1:L:362:VAL:HG21 | 2.47 | 0.49 |
| 1:M:171:VAL:HG12 | 1:M:309:PRO:HA | 1.93 | 0.49 |
| 1:M:252:LEU:HD22 | 1:M:295:ASP:OD1 | 2.12 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:N:157:SER:HB3 | 1:N:183:LEU:C | 2.32 | 0.49 |
| 1:C:321:ALA:HA | 1:C:363:ILE:HD12 | 1.95 | 0.49 |
| 1:E:176:VAL:O | 1:E:180:ILE:CG1 | 2.61 | 0.49 |
| 1:E:250:LYS:HG3 | 1:F:198:SER:O | 2.12 | 0.49 |
| 1:F:144:PRO:HG2 | 1:F:145:LYS:H | 1.78 | 0.49 |
| 1:F:310:LEU:HB2 | 1:F:355:ASN:HB3 | 1.94 | 0.49 |
| 1:H:143:SER:CA | 1:H:147:LYS:HE3 | 2.38 | 0.49 |
| 1:H:198:SER:HB2 | 1:N:250:LYS:CG | 2.43 | 0.49 |
| 1:J:149:ILE:O | 1:J:153:ILE:HG12 | 2.13 | 0.49 |
| 1:J:157:SER:HB3 | 1:J:184:SER:HA | 1.95 | 0.49 |
| 1:J:382:CYS:HB2 | 1:J:383:LEU:HD23 | 1.94 | 0.49 |
| 1:K:283:ILE:HG21 | 1:K:297:TYR:CD1 | 2.48 | 0.49 |
| 1:A:176:VAL:O | 1:A:180:ILE:HG13 | 2.13 | 0.49 |
| 1:A:265:GLY:O | 1:A:266:ARG:NE | 2.43 | 0.49 |
| 1:A:377:ARG:HH21 | 1:L:285:GLU:CD | 2.15 | 0.49 |
| 1:D:145:LYS:O | 1:D:149:ILE:HG13 | 2.13 | 0.49 |
| 1:D:209:PHE:HE2 | 1:D:227:PHE:HE1 | 1.60 | 0.49 |
| 1:E:141:PHE:CG | 1:E:150:LEU:HD22 | 2.48 | 0.49 |
| 1:E:156:ILE:HG13 | 1:E:303:ILE:HG21 | 1.95 | 0.49 |
| 1:G:191:PHE:C | 1:G:191:PHE:CD2 | 2.86 | 0.49 |
| 1:G:267:LYS:O | 1:G:267:LYS:HD3 | 2.12 | 0.49 |
| 1:H:163:VAL:HB | 1:H:276:LEU:HD23 | 1.94 | 0.49 |
| 1:H:244:SER:C | 1:H:246:GLU:H | 2.15 | 0.49 |
| 1:I:194:LEU:HD21 | 1:I:235:LEU:HD11 | 1.94 | 0.49 |
| 1:I:310:LEU:O | 1:I:312:GLU:N | 2.46 | 0.49 |
| 1:K:298:TYR:O | 1:K:300:LEU:N | 2.45 | 0.49 |
| 1:L:194:LEU:HD21 | 1:L:237:LEU:CD2 | 2.40 | 0.49 |
| 1:L:225:GLY:O | 1:L:228:GLU:N | 2.30 | 0.49 |
| 1:L:240:ILE:CG2 | 1:L:292:PHE:HE1 | 2.26 | 0.49 |
| 1:L:283:ILE:HB | 1:L:297:TYR:CE1 | 2.47 | 0.49 |
| 1:M:146:MET:CE | 1:M:149:ILE:HD12 | 2.42 | 0.49 |
| 1:A:220:VAL:O | 1:A:221:SER:CB | 2.60 | 0.49 |
| 1:C:181:HIS:NE2 | 1:C:191:PHE:HB2 | 2.26 | 0.49 |
| 1:C:350:TYR:CG | 1:C:351:PRO:HD2 | 2.47 | 0.49 |
| 1:D:230:ALA:O | 1:D:231:ASP:C | 2.51 | 0.49 |
| 1:E:309:PRO:HD2 | 1:E:312:GLU:OE1 | 2.13 | 0.49 |
| 1:G:161:CYS:HB2 | 1:G:302:VAL:HG11 | 1.95 | 0.49 |
| 1:G:163:VAL:HB | 1:G:276:LEU:HD22 | 1.94 | 0.49 |
| 1:G:282:ASN:HD22 | 1:G:285:GLU:HB2 | 1.75 | 0.49 |
| 1:H:215:ALA:CB | 1:I:223:LYS:NZ | 2.76 | 0.49 |
| 1:K:213:LYS:NZ | 1:K:220:VAL:HG13 | 2.28 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:365:ARG:HD2 | 1:K:383:LEU:CD2 | 2.42 | 0.49 |
| 1:L:144:PRO:HD3 | 1:L:315:GLU:OE2 | 2.13 | 0.49 |
| 1:L:164:LEU:HD12 | 1:L:165:ILE:H | 1.77 | 0.49 |
| 1:L:272:ASN:HD22 | 1:L:272:ASN:C | 2.16 | 0.49 |
| 1:A:178:ARG:HE | 1:A:191:PHE:HE2 | 1.58 | 0.48 |
| 1:B:157:SER:OG | 1:B:183:LEU:HB2 | 2.13 | 0.48 |
| 1:B:362:VAL:HG13 | 1:B:384:VAL:CG2 | 2.32 | 0.48 |
| 1:C:256:GLU:HG2 | 1:C:299:ARG:NH2 | 2.28 | 0.48 |
| 1:C:311:ARG:NH2 | 1:C:353:TYR:HD2 | 2.11 | 0.48 |
| 1:E:146:MET:HE3 | 1:E:146:MET:HA | 1.95 | 0.48 |
| 1:H:240:ILE:HG22 | 1:H:292:PHE:HE1 | 1.78 | 0.48 |
| 1:I:269:ILE:HD12 | 1:I:269:ILE:H | 1.77 | 0.48 |
| 1:L:192:VAL:HG21 | 1:L:230:ALA:HB2 | 1.95 | 0.48 |
| 1:L:254:VAL:HG22 | 1:L:260:PHE:HB3 | 1.95 | 0.48 |
| 1:M:162:PRO:HG2 | 1:M:302:VAL:CG2 | 2.42 | 0.48 |
| 1:N:168:GLU:OE1 | 1:N:311:ARG:NH2 | 2.45 | 0.48 |
| 1:N:352:TRP:CZ3 | 1:N:358:GLU:HG2 | 2.48 | 0.48 |
| 1:N:357:ARG:HH12 | 1:N:361:ASN:HD21 | 1.60 | 0.48 |
| 1:B:235:LEU:HG | 1:B:237:LEU:CD2 | 2.43 | 0.48 |
| 1:B:256:GLU:HG2 | 1:B:299:ARG:HD3 | 1.95 | 0.48 |
| 1:C:179:LEU:HD23 | 1:C:183:LEU:HG | 1.95 | 0.48 |
| 1:C:186:ARG:NH1 | 1:C:232:GLY:O | 2.46 | 0.48 |
| 1:E:157:SER:HB3 | 1:E:183:LEU:C | 2.32 | 0.48 |
| 1:F:217:THR:HG22 | 1:F:218:GLY:N | 2.28 | 0.48 |
| 1:F:253:ARG:HG3 | 1:F:253:ARG:HH11 | 1.78 | 0.48 |
| 1:F:299:ARG:HE | 1:F:299:ARG:CA | 2.25 | 0.48 |
| 1:F:324:PHE:HB2 | 1:F:363:ILE:HD12 | 1.95 | 0.48 |
| 1:J:328:PHE:CD2 | 1:J:364:GLU:HG3 | 2.48 | 0.48 |
| 1:L:171:VAL:CG2 | 1:L:307:ILE:CG2 | 2.90 | 0.48 |
| 1:M:304:GLU:HA | 1:M:304:GLU:OE2 | 2.13 | 0.48 |
| 1:M:310:LEU:HD12 | 1:M:355:ASN:HA | 1.96 | 0.48 |
| 1:N:140:VAL:HG11 | 1:N:320:LEU:CD2 | 2.41 | 0.48 |
| 1:N:359:LEU:HD23 | 1:N:363:ILE:CD1 | 2.43 | 0.48 |
| 1:C:177:ALA:O | 1:C:180:ILE:HB | 2.13 | 0.48 |
| 1:D:262:ARG:HH11 | 1:D:262:ARG:CG | 1.98 | 0.48 |
| 1:E:149:ILE:O | 1:E:151:GLU:N | 2.46 | 0.48 |
| 1:E:153:ILE:HD11 | 1:E:176:VAL:HG13 | 1.96 | 0.48 |
| 1:E:346:LEU:HA | 1:E:349:SER:OG | 2.13 | 0.48 |
| 1:G:376:ASP:O | 1:G:378:GLY:N | 2.46 | 0.48 |
| 1:H:181:HIS:O | 1:H:187:SER:HB3 | 2.13 | 0.48 |
| 1:H:239:GLU:N | 1:H:278:ALA:O | 2.46 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:H:262:ARG:HG3 | 1:H:269:ILE:HD12 | 1.95 | 0.48 |
| 1:K:206:ALA:HB1 | 1:K:211:TYR:HD1 | 1.78 | 0.48 |
| 1:L:266:ARG:C | 1:L:267:LYS:HG2 | 2.34 | 0.48 |
| 1:A:240:ILE:O | 1:A:242:GLU:N | 2.46 | 0.48 |
| 1:A:331:LYS:HD3 | 1:A:332:TYR:CZ | 2.48 | 0.48 |
| 1:B:216:PHE:CD1 | 1:B:217:THR:HG22 | 2.49 | 0.48 |
| 1:B:334:LYS:HG3 | 1:B:367:VAL:O | 2.13 | 0.48 |
| 1:C:149:ILE:O | 1:C:153:ILE:HG12 | 2.12 | 0.48 |
| 1:C:244:SER:O | 1:C:248:GLN:CG | 2.60 | 0.48 |
| 1:C:326:LYS:HE2 | 1:C:330:ARG:NH2 | 2.28 | 0.48 |
| 1:E:234:THR:HG23 | 1:E:274:ARG:O | 2.13 | 0.48 |
| 1:E:253:ARG:HG3 | 1:E:253:ARG:NH1 | 2.27 | 0.48 |
| 1:G:310:LEU:HD11 | 1:G:359:LEU:HD12 | 1.96 | 0.48 |
| 1:H:209:PHE:O | 1:H:262:ARG:HG2 | 2.13 | 0.48 |
| 1:I:146:MET:SD | 1:I:313:ARG:NE | 2.86 | 0.48 |
| 1:I:284:LYS:HE2 | 1:I:297:TYR:HH | 1.74 | 0.48 |
| 1:J:281:ARG:HG2 | 1:J:281:ARG:NH1 | 2.28 | 0.48 |
| 1:L:165:ILE:O | 1:L:165:ILE:HG22 | 2.13 | 0.48 |
| 1:M:283:ILE:HG22 | 1:M:284:LYS:N | 2.28 | 0.48 |
| 1:M:324:PHE:CE2 | 1:M:360:LYS:HG3 | 2.47 | 0.48 |
| 1:N:296:LEU:O | 1:N:300:LEU:HG | 2.13 | 0.48 |
| 1:A:204:PHE:CE2 | 1:A:243:LEU:HD21 | 2.45 | 0.48 |
| 1:D:294:GLU:O | 1:D:297:TYR:HB3 | 2.12 | 0.48 |
| 1:E:173:LYS:HB2 | 2:E:3:ADP:O1B | 2.13 | 0.48 |
| 1:E:230:ALA:O | 1:E:273:VAL:HG22 | 2.12 | 0.48 |
| 1:F:149:ILE:O | 1:F:153:ILE:HG12 | 2.13 | 0.48 |
| 1:G:145:LYS:O | 1:G:149:ILE:HG13 | 2.13 | 0.48 |
| 1:I:328:PHE:HZ | 1:I:360:LYS:HG3 | 1.78 | 0.48 |
| 1:K:240:ILE:HG13 | 1:K:277:ALA:CB | 2.42 | 0.48 |
| 1:N:209:PHE:CE1 | 1:N:250:LYS:HD3 | 2.48 | 0.48 |
| 1:B:318:ILE:O | 1:B:322:ASN:ND2 | 2.46 | 0.48 |
| 1:D:212:GLU:HA | 1:D:222:SER:HB2 | 1.94 | 0.48 |
| 1:D:252:LEU:HD11 | 1:D:299:ARG:HG3 | 1.96 | 0.48 |
| 1:E:380:LEU:O | 1:E:384:VAL:HB | 2.13 | 0.48 |
| 1:F:156:ILE:O | 1:F:159:ALA:N | 2.46 | 0.48 |
| 1:F:254:VAL:HG22 | 1:F:260:PHE:HB3 | 1.96 | 0.48 |
| 1:F:380:LEU:N | 1:F:380:LEU:CD2 | 2.77 | 0.48 |
| 1:G:148:GLU:O | 1:G:151:GLU:N | 2.46 | 0.48 |
| 1:G:234:THR:HG21 | 1:G:276:LEU:HD12 | 1.95 | 0.48 |
| 1:G:235:LEU:HB2 | 1:G:273:VAL:HG11 | 1.96 | 0.48 |
| 1:G:310:LEU:HG | 1:G:356:VAL:CG2 | 2.44 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:H:168:GLU:CG | 1:H:311:ARG:HH22 | 2.20 | 0.48 |
| 1:K:177:ALA:HB1 | 1:K:276:LEU:CD1 | 2.44 | 0.48 |
| 1:L:143:SER:O | 1:L:147:LYS:HB2 | 2.13 | 0.48 |
| 1:L:210:GLY:O | 1:L:263:LEU:HB2 | 2.13 | 0.48 |
| 1:N:157:SER:OG | 1:N:183:LEU:HB2 | 2.13 | 0.48 |
| 1:N:245:LEU:CD2 | 1:N:293:ARG:HG3 | 2.38 | 0.48 |
| 1:A:171:VAL:HB | 1:A:307:ILE:CG2 | 2.43 | 0.48 |
| 1:A:311:ARG:HB3 | 1:A:351:PRO:O | 2.13 | 0.48 |
| 1:A:376:ASP:O | 1:A:377:ARG:C | 2.51 | 0.48 |
| 1:B:162:PRO:HB2 | 1:B:300:LEU:HD23 | 1.96 | 0.48 |
| 1:D:236:PHE:O | 1:D:236:PHE:CD1 | 2.67 | 0.48 |
| 1:F:179:LEU:O | 1:F:179:LEU:HD23 | 2.14 | 0.48 |
| 1:F:193:ALA:HB1 | 1:F:236:PHE:HD2 | 1.78 | 0.48 |
| 1:F:206:ALA:O | 1:F:210:GLY:CA | 2.62 | 0.48 |
| 1:F:283:ILE:HG21 | 1:F:297:TYR:CD1 | 2.49 | 0.48 |
| 1:G:181:HIS:C | 1:G:181:HIS:ND1 | 2.66 | 0.48 |
| 1:G:240:ILE:HG13 | 1:G:277:ALA:CB | 2.33 | 0.48 |
| 1:K:252:LEU:HD11 | 1:K:299:ARG:HG3 | 1.96 | 0.48 |
| 1:K:313:ARG:O | 1:K:315:GLU:N | 2.47 | 0.48 |
| 1:L:211:TYR:N | 1:L:211:TYR:HD1 | 2.12 | 0.48 |
| 1:L:289:GLU:HG2 | 1:L:289:GLU:O | 2.14 | 0.48 |
| 1:L:324:PHE:HE2 | 1:L:360:LYS:HE2 | 1.79 | 0.48 |
| 1:L:329:SER:HA | 1:L:334:LYS:CE | 2.26 | 0.48 |
| 1:M:194:LEU:HD23 | 1:M:194:LEU:H | 1.78 | 0.48 |
| 1:M:209:PHE:HE2 | 1:M:227:PHE:CE1 | 2.32 | 0.48 |
| 1:M:248:GLN:NE2 | 1:M:248:GLN:H | 2.11 | 0.48 |
| 1:N:173:LYS:HB2 | 2:N:13:ADP:O2B | 2.14 | 0.48 |
| 1:A:256:GLU:OE2 | 1:B:357:ARG:NH1 | 2.47 | 0.48 |
| 1:B:314:LYS:CD | 1:B:314:LYS:N | 2.74 | 0.48 |
| 1:B:335:GLU:O | 1:B:373:LYS:HA | 2.13 | 0.48 |
| 1:C:282:ASN:O | 1:C:284:LYS:N | 2.47 | 0.48 |
| 1:D:308:PRO:O | 1:D:313:ARG:CD | 2.62 | 0.48 |
| 1:D:328:PHE:CD2 | 1:D:364:GLU:HG3 | 2.48 | 0.48 |
| 1:D:362:VAL:O | 1:D:362:VAL:CG1 | 2.59 | 0.48 |
| 1:E:170:GLY:O | 1:E:355:ASN:HB2 | 2.14 | 0.48 |
| 1:E:299:ARG:HE | 1:E:299:ARG:HA | 1.79 | 0.48 |
| 1:F:244:SER:O | 1:F:248:GLN:HG3 | 2.14 | 0.48 |
| 1:G:167:GLY:N | 1:G:173:LYS:HD3 | 2.29 | 0.48 |
| 1:G:191:PHE:CE2 | 1:G:236:PHE:HB3 | 2.45 | 0.48 |
| 1:G:251:LEU:HD22 | 1:G:255:ILE:HD11 | 1.95 | 0.48 |
| 1:G:261:TYR:CD2 | 1:G:263:LEU:O | 2.67 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:H:244:SER:C | 1:H:246:GLU:N | 2.67 | 0.48 |
| 1:I:365:ARG:HD2 | 1:I:383:LEU:HD22 | 1.96 | 0.48 |
| 1:K:325:LEU:O | 1:K:325:LEU:HD23 | 2.12 | 0.48 |
| 1:M:259:LYS:HD2 | 1:M:268:GLU:OE2 | 2.12 | 0.48 |
| 1:N:294:GLU:O | 1:N:297:TYR:N | 2.47 | 0.48 |
| 1:D:275:ILE:HG22 | 1:D:276:LEU:N | 2.29 | 0.48 |
| 1:E:174:GLU:O | 1:E:175:VAL:C | 2.51 | 0.48 |
| 1:I:143:SER:O | 1:I:147:LYS:HG3 | 2.13 | 0.48 |
| 1:I:319:PRO:O | 1:I:320:LEU:C | 2.51 | 0.48 |
| 1:K:283:ILE:O | 1:K:287:VAL:HG23 | 2.13 | 0.48 |
| 1:L:269:ILE:HD12 | 1:L:269:ILE:N | 2.28 | 0.48 |
| 1:M:302:VAL:O | 1:M:303:ILE:HD13 | 2.13 | 0.48 |
| 1:N:227:PHE:CE2 | 1:N:235:LEU:HD23 | 2.47 | 0.48 |
| 1:N:231:ASP:OD1 | 1:N:271:VAL:HB | 2.14 | 0.48 |
| 1:N:296:LEU:HD13 | 1:N:296:LEU:O | 2.14 | 0.48 |
| 1:A:176:VAL:HG21 | 1:A:307:ILE:CD1 | 2.44 | 0.48 |
| 1:A:194:LEU:CD2 | 1:A:194:LEU:N | 2.76 | 0.48 |
| 1:A:377:ARG:NH2 | 1:L:285:GLU:HG2 | 2.26 | 0.48 |
| 1:E:177:ALA:HB1 | 1:E:276:LEU:CD1 | 2.43 | 0.48 |
| 1:E:227:PHE:O | 1:E:228:GLU:C | 2.52 | 0.48 |
| 1:E:336:VAL:HG21 | 1:E:370:SER:CB | 2.44 | 0.48 |
| 1:F:224:GLU:O | 1:F:225:GLY:O | 2.31 | 0.48 |
| 1:F:249:ALA:HB2 | 1:F:293:ARG:HH11 | 1.79 | 0.48 |
| 1:G:164:LEU:HD12 | 1:G:164:LEU:C | 2.35 | 0.48 |
| 1:H:329:SER:N | 1:H:367:VAL:HG11 | 2.29 | 0.48 |
| 1:L:164:LEU:HD12 | 1:L:165:ILE:N | 2.29 | 0.48 |
| 1:N:240:ILE:HA | 1:N:243:LEU:HD12 | 1.96 | 0.48 |
| 1:N:283:ILE:O | 1:N:284:LYS:C | 2.52 | 0.48 |
| 1:N:352:TRP:HZ3 | 1:N:358:GLU:HG2 | 1.78 | 0.48 |
| 1:A:199:ILE:HG22 | 1:A:200:PRO:O | 2.14 | 0.47 |
| 1:A:227:PHE:HD2 | 1:A:273:VAL:HG21 | 1.79 | 0.47 |
| 1:C:283:ILE:O | 1:C:286:LEU:N | 2.34 | 0.47 |
| 1:C:309:PRO:HG3 | 1:C:311:ARG:HH11 | 1.79 | 0.47 |
| 1:C:330:ARG:O | 1:C:333:ALA:N | 2.43 | 0.47 |
| 1:D:292:PHE:HD2 | 1:D:293:ARG:O | 1.97 | 0.47 |
| 1:D:321:ALA:HA | 1:D:363:ILE:HD12 | 1.96 | 0.47 |
| 1:D:344:GLN:O | 1:D:347:LEU:HB2 | 2.14 | 0.47 |
| 1:F:224:GLU:O | 1:F:228:GLU:HB2 | 2.13 | 0.47 |
| 1:F:358:GLU:O | 1:F:362:VAL:HG23 | 2.14 | 0.47 |
| 1:H:141:PHE:O | 1:H:142:GLU:HG3 | 2.14 | 0.47 |
| 1:H:346:LEU:HD12 | 1:H:377:ARG:NE | 2.29 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:165:ILE:HB | 1:I:278:ALA:CB | 2.42 | 0.47 |
| 1:K:149:ILE:HD13 | 1:K:307:ILE:HD13 | 1.96 | 0.47 |
| 1:L:165:ILE:H | 1:L:278:ALA:CB | 2.19 | 0.47 |
| 1:M:316:ASP:O | 1:M:319:PRO:HD2 | 2.14 | 0.47 |
| 1:N:282:ASN:ND2 | 1:N:284:LYS:HB2 | 2.29 | 0.47 |
| 1:A:208:LEU:HD22 | 1:A:209:PHE:CZ | 2.49 | 0.47 |
| 1:B:181:HIS:CE1 | 1:B:191:PHE:HB2 | 2.49 | 0.47 |
| 1:B:186:ARG:O | 1:B:188:LYS:N | 2.47 | 0.47 |
| 1:B:235:LEU:CD2 | 1:B:237:LEU:HD21 | 2.43 | 0.47 |
| 1:E:350:TYR:CE2 | 1:E:352:TRP:HA | 2.49 | 0.47 |
| 1:F:242:GLU:CD | 1:F:281:ARG:HH22 | 2.18 | 0.47 |
| 1:G:155:LYS:O | 1:G:157:SER:N | 2.47 | 0.47 |
| 1:G:234:THR:HG22 | 1:G:235:LEU:N | 2.28 | 0.47 |
| 1:H:332:TYR:O | 1:H:332:TYR:CG | 2.68 | 0.47 |
| 1:I:165:ILE:CG2 | 1:I:173:LYS:HG2 | 2.41 | 0.47 |
| 1:I:208:LEU:O | 1:I:226:PHE:N | 2.47 | 0.47 |
| 1:J:263:LEU:HD23 | 1:J:264:GLY:N | 2.29 | 0.47 |
| 1:J:325:LEU:O | 1:J:327:LYS:N | 2.47 | 0.47 |
| 1:L:150:LEU:O | 1:L:150:LEU:HD22 | 2.14 | 0.47 |
| 1:L:300:LEU:O | 1:L:302:VAL:N | 2.47 | 0.47 |
| 1:M:316:ASP:C | 1:M:319:PRO:HD2 | 2.34 | 0.47 |
| 1:N:179:LEU:HD23 | 1:N:183:LEU:HG | 1.96 | 0.47 |
| 1:N:272:ASN:CG | 1:N:272:ASN:O | 2.51 | 0.47 |
| 1:A:172:GLY:O | 1:A:174:GLU:N | 2.47 | 0.47 |
| 1:A:379:GLU:H | 1:A:379:GLU:CD | 2.17 | 0.47 |
| 1:F:193:ALA:CB | 1:F:236:PHE:HB3 | 2.44 | 0.47 |
| 1:G:181:HIS:HD2 | 1:G:234:THR:OG1 | 1.97 | 0.47 |
| 1:H:248:GLN:O | 1:H:250:LYS:N | 2.47 | 0.47 |
| 1:H:316:ASP:O | 1:H:320:LEU:HG | 2.14 | 0.47 |
| 1:D:271:VAL:CG2 | 1:D:273:VAL:HG23 | 2.43 | 0.47 |
| 1:F:196:VAL:HG22 | 1:F:204:PHE:HZ | 1.79 | 0.47 |
| 1:F:354:GLY:O | 1:F:355:ASN:C | 2.53 | 0.47 |
| 1:I:296:LEU:C | 1:I:296:LEU:HD23 | 2.34 | 0.47 |
| 1:L:362:VAL:HA | 1:L:365:ARG:HH21 | 1.79 | 0.47 |
| 1:N:192:VAL:O | 1:N:235:LEU:HD12 | 2.15 | 0.47 |
| 1:A:236:PHE:HE1 | 1:A:278:ALA:HB3 | 1.78 | 0.47 |
| 1:B:174:GLU:HG2 | 1:B:178:ARG:HD3 | 1.96 | 0.47 |
| 1:B:229:LEU:CD1 | 1:B:229:LEU:C | 2.83 | 0.47 |
| 1:C:156:ILE:CD1 | 1:C:303:ILE:HG21 | 2.45 | 0.47 |
| 1:C:213:LYS:HG2 | 1:C:214:GLY:N | 2.29 | 0.47 |
| 1:E:227:PHE:O | 1:E:230:ALA:N | 2.47 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:311:ARG:HG2 | 1:E:351:PRO:O | 2.14 | 0.47 |
| 1:F:149:ILE:HD13 | 1:F:307:ILE:CD1 | 2.42 | 0.47 |
| 1:G:209:PHE:CZ | 1:G:250:LYS:HB3 | 2.50 | 0.47 |
| 1:H:369:PHE:CD1 | 1:H:369:PHE:N | 2.82 | 0.47 |
| 1:K:160:GLU:OE1 | 1:K:160:GLU:O | 2.32 | 0.47 |
| 1:K:343:ALA:O | 1:K:347:LEU:HG | 2.14 | 0.47 |
| 1:L:203:ILE:O | 1:L:206:ALA:HB3 | 2.15 | 0.47 |
| 1:L:305:ILE:O | 1:L:305:ILE:HG22 | 2.15 | 0.47 |
| 1:M:234:THR:CG2 | 1:M:276:LEU:HD23 | 2.45 | 0.47 |
| 1:C:240:ILE:CD1 | 1:C:243:LEU:HD12 | 2.44 | 0.47 |
| 1:C:314:LYS:HA | 1:C:317:ILE:CD1 | 2.45 | 0.47 |
| 1:C:318:ILE:H | 1:C:318:ILE:HG12 | 1.43 | 0.47 |
| 1:D:292:PHE:HD2 | 1:D:292:PHE:C | 2.18 | 0.47 |
| 1:F:239:GLU:HA | 1:F:278:ALA:O | 2.14 | 0.47 |
| 1:F:328:PHE:CE1 | 1:F:364:GLU:HB2 | 2.50 | 0.47 |
| 1:H:325:LEU:HD23 | 1:H:363:ILE:HG23 | 1.97 | 0.47 |
| 1:N:372:GLY:O | 1:N:374:PHE:N | 2.47 | 0.47 |
| 1:A:350:TYR:HD2 | 1:A:352:TRP:CD2 | 2.33 | 0.47 |
| 1:B:181:HIS:ND1 | 1:B:191:PHE:HB2 | 2.30 | 0.47 |
| 1:B:336:VAL:HG13 | 1:B:373:LYS:O | 2.15 | 0.47 |
| 1:B:384:VAL:O | 1:B:384:VAL:HG12 | 2.14 | 0.47 |
| 1:C:177:ALA:O | 1:C:180:ILE:N | 2.47 | 0.47 |
| 1:C:202:ASP:C | 1:C:203:ILE:HD13 | 2.35 | 0.47 |
| 1:C:212:GLU:O | 1:C:215:ALA:HB2 | 2.13 | 0.47 |
| 1:C:300:LEU:N | 1:C:300:LEU:HD23 | 2.30 | 0.47 |
| 1:D:251:LEU:HD13 | 1:D:296:LEU:HD21 | 1.96 | 0.47 |
| 1:E:205:GLU:CB | 1:E:263:LEU:HD11 | 2.45 | 0.47 |
| 1:E:298:TYR:CE1 | 1:F:354:GLY:HA2 | 2.50 | 0.47 |
| 1:G:262:ARG:O | 1:G:263:LEU:HB3 | 2.15 | 0.47 |
| 1:H:196:VAL:HG22 | 1:H:204:PHE:CZ | 2.50 | 0.47 |
| 1:H:204:PHE:O | 1:H:206:ALA:N | 2.48 | 0.47 |
| 1:H:207:GLU:CD | 1:N:266:ARG:HH22 | 2.17 | 0.47 |
| 1:H:356:VAL:O | 1:H:357:ARG:C | 2.52 | 0.47 |
| 1:I:152:LYS:O | 1:I:153:ILE:C | 2.53 | 0.47 |
| 1:I:258:GLY:O | 1:I:270:GLU:HG3 | 2.14 | 0.47 |
| 1:J:296:LEU:C | 1:J:296:LEU:HD13 | 2.35 | 0.47 |
| 1:K:214:GLY:HA2 | 1:K:219:ALA:O | 2.15 | 0.47 |
| 1:K:306:GLU:O | 1:K:308:PRO:HD3 | 2.15 | 0.47 |
| 1:K:321:ALA:HA | 1:K:363:ILE:HD12 | 1.95 | 0.47 |
| 1:K:321:ALA:HB1 | 1:K:339:PHE:CZ | 2.49 | 0.47 |
| 1:L:149:ILE:HG22 | 1:L:150:LEU:N | 2.28 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:L:299:ARG:O | 1:L:302:VAL:HG23 | 2.15 | 0.47 |
| 1:L:300:LEU:C | 1:L:302:VAL:H | 2.18 | 0.47 |
| 1:M:209:PHE:CE1 | 1:M:250:LYS:HB3 | 2.50 | 0.47 |
| 1:N:251:LEU:HD21 | 1:N:255:ILE:HD11 | 1.95 | 0.47 |
| 1:A:328:PHE:HB2 | 1:A:367:VAL:HG21 | 1.97 | 0.47 |
| 1:B:339:PHE:CE2 | 1:B:347:LEU:HD11 | 2.50 | 0.47 |
| 1:C:296:LEU:O | 1:C:297:TYR:C | 2.53 | 0.47 |
| 1:E:157:SER:OG | 1:E:183:LEU:HB2 | 2.15 | 0.47 |
| 1:E:301:GLY:HA2 | 1:E:304:GLU:HG2 | 1.96 | 0.47 |
| 1:E:320:LEU:O | 1:E:323:HIS:N | 2.48 | 0.47 |
| 1:H:194:LEU:HD21 | 1:H:237:LEU:CD2 | 2.34 | 0.47 |
| 1:H:328:PHE:HB3 | 1:H:367:VAL:HG11 | 1.96 | 0.47 |
| 1:J:211:TYR:OH | 1:J:223:LYS:HD3 | 2.14 | 0.47 |
| 1:J:280:ASN:OD1 | 1:J:281:ARG:HD3 | 2.15 | 0.47 |
| 1:K:178:ARG:NE | 1:K:191:PHE:HE2 | 2.13 | 0.47 |
| 1:K:213:LYS:CD | 1:K:220:VAL:O | 2.52 | 0.47 |
| 1:N:244:SER:O | 1:N:245:LEU:C | 2.51 | 0.47 |
| 1:B:144:PRO:HD3 | 1:B:315:GLU:CD | 2.35 | 0.47 |
| 1:C:181:HIS:HD2 | 1:C:191:PHE:CG | 2.31 | 0.47 |
| 1:C:211:TYR:HD1 | 1:C:211:TYR:C | 2.18 | 0.47 |
| 1:D:157:SER:C | 1:D:159:ALA:N | 2.68 | 0.47 |
| 1:D:157:SER:O | 1:D:159:ALA:N | 2.47 | 0.47 |
| 1:D:292:PHE:C | 1:D:292:PHE:CD2 | 2.88 | 0.47 |
| 1:E:251:LEU:O | 1:E:255:ILE:HG13 | 2.14 | 0.47 |
| 1:E:316:ASP:O | 1:E:317:ILE:C | 2.53 | 0.47 |
| 1:E:325:LEU:HD13 | 1:E:338:GLY:HA2 | 1.96 | 0.47 |
| 1:F:383:LEU:HB2 | 1:F:384:VAL:H | 1.59 | 0.47 |
| 1:G:211:TYR:HB2 | 1:G:223:LYS:HB2 | 1.96 | 0.47 |
| 1:H:224:GLU:HG3 | 1:H:262:ARG:NH2 | 2.30 | 0.47 |
| 1:H:328:PHE:O | 1:H:332:TYR:HB3 | 2.15 | 0.47 |
| 1:I:166:THR:HB | 1:I:306:GLU:OE2 | 2.15 | 0.47 |
| 1:J:227:PHE:CE2 | 1:J:254:VAL:HG11 | 2.50 | 0.47 |
| 1:K:200:PRO:HG2 | 1:K:203:ILE:HG13 | 1.97 | 0.47 |
| 1:M:275:ILE:H | 1:M:275:ILE:HD12 | 1.80 | 0.47 |
| 1:A:180:ILE:O | 1:A:180:ILE:CG2 | 2.63 | 0.47 |
| 1:B:149:ILE:O | 1:B:153:ILE:HG12 | 2.15 | 0.47 |
| 1:C:303:ILE:CD1 | 1:D:365:ARG:HG3 | 2.45 | 0.47 |
| 1:D:237:LEU:HD23 | 1:D:237:LEU:N | 2.30 | 0.47 |
| 1:E:243:LEU:HB3 | 1:E:248:GLN:HG3 | 1.97 | 0.47 |
| 1:F:174:GLU:OE2 | 1:F:178:ARG:NH1 | 2.35 | 0.47 |
| 1:F:380:LEU:HD23 | 1:F:380:LEU:H | 1.79 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:224:GLU:HA | 1:G:262:ARG:NH1 | 2.30 | 0.47 |
| 1:G:240:ILE:O | 1:G:242:GLU:N | 2.48 | 0.47 |
| 1:G:244:SER:O | 1:G:248:GLN:HG3 | 2.15 | 0.47 |
| 1:H:196:VAL:HG12 | 1:H:242:GLU:HB3 | 1.97 | 0.47 |
| 1:I:192:VAL:HG21 | 1:I:230:ALA:HB2 | 1.96 | 0.47 |
| 1:I:283:ILE:HG21 | 1:I:297:TYR:HD1 | 1.80 | 0.47 |
| 1:J:365:ARG:HD2 | 1:J:383:LEU:HD13 | 1.96 | 0.47 |
| 1:K:176:VAL:HG21 | 1:K:307:ILE:CD1 | 2.45 | 0.47 |
| 1:K:209:PHE:CZ | 1:K:250:LYS:HB3 | 2.50 | 0.47 |
| 1:M:206:ALA:HB2 | 1:M:216:PHE:HZ | 1.80 | 0.47 |
| 1:M:252:LEU:O | 1:M:253:ARG:C | 2.53 | 0.47 |
| 1:A:377:ARG:NE | 1:L:285:GLU:OE1 | 2.48 | 0.46 |
| 1:B:150:LEU:O | 1:B:154:LYS:HG3 | 2.15 | 0.46 |
| 1:B:204:PHE:O | 1:B:207:GLU:N | 2.47 | 0.46 |
| 1:B:283:ILE:HG21 | 1:B:297:TYR:CD1 | 2.50 | 0.46 |
| 1:B:328:PHE:HD1 | 1:B:363:ILE:HG22 | 1.81 | 0.46 |
| 1:C:165:ILE:O | 1:C:278:ALA:HB1 | 2.16 | 0.46 |
| 1:C:194:LEU:HD22 | 1:C:235:LEU:HD11 | 1.97 | 0.46 |
| 1:C:284:LYS:HG3 | 1:C:285:GLU:H | 1.80 | 0.46 |
| 1:C:288:LYS:C | 1:C:290:GLY:H | 2.18 | 0.46 |
| 1:C:381:SER:C | 1:C:383:LEU:H | 2.18 | 0.46 |
| 1:D:235:LEU:CD1 | 1:D:237:LEU:HD23 | 2.38 | 0.46 |
| 1:D:252:LEU:HA | 1:D:255:ILE:HD12 | 1.96 | 0.46 |
| 1:G:181:HIS:ND1 | 1:G:181:HIS:O | 2.47 | 0.46 |
| 1:G:251:LEU:HD22 | 1:G:255:ILE:HG13 | 1.96 | 0.46 |
| 1:G:318:ILE:CB | 1:G:319:PRO:HD3 | 2.44 | 0.46 |
| 1:G:352:TRP:CZ3 | 1:G:359:LEU:HA | 2.49 | 0.46 |
| 1:H:216:PHE:O | 1:H:216:PHE:CD2 | 2.68 | 0.46 |
| 1:L:334:LYS:HZ3 | 1:L:367:VAL:HG11 | 1.76 | 0.46 |
| 1:M:251:LEU:O | 1:M:252:LEU:C | 2.54 | 0.46 |
| 1:M:353:TYR:O | 1:M:355:ASN:ND2 | 2.48 | 0.46 |
| 1:N:194:LEU:HD22 | 1:N:235:LEU:HD11 | 1.97 | 0.46 |
| 1:N:218:GLY:O | 1:N:219:ALA:C | 2.52 | 0.46 |
| 1:E:226:PHE:O | 1:E:229:LEU:HB3 | 2.16 | 0.46 |
| 1:E:325:LEU:HD23 | 1:E:325:LEU:C | 2.35 | 0.46 |
| 1:H:309:PRO:CB | 1:H:311:ARG:HD2 | 2.45 | 0.46 |
| 1:K:303:ILE:HD11 | 1:L:368:LEU:CD1 | 2.44 | 0.46 |
| 1:L:161:CYS:HB2 | 1:L:162:PRO:HD2 | 1.97 | 0.46 |
| 1:L:244:SER:O | 1:L:246:GLU:N | 2.48 | 0.46 |
| 1:L:340:THR:O | 1:L:344:GLN:HB2 | 2.16 | 0.46 |
| 1:M:156:ILE:HD11 | 1:M:303:ILE:HD12 | 1.96 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:M:314:LYS:HA | 1:M:317:ILE:HG13 | 1.98 | 0.46 |
| 1:N:283:ILE:HG21 | 1:N:297:TYR:CD1 | 2.51 | 0.46 |
| 1:A:152:LYS:O | 1:A:156:ILE:HG12 | 2.15 | 0.46 |
| 1:B:267:LYS:N | 1:B:267:LYS:HD2 | 2.31 | 0.46 |
| 1:C:163:VAL:HG22 | 1:C:303:ILE:HB | 1.97 | 0.46 |
| 1:C:293:ARG:HE | 1:C:293:ARG:HB3 | 1.39 | 0.46 |
| 1:E:179:LEU:C | 1:E:181:HIS:N | 2.67 | 0.46 |
| 1:F:138:GLU:CG | 1:F:139:TYR:N | 2.78 | 0.46 |
| 1:H:227:PHE:HD1 | 1:H:235:LEU:CD1 | 2.28 | 0.46 |
| 1:I:208:LEU:HD23 | 1:I:208:LEU:O | 2.15 | 0.46 |
| 1:I:252:LEU:CD2 | 1:I:295:ASP:HB2 | 2.45 | 0.46 |
| 1:J:269:ILE:H | 1:J:269:ILE:CD1 | 2.28 | 0.46 |
| 1:J:279:THR:HG21 | 1:J:283:ILE:HD11 | 1.97 | 0.46 |
| 1:J:318:ILE:CG1 | 1:J:319:PRO:HD3 | 2.36 | 0.46 |
| 1:L:240:ILE:CD1 | 1:L:300:LEU:HD13 | 2.45 | 0.46 |
| 1:L:302:VAL:O | 1:L:303:ILE:HD12 | 2.16 | 0.46 |
| 1:M:324:PHE:CD1 | 1:M:360:LYS:HA | 2.50 | 0.46 |
| 1:N:189:GLU:HB3 | 1:N:233:GLY:HA2 | 1.97 | 0.46 |
| 1:A:260:PHE:CD1 | 1:A:260:PHE:C | 2.88 | 0.46 |
| 1:A:325:LEU:CD1 | 1:A:339:PHE:CE1 | 2.99 | 0.46 |
| 1:C:204:PHE:O | 1:C:207:GLU:N | 2.49 | 0.46 |
| 1:C:256:GLU:HG2 | 1:C:299:ARG:CZ | 2.45 | 0.46 |
| 1:C:273:VAL:O | 1:C:275:ILE:HD12 | 2.16 | 0.46 |
| 1:D:324:PHE:O | 1:D:325:LEU:C | 2.54 | 0.46 |
| 1:E:213:LYS:HE3 | 1:E:221:SER:HA | 1.98 | 0.46 |
| 1:F:225:GLY:O | 1:F:227:PHE:N | 2.49 | 0.46 |
| 1:F:250:LYS:O | 1:F:254:VAL:HG23 | 2.14 | 0.46 |
| 1:G:171:VAL:HG12 | 1:G:313:ARG:NH1 | 2.31 | 0.46 |
| 1:G:242:GLU:HG2 | 1:G:281:ARG:HH21 | 1.80 | 0.46 |
| 1:H:260:PHE:C | 1:H:260:PHE:CD1 | 2.88 | 0.46 |
| 1:I:220:VAL:CG1 | 1:I:221:SER:N | 2.57 | 0.46 |
| 1:J:143:SER:HB3 | 1:J:316:ASP:OD2 | 2.15 | 0.46 |
| 1:K:248:GLN:O | 1:K:251:LEU:N | 2.49 | 0.46 |
| 1:K:336:VAL:HA | 1:K:373:LYS:O | 2.15 | 0.46 |
| 1:A:313:ARG:O | 1:A:316:ASP:N | 2.39 | 0.46 |
| 1:B:229:LEU:O | 1:B:229:LEU:HD13 | 2.15 | 0.46 |
| 1:C:184:SER:O | 1:C:186:ARG:N | 2.48 | 0.46 |
| 1:C:211:TYR:C | 1:C:211:TYR:CD1 | 2.89 | 0.46 |
| 1:C:342:SER:OG | 1:C:377:ARG:HB2 | 2.16 | 0.46 |
| 1:C:358:GLU:O | 1:C:362:VAL:HG23 | 2.16 | 0.46 |
| 1:E:153:ILE:HD12 | 1:E:180:ILE:HG13 | 1.97 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:266:ARG:NH2 | 1:J:203:ILE:HD11 | 2.31 | 0.46 |
| 1:K:209:PHE:CE2 | 1:K:250:LYS:HB3 | 2.51 | 0.46 |
| 1:K:349:SER:O | 1:K:350:TYR:C | 2.54 | 0.46 |
| 1:L:281:ARG:HH21 | 1:L:285:GLU:HG2 | 1.80 | 0.46 |
| 1:L:318:ILE:HG13 | 1:L:319:PRO:CD | 2.46 | 0.46 |
| 1:L:346:LEU:O | 1:L:347:LEU:O | 2.33 | 0.46 |
| 1:L:352:TRP:HZ3 | 1:L:358:GLU:HG2 | 1.79 | 0.46 |
| 1:M:359:LEU:HG | 1:M:363:ILE:HD13 | 1.97 | 0.46 |
| 1:M:365:ARG:HG2 | 1:M:383:LEU:HD22 | 1.98 | 0.46 |
| 1:N:145:LYS:O | 1:N:149:ILE:HG13 | 2.16 | 0.46 |
| 1:N:235:LEU:HD12 | 1:N:236:PHE:H | 1.81 | 0.46 |
| 1:A:299:ARG:NH2 | 1:A:302:VAL:HG21 | 2.29 | 0.46 |
| 1:A:356:VAL:HG11 | 2:A:6:ADP:C8 | 2.50 | 0.46 |
| 1:B:225:GLY:O | 1:B:226:PHE:C | 2.54 | 0.46 |
| 1:B:382:CYS:HB3 | 1:B:383:LEU:HD22 | 1.98 | 0.46 |
| 1:C:165:ILE:HB | 1:C:278:ALA:CB | 2.44 | 0.46 |
| 1:D:226:PHE:O | 1:D:230:ALA:N | 2.38 | 0.46 |
| 1:D:361:ASN:O | 1:D:364:GLU:N | 2.49 | 0.46 |
| 1:E:171:VAL:HG23 | 1:E:307:ILE:HG21 | 1.97 | 0.46 |
| 1:F:310:LEU:HD23 | 1:F:310:LEU:HA | 1.64 | 0.46 |
| 1:G:205:GLU:HG2 | 1:G:247:ALA:HB2 | 1.97 | 0.46 |
| 1:I:300:LEU:C | 1:I:302:VAL:N | 2.69 | 0.46 |
| 1:K:139:TYR:HB3 | 1:K:140:VAL:H | 1.44 | 0.46 |
| 1:L:246:GLU:O | 1:L:249:ALA:N | 2.49 | 0.46 |
| 1:M:157:SER:C | 1:M:159:ALA:N | 2.69 | 0.46 |
| 1:M:189:GLU:CG | 1:M:190:PRO:HD2 | 2.42 | 0.46 |
| 1:M:247:ALA:O | 1:M:248:GLN:C | 2.52 | 0.46 |
| 1:N:254:VAL:HG22 | 1:N:260:PHE:HB3 | 1.97 | 0.46 |
| 1:A:178:ARG:NE | 1:A:191:PHE:CE2 | 2.82 | 0.46 |
| 1:A:308:PRO:HG2 | 1:A:313:ARG:HD2 | 1.98 | 0.46 |
| 1:D:365:ARG:HD2 | 1:D:383:LEU:CD1 | 2.45 | 0.46 |
| 1:E:171:VAL:CG2 | 1:E:307:ILE:CG2 | 2.94 | 0.46 |
| 1:E:182:LYS:C | 1:E:183:LEU:HD23 | 2.36 | 0.46 |
| 1:E:259:LYS:HD3 | 1:E:268:GLU:OE1 | 2.15 | 0.46 |
| 1:E:336:VAL:HG21 | 1:E:370:SER:HB2 | 1.98 | 0.46 |
| 1:G:251:LEU:HD22 | 1:G:255:ILE:CG1 | 2.45 | 0.46 |
| 1:G:334:LYS:HB3 | 1:G:336:VAL:HG23 | 1.97 | 0.46 |
| 1:H:198:SER:CB | 1:N:250:LYS:HB2 | 2.37 | 0.46 |
| 1:I:212:GLU:HG3 | 1:I:265:GLY:HA3 | 1.98 | 0.46 |
| 1:K:223:LYS:HA | 1:K:223:LYS:HD3 | 1.82 | 0.46 |
| 1:L:208:LEU:HD22 | 1:L:209:PHE:CG | 2.51 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:L:226:PHE:O | 1:L:227:PHE:C | 2.52 | 0.46 |
| 1:M:149:ILE:HD13 | 1:M:307:ILE:HD13 | 1.97 | 0.46 |
| 1:N:152:LYS:HE3 | 1:N:152:LYS:CA | 2.44 | 0.46 |
| 1:C:244:SER:OG | 1:C:247:ALA:HB2 | 2.16 | 0.46 |
| 1:E:156:ILE:C | 1:E:158:CYS:H | 2.19 | 0.46 |
| 1:E:302:VAL:O | 1:E:303:ILE:HD13 | 2.16 | 0.46 |
| 1:E:380:LEU:N | 1:E:380:LEU:HD23 | 2.29 | 0.46 |
| 1:F:350:TYR:CD1 | 1:F:351:PRO:HD2 | 2.50 | 0.46 |
| 1:F:367:VAL:O | 1:F:367:VAL:HG12 | 2.14 | 0.46 |
| 1:G:250:LYS:O | 1:G:254:VAL:HG23 | 2.16 | 0.46 |
| 1:G:352:TRP:HB3 | 1:G:355:ASN:HA | 1.97 | 0.46 |
| 1:H:299:ARG:HH11 | 1:H:302:VAL:HG21 | 1.81 | 0.46 |
| 1:K:325:LEU:HD21 | 1:K:336:VAL:CG1 | 2.46 | 0.46 |
| 1:K:325:LEU:HD12 | 1:K:339:PHE:CZ | 2.50 | 0.46 |
| 1:K:365:ARG:HD2 | 1:K:383:LEU:HG | 1.97 | 0.46 |
| 1:K:365:ARG:HH11 | 1:K:383:LEU:HG | 1.81 | 0.46 |
| 1:M:231:ASP:OD1 | 1:M:271:VAL:HG23 | 2.16 | 0.46 |
| 1:M:312:GLU:C | 1:M:314:LYS:H | 2.20 | 0.46 |
| 1:A:165:ILE:HG21 | 1:A:173:LYS:HA | 1.97 | 0.46 |
| 1:B:177:ALA:O | 1:B:178:ARG:C | 2.54 | 0.46 |
| 1:D:240:ILE:C | 1:D:242:GLU:H | 2.18 | 0.46 |
| 1:E:145:LYS:O | 1:E:149:ILE:HG13 | 2.16 | 0.46 |
| 1:E:177:ALA:CA | 1:E:180:ILE:CD1 | 2.60 | 0.46 |
| 1:E:350:TYR:CE1 | 1:E:384:VAL:HG13 | 2.51 | 0.46 |
| 1:F:153:ILE:HG22 | 1:F:183:LEU:HD12 | 1.96 | 0.46 |
| 1:F:205:GLU:OE1 | 1:F:250:LYS:HD2 | 2.16 | 0.46 |
| 1:F:363:ILE:O | 1:F:366:ALA:HB3 | 2.16 | 0.46 |
| 1:G:192:VAL:HB | 1:G:230:ALA:HB2 | 1.98 | 0.46 |
| 1:G:196:VAL:HG12 | 1:G:196:VAL:O | 2.14 | 0.46 |
| 1:G:204:PHE:C | 1:G:206:ALA:H | 2.17 | 0.46 |
| 1:G:275:ILE:CD1 | 1:G:275:ILE:H | 2.29 | 0.46 |
| 1:G:307:ILE:H | 1:G:307:ILE:HG12 | 1.62 | 0.46 |
| 1:H:317:ILE:HG21 | 1:H:348:LEU:HD23 | 1.97 | 0.46 |
| 1:H:318:ILE:HG23 | 1:H:339:PHE:CZ | 2.51 | 0.46 |
| 1:I:331:LYS:HE2 | 1:I:332:TYR:HE2 | 1.81 | 0.46 |
| 1:J:322:ASN:O | 1:J:325:LEU:N | 2.49 | 0.46 |
| 1:K:244:SER:C | 1:K:246:GLU:N | 2.70 | 0.46 |
| 1:K:302:VAL:O | 1:K:302:VAL:CG1 | 2.64 | 0.46 |
| 1:M:325:LEU:HD23 | 1:M:325:LEU:C | 2.36 | 0.46 |
| 1:N:294:GLU:O | 1:N:295:ASP:C | 2.53 | 0.46 |
| 1:E:252:LEU:O | 1:E:255:ILE:HB | 2.16 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:257:SER:C | 1:E:259:LYS:H | 2.19 | 0.46 |
| 1:H:270:GLU:O | 1:H:271:VAL:CG2 | 2.62 | 0.46 |
| 1:H:368:LEU:C | 1:H:370:SER:H | 2.17 | 0.46 |
| 1:I:325:LEU:HB2 | 1:I:339:PHE:CZ | 2.51 | 0.46 |
| 1:J:162:PRO:HA | 1:J:275:ILE:O | 2.16 | 0.46 |
| 1:K:249:ALA:HB2 | 1:K:293:ARG:HD2 | 1.96 | 0.46 |
| 1:K:275:ILE:N | 1:K:275:ILE:CD1 | 2.76 | 0.46 |
| 1:L:274:ARG:NH1 | 1:L:276:LEU:HD21 | 2.31 | 0.46 |
| 1:M:227:PHE:CD2 | 1:M:273:VAL:HG21 | 2.50 | 0.46 |
| 1:N:181:HIS:CD2 | 1:N:234:THR:CB | 2.98 | 0.46 |
| 1:B:178:ARG:NH1 | 1:B:191:PHE:HD2 | 2.14 | 0.45 |
| 1:D:249:ALA:O | 1:D:252:LEU:N | 2.49 | 0.45 |
| 1:D:328:PHE:C | 1:D:330:ARG:N | 2.69 | 0.45 |
| 1:E:280:ASN:O | 1:E:280:ASN:CG | 2.53 | 0.45 |
| 1:E:325:LEU:HD11 | 1:E:375:ILE:HD12 | 1.97 | 0.45 |
| 1:F:196:VAL:HG22 | 1:F:204:PHE:CZ | 2.52 | 0.45 |
| 1:G:340:THR:OG1 | 1:G:376:ASP:HA | 2.16 | 0.45 |
| 1:H:299:ARG:NH1 | 1:H:302:VAL:HG21 | 2.31 | 0.45 |
| 1:I:192:VAL:O | 1:I:235:LEU:HD12 | 2.16 | 0.45 |
| 1:J:301:GLY:O | 1:J:302:VAL:C | 2.54 | 0.45 |
| 1:J:384:VAL:HG23 | 1:J:384:VAL:O | 2.16 | 0.45 |
| 1:K:149:ILE:HA | 1:K:152:LYS:CE | 2.46 | 0.45 |
| 1:K:295:ASP:OD1 | 1:K:296:LEU:N | 2.50 | 0.45 |
| 1:K:310:LEU:HD21 | 1:K:317:ILE:HG12 | 1.97 | 0.45 |
| 1:L:211:TYR:HB3 | 1:L:263:LEU:HB3 | 1.98 | 0.45 |
| 1:M:343:ALA:O | 1:M:346:LEU:N | 2.49 | 0.45 |
| 1:A:239:GLU:HA | 1:A:279:THR:HA | 1.98 | 0.45 |
| 1:A:250:LYS:O | 1:A:254:VAL:HG23 | 2.16 | 0.45 |
| 1:A:312:GLU:O | 1:A:313:ARG:HG3 | 2.16 | 0.45 |
| 1:C:153:ILE:CG2 | 1:C:179:LEU:HD22 | 2.42 | 0.45 |
| 1:E:194:LEU:HD23 | 1:E:194:LEU:H | 1.80 | 0.45 |
| 1:E:309:PRO:CB | 1:E:311:ARG:HD3 | 2.40 | 0.45 |
| 1:E:340:THR:HG21 | 1:E:376:ASP:HB3 | 1.98 | 0.45 |
| 1:F:140:VAL:HG23 | 1:F:323:HIS:HD2 | 1.82 | 0.45 |
| 1:F:191:PHE:CZ | 1:F:236:PHE:HB2 | 2.51 | 0.45 |
| 1:G:156:ILE:HG22 | 1:G:156:ILE:O | 2.16 | 0.45 |
| 1:G:276:LEU:HA | 1:G:276:LEU:HD23 | 1.66 | 0.45 |
| 1:I:282:ASN:HD22 | 1:I:285:GLU:HB2 | 1.81 | 0.45 |
| 1:I:293:ARG:NH2 | 1:I:295:ASP:OD2 | 2.43 | 0.45 |
| 1:J:163:VAL:HG22 | 1:J:303:ILE:HB | 1.98 | 0.45 |
| 1:J:196:VAL:HB | 1:J:239:GLU:O | 2.15 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:172:GLY:HA2 | 2:K:10:ADP:O1A | 2.15 | 0.45 |
| 1:L:209:PHE:CE1 | 1:L:250:LYS:HB3 | 2.50 | 0.45 |
| 1:L:211:TYR:HE1 | 1:L:223:LYS:HB2 | 1.81 | 0.45 |
| 1:L:341:LYS:HA | 1:L:344:GLN:HB2 | 1.97 | 0.45 |
| 1:M:167:GLY:HA3 | 1:M:171:VAL:HG21 | 1.97 | 0.45 |
| 1:M:335:GLU:O | 1:M:336:VAL:CG2 | 2.65 | 0.45 |
| 1:N:165:ILE:HB | 1:N:278:ALA:CB | 2.41 | 0.45 |
| 1:N:325:LEU:C | 1:N:325:LEU:CD2 | 2.80 | 0.45 |
| 1:B:179:LEU:O | 1:B:182:LYS:N | 2.50 | 0.45 |
| 1:D:181:HIS:CE1 | 1:D:187:SER:HA | 2.52 | 0.45 |
| 1:E:164:LEU:CG | 1:E:164:LEU:O | 2.64 | 0.45 |
| 1:F:328:PHE:CE2 | 1:F:364:GLU:OE2 | 2.70 | 0.45 |
| 1:F:349:SER:HB2 | 1:I:351:PRO:HG3 | 1.98 | 0.45 |
| 1:G:328:PHE:CD2 | 1:G:364:GLU:HG3 | 2.52 | 0.45 |
| 1:H:208:LEU:HD23 | 1:H:209:PHE:HE1 | 1.76 | 0.45 |
| 1:H:229:LEU:O | 1:H:229:LEU:HD22 | 2.15 | 0.45 |
| 1:I:219:ALA:O | 1:I:220:VAL:HB | 2.16 | 0.45 |
| 1:J:283:ILE:O | 1:J:287:VAL:HG23 | 2.16 | 0.45 |
| 1:N:242:GLU:OE2 | 1:N:281:ARG:NH2 | 2.49 | 0.45 |
| 1:N:282:ASN:ND2 | 1:N:285:GLU:H | 2.13 | 0.45 |
| 1:A:151:GLU:O | 1:A:153:ILE:N | 2.49 | 0.45 |
| 1:B:186:ARG:HH22 | 1:B:272:ASN:CG | 2.20 | 0.45 |
| 1:C:266:ARG:NH2 | 1:D:203:ILE:HD11 | 2.32 | 0.45 |
| 1:D:354:GLY:HA3 | 1:D:358:GLU:HB2 | 1.99 | 0.45 |
| 1:E:363:ILE:O | 1:E:367:VAL:CG2 | 2.51 | 0.45 |
| 1:E:363:ILE:C | 1:E:367:VAL:HG23 | 2.35 | 0.45 |
| 1:F:332:TYR:CE1 | 1:F:368:LEU:HD11 | 2.52 | 0.45 |
| 1:H:204:PHE:O | 1:H:205:GLU:C | 2.55 | 0.45 |
| 1:H:309:PRO:HG3 | 1:H:311:ARG:NH1 | 2.31 | 0.45 |
| 1:I:194:LEU:HD23 | 1:I:236:PHE:O | 2.15 | 0.45 |
| 1:K:208:LEU:HD13 | 1:K:209:PHE:HE1 | 1.81 | 0.45 |
| 1:A:167:GLY:O | 1:A:280:ASN:HA | 2.16 | 0.45 |
| 1:D:211:TYR:CE2 | 1:D:216:PHE:CZ | 3.04 | 0.45 |
| 1:D:317:ILE:O | 1:D:318:ILE:C | 2.54 | 0.45 |
| 1:E:149:ILE:C | 1:E:151:GLU:N | 2.69 | 0.45 |
| 1:E:234:THR:CG2 | 1:E:274:ARG:O | 2.65 | 0.45 |
| 1:E:239:GLU:C | 1:E:241:GLY:N | 2.69 | 0.45 |
| 1:E:317:ILE:HG21 | 1:E:347:LEU:O | 2.16 | 0.45 |
| 1:F:205:GLU:OE2 | 1:F:246:GLU:HB2 | 2.17 | 0.45 |
| 1:H:162:PRO:HB2 | 1:H:300:LEU:CD2 | 2.46 | 0.45 |
| 1:H:310:LEU:CD1 | 1:H:356:VAL:H | 2.29 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:324:PHE:HB2 | 1:I:363:ILE:HD12 | 1.99 | 0.45 |
| 1:I:331:LYS:HE2 | 1:I:332:TYR:CE2 | 2.51 | 0.45 |
| 1:K:189:GLU:CG | 1:K:232:GLY:O | 2.64 | 0.45 |
| 1:L:152:LYS:O | 1:L:153:ILE:C | 2.55 | 0.45 |
| 1:L:320:LEU:HB3 | 1:L:324:PHE:HE1 | 1.81 | 0.45 |
| 1:L:379:GLU:C | 1:L:381:SER:N | 2.70 | 0.45 |
| 1:M:253:ARG:CZ | 1:M:257:SER:OG | 2.64 | 0.45 |
| 1:M:324:PHE:CD2 | 1:M:360:LYS:HG3 | 2.52 | 0.45 |
| 1:N:227:PHE:HE2 | 1:N:275:ILE:HD11 | 1.82 | 0.45 |
| 1:N:350:TYR:O | 1:N:352:TRP:CD1 | 2.69 | 0.45 |
| 1:C:149:ILE:O | 1:C:152:LYS:HB2 | 2.16 | 0.45 |
| 1:C:349:SER:OG | 1:C:350:TYR:N | 2.49 | 0.45 |
| 1:D:211:TYR:CE2 | 1:D:216:PHE:HZ | 2.34 | 0.45 |
| 1:E:146:MET:CE | 1:E:146:MET:HA | 2.47 | 0.45 |
| 1:E:236:PHE:CD1 | 1:E:276:LEU:O | 2.60 | 0.45 |
| 1:E:317:ILE:CG2 | 1:E:347:LEU:O | 2.65 | 0.45 |
| 1:G:365:ARG:O | 1:G:367:VAL:N | 2.50 | 0.45 |
| 1:H:156:ILE:CG2 | 1:H:274:ARG:HH22 | 2.30 | 0.45 |
| 1:H:215:ALA:H | 1:I:223:LYS:HZ1 | 1.60 | 0.45 |
| 1:H:227:PHE:CE1 | 1:H:235:LEU:HD13 | 2.52 | 0.45 |
| 1:H:247:ALA:O | 1:H:250:LYS:N | 2.49 | 0.45 |
| 1:H:318:ILE:N | 1:H:319:PRO:HD2 | 2.32 | 0.45 |
| 1:H:341:LYS:O | 1:H:345:GLU:HG3 | 2.17 | 0.45 |
| 1:I:241:GLY:O | 1:I:243:LEU:N | 2.50 | 0.45 |
| 1:I:382:CYS:O | 1:I:383:LEU:HD23 | 2.17 | 0.45 |
| 1:K:346:LEU:HD13 | 1:K:380:LEU:HB3 | 1.99 | 0.45 |
| 1:L:350:TYR:CD2 | 1:L:350:TYR:C | 2.90 | 0.45 |
| 1:L:376:ASP:O | 1:L:377:ARG:C | 2.54 | 0.45 |
| 1:M:195:ASN:C | 1:M:197:ALA:N | 2.68 | 0.45 |
| 1:M:281:ARG:HD3 | 1:M:282:ASN:H | 1.81 | 0.45 |
| 1:M:332:TYR:CE1 | 1:M:368:LEU:HD23 | 2.52 | 0.45 |
| 1:N:349:SER:O | 1:N:350:TYR:C | 2.55 | 0.45 |
| 1:B:235:LEU:HD21 | 1:B:237:LEU:HD21 | 1.99 | 0.45 |
| 1:B:274:ARG:HG2 | 1:B:274:ARG:HH11 | 1.82 | 0.45 |
| 1:D:365:ARG:NH1 | 1:D:383:LEU:HD22 | 2.31 | 0.45 |
| 1:E:146:MET:SD | 1:E:149:ILE:HD12 | 2.57 | 0.45 |
| 1:E:244:SER:O | 1:E:247:ALA:N | 2.49 | 0.45 |
| 1:E:325:LEU:CD1 | 1:E:375:ILE:HD12 | 2.46 | 0.45 |
| 1:F:327:LYS:O | 1:F:329:SER:N | 2.49 | 0.45 |
| 1:F:380:LEU:HB3 | 1:F:384:VAL:CG2 | 2.46 | 0.45 |
| 1:G:259:LYS:HD3 | 1:G:267:LYS:HD2 | 1.98 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:352:TRP:CZ2 | 1:G:359:LEU:HG | 2.51 | 0.45 |
| 1:J:146:MET:O | 1:J:149:ILE:N | 2.50 | 0.45 |
| 1:J:344:GLN:O | 1:J:347:LEU:N | 2.50 | 0.45 |
| 1:K:199:ILE:HD13 | 1:K:207:GLU:HG2 | 1.98 | 0.45 |
| 1:K:309:PRO:HB2 | 1:K:311:ARG:HG2 | 1.99 | 0.45 |
| 1:L:189:GLU:CG | 1:L:190:PRO:HD2 | 2.37 | 0.45 |
| 1:M:164:LEU:HD12 | 1:M:165:ILE:H | 1.82 | 0.45 |
| 1:M:275:ILE:O | 1:M:276:LEU:HD22 | 2.17 | 0.45 |
| 1:A:380:LEU:HD12 | 1:A:384:VAL:HG21 | 1.98 | 0.45 |
| 1:B:302:VAL:HG22 | 1:C:361:ASN:HB3 | 1.99 | 0.45 |
| 1:B:325:LEU:HD21 | 1:B:336:VAL:HG12 | 1.99 | 0.45 |
| 1:B:330:ARG:NH1 | 1:B:330:ARG:O | 2.50 | 0.45 |
| 1:D:159:ALA:HB2 | 1:E:368:LEU:HD21 | 1.99 | 0.45 |
| 1:D:234:THR:HG21 | 1:D:276:LEU:HD12 | 1.99 | 0.45 |
| 1:D:287:VAL:HG13 | 1:D:292:PHE:O | 2.17 | 0.45 |
| 1:E:171:VAL:HG23 | 1:E:307:ILE:CG2 | 2.47 | 0.45 |
| 1:F:170:GLY:C | 1:F:172:GLY:N | 2.67 | 0.45 |
| 1:F:215:ALA:O | 1:G:216:PHE:HE1 | 2.00 | 0.45 |
| 1:F:267:LYS:O | 1:F:269:ILE:HD12 | 2.17 | 0.45 |
| 1:H:239:GLU:HA | 1:H:279:THR:HA | 1.98 | 0.45 |
| 1:I:322:ASN:O | 1:I:323:HIS:C | 2.55 | 0.45 |
| 1:L:143:SER:N | 1:L:316:ASP:OD1 | 2.49 | 0.45 |
| 1:L:210:GLY:C | 1:L:262:ARG:HG2 | 2.37 | 0.45 |
| 1:M:139:TYR:HB3 | 2:M:12:ADP:C2 | 2.50 | 0.45 |
| 1:M:309:PRO:HG2 | 1:M:311:ARG:HD2 | 1.98 | 0.45 |
| 1:M:329:SER:O | 1:M:330:ARG:HD3 | 2.16 | 0.45 |
| 1:A:339:PHE:HZ | 1:A:363:ILE:HD13 | 1.81 | 0.45 |
| 1:B:375:ILE:HG22 | 1:B:380:LEU:HD23 | 1.99 | 0.45 |
| 1:C:240:ILE:O | 1:C:243:LEU:HB2 | 2.16 | 0.45 |
| 1:D:141:PHE:CE1 | 1:D:179:LEU:HD12 | 2.50 | 0.45 |
| 1:E:204:PHE:O | 1:E:206:ALA:N | 2.49 | 0.45 |
| 1:G:204:PHE:CE2 | 1:G:243:LEU:HD21 | 2.52 | 0.45 |
| 1:G:352:TRP:HE3 | 1:G:358:GLU:HB3 | 1.82 | 0.45 |
| 1:K:298:TYR:C | 1:K:300:LEU:N | 2.69 | 0.45 |
| 1:L:227:PHE:CD2 | 1:L:254:VAL:HG11 | 2.48 | 0.45 |
| 1:M:206:ALA:CB | 1:M:216:PHE:CE1 | 3.00 | 0.45 |
| 1:M:356:VAL:O | 1:M:357:ARG:C | 2.54 | 0.45 |
| 1:N:181:HIS:HD2 | 1:N:234:THR:OG1 | 2.00 | 0.45 |
| 1:B:157:SER:C | 1:B:159:ALA:H | 2.21 | 0.45 |
| 1:C:366:ALA:C | 1:C:368:LEU:N | 2.70 | 0.45 |
| 1:D:143:SER:O | 1:D:147:LYS:HB2 | 2.16 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:267:LYS:HD2 | 1:D:267:LYS:N | 2.31 | 0.45 |
| 1:F:314:LYS:O | 1:F:316:ASP:N | 2.50 | 0.45 |
| 1:H:176:VAL:O | 1:H:180:ILE:HG13 | 2.17 | 0.45 |
| 1:H:231:ASP:HA | 1:H:273:VAL:CG2 | 2.46 | 0.45 |
| 1:H:236:PHE:CD1 | 1:H:276:LEU:O | 2.68 | 0.45 |
| 1:H:244:SER:O | 1:H:248:GLN:HG3 | 2.17 | 0.45 |
| 1:H:355:ASN:O | 1:H:356:VAL:C | 2.56 | 0.45 |
| 1:I:153:ILE:CD1 | 1:I:176:VAL:HG13 | 2.45 | 0.45 |
| 1:J:182:LYS:O | 1:J:183:LEU:HD23 | 2.16 | 0.45 |
| 1:J:259:LYS:HD3 | 1:J:268:GLU:OE1 | 2.17 | 0.45 |
| 1:K:345:GLU:O | 1:K:348:LEU:N | 2.50 | 0.45 |
| 1:N:224:GLU:HA | 1:N:262:ARG:NH2 | 2.32 | 0.45 |
| 1:B:159:ALA:O | 1:B:160:GLU:HG2 | 2.17 | 0.44 |
| 1:C:140:VAL:HG21 | 1:C:320:LEU:HD23 | 1.99 | 0.44 |
| 1:C:288:LYS:C | 1:C:290:GLY:N | 2.71 | 0.44 |
| 1:D:168:GLU:OE1 | 1:D:311:ARG:NH1 | 2.50 | 0.44 |
| 1:D:189:GLU:HG2 | 1:D:232:GLY:O | 2.17 | 0.44 |
| 1:D:318:ILE:HG23 | 1:D:348:LEU:HD21 | 1.99 | 0.44 |
| 1:D:352:TRP:CZ3 | 1:D:359:LEU:HA | 2.52 | 0.44 |
| 1:E:182:LYS:O | 1:E:183:LEU:HD23 | 2.17 | 0.44 |
| 1:E:361:ASN:ND2 | 1:E:361:ASN:H | 2.14 | 0.44 |
| 1:F:232:GLY:N | 1:F:272:ASN:O | 2.46 | 0.44 |
| 1:F:365:ARG:HB3 | 1:F:383:LEU:HD11 | 2.00 | 0.44 |
| 1:H:303:ILE:HG22 | 1:H:303:ILE:O | 2.16 | 0.44 |
| 1:I:325:LEU:HD12 | 1:I:339:PHE:CZ | 2.53 | 0.44 |
| 1:J:332:TYR:CD1 | 1:J:368:LEU:HD21 | 2.52 | 0.44 |
| 1:L:281:ARG:HH21 | 1:L:285:GLU:CG | 2.30 | 0.44 |
| 1:M:140:VAL:O | 2:M:12:ADP:N6 | 2.48 | 0.44 |
| 1:M:308:PRO:O | 1:M:313:ARG:HD2 | 2.16 | 0.44 |
| 1:N:192:VAL:CB | 1:N:230:ALA:HB2 | 2.46 | 0.44 |
| 1:B:296:LEU:HD13 | 1:B:296:LEU:O | 2.17 | 0.44 |
| 1:D:223:LYS:HG3 | 1:D:224:GLU:N | 2.31 | 0.44 |
| 1:F:249:ALA:CB | 1:F:293:ARG:HH11 | 2.30 | 0.44 |
| 1:G:151:GLU:O | 1:G:152:LYS:C | 2.52 | 0.44 |
| 1:G:207:GLU:HG2 | 1:G:226:PHE:HE1 | 1.80 | 0.44 |
| 1:H:175:VAL:HG21 | 2:H:14:ADP:C8 | 2.52 | 0.44 |
| 1:I:173:LYS:H | 2:I:8:ADP:PB | 2.40 | 0.44 |
| 1:I:191:PHE:CE2 | 1:I:193:ALA:HB2 | 2.52 | 0.44 |
| 1:K:242:GLU:OE2 | 1:K:281:ARG:NH2 | 2.50 | 0.44 |
| 1:K:269:ILE:N | 1:K:269:ILE:CD1 | 2.78 | 0.44 |
| 1:K:342:SER:OG | 1:K:377:ARG:HD3 | 2.17 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:L:306:GLU:O | 1:L:307:ILE:HD13 | 2.17 | 0.44 |
| 1:M:353:TYR:C | 1:M:355:ASN:N | 2.71 | 0.44 |
| 1:A:143:SER:CB | 1:A:144:PRO:CD | 2.93 | 0.44 |
| 1:A:170:GLY:O | 1:A:356:VAL:HG23 | 2.17 | 0.44 |
| 1:A:179:LEU:O | 1:A:181:HIS:N | 2.50 | 0.44 |
| 1:A:182:LYS:O | 1:A:187:SER:HB3 | 2.17 | 0.44 |
| 1:A:352:TRP:HZ3 | 1:A:362:VAL:HG21 | 1.82 | 0.44 |
| 1:B:242:GLU:OE1 | 1:B:242:GLU:HA | 2.18 | 0.44 |
| 1:B:260:PHE:HD1 | 1:B:261:TYR:N | 2.15 | 0.44 |
| 1:C:254:VAL:O | 1:C:258:GLY:HA2 | 2.17 | 0.44 |
| 1:F:311:ARG:NH1 | 1:F:311:ARG:CG | 2.78 | 0.44 |
| 1:F:345:GLU:O | 1:F:346:LEU:C | 2.56 | 0.44 |
| 1:G:239:GLU:N | 1:G:278:ALA:O | 2.50 | 0.44 |
| 1:H:257:SER:O | 1:H:259:LYS:HG3 | 2.17 | 0.44 |
| 1:I:253:ARG:CZ | 1:J:198:SER:CB | 2.95 | 0.44 |
| 1:I:284:LYS:HE2 | 1:I:297:TYR:CZ | 2.53 | 0.44 |
| 1:J:313:ARG:O | 1:J:314:LYS:C | 2.55 | 0.44 |
| 1:J:326:LYS:O | 1:J:326:LYS:HG2 | 2.16 | 0.44 |
| 1:L:143:SER:CB | 1:L:144:PRO:CD | 2.75 | 0.44 |
| 1:L:340:THR:OG1 | 1:L:376:ASP:HB3 | 2.16 | 0.44 |
| 1:M:141:PHE:O | 1:M:143:SER:N | 2.51 | 0.44 |
| 1:A:296:LEU:HD13 | 1:A:296:LEU:O | 2.17 | 0.44 |
| 1:A:365:ARG:NH2 | 1:G:301:GLY:O | 2.50 | 0.44 |
| 1:B:284:LYS:O | 1:B:288:LYS:HG2 | 2.18 | 0.44 |
| 1:C:191:PHE:HE2 | 1:C:193:ALA:HB2 | 1.78 | 0.44 |
| 1:C:341:LYS:HA | 1:C:344:GLN:HB2 | 2.00 | 0.44 |
| 1:D:153:ILE:HG23 | 1:D:180:ILE:HG12 | 2.00 | 0.44 |
| 1:E:324:PHE:C | 1:E:326:LYS:N | 2.70 | 0.44 |
| 1:E:335:GLU:O | 1:E:373:LYS:HA | 2.17 | 0.44 |
| 1:F:211:TYR:O | 1:F:212:GLU:HG2 | 2.18 | 0.44 |
| 1:H:211:TYR:O | 1:H:222:SER:HA | 2.18 | 0.44 |
| 1:J:146:MET:HG3 | 1:J:313:ARG:NH2 | 2.33 | 0.44 |
| 1:J:181:HIS:HD2 | 1:J:234:THR:HB | 1.83 | 0.44 |
| 1:J:346:LEU:HD21 | 1:J:384:VAL:HG23 | 1.98 | 0.44 |
| 1:K:277:ALA:O | 1:K:278:ALA:HB2 | 2.18 | 0.44 |
| 1:M:201:ARG:NH2 | 1:M:242:GLU:O | 2.51 | 0.44 |
| 1:M:206:ALA:HB2 | 1:M:216:PHE:CE1 | 2.53 | 0.44 |
| 1:M:238:ASP:O | 1:M:239:GLU:CB | 2.65 | 0.44 |
| 1:N:257:SER:C | 1:N:259:LYS:H | 2.20 | 0.44 |
| 1:B:240:ILE:CG1 | 1:B:277:ALA:HB1 | 2.39 | 0.44 |
| 1:D:343:ALA:O | 1:D:344:GLN:C | 2.56 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:365:ARG:HH11 | 1:D:383:LEU:HD22 | 1.82 | 0.44 |
| 1:E:178:ARG:HE | 1:E:191:PHE:HD2 | 1.66 | 0.44 |
| 1:E:321:ALA:O | 1:E:339:PHE:CE1 | 2.71 | 0.44 |
| 1:F:214:GLY:O | 1:F:215:ALA:CB | 2.65 | 0.44 |
| 1:F:343:ALA:HB2 | 1:F:377:ARG:N | 2.33 | 0.44 |
| 1:H:223:LYS:NZ | 1:N:215:ALA:HB2 | 2.32 | 0.44 |
| 1:H:244:SER:O | 1:H:246:GLU:N | 2.50 | 0.44 |
| 1:H:346:LEU:HD12 | 1:H:377:ARG:CG | 2.48 | 0.44 |
| 1:I:216:PHE:O | 1:I:218:GLY:N | 2.49 | 0.44 |
| 1:I:234:THR:HG21 | 1:I:276:LEU:HD12 | 1.99 | 0.44 |
| 1:I:248:GLN:O | 1:I:251:LEU:HB3 | 2.18 | 0.44 |
| 1:J:157:SER:HB3 | 1:J:184:SER:CA | 2.47 | 0.44 |
| 1:J:190:PRO:O | 1:J:233:GLY:HA3 | 2.17 | 0.44 |
| 1:J:249:ALA:CB | 1:J:293:ARG:HH11 | 2.31 | 0.44 |
| 1:J:259:LYS:HA | 1:J:269:ILE:O | 2.18 | 0.44 |
| 1:J:359:LEU:O | 1:J:362:VAL:HB | 2.18 | 0.44 |
| 1:K:140:VAL:HG11 | 1:K:320:LEU:HD23 | 1.99 | 0.44 |
| 1:L:288:LYS:C | 1:L:290:GLY:N | 2.71 | 0.44 |
| 1:L:310:LEU:HD12 | 1:L:352:TRP:HB3 | 1.99 | 0.44 |
| 1:L:380:LEU:O | 1:L:381:SER:C | 2.56 | 0.44 |
| 1:M:139:TYR:HD1 | 1:M:139:TYR:H | 1.64 | 0.44 |
| 1:M:236:PHE:CE2 | 1:M:238:ASP:HB2 | 2.53 | 0.44 |
| 1:M:340:THR:C | 1:M:342:SER:N | 2.71 | 0.44 |
| 1:B:283:ILE:HD13 | 1:B:286:LEU:CD1 | 2.47 | 0.44 |
| 1:B:285:GLU:O | 1:B:286:LEU:C | 2.56 | 0.44 |
| 1:B:328:PHE:CB | 1:B:367:VAL:HG21 | 2.47 | 0.44 |
| 1:C:275:ILE:N | 1:C:275:ILE:CD1 | 2.81 | 0.44 |
| 1:C:311:ARG:NH2 | 1:C:353:TYR:CD2 | 2.79 | 0.44 |
| 1:D:156:ILE:O | 1:D:159:ALA:N | 2.50 | 0.44 |
| 1:D:216:PHE:CD1 | 1:D:216:PHE:C | 2.90 | 0.44 |
| 1:E:350:TYR:HE2 | 1:E:352:TRP:HA | 1.82 | 0.44 |
| 1:F:174:GLU:O | 1:F:175:VAL:C | 2.55 | 0.44 |
| 1:F:363:ILE:O | 1:F:364:GLU:C | 2.55 | 0.44 |
| 1:F:380:LEU:O | 1:F:383:LEU:N | 2.50 | 0.44 |
| 1:G:181:HIS:CD2 | 1:G:234:THR:OG1 | 2.70 | 0.44 |
| 1:G:236:PHE:HE1 | 1:G:278:ALA:HB2 | 1.82 | 0.44 |
| 1:H:349:SER:HB2 | 1:H:350:TYR:HD1 | 1.83 | 0.44 |
| 1:H:373:LYS:O | 1:H:374:PHE:HB2 | 2.17 | 0.44 |
| 1:J:157:SER:C | 1:J:184:SER:HA | 2.38 | 0.44 |
| 1:K:349:SER:HG | 1:K:350:TYR:H | 1.64 | 0.44 |
| 1:L:193:ALA:CB | 1:L:236:PHE:HB3 | 2.48 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:L:239:GLU:C | 1:L:241:GLY:N | 2.63 | 0.44 |
| 1:L:334:LYS:HZ2 | 1:L:367:VAL:CB | 2.30 | 0.44 |
| 1:L:355:ASN:O | 1:L:357:ARG:N | 2.50 | 0.44 |
| 1:L:379:GLU:O | 1:L:381:SER:N | 2.50 | 0.44 |
| 1:M:245:LEU:HA | 1:M:248:GLN:NE2 | 2.32 | 0.44 |
| 1:M:253:ARG:O | 1:M:256:GLU:N | 2.39 | 0.44 |
| 1:C:165:ILE:O | 1:C:278:ALA:HA | 2.17 | 0.44 |
| 1:C:177:ALA:HA | 1:C:180:ILE:HD12 | 2.00 | 0.44 |
| 1:C:191:PHE:HD2 | 1:C:191:PHE:O | 2.00 | 0.44 |
| 1:C:340:THR:OG1 | 1:C:342:SER:HB3 | 2.18 | 0.44 |
| 1:D:361:ASN:C | 1:D:363:ILE:H | 2.21 | 0.44 |
| 1:E:282:ASN:O | 1:E:283:ILE:C | 2.56 | 0.44 |
| 1:G:310:LEU:HD12 | 1:G:356:VAL:N | 2.30 | 0.44 |
| 1:G:328:PHE:C | 1:G:330:ARG:N | 2.70 | 0.44 |
| 1:G:355:ASN:N | 1:G:355:ASN:HD22 | 2.15 | 0.44 |
| 1:G:380:LEU:O | 1:G:384:VAL:HG22 | 2.18 | 0.44 |
| 1:H:332:TYR:O | 1:H:333:ALA:CB | 2.66 | 0.44 |
| 1:J:220:VAL:O | 1:J:221:SER:OG | 2.29 | 0.44 |
| 1:J:282:ASN:O | 1:J:286:LEU:HG | 2.16 | 0.44 |
| 1:N:186:ARG:O | 1:N:189:GLU:N | 2.51 | 0.44 |
| 1:N:254:VAL:C | 1:N:256:GLU:N | 2.70 | 0.44 |
| 1:A:196:VAL:O | 1:A:196:VAL:HG12 | 2.17 | 0.44 |
| 1:A:356:VAL:HG11 | 2:A:6:ADP:C5 | 2.52 | 0.44 |
| 1:B:299:ARG:O | 1:B:302:VAL:HG23 | 2.17 | 0.44 |
| 1:C:217:THR:O | 1:C:217:THR:CG2 | 2.66 | 0.44 |
| 1:C:240:ILE:HD13 | 1:C:240:ILE:HA | 1.77 | 0.44 |
| 1:C:296:LEU:O | 1:C:299:ARG:HB2 | 2.17 | 0.44 |
| 1:E:204:PHE:O | 1:E:205:GLU:C | 2.55 | 0.44 |
| 1:F:354:GLY:HA3 | 1:F:358:GLU:HB2 | 2.00 | 0.44 |
| 1:F:366:ALA:C | 1:F:368:LEU:N | 2.71 | 0.44 |
| 1:G:155:LYS:C | 1:G:157:SER:N | 2.70 | 0.44 |
| 1:G:355:ASN:C | 1:G:357:ARG:H | 2.21 | 0.44 |
| 1:K:236:PHE:HD1 | 1:K:276:LEU:O | 2.00 | 0.44 |
| 1:K:244:SER:C | 1:K:246:GLU:H | 2.19 | 0.44 |
| 1:K:329:SER:N | 1:K:367:VAL:HG11 | 2.32 | 0.44 |
| 1:L:171:VAL:HG21 | 1:L:307:ILE:HB | 2.00 | 0.44 |
| 1:L:211:TYR:CE1 | 1:L:223:LYS:HB2 | 2.53 | 0.44 |
| 1:L:324:PHE:O | 1:L:328:PHE:CD1 | 2.64 | 0.44 |
| 1:M:181:HIS:C | 1:M:183:LEU:N | 2.72 | 0.44 |
| 1:M:253:ARG:O | 1:M:256:GLU:O | 2.35 | 0.44 |
| 1:M:296:LEU:HD11 | 1:M:300:LEU:CD1 | 2.47 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:N:139:TYR:HB3 | 1:N:141:PHE:CE1 | 2.52 | 0.44 |
| 1:N:178:ARG:HG3 | 1:N:178:ARG:NH1 | 2.33 | 0.44 |
| 1:N:244:SER:O | 1:N:247:ALA:HB3 | 2.17 | 0.44 |
| 1:A:382:CYS:C | 1:A:383:LEU:HD23 | 2.38 | 0.44 |
| 1:C:318:ILE:HG12 | 1:C:348:LEU:HD21 | 1.99 | 0.44 |
| 1:D:178:ARG:HH11 | 1:D:178:ARG:CG | 2.31 | 0.44 |
| 1:D:299:ARG:O | 1:D:302:VAL:HG23 | 2.18 | 0.44 |
| 1:E:313:ARG:C | 1:E:315:GLU:N | 2.70 | 0.44 |
| 1:H:203:ILE:O | 1:H:206:ALA:HB3 | 2.18 | 0.44 |
| 1:H:293:ARG:CG | 1:H:293:ARG:NH1 | 2.69 | 0.44 |
| 1:I:252:LEU:CD1 | 1:I:296:LEU:HA | 2.40 | 0.44 |
| 1:L:172:GLY:HA2 | 2:L:11:ADP:PA | 2.57 | 0.44 |
| 1:L:208:LEU:HD21 | 1:L:227:PHE:HD1 | 1.82 | 0.44 |
| 1:N:340:THR:H | 1:N:343:ALA:HB3 | 1.83 | 0.44 |
| 1:A:158:CYS:HA | 1:A:185:ASP:CG | 2.39 | 0.43 |
| 1:A:240:ILE:HD11 | 1:A:277:ALA:HA | 2.00 | 0.43 |
| 1:C:239:GLU:N | 1:C:278:ALA:O | 2.42 | 0.43 |
| 1:C:325:LEU:HD13 | 1:C:339:PHE:CE1 | 2.53 | 0.43 |
| 1:D:168:GLU:O | 1:D:171:VAL:HG13 | 2.18 | 0.43 |
| 1:D:224:GLU:HG3 | 1:D:224:GLU:O | 2.18 | 0.43 |
| 1:D:246:GLU:N | 1:D:246:GLU:OE2 | 2.50 | 0.43 |
| 1:D:252:LEU:HD13 | 1:D:296:LEU:HA | 1.99 | 0.43 |
| 1:H:286:LEU:HD22 | 1:H:291:LYS:CD | 2.48 | 0.43 |
| 1:I:180:ILE:O | 1:I:184:SER:HB3 | 2.18 | 0.43 |
| 1:J:324:PHE:CE1 | 1:J:359:LEU:HD12 | 2.53 | 0.43 |
| 1:K:302:VAL:C | 1:K:303:ILE:HG12 | 2.38 | 0.43 |
| 1:K:363:ILE:O | 1:K:367:VAL:HG23 | 2.18 | 0.43 |
| 1:L:261:TYR:C | 1:L:262:ARG:O | 2.56 | 0.43 |
| 1:L:277:ALA:O | 1:L:278:ALA:HB2 | 2.17 | 0.43 |
| 1:M:335:GLU:O | 1:M:336:VAL:HG23 | 2.18 | 0.43 |
| 1:N:203:ILE:O | 1:N:205:GLU:N | 2.45 | 0.43 |
| 1:N:259:LYS:HA | 1:N:269:ILE:O | 2.18 | 0.43 |
| 1:A:204:PHE:CZ | 1:A:208:LEU:HD12 | 2.53 | 0.43 |
| 1:B:156:ILE:O | 1:B:157:SER:C | 2.57 | 0.43 |
| 1:C:328:PHE:CZ | 1:C:364:GLU:HB2 | 2.53 | 0.43 |
| 1:E:313:ARG:C | 1:E:315:GLU:H | 2.20 | 0.43 |
| 1:F:314:LYS:HA | 1:F:317:ILE:CD1 | 2.49 | 0.43 |
| 1:G:252:LEU:HD22 | 1:G:295:ASP:OD1 | 2.18 | 0.43 |
| 1:J:352:TRP:CZ3 | 1:J:362:VAL:HG21 | 2.52 | 0.43 |
| 1:K:283:ILE:O | 1:K:286:LEU:N | 2.52 | 0.43 |
| 1:K:311:ARG:HG3 | 1:K:312:GLU:HG3 | 2.00 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:343:ALA:HB2 | 1:K:376:ASP:HA | 2.00 | 0.43 |
| 1:L:204:PHE:CZ | 1:L:208:LEU:HD12 | 2.53 | 0.43 |
| 1:L:220:VAL:O | 1:L:220:VAL:HG12 | 2.18 | 0.43 |
| 1:L:228:GLU:OE2 | 1:L:262:ARG:NH2 | 2.51 | 0.43 |
| 1:L:279:THR:OG1 | 1:L:280:ASN:N | 2.51 | 0.43 |
| 1:M:275:ILE:HD12 | 1:M:275:ILE:N | 2.33 | 0.43 |
| 1:M:328:PHE:CD2 | 1:M:364:GLU:HG3 | 2.53 | 0.43 |
| 1:N:259:LYS:HA | 1:N:270:GLU:HA | 2.00 | 0.43 |
| 1:N:305:ILE:HG22 | 1:N:307:ILE:CD1 | 2.47 | 0.43 |
| 1:C:266:ARG:CZ | 1:D:203:ILE:HD12 | 2.48 | 0.43 |
| 1:C:328:PHE:CD2 | 1:C:364:GLU:HG3 | 2.54 | 0.43 |
| 1:C:349:SER:O | 1:C:350:TYR:C | 2.56 | 0.43 |
| 1:D:296:LEU:O | 1:D:296:LEU:HD13 | 2.19 | 0.43 |
| 1:D:368:LEU:C | 1:D:370:SER:N | 2.70 | 0.43 |
| 1:F:359:LEU:O | 1:F:360:LYS:C | 2.56 | 0.43 |
| 1:G:216:PHE:O | 1:G:216:PHE:CG | 2.71 | 0.43 |
| 1:G:252:LEU:HD22 | 1:G:293:ARG:NH1 | 2.29 | 0.43 |
| 1:G:325:LEU:HD21 | 1:G:336:VAL:HG12 | 2.00 | 0.43 |
| 1:J:200:PRO:C | 1:J:202:ASP:N | 2.71 | 0.43 |
| 1:K:254:VAL:HG22 | 1:K:260:PHE:HB3 | 2.01 | 0.43 |
| 1:L:178:ARG:HH11 | 1:L:178:ARG:CG | 2.28 | 0.43 |
| 1:L:244:SER:C | 1:L:246:GLU:N | 2.72 | 0.43 |
| 1:L:283:ILE:HG22 | 1:L:287:VAL:CG2 | 2.47 | 0.43 |
| 1:M:144:PRO:HG3 | 1:M:315:GLU:OE2 | 2.18 | 0.43 |
| 1:N:227:PHE:CE2 | 1:N:275:ILE:HD11 | 2.53 | 0.43 |
| 1:A:310:LEU:O | 1:A:312:GLU:N | 2.52 | 0.43 |
| 1:C:196:VAL:HG13 | 1:C:204:PHE:CE1 | 2.54 | 0.43 |
| 1:D:201:ARG:NH2 | 1:D:242:GLU:O | 2.51 | 0.43 |
| 1:E:161:CYS:O | 1:E:274:ARG:NH1 | 2.51 | 0.43 |
| 1:G:237:LEU:HB2 | 1:G:240:ILE:HD11 | 2.01 | 0.43 |
| 1:H:146:MET:O | 1:H:149:ILE:HB | 2.18 | 0.43 |
| 1:H:166:THR:O | 1:H:173:LYS:HD3 | 2.19 | 0.43 |
| 1:H:192:VAL:HG21 | 1:H:230:ALA:CB | 2.39 | 0.43 |
| 1:L:165:ILE:O | 1:L:173:LYS:HD2 | 2.18 | 0.43 |
| 1:L:335:GLU:HG3 | 1:L:335:GLU:O | 2.17 | 0.43 |
| 1:M:178:ARG:HH11 | 1:M:178:ARG:CG | 2.27 | 0.43 |
| 1:M:235:LEU:HD12 | 1:M:236:PHE:H | 1.83 | 0.43 |
| 1:M:369:PHE:O | 1:M:370:SER:O | 2.37 | 0.43 |
| 1:N:145:LYS:CB | 1:N:148:GLU:HG2 | 2.48 | 0.43 |
| 1:N:339:PHE:N | 1:N:339:PHE:CD1 | 2.86 | 0.43 |
| 1:A:139:TYR:HD2 | 1:A:175:VAL:CG1 | 2.29 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:236:PHE:HE1 | 1:A:278:ALA:CB | 2.31 | 0.43 |
| 1:A:243:LEU:HD22 | 1:A:247:ALA:HB1 | 2.00 | 0.43 |
| 1:B:153:ILE:HG23 | 1:B:180:ILE:HG12 | 1.99 | 0.43 |
| 1:B:346:LEU:O | 1:B:346:LEU:HD23 | 2.19 | 0.43 |
| 1:E:174:GLU:O | 1:E:177:ALA:N | 2.51 | 0.43 |
| 1:E:208:LEU:HB3 | 1:E:209:PHE:HD1 | 1.84 | 0.43 |
| 1:F:161:CYS:SG | 1:F:303:ILE:HG12 | 2.58 | 0.43 |
| 1:G:173:LYS:C | 1:G:175:VAL:N | 2.72 | 0.43 |
| 1:H:213:LYS:HA | 1:H:219:ALA:HB1 | 2.01 | 0.43 |
| 1:I:149:ILE:O | 1:I:153:ILE:HG13 | 2.19 | 0.43 |
| 1:I:288:LYS:C | 1:I:290:GLY:H | 2.21 | 0.43 |
| 1:L:145:LYS:O | 1:L:148:GLU:N | 2.47 | 0.43 |
| 1:L:193:ALA:HB2 | 1:L:236:PHE:HB3 | 1.99 | 0.43 |
| 1:L:325:LEU:HD13 | 1:L:339:PHE:CZ | 2.54 | 0.43 |
| 1:M:206:ALA:CB | 1:M:216:PHE:HE1 | 2.31 | 0.43 |
| 1:M:234:THR:HG23 | 1:M:274:ARG:O | 2.18 | 0.43 |
| 1:M:253:ARG:HG2 | 1:N:198:SER:HB3 | 2.01 | 0.43 |
| 1:M:284:LYS:HE3 | 1:M:297:TYR:HE2 | 1.83 | 0.43 |
| 1:N:146:MET:HG3 | 1:N:313:ARG:NE | 2.33 | 0.43 |
| 1:B:179:LEU:HD23 | 1:B:179:LEU:C | 2.39 | 0.43 |
| 1:B:275:ILE:N | 1:B:275:ILE:CD1 | 2.61 | 0.43 |
| 1:B:337:GLU:CG | 1:B:373:LYS:HB3 | 2.46 | 0.43 |
| 1:B:358:GLU:O | 1:B:361:ASN:HB2 | 2.19 | 0.43 |
| 1:C:146:MET:HG3 | 1:C:313:ARG:HH21 | 1.83 | 0.43 |
| 1:C:297:TYR:C | 1:C:299:ARG:H | 2.22 | 0.43 |
| 1:D:259:LYS:HB3 | 1:D:268:GLU:HG2 | 2.00 | 0.43 |
| 1:E:171:VAL:CB | 1:E:307:ILE:HG22 | 2.46 | 0.43 |
| 1:E:292:PHE:HD2 | 1:E:293:ARG:O | 2.01 | 0.43 |
| 1:F:242:GLU:HG2 | 1:F:281:ARG:NH2 | 2.28 | 0.43 |
| 1:G:340:THR:HG1 | 1:G:376:ASP:HA | 1.83 | 0.43 |
| 1:H:141:PHE:CB | 1:H:320:LEU:HD23 | 2.48 | 0.43 |
| 1:H:309:PRO:HG3 | 1:H:311:ARG:HH11 | 1.84 | 0.43 |
| 1:K:181:HIS:O | 1:K:184:SER:OG | 2.34 | 0.43 |
| 1:K:356:VAL:O | 1:K:357:ARG:C | 2.57 | 0.43 |
| 1:L:169:SER:O | 1:L:169:SER:OG | 2.32 | 0.43 |
| 1:L:299:ARG:HH21 | 1:L:302:VAL:HG21 | 1.84 | 0.43 |
| 1:L:310:LEU:O | 1:L:311:ARG:C | 2.56 | 0.43 |
| 1:N:292:PHE:C | 1:N:292:PHE:CD2 | 2.91 | 0.43 |
| 1:N:365:ARG:CD | 1:N:383:LEU:HD13 | 2.49 | 0.43 |
| 1:A:367:VAL:O | 1:A:370:SER:OG | 2.29 | 0.43 |
| 1:C:208:LEU:HD23 | 1:C:209:PHE:CZ | 2.53 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:292:PHE:CD2 | 1:D:293:ARG:O | 2.71 | 0.43 |
| 1:E:161:CYS:SG | 1:E:303:ILE:HG13 | 2.59 | 0.43 |
| 1:E:196:VAL:HG11 | 1:E:243:LEU:CD2 | 2.48 | 0.43 |
| 1:E:206:ALA:CB | 1:E:211:TYR:CE1 | 3.02 | 0.43 |
| 1:E:241:GLY:HA3 | 1:E:281:ARG:HH21 | 1.82 | 0.43 |
| 1:G:376:ASP:C | 1:G:378:GLY:N | 2.72 | 0.43 |
| 1:H:142:GLU:HG2 | 1:H:146:MET:SD | 2.59 | 0.43 |
| 1:H:145:LYS:O | 1:H:149:ILE:HG13 | 2.17 | 0.43 |
| 1:J:249:ALA:O | 1:J:252:LEU:HB3 | 2.19 | 0.43 |
| 1:K:332:TYR:CD1 | 1:K:368:LEU:HG | 2.53 | 0.43 |
| 1:L:244:SER:O | 1:L:247:ALA:N | 2.52 | 0.43 |
| 1:N:317:ILE:O | 1:N:319:PRO:N | 2.51 | 0.43 |
| 1:A:158:CYS:SG | 1:A:158:CYS:O | 2.76 | 0.43 |
| 1:A:325:LEU:HB2 | 1:A:339:PHE:CZ | 2.54 | 0.43 |
| 1:B:144:PRO:HD3 | 1:B:315:GLU:OE2 | 2.18 | 0.43 |
| 1:B:160:GLU:HA | 1:B:274:ARG:HH12 | 1.83 | 0.43 |
| 1:B:328:PHE:C | 1:B:367:VAL:HG11 | 2.39 | 0.43 |
| 1:C:146:MET:HG3 | 1:C:313:ARG:HE | 1.83 | 0.43 |
| 1:D:252:LEU:O | 1:D:255:ILE:N | 2.52 | 0.43 |
| 1:D:267:LYS:HD2 | 1:D:267:LYS:H | 1.83 | 0.43 |
| 1:D:292:PHE:CZ | 1:D:296:LEU:HD12 | 2.54 | 0.43 |
| 1:D:339:PHE:N | 1:D:339:PHE:CD1 | 2.86 | 0.43 |
| 1:E:242:GLU:HA | 1:E:242:GLU:OE1 | 2.19 | 0.43 |
| 1:E:247:ALA:O | 1:E:251:LEU:N | 2.50 | 0.43 |
| 1:F:156:ILE:O | 1:F:157:SER:C | 2.56 | 0.43 |
| 1:G:350:TYR:HD2 | 1:G:352:TRP:CD2 | 2.37 | 0.43 |
| 1:I:149:ILE:HD13 | 1:I:307:ILE:HD13 | 2.00 | 0.43 |
| 1:J:322:ASN:O | 1:J:323:HIS:C | 2.56 | 0.43 |
| 1:J:352:TRP:HH2 | 1:J:362:VAL:HG11 | 1.83 | 0.43 |
| 1:J:364:GLU:O | 1:J:365:ARG:C | 2.57 | 0.43 |
| 1:K:244:SER:O | 1:K:248:GLN:HG3 | 2.18 | 0.43 |
| 1:K:248:GLN:OE1 | 1:K:292:PHE:CD2 | 2.72 | 0.43 |
| 1:K:325:LEU:HD23 | 1:K:325:LEU:C | 2.39 | 0.43 |
| 1:L:138:GLU:O | 1:L:139:TYR:CB | 2.66 | 0.43 |
| 1:L:146:MET:CG | 1:L:313:ARG:HE | 2.31 | 0.43 |
| 1:L:181:HIS:CD2 | 1:L:234:THR:HB | 2.52 | 0.43 |
| 1:M:149:ILE:CD1 | 1:M:307:ILE:HD13 | 2.48 | 0.43 |
| 1:M:162:PRO:HG3 | 1:M:299:ARG:O | 2.18 | 0.43 |
| 1:M:247:ALA:C | 1:M:249:ALA:N | 2.69 | 0.43 |
| 1:M:355:ASN:O | 1:M:358:GLU:N | 2.51 | 0.43 |
| 1:N:252:LEU:O | 1:N:253:ARG:C | 2.57 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:232:GLY:N | 1:A:272:ASN:O | 2.51 | 0.43 |
| 1:B:179:LEU:O | 1:B:180:ILE:C | 2.57 | 0.43 |
| 1:C:283:ILE:HG22 | 1:C:284:LYS:N | 2.33 | 0.43 |
| 1:D:175:VAL:HG21 | 2:D:2:ADP:C8 | 2.54 | 0.43 |
| 1:D:262:ARG:HB2 | 1:D:269:ILE:HD13 | 2.01 | 0.43 |
| 1:E:181:HIS:O | 1:E:184:SER:OG | 2.35 | 0.43 |
| 1:E:194:LEU:HD23 | 1:E:194:LEU:O | 2.19 | 0.43 |
| 1:E:244:SER:C | 1:E:246:GLU:N | 2.71 | 0.43 |
| 1:E:356:VAL:HG11 | 2:E:3:ADP:C4 | 2.54 | 0.43 |
| 1:G:284:LYS:O | 1:G:287:VAL:HB | 2.19 | 0.43 |
| 1:H:178:ARG:HH11 | 1:H:178:ARG:CG | 2.31 | 0.43 |
| 1:H:322:ASN:HB3 | 1:H:326:LYS:HE3 | 2.01 | 0.43 |
| 1:J:325:LEU:HD23 | 1:J:325:LEU:C | 2.39 | 0.43 |
| 1:K:179:LEU:O | 1:K:181:HIS:N | 2.52 | 0.43 |
| 1:M:299:ARG:NH1 | 1:N:357:ARG:HH21 | 2.17 | 0.43 |
| 1:C:240:ILE:CG1 | 1:C:277:ALA:HB1 | 2.38 | 0.43 |
| 1:C:253:ARG:CG | 1:C:253:ARG:NH1 | 2.81 | 0.43 |
| 1:C:263:LEU:HD22 | 1:C:264:GLY:N | 2.33 | 0.43 |
| 1:C:299:ARG:HD3 | 1:C:299:ARG:HA | 1.95 | 0.43 |
| 1:C:346:LEU:O | 1:C:346:LEU:HD23 | 2.19 | 0.43 |
| 1:D:310:LEU:HD11 | 1:D:320:LEU:HD13 | 2.01 | 0.43 |
| 1:E:144:PRO:HD2 | 1:E:315:GLU:OE2 | 2.19 | 0.43 |
| 1:F:157:SER:HB3 | 1:F:183:LEU:O | 2.19 | 0.43 |
| 1:F:211:TYR:C | 1:F:212:GLU:HG2 | 2.39 | 0.43 |
| 1:F:325:LEU:HD11 | 1:F:336:VAL:CG1 | 2.49 | 0.43 |
| 1:H:157:SER:HB3 | 1:H:183:LEU:C | 2.39 | 0.43 |
| 1:H:215:ALA:HB2 | 1:I:223:LYS:HZ1 | 1.84 | 0.43 |
| 1:H:215:ALA:CB | 1:H:264:GLY:HA3 | 2.48 | 0.43 |
| 1:H:317:ILE:CG2 | 1:H:348:LEU:HD23 | 2.49 | 0.43 |
| 1:I:229:LEU:C | 1:I:231:ASP:H | 2.23 | 0.43 |
| 1:I:297:TYR:CD2 | 1:I:298:TYR:CD1 | 2.96 | 0.43 |
| 1:J:250:LYS:O | 1:J:254:VAL:HG23 | 2.18 | 0.43 |
| 1:J:336:VAL:HG11 | 1:J:375:ILE:HD11 | 1.99 | 0.43 |
| 1:K:168:GLU:O | 1:K:171:VAL:HG13 | 2.18 | 0.43 |
| 1:L:173:LYS:HZ3 | 2:L:11:ADP:PB | 2.42 | 0.43 |
| 1:L:283:ILE:O | 1:L:285:GLU:N | 2.52 | 0.43 |
| 1:N:244:SER:O | 1:N:247:ALA:N | 2.52 | 0.43 |
| 1:C:194:LEU:HD21 | 1:C:235:LEU:HD11 | 2.00 | 0.42 |
| 1:C:376:ASP:C | 1:C:378:GLY:N | 2.72 | 0.42 |
| 1:F:267:LYS:N | 1:F:267:LYS:CD | 2.79 | 0.42 |
| 1:G:155:LYS:C | 1:G:157:SER:H | 2.22 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:243:LEU:HD23 | 1:G:243:LEU:HA | 1.79 | 0.42 |
| 1:J:324:PHE:CE1 | 1:J:360:LYS:HA | 2.53 | 0.42 |
| 1:J:376:ASP:O | 1:J:378:GLY:N | 2.51 | 0.42 |
| 1:K:195:ASN:O | 1:K:197:ALA:N | 2.52 | 0.42 |
| 1:L:318:ILE:O | 1:L:319:PRO:C | 2.56 | 0.42 |
| 1:M:325:LEU:HD12 | 1:M:339:PHE:CE1 | 2.54 | 0.42 |
| 1:N:148:GLU:O | 1:N:152:LYS:HD2 | 2.19 | 0.42 |
| 1:N:350:TYR:CE1 | 1:N:384:VAL:HG21 | 2.54 | 0.42 |
| 1:A:332:TYR:OH | 1:A:364:GLU:OE1 | 2.37 | 0.42 |
| 1:B:162:PRO:HD2 | 1:B:299:ARG:NH2 | 2.34 | 0.42 |
| 1:C:162:PRO:HG2 | 1:C:302:VAL:HG21 | 1.99 | 0.42 |
| 1:C:296:LEU:O | 1:C:299:ARG:N | 2.38 | 0.42 |
| 1:D:170:GLY:N | 2:D:2:ADP:O3B | 2.52 | 0.42 |
| 1:D:240:ILE:HD13 | 1:D:243:LEU:HD11 | 2.01 | 0.42 |
| 1:D:325:LEU:HD11 | 1:D:336:VAL:HG12 | 2.01 | 0.42 |
| 1:D:343:ALA:O | 1:D:346:LEU:N | 2.51 | 0.42 |
| 1:E:350:TYR:CD1 | 1:E:384:VAL:CG1 | 3.00 | 0.42 |
| 1:F:323:HIS:C | 1:F:323:HIS:ND1 | 2.72 | 0.42 |
| 1:F:348:LEU:N | 1:F:348:LEU:HD23 | 2.33 | 0.42 |
| 1:G:381:SER:C | 1:G:383:LEU:N | 2.73 | 0.42 |
| 1:H:289:GLU:O | 1:H:289:GLU:HG2 | 2.19 | 0.42 |
| 1:I:292:PHE:CE2 | 1:I:296:LEU:HD22 | 2.54 | 0.42 |
| 1:I:316:ASP:C | 1:I:319:PRO:HD2 | 2.39 | 0.42 |
| 1:J:325:LEU:C | 1:J:327:LYS:N | 2.72 | 0.42 |
| 1:J:346:LEU:C | 1:J:346:LEU:CD2 | 2.88 | 0.42 |
| 1:K:260:PHE:CD1 | 1:K:260:PHE:C | 2.93 | 0.42 |
| 1:L:309:PRO:HB2 | 1:L:355:ASN:OD1 | 2.20 | 0.42 |
| 1:L:316:ASP:O | 1:L:320:LEU:HB2 | 2.19 | 0.42 |
| 1:L:342:SER:HB2 | 1:L:377:ARG:HB2 | 2.00 | 0.42 |
| 1:M:283:ILE:CA | 1:M:286:LEU:HD12 | 2.40 | 0.42 |
| 1:M:359:LEU:O | 1:M:362:VAL:N | 2.52 | 0.42 |
| 1:M:365:ARG:HH22 | 1:M:384:VAL:HA | 1.84 | 0.42 |
| 1:N:254:VAL:O | 1:N:256:GLU:N | 2.52 | 0.42 |
| 1:B:259:LYS:HB3 | 1:B:268:GLU:HG2 | 2.00 | 0.42 |
| 1:B:263:LEU:HD23 | 1:B:264:GLY:N | 2.34 | 0.42 |
| 1:D:263:LEU:HD23 | 1:D:263:LEU:C | 2.39 | 0.42 |
| 1:D:294:GLU:O | 1:D:297:TYR:N | 2.53 | 0.42 |
| 1:E:189:GLU:OE1 | 1:E:189:GLU:HA | 2.14 | 0.42 |
| 1:F:164:LEU:HA | 1:F:277:ALA:O | 2.19 | 0.42 |
| 1:F:314:LYS:O | 1:F:317:ILE:N | 2.50 | 0.42 |
| 1:F:328:PHE:HZ | 1:F:360:LYS:HG3 | 1.83 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:G:162:PRO:HB3 | 1:G:275:ILE:HB | 2.00 | 0.42 |
| 1:H:228:GLU:OE2 | 1:H:269:ILE:HD13 | 2.19 | 0.42 |
| 1:I:156:ILE:HG22 | 1:I:274:ARG:HH22 | 1.84 | 0.42 |
| 1:I:240:ILE:CG1 | 1:I:277:ALA:HB1 | 2.48 | 0.42 |
| 1:I:259:LYS:HA | 1:I:269:ILE:O | 2.19 | 0.42 |
| 1:J:200:PRO:O | 1:J:202:ASP:N | 2.53 | 0.42 |
| 1:K:140:VAL:HG11 | 1:K:320:LEU:CD2 | 2.49 | 0.42 |
| 1:K:199:ILE:O | 1:K:199:ILE:HG22 | 2.19 | 0.42 |
| 1:K:208:LEU:HB3 | 1:K:209:PHE:HD1 | 1.83 | 0.42 |
| 1:K:324:PHE:O | 1:K:325:LEU:C | 2.57 | 0.42 |
| 1:L:165:ILE:HG22 | 1:L:173:LYS:CG | 2.48 | 0.42 |
| 1:L:318:ILE:HG13 | 1:L:319:PRO:HD2 | 2.02 | 0.42 |
| 1:M:140:VAL:C | 1:M:141:PHE:CD1 | 2.90 | 0.42 |
| 1:M:227:PHE:C | 1:M:229:LEU:N | 2.69 | 0.42 |
| 1:M:245:LEU:HA | 1:M:245:LEU:HD23 | 1.91 | 0.42 |
| 1:N:199:ILE:HA | 1:N:200:PRO:HD2 | 1.75 | 0.42 |
| 1:N:378:GLY:C | 1:N:380:LEU:H | 2.22 | 0.42 |
| 1:A:178:ARG:O | 1:A:181:HIS:HB3 | 2.18 | 0.42 |
| 1:A:213:LYS:HE2 | 1:A:220:VAL:HG12 | 2.00 | 0.42 |
| 1:C:191:PHE:O | 1:C:191:PHE:CD2 | 2.72 | 0.42 |
| 1:C:340:THR:CG2 | 1:C:376:ASP:HB3 | 2.50 | 0.42 |
| 1:D:212:GLU:HA | 1:D:222:SER:CB | 2.49 | 0.42 |
| 1:D:359:LEU:HD23 | 1:D:359:LEU:O | 2.19 | 0.42 |
| 1:E:195:ASN:HB3 | 1:E:198:SER:OG | 2.19 | 0.42 |
| 1:E:208:LEU:O | 1:E:226:PHE:N | 2.52 | 0.42 |
| 1:E:244:SER:HB2 | 1:E:246:GLU:HG2 | 2.02 | 0.42 |
| 1:E:324:PHE:CD1 | 1:E:360:LYS:HA | 2.55 | 0.42 |
| 1:F:159:ALA:C | 1:F:160:GLU:HG3 | 2.40 | 0.42 |
| 1:F:181:HIS:CD2 | 1:F:191:PHE:HB2 | 2.55 | 0.42 |
| 1:F:259:LYS:HD3 | 1:F:268:GLU:OE2 | 2.20 | 0.42 |
| 1:G:200:PRO:O | 1:G:202:ASP:N | 2.53 | 0.42 |
| 1:G:259:LYS:HD3 | 1:G:267:LYS:HE3 | 2.01 | 0.42 |
| 1:G:294:GLU:OE1 | 1:G:298:TYR:HE1 | 2.01 | 0.42 |
| 1:H:212:GLU:HA | 1:H:212:GLU:OE2 | 2.19 | 0.42 |
| 1:H:369:PHE:N | 1:H:369:PHE:HD1 | 2.18 | 0.42 |
| 1:I:204:PHE:CE2 | 1:I:208:LEU:HB2 | 2.54 | 0.42 |
| 1:I:251:LEU:O | 1:I:252:LEU:C | 2.58 | 0.42 |
| 1:I:296:LEU:HD21 | 1:I:300:LEU:CD1 | 2.49 | 0.42 |
| 1:I:373:LYS:HB3 | 1:I:374:PHE:CD1 | 2.54 | 0.42 |
| 1:K:178:ARG:NE | 1:K:191:PHE:CD2 | 2.83 | 0.42 |
| 1:K:248:GLN:C | 1:K:250:LYS:N | 2.73 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:L:293:ARG:HH21 | 1:L:295:ASP:CG | 2.23 | 0.42 |
| 1:M:140:VAL:HB | 1:M:320:LEU:HD23 | 2.00 | 0.42 |
| 1:A:153:ILE:HG23 | 1:A:180:ILE:HG12 | 2.01 | 0.42 |
| 1:A:253:ARG:NH2 | 1:A:268:GLU:OE2 | 2.53 | 0.42 |
| 1:B:211:TYR:CE1 | 1:B:223:LYS:HB2 | 2.54 | 0.42 |
| 1:C:309:PRO:CG | 1:C:311:ARG:HH11 | 2.32 | 0.42 |
| 1:C:332:TYR:N | 1:C:332:TYR:CD2 | 2.87 | 0.42 |
| 1:C:354:GLY:O | 1:C:355:ASN:O | 2.38 | 0.42 |
| 1:E:321:ALA:HB1 | 1:E:339:PHE:CE1 | 2.54 | 0.42 |
| 1:E:328:PHE:CD1 | 1:E:364:GLU:HA | 2.55 | 0.42 |
| 1:I:311:ARG:HG2 | 1:I:311:ARG:NH1 | 2.35 | 0.42 |
| 1:I:328:PHE:CE2 | 1:I:364:GLU:HB2 | 2.55 | 0.42 |
| 1:K:250:LYS:HG3 | 1:L:198:SER:HB2 | 2.01 | 0.42 |
| 1:K:256:GLU:HG2 | 1:K:299:ARG:HD3 | 2.00 | 0.42 |
| 1:K:302:VAL:O | 1:K:303:ILE:HD13 | 2.19 | 0.42 |
| 1:L:145:LYS:O | 1:L:146:MET:C | 2.58 | 0.42 |
| 1:L:204:PHE:O | 1:L:205:GLU:C | 2.56 | 0.42 |
| 1:M:141:PHE:O | 1:M:316:ASP:OD1 | 2.38 | 0.42 |
| 1:A:151:GLU:O | 1:A:154:LYS:N | 2.53 | 0.42 |
| 1:A:179:LEU:HA | 1:A:179:LEU:HD23 | 1.81 | 0.42 |
| 1:B:229:LEU:C | 1:B:229:LEU:HD13 | 2.40 | 0.42 |
| 1:D:168:GLU:CD | 1:D:311:ARG:HH12 | 2.23 | 0.42 |
| 1:E:138:GLU:H | 1:E:138:GLU:HG2 | 1.63 | 0.42 |
| 1:E:213:LYS:O | 1:E:215:ALA:N | 2.53 | 0.42 |
| 1:E:262:ARG:O | 1:E:263:LEU:C | 2.58 | 0.42 |
| 1:F:179:LEU:HD23 | 1:F:179:LEU:C | 2.40 | 0.42 |
| 1:G:173:LYS:C | 1:G:175:VAL:H | 2.23 | 0.42 |
| 1:H:359:LEU:HD23 | 1:H:359:LEU:C | 2.40 | 0.42 |
| 1:I:253:ARG:CZ | 1:J:198:SER:HB3 | 2.49 | 0.42 |
| 1:I:319:PRO:O | 1:I:322:ASN:N | 2.52 | 0.42 |
| 1:K:252:LEU:HD13 | 1:K:296:LEU:HA | 2.00 | 0.42 |
| 1:M:177:ALA:O | 1:M:180:ILE:HB | 2.19 | 0.42 |
| 1:M:292:PHE:CZ | 1:M:296:LEU:HD12 | 2.54 | 0.42 |
| 1:M:353:TYR:O | 1:M:355:ASN:N | 2.53 | 0.42 |
| 1:N:249:ALA:O | 1:N:252:LEU:HB3 | 2.19 | 0.42 |
| 1:N:318:ILE:CG1 | 1:N:348:LEU:HD21 | 2.48 | 0.42 |
| 1:A:256:GLU:HG2 | 1:A:299:ARG:HD3 | 2.02 | 0.42 |
| 1:B:160:GLU:CA | 1:B:274:ARG:NH1 | 2.82 | 0.42 |
| 1:B:208:LEU:CD2 | 1:B:209:PHE:CE1 | 3.01 | 0.42 |
| 1:B:211:TYR:HA | 1:B:263:LEU:O | 2.19 | 0.42 |
| 1:C:310:LEU:O | 1:C:312:GLU:N | 2.53 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:170:GLY:HA2 | 2:D:2:ADP:PB | 2.60 | 0.42 |
| 1:D:314:LYS:HE3 | 1:D:348:LEU:O | 2.19 | 0.42 |
| 1:E:208:LEU:HD23 | 1:E:209:PHE:CE1 | 2.55 | 0.42 |
| 1:E:307:ILE:HA | 1:E:308:PRO:HD3 | 1.61 | 0.42 |
| 1:F:285:GLU:O | 1:F:288:LYS:HB2 | 2.20 | 0.42 |
| 1:G:143:SER:HB2 | 1:G:144:PRO:HD2 | 2.00 | 0.42 |
| 1:G:161:CYS:O | 1:G:274:ARG:NH1 | 2.53 | 0.42 |
| 1:H:199:ILE:HD13 | 1:H:207:GLU:HG3 | 2.02 | 0.42 |
| 1:H:210:GLY:O | 1:H:263:LEU:N | 2.47 | 0.42 |
| 1:H:246:GLU:O | 1:H:247:ALA:C | 2.57 | 0.42 |
| 1:K:206:ALA:HB1 | 1:K:211:TYR:CD1 | 2.54 | 0.42 |
| 1:K:298:TYR:C | 1:K:300:LEU:H | 2.23 | 0.42 |
| 1:L:214:GLY:HA3 | 1:M:223:LYS:HE2 | 2.01 | 0.42 |
| 1:L:229:LEU:HD13 | 1:L:230:ALA:N | 2.34 | 0.42 |
| 1:M:271:VAL:HG22 | 1:M:273:VAL:HG13 | 2.02 | 0.42 |
| 1:M:313:ARG:O | 1:M:315:GLU:N | 2.52 | 0.42 |
| 1:M:339:PHE:HE2 | 1:M:380:LEU:HD21 | 1.84 | 0.42 |
| 1:N:245:LEU:O | 1:N:246:GLU:C | 2.58 | 0.42 |
| 1:B:171:VAL:HG23 | 1:B:172:GLY:N | 2.35 | 0.42 |
| 1:B:324:PHE:HB2 | 1:B:363:ILE:HD13 | 2.01 | 0.42 |
| 1:E:240:ILE:HD11 | 1:E:277:ALA:CA | 2.45 | 0.42 |
| 1:F:140:VAL:HG21 | 1:F:320:LEU:HD23 | 2.01 | 0.42 |
| 1:G:365:ARG:O | 1:G:368:LEU:N | 2.53 | 0.42 |
| 1:H:231:ASP:OD2 | 1:H:271:VAL:HG22 | 2.20 | 0.42 |
| 1:J:194:LEU:HD23 | 1:J:194:LEU:N | 2.33 | 0.42 |
| 1:J:211:TYR:CZ | 1:J:223:LYS:HB3 | 2.55 | 0.42 |
| 1:L:159:ALA:HB2 | 1:M:368:LEU:HD21 | 2.01 | 0.42 |
| 1:L:214:GLY:H | 1:M:223:LYS:HE2 | 1.85 | 0.42 |
| 1:N:313:ARG:C | 1:N:315:GLU:N | 2.70 | 0.42 |
| 1:A:275:ILE:HG22 | 1:A:276:LEU:N | 2.35 | 0.42 |
| 1:B:208:LEU:HD23 | 1:B:209:PHE:HE1 | 1.84 | 0.42 |
| 1:B:310:LEU:HD11 | 1:B:359:LEU:HD12 | 2.02 | 0.42 |
| 1:C:173:LYS:HB2 | 1:C:173:LYS:HE2 | 1.94 | 0.42 |
| 1:C:283:ILE:HG21 | 1:C:297:TYR:HD1 | 1.82 | 0.42 |
| 1:C:375:ILE:HG22 | 1:C:380:LEU:HD23 | 2.01 | 0.42 |
| 1:D:142:GLU:HA | 1:D:147:LYS:HE2 | 2.01 | 0.42 |
| 1:D:175:VAL:HG23 | 2:D:2:ADP:O1A | 2.20 | 0.42 |
| 1:D:198:SER:O | 1:D:199:ILE:HG13 | 2.20 | 0.42 |
| 1:D:213:LYS:C | 1:D:215:ALA:H | 2.23 | 0.42 |
| 1:D:332:TYR:CE1 | 1:D:368:LEU:HD21 | 2.54 | 0.42 |
| 1:E:164:LEU:C | 1:E:164:LEU:HD12 | 2.40 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:230:ALA:O | 1:F:233:GLY:N | 2.49 | 0.42 |
| 1:F:376:ASP:C | 1:F:378:GLY:N | 2.73 | 0.42 |
| 1:H:292:PHE:CE2 | 1:H:296:LEU:HB3 | 2.55 | 0.42 |
| 1:J:203:ILE:HG22 | 1:J:207:GLU:HG2 | 2.00 | 0.42 |
| 1:J:236:PHE:CE2 | 1:J:238:ASP:HB2 | 2.55 | 0.42 |
| 1:L:208:LEU:HD22 | 1:L:209:PHE:CE1 | 2.54 | 0.42 |
| 1:L:347:LEU:HD21 | 1:L:380:LEU:CD1 | 2.48 | 0.42 |
| 1:N:265:GLY:C | 1:N:266:ARG:HE | 2.23 | 0.42 |
| 1:N:292:PHE:HE2 | 1:N:296:LEU:HB3 | 1.85 | 0.42 |
| 1:A:194:LEU:HD23 | 1:A:236:PHE:O | 2.20 | 0.42 |
| 1:C:160:GLU:CA | 1:C:274:ARG:NH1 | 2.80 | 0.42 |
| 1:D:184:SER:C | 1:D:186:ARG:H | 2.23 | 0.42 |
| 1:D:209:PHE:CE2 | 1:D:227:PHE:CE1 | 3.08 | 0.42 |
| 1:E:320:LEU:C | 1:E:322:ASN:H | 2.22 | 0.42 |
| 1:F:174:GLU:HG2 | 1:F:178:ARG:HH12 | 1.83 | 0.42 |
| 1:H:178:ARG:NE | 1:H:191:PHE:CE2 | 2.88 | 0.42 |
| 1:H:293:ARG:NH1 | 1:H:295:ASP:OD1 | 2.53 | 0.42 |
| 1:I:141:PHE:CG | 1:I:150:LEU:HD21 | 2.53 | 0.42 |
| 1:I:288:LYS:C | 1:I:290:GLY:N | 2.71 | 0.42 |
| 1:J:164:LEU:HA | 1:J:277:ALA:HB3 | 2.01 | 0.42 |
| 1:K:226:PHE:O | 1:K:227:PHE:C | 2.58 | 0.42 |
| 1:K:236:PHE:O | 1:K:236:PHE:CG | 2.73 | 0.42 |
| 1:K:288:LYS:O | 1:K:289:GLU:C | 2.59 | 0.42 |
| 1:L:156:ILE:O | 1:L:157:SER:C | 2.58 | 0.42 |
| 1:L:355:ASN:O | 1:L:356:VAL:C | 2.58 | 0.42 |
| 1:M:246:GLU:C | 1:M:249:ALA:HB3 | 2.38 | 0.42 |
| 1:N:194:LEU:HD23 | 1:N:194:LEU:N | 2.34 | 0.42 |
| 1:N:292:PHE:O | 1:N:293:ARG:C | 2.58 | 0.42 |
| 1:N:372:GLY:O | 1:N:373:LYS:C | 2.58 | 0.42 |
| 1:B:239:GLU:C | 1:B:241:GLY:N | 2.74 | 0.41 |
| 1:B:283:ILE:HA | 1:B:286:LEU:CD1 | 2.17 | 0.41 |
| 1:C:186:ARG:CD | 1:C:233:GLY:O | 2.67 | 0.41 |
| 1:C:320:LEU:CD1 | 1:C:356:VAL:HG13 | 2.50 | 0.41 |
| 1:C:322:ASN:O | 1:C:324:PHE:N | 2.53 | 0.41 |
| 1:C:350:TYR:CD1 | 1:C:351:PRO:HD2 | 2.55 | 0.41 |
| 1:C:376:ASP:C | 1:C:376:ASP:OD2 | 2.58 | 0.41 |
| 1:D:245:LEU:HA | 1:D:248:GLN:HE21 | 1.85 | 0.41 |
| 1:D:299:ARG:HE | 1:D:299:ARG:C | 2.23 | 0.41 |
| 1:D:339:PHE:HZ | 1:D:363:ILE:HD13 | 1.85 | 0.41 |
| 1:F:328:PHE:CZ | 1:F:364:GLU:HB2 | 2.55 | 0.41 |
| 1:G:310:LEU:H | 1:G:355:ASN:CB | 2.33 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:H:161:CYS:SG | 1:H:303:ILE:HD11 | 2.60 | 0.41 |
| 1:H:318:ILE:CD1 | 1:H:344:GLN:HE21 | 2.31 | 0.41 |
| 1:H:357:ARG:O | 1:H:360:LYS:N | 2.53 | 0.41 |
| 1:I:207:GLU:O | 1:I:225:GLY:HA2 | 2.20 | 0.41 |
| 1:I:314:LYS:HG2 | 1:I:317:ILE:HD11 | 2.02 | 0.41 |
| 1:J:208:LEU:HD11 | 1:J:235:LEU:HD21 | 2.01 | 0.41 |
| 1:J:249:ALA:HB2 | 1:J:293:ARG:HH11 | 1.84 | 0.41 |
| 1:J:380:LEU:O | 1:J:383:LEU:HG | 2.20 | 0.41 |
| 1:K:381:SER:C | 1:K:383:LEU:H | 2.22 | 0.41 |
| 1:L:195:ASN:C | 1:L:197:ALA:N | 2.73 | 0.41 |
| 1:L:328:PHE:HD2 | 1:L:332:TYR:HE1 | 1.67 | 0.41 |
| 1:L:350:TYR:CD2 | 1:L:351:PRO:N | 2.88 | 0.41 |
| 1:B:212:GLU:OE1 | 1:B:212:GLU:HA | 2.20 | 0.41 |
| 1:D:139:TYR:CD1 | 1:D:139:TYR:N | 2.86 | 0.41 |
| 1:D:156:ILE:O | 1:D:157:SER:C | 2.59 | 0.41 |
| 1:D:212:GLU:OE1 | 1:D:262:ARG:NH1 | 2.52 | 0.41 |
| 1:D:314:LYS:HA | 1:D:317:ILE:CD1 | 2.51 | 0.41 |
| 1:E:150:LEU:HD12 | 1:E:150:LEU:C | 2.37 | 0.41 |
| 1:E:359:LEU:HD22 | 1:E:363:ILE:HG12 | 2.01 | 0.41 |
| 1:F:196:VAL:HA | 1:F:204:PHE:CZ | 2.55 | 0.41 |
| 1:F:343:ALA:HB2 | 1:F:376:ASP:CA | 2.46 | 0.41 |
| 1:H:287:VAL:HG12 | 1:H:294:GLU:HG2 | 2.01 | 0.41 |
| 1:H:310:LEU:HG | 1:H:355:ASN:HB3 | 2.01 | 0.41 |
| 1:I:302:VAL:O | 1:J:365:ARG:CZ | 2.68 | 0.41 |
| 1:I:356:VAL:HG11 | 2:I:8:ADP:C8 | 2.55 | 0.41 |
| 1:J:302:VAL:C | 1:J:303:ILE:HD13 | 2.40 | 0.41 |
| 1:K:359:LEU:HD23 | 1:K:359:LEU:O | 2.20 | 0.41 |
| 1:L:318:ILE:N | 1:L:319:PRO:HD2 | 2.34 | 0.41 |
| 1:M:324:PHE:CE1 | 1:M:359:LEU:HD23 | 2.55 | 0.41 |
| 1:N:145:LYS:O | 1:N:149:ILE:N | 2.54 | 0.41 |
| 1:N:181:HIS:O | 1:N:183:LEU:N | 2.53 | 0.41 |
| 1:A:223:LYS:HZ1 | 1:G:266:ARG:HD2 | 1.85 | 0.41 |
| 1:A:350:TYR:CD1 | 1:A:384:VAL:HG12 | 2.56 | 0.41 |
| 1:A:379:GLU:O | 1:A:382:CYS:HB2 | 2.20 | 0.41 |
| 1:C:157:SER:HB2 | 1:C:183:LEU:O | 2.19 | 0.41 |
| 1:C:181:HIS:CD2 | 1:C:191:PHE:CB | 2.79 | 0.41 |
| 1:D:212:GLU:O | 1:D:213:LYS:O | 2.39 | 0.41 |
| 1:D:224:GLU:O | 1:D:224:GLU:CG | 2.67 | 0.41 |
| 1:D:283:ILE:O | 1:D:287:VAL:HG23 | 2.20 | 0.41 |
| 1:D:327:LYS:O | 1:D:330:ARG:N | 2.39 | 0.41 |
| 1:E:173:LYS:NZ | 1:E:173:LYS:CB | 2.79 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:174:GLU:CD | 1:F:178:ARG:HH12 | 2.18 | 0.41 |
| 1:F:251:LEU:HD22 | 1:F:255:ILE:HG13 | 2.02 | 0.41 |
| 1:F:265:GLY:O | 1:F:266:ARG:NE | 2.53 | 0.41 |
| 1:I:374:PHE:CD1 | 1:I:374:PHE:N | 2.89 | 0.41 |
| 1:K:199:ILE:O | 1:K:200:PRO:C | 2.57 | 0.41 |
| 1:K:208:LEU:HD21 | 1:K:227:PHE:HE1 | 1.86 | 0.41 |
| 1:K:238:ASP:OD1 | 1:K:238:ASP:C | 2.59 | 0.41 |
| 1:K:243:LEU:N | 1:K:243:LEU:HD23 | 2.35 | 0.41 |
| 1:L:141:PHE:HD1 | 1:L:150:LEU:HG | 1.80 | 0.41 |
| 1:M:253:ARG:CG | 1:N:198:SER:HB3 | 2.51 | 0.41 |
| 1:M:369:PHE:O | 1:M:370:SER:C | 2.59 | 0.41 |
| 1:N:174:GLU:HB3 | 2:N:13:ADP:O1A | 2.20 | 0.41 |
| 1:N:252:LEU:O | 1:N:254:VAL:N | 2.54 | 0.41 |
| 1:N:261:TYR:N | 1:N:261:TYR:CD1 | 2.89 | 0.41 |
| 1:A:376:ASP:C | 1:A:378:GLY:N | 2.73 | 0.41 |
| 1:B:266:ARG:CD | 1:C:229:LEU:HD23 | 2.50 | 0.41 |
| 1:B:308:PRO:HG2 | 1:B:313:ARG:HD3 | 2.02 | 0.41 |
| 1:D:166:THR:HG22 | 1:D:279:THR:CG2 | 2.51 | 0.41 |
| 1:F:171:VAL:HG23 | 1:F:307:ILE:HG21 | 2.02 | 0.41 |
| 1:I:368:LEU:HD23 | 1:I:368:LEU:HA | 1.92 | 0.41 |
| 1:J:339:PHE:CZ | 1:J:363:ILE:HD13 | 2.56 | 0.41 |
| 1:J:365:ARG:NE | 1:J:383:LEU:HD13 | 2.35 | 0.41 |
| 1:L:146:MET:CE | 1:L:313:ARG:NE | 2.81 | 0.41 |
| 1:L:298:TYR:HE1 | 1:M:354:GLY:HA3 | 1.81 | 0.41 |
| 1:M:314:LYS:HA | 1:M:317:ILE:CG1 | 2.49 | 0.41 |
| 1:N:143:SER:OG | 1:N:146:MET:HB2 | 2.20 | 0.41 |
| 1:N:365:ARG:HD2 | 1:N:383:LEU:HD13 | 2.02 | 0.41 |
| 1:A:248:GLN:O | 1:A:249:ALA:C | 2.58 | 0.41 |
| 1:B:244:SER:C | 1:B:246:GLU:H | 2.24 | 0.41 |
| 1:D:203:ILE:HD13 | 1:D:203:ILE:HA | 1.89 | 0.41 |
| 1:D:227:PHE:CE2 | 1:D:235:LEU:HD23 | 2.55 | 0.41 |
| 1:D:276:LEU:HD23 | 1:D:276:LEU:HA | 1.64 | 0.41 |
| 1:D:299:ARG:HE | 1:D:299:ARG:CA | 2.33 | 0.41 |
| 1:E:141:PHE:N | 1:E:141:PHE:CD1 | 2.88 | 0.41 |
| 1:E:253:ARG:NH2 | 1:E:268:GLU:OE2 | 2.45 | 0.41 |
| 1:F:174:GLU:CG | 1:F:178:ARG:HH12 | 2.34 | 0.41 |
| 1:F:318:ILE:N | 1:F:319:PRO:CD | 2.84 | 0.41 |
| 1:G:215:ALA:CB | 1:G:263:LEU:HD13 | 2.51 | 0.41 |
| 1:H:247:ALA:O | 1:H:248:GLN:O | 2.38 | 0.41 |
| 1:I:143:SER:HB3 | 1:I:316:ASP:OD1 | 2.19 | 0.41 |
| 1:I:269:ILE:N | 1:I:269:ILE:CD1 | 2.80 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:310:LEU:O | 1:I:313:ARG:N | 2.39 | 0.41 |
| 1:I:325:LEU:HD23 | 1:I:325:LEU:O | 2.21 | 0.41 |
| 1:K:179:LEU:C | 1:K:181:HIS:N | 2.73 | 0.41 |
| 1:K:238:ASP:O | 1:K:239:GLU:HB3 | 2.20 | 0.41 |
| 1:M:288:LYS:C | 1:M:290:GLY:H | 2.24 | 0.41 |
| 1:N:235:LEU:HD12 | 1:N:235:LEU:C | 2.40 | 0.41 |
| 1:N:311:ARG:C | 1:N:312:GLU:HG2 | 2.41 | 0.41 |
| 1:A:156:ILE:O | 1:A:157:SER:C | 2.59 | 0.41 |
| 1:A:161:CYS:SG | 1:A:303:ILE:HG12 | 2.61 | 0.41 |
| 1:A:310:LEU:HD23 | 1:A:310:LEU:HA | 1.87 | 0.41 |
| 1:A:320:LEU:O | 1:A:321:ALA:C | 2.59 | 0.41 |
| 1:C:368:LEU:HD23 | 1:C:368:LEU:HA | 1.78 | 0.41 |
| 1:D:159:ALA:CA | 1:E:332:TYR:HE2 | 2.34 | 0.41 |
| 1:D:210:GLY:CA | 1:D:225:GLY:N | 2.79 | 0.41 |
| 1:D:313:ARG:HB3 | 1:D:316:ASP:OD2 | 2.20 | 0.41 |
| 1:F:152:LYS:O | 1:F:156:ILE:HG12 | 2.21 | 0.41 |
| 1:G:162:PRO:HA | 1:G:275:ILE:O | 2.21 | 0.41 |
| 1:G:259:LYS:HD3 | 1:G:267:LYS:CE | 2.51 | 0.41 |
| 1:H:279:THR:OG1 | 1:H:280:ASN:N | 2.51 | 0.41 |
| 1:K:177:ALA:HB1 | 1:K:276:LEU:HD12 | 2.03 | 0.41 |
| 1:L:359:LEU:HD23 | 1:L:359:LEU:C | 2.41 | 0.41 |
| 1:M:380:LEU:O | 1:M:384:VAL:HB | 2.21 | 0.41 |
| 1:N:253:ARG:HG3 | 1:N:253:ARG:HH11 | 1.86 | 0.41 |
| 1:N:359:LEU:HD23 | 1:N:363:ILE:HD11 | 2.03 | 0.41 |
| 1:B:313:ARG:HB3 | 1:B:316:ASP:OD2 | 2.21 | 0.41 |
| 1:C:140:VAL:HG21 | 1:C:320:LEU:CD2 | 2.51 | 0.41 |
| 1:C:156:ILE:HG13 | 1:D:369:PHE:HE1 | 1.85 | 0.41 |
| 1:D:299:ARG:HH21 | 1:D:302:VAL:HG21 | 1.84 | 0.41 |
| 1:D:324:PHE:CE1 | 1:D:360:LYS:HA | 2.56 | 0.41 |
| 1:E:350:TYR:HD2 | 1:E:352:TRP:CD2 | 2.39 | 0.41 |
| 1:G:213:LYS:O | 1:G:214:GLY:C | 2.59 | 0.41 |
| 1:J:365:ARG:CD | 1:J:383:LEU:HD13 | 2.51 | 0.41 |
| 1:L:298:TYR:CE1 | 1:M:354:GLY:CA | 2.99 | 0.41 |
| 1:M:143:SER:OG | 1:M:146:MET:HB2 | 2.21 | 0.41 |
| 1:M:289:GLU:O | 1:M:291:LYS:HG3 | 2.20 | 0.41 |
| 1:M:312:GLU:H | 1:M:312:GLU:HG2 | 1.72 | 0.41 |
| 1:N:328:PHE:CD1 | 1:N:364:GLU:HA | 2.56 | 0.41 |
| 1:A:315:GLU:OE1 | 1:A:315:GLU:N | 2.53 | 0.41 |
| 1:B:153:ILE:HG22 | 1:B:183:LEU:HD12 | 2.03 | 0.41 |
| 1:B:321:ALA:O | 1:B:363:ILE:HD13 | 2.21 | 0.41 |
| 1:C:194:LEU:HD23 | 1:C:194:LEU:O | 2.21 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:205:GLU:C | 1:E:263:LEU:HD11 | 2.41 | 0.41 |
| 1:F:141:PHE:CD2 | 1:F:150:LEU:HB2 | 2.56 | 0.41 |
| 1:F:252:LEU:HD11 | 1:F:299:ARG:HG3 | 2.02 | 0.41 |
| 1:G:284:LYS:O | 1:G:285:GLU:C | 2.57 | 0.41 |
| 1:H:223:LYS:HZ2 | 1:N:264:GLY:HA3 | 1.86 | 0.41 |
| 1:H:255:ILE:CD1 | 1:H:300:LEU:HD21 | 2.50 | 0.41 |
| 1:J:316:ASP:O | 1:J:317:ILE:C | 2.59 | 0.41 |
| 1:K:168:GLU:O | 1:K:171:VAL:HG22 | 2.20 | 0.41 |
| 1:L:261:TYR:O | 1:L:262:ARG:O | 2.39 | 0.41 |
| 1:M:168:GLU:O | 1:M:171:VAL:HG22 | 2.21 | 0.41 |
| 1:M:281:ARG:CG | 1:M:282:ASN:H | 2.33 | 0.41 |
| 1:N:343:ALA:O | 1:N:346:LEU:N | 2.50 | 0.41 |
| 1:A:175:VAL:O | 1:A:178:ARG:HB2 | 2.21 | 0.41 |
| 1:A:227:PHE:CD2 | 1:A:273:VAL:HG21 | 2.56 | 0.41 |
| 1:A:269:ILE:HD12 | 1:A:269:ILE:N | 2.36 | 0.41 |
| 1:A:292:PHE:HZ | 1:A:296:LEU:HD12 | 1.83 | 0.41 |
| 1:B:208:LEU:HA | 1:B:226:PHE:HB2 | 2.02 | 0.41 |
| 1:B:266:ARG:HH11 | 1:B:266:ARG:CG | 2.33 | 0.41 |
| 1:B:284:LYS:HD3 | 1:B:284:LYS:N | 2.32 | 0.41 |
| 1:B:297:TYR:O | 1:B:300:LEU:N | 2.52 | 0.41 |
| 1:B:343:ALA:O | 1:B:347:LEU:HG | 2.21 | 0.41 |
| 1:D:168:GLU:HB2 | 1:D:355:ASN:HD21 | 1.85 | 0.41 |
| 1:D:260:PHE:CD1 | 1:D:260:PHE:C | 2.94 | 0.41 |
| 1:D:283:ILE:HD12 | 1:D:292:PHE:HE1 | 1.86 | 0.41 |
| 1:E:224:GLU:HG2 | 1:E:228:GLU:HB2 | 2.03 | 0.41 |
| 1:F:149:ILE:C | 1:F:151:GLU:N | 2.74 | 0.41 |
| 1:F:172:GLY:HA3 | 2:F:4:ADP:C8 | 2.55 | 0.41 |
| 1:F:192:VAL:HG21 | 1:F:230:ALA:HB2 | 2.03 | 0.41 |
| 1:F:205:GLU:HG2 | 1:F:250:LYS:HD3 | 2.03 | 0.41 |
| 1:F:240:ILE:C | 1:F:242:GLU:N | 2.69 | 0.41 |
| 1:G:220:VAL:O | 1:G:220:VAL:HG12 | 2.19 | 0.41 |
| 1:I:261:TYR:CE2 | 1:I:268:GLU:HB2 | 2.56 | 0.41 |
| 1:I:266:ARG:NH2 | 1:J:203:ILE:CD1 | 2.83 | 0.41 |
| 1:I:288:LYS:O | 1:I:290:GLY:N | 2.54 | 0.41 |
| 1:I:314:LYS:O | 1:I:317:ILE:HG13 | 2.20 | 0.41 |
| 1:J:173:LYS:HG3 | 2:J:9:ADP:O1B | 2.21 | 0.41 |
| 1:J:190:PRO:HG2 | 1:J:233:GLY:HA3 | 2.02 | 0.41 |
| 1:J:308:PRO:O | 1:J:313:ARG:HD2 | 2.21 | 0.41 |
| 1:K:189:GLU:HG2 | 1:K:232:GLY:O | 2.20 | 0.41 |
| 1:K:204:PHE:O | 1:K:205:GLU:C | 2.58 | 0.41 |
| 1:K:209:PHE:HD1 | 1:K:209:PHE:H | 1.69 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:310:LEU:HD22 | 1:K:317:ILE:CG1 | 2.49 | 0.41 |
| 1:L:260:PHE:O | 1:L:260:PHE:CG | 2.74 | 0.41 |
| 1:L:296:LEU:O | 1:L:297:TYR:C | 2.59 | 0.41 |
| 1:L:328:PHE:CE2 | 1:L:364:GLU:OE2 | 2.74 | 0.41 |
| 1:L:335:GLU:O | 1:L:373:LYS:HA | 2.21 | 0.41 |
| 1:L:339:PHE:O | 1:L:344:GLN:HG3 | 2.21 | 0.41 |
| 1:M:165:ILE:HG22 | 1:M:173:LYS:HG2 | 2.03 | 0.41 |
| 1:M:168:GLU:OE1 | 1:M:309:PRO:CB | 2.64 | 0.41 |
| 1:M:186:ARG:NH1 | 1:M:232:GLY:O | 2.53 | 0.41 |
| 1:M:245:LEU:C | 1:M:247:ALA:N | 2.72 | 0.41 |
| 1:M:362:VAL:O | 1:M:364:GLU:N | 2.54 | 0.41 |
| 1:M:367:VAL:O | 1:M:367:VAL:HG12 | 2.20 | 0.41 |
| 1:N:245:LEU:O | 1:N:248:GLN:N | 2.53 | 0.41 |
| 1:A:313:ARG:C | 1:A:315:GLU:N | 2.72 | 0.41 |
| 1:B:162:PRO:CG | 1:B:299:ARG:HH21 | 2.34 | 0.41 |
| 1:B:266:ARG:NH1 | 1:B:266:ARG:HG2 | 2.36 | 0.41 |
| 1:C:152:LYS:O | 1:C:154:LYS:N | 2.54 | 0.41 |
| 1:C:266:ARG:NH2 | 1:D:203:ILE:CD1 | 2.84 | 0.41 |
| 1:C:295:ASP:N | 1:C:295:ASP:OD1 | 2.54 | 0.41 |
| 1:C:318:ILE:CD1 | 1:C:348:LEU:HD21 | 2.51 | 0.41 |
| 1:D:174:GLU:HG2 | 1:D:178:ARG:NH1 | 2.36 | 0.41 |
| 1:D:317:ILE:O | 1:D:319:PRO:N | 2.54 | 0.41 |
| 1:D:376:ASP:O | 1:D:377:ARG:C | 2.60 | 0.41 |
| 1:E:204:PHE:C | 1:E:206:ALA:N | 2.73 | 0.41 |
| 1:E:223:LYS:HZ3 | 1:E:223:LYS:HG2 | 1.66 | 0.41 |
| 1:E:359:LEU:CD2 | 1:E:363:ILE:HD11 | 2.51 | 0.41 |
| 1:E:365:ARG:HG2 | 1:E:369:PHE:CD2 | 2.56 | 0.41 |
| 1:F:230:ALA:O | 1:F:231:ASP:C | 2.59 | 0.41 |
| 1:H:153:ILE:HG23 | 1:H:180:ILE:HG12 | 2.03 | 0.41 |
| 1:H:288:LYS:C | 1:H:290:GLY:N | 2.72 | 0.41 |
| 1:H:317:ILE:HB | 1:H:348:LEU:CD2 | 2.51 | 0.41 |
| 1:I:314:LYS:CA | 1:I:317:ILE:HG13 | 2.49 | 0.41 |
| 1:I:340:THR:OG1 | 1:I:376:ASP:CB | 2.69 | 0.41 |
| 1:L:143:SER:HB3 | 1:L:316:ASP:CG | 2.41 | 0.41 |
| 1:L:328:PHE:CZ | 1:L:364:GLU:HB2 | 2.55 | 0.41 |
| 1:N:186:ARG:O | 1:N:189:GLU:HB2 | 2.20 | 0.41 |
| 1:N:208:LEU:HD23 | 1:N:209:PHE:CE2 | 2.56 | 0.41 |
| 1:N:320:LEU:CD1 | 1:N:356:VAL:HG13 | 2.50 | 0.41 |
| 1:N:332:TYR:O | 1:N:333:ALA:C | 2.58 | 0.41 |
| 1:A:203:ILE:HD11 | 1:G:264:GLY:HA2 | 2.03 | 0.40 |
| 1:A:274:ARG:HH11 | 1:A:274:ARG:HG2 | 1.86 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:325:LEU:C | 1:A:325:LEU:CD2 | 2.90 | 0.40 |
| 1:B:216:PHE:HD1 | 1:B:217:THR:HG22 | 1.86 | 0.40 |
| 1:B:228:GLU:O | 1:B:229:LEU:C | 2.59 | 0.40 |
| 1:B:260:PHE:CE1 | 1:B:269:ILE:HB | 2.56 | 0.40 |
| 1:B:305:ILE:O | 1:B:305:ILE:HG22 | 2.21 | 0.40 |
| 1:C:143:SER:HB2 | 1:C:316:ASP:OD1 | 2.22 | 0.40 |
| 1:D:200:PRO:O | 1:D:201:ARG:C | 2.59 | 0.40 |
| 1:E:137:GLU:CG | 1:E:138:GLU:N | 2.83 | 0.40 |
| 1:E:194:LEU:H | 1:E:194:LEU:CD2 | 2.34 | 0.40 |
| 1:E:275:ILE:HD12 | 1:E:275:ILE:N | 2.36 | 0.40 |
| 1:E:321:ALA:HB1 | 1:E:339:PHE:CZ | 2.56 | 0.40 |
| 1:F:359:LEU:C | 1:F:361:ASN:N | 2.74 | 0.40 |
| 1:F:366:ALA:C | 1:F:368:LEU:H | 2.24 | 0.40 |
| 1:G:251:LEU:HD22 | 1:G:255:ILE:CD1 | 2.51 | 0.40 |
| 1:G:324:PHE:O | 1:G:325:LEU:C | 2.59 | 0.40 |
| 1:G:379:GLU:O | 1:G:383:LEU:HD12 | 2.21 | 0.40 |
| 1:H:157:SER:C | 1:H:159:ALA:H | 2.24 | 0.40 |
| 1:I:266:ARG:HH21 | 1:J:203:ILE:CD1 | 2.34 | 0.40 |
| 1:L:186:ARG:HD3 | 1:L:232:GLY:O | 2.21 | 0.40 |
| 1:L:194:LEU:H | 1:L:194:LEU:CD2 | 2.30 | 0.40 |
| 1:L:208:LEU:CD2 | 1:L:227:PHE:HD1 | 2.33 | 0.40 |
| 1:M:142:GLU:HG3 | 1:M:142:GLU:O | 2.21 | 0.40 |
| 1:N:355:ASN:O | 1:N:356:VAL:C | 2.60 | 0.40 |
| 1:A:157:SER:C | 1:A:159:ALA:H | 2.24 | 0.40 |
| 1:A:283:ILE:O | 1:A:286:LEU:N | 2.54 | 0.40 |
| 1:B:244:SER:C | 1:B:246:GLU:N | 2.74 | 0.40 |
| 1:B:368:LEU:C | 1:B:370:SER:H | 2.25 | 0.40 |
| 1:C:195:ASN:O | 1:C:196:VAL:C | 2.58 | 0.40 |
| 1:C:240:ILE:HG22 | 1:C:241:GLY:N | 2.35 | 0.40 |
| 1:C:251:LEU:HD22 | 1:C:255:ILE:CD1 | 2.39 | 0.40 |
| 1:C:255:ILE:HD13 | 1:C:300:LEU:CD2 | 2.51 | 0.40 |
| 1:C:281:ARG:N | 1:C:281:ARG:HD3 | 2.36 | 0.40 |
| 1:C:310:LEU:C | 1:C:312:GLU:H | 2.24 | 0.40 |
| 1:D:138:GLU:O | 1:D:139:TYR:C | 2.60 | 0.40 |
| 1:D:194:LEU:HD23 | 1:D:194:LEU:C | 2.42 | 0.40 |
| 1:D:235:LEU:HD12 | 1:D:236:PHE:CA | 2.40 | 0.40 |
| 1:E:171:VAL:CG2 | 1:E:307:ILE:HG22 | 2.52 | 0.40 |
| 1:E:189:GLU:HB3 | 1:E:233:GLY:HA2 | 2.02 | 0.40 |
| 1:E:211:TYR:CE2 | 1:E:263:LEU:HB2 | 2.55 | 0.40 |
| 1:G:235:LEU:HG | 1:G:237:LEU:HD23 | 2.02 | 0.40 |
| 1:G:254:VAL:O | 1:G:254:VAL:HG12 | 2.21 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:I:171:VAL:CG1 | 1:I:307:ILE:CG2 | 2.95 | 0.40 |
| 1:I:175:VAL:O | 1:I:176:VAL:C | 2.59 | 0.40 |
| 1:J:339:PHE:CD1 | 1:J:339:PHE:N | 2.89 | 0.40 |
| 1:J:350:TYR:HD2 | 1:J:352:TRP:CE3 | 2.39 | 0.40 |
| 1:L:318:ILE:CG1 | 1:L:319:PRO:CD | 2.99 | 0.40 |
| 1:M:166:THR:HA | 1:M:279:THR:O | 2.21 | 0.40 |
| 1:N:179:LEU:C | 1:N:181:HIS:N | 2.73 | 0.40 |
| 1:A:144:PRO:C | 1:A:146:MET:H | 2.25 | 0.40 |
| 1:A:236:PHE:HD1 | 1:A:276:LEU:O | 2.04 | 0.40 |
| 1:C:165:ILE:O | 1:C:278:ALA:CB | 2.69 | 0.40 |
| 1:D:324:PHE:O | 1:D:327:LYS:HB3 | 2.21 | 0.40 |
| 1:D:369:PHE:CD1 | 1:D:369:PHE:N | 2.87 | 0.40 |
| 1:E:252:LEU:O | 1:E:253:ARG:C | 2.60 | 0.40 |
| 1:F:213:LYS:HD3 | 1:G:220:VAL:CG1 | 2.46 | 0.40 |
| 1:G:146:MET:C | 1:G:148:GLU:N | 2.68 | 0.40 |
| 1:G:161:CYS:CB | 1:G:302:VAL:HG11 | 2.50 | 0.40 |
| 1:G:275:ILE:HG21 | 1:G:300:LEU:CD2 | 2.52 | 0.40 |
| 1:G:308:PRO:O | 1:G:313:ARG:CD | 2.69 | 0.40 |
| 1:G:361:ASN:O | 1:G:362:VAL:C | 2.60 | 0.40 |
| 1:H:180:ILE:O | 1:H:184:SER:HB3 | 2.21 | 0.40 |
| 1:H:367:VAL:O | 1:H:367:VAL:HG12 | 2.19 | 0.40 |
| 1:J:196:VAL:HG12 | 1:J:242:GLU:HB2 | 2.03 | 0.40 |
| 1:J:262:ARG:HH11 | 1:J:262:ARG:CG | 2.31 | 0.40 |
| 1:J:361:ASN:O | 1:J:362:VAL:C | 2.59 | 0.40 |
| 1:L:269:ILE:CD1 | 1:L:269:ILE:N | 2.85 | 0.40 |
| 1:L:341:LYS:O | 1:L:345:GLU:HG3 | 2.21 | 0.40 |
| 1:L:350:TYR:HD2 | 1:L:350:TYR:C | 2.25 | 0.40 |
| 1:L:365:ARG:NH2 | 1:L:383:LEU:HD22 | 2.36 | 0.40 |
| 1:M:163:VAL:HG22 | 1:M:303:ILE:HB | 2.02 | 0.40 |
| 1:A:256:GLU:OE1 | 1:B:357:ARG:NH1 | 2.55 | 0.40 |
| 1:A:383:LEU:HD23 | 1:A:383:LEU:N | 2.36 | 0.40 |
| 1:B:195:ASN:O | 1:B:196:VAL:C | 2.60 | 0.40 |
| 1:E:349:SER:H | 1:E:349:SER:HG | 1.61 | 0.40 |
| 1:F:196:VAL:HG12 | 1:F:242:GLU:HB2 | 2.03 | 0.40 |
| 1:F:358:GLU:O | 1:F:359:LEU:O | 2.38 | 0.40 |
| 1:G:156:ILE:O | 1:G:157:SER:C | 2.59 | 0.40 |
| 1:H:211:TYR:HB3 | 1:H:263:LEU:CB | 2.51 | 0.40 |
| 1:I:336:VAL:HG11 | 1:I:375:ILE:CD1 | 2.52 | 0.40 |
| 1:K:263:LEU:HD23 | 1:K:264:GLY:N | 2.36 | 0.40 |
| 1:M:248:GLN:O | 1:M:249:ALA:O | 2.40 | 0.40 |
| 1:M:252:LEU:HD13 | 1:M:296:LEU:HA | 2.03 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:246:GLU:H | 1:A:246:GLU:HG2 | 1.72 | 0.40 |
| 1:C:195:ASN:O | 1:C:198:SER:N | 2.46 | 0.40 |
| 1:C:204:PHE:CE2 | 1:C:243:LEU:HD21 | 2.56 | 0.40 |
| 1:C:301:GLY:O | 1:C:302:VAL:C | 2.59 | 0.40 |
| 1:D:216:PHE:CD1 | 1:D:216:PHE:O | 2.75 | 0.40 |
| 1:D:296:LEU:HD13 | 1:D:300:LEU:HD11 | 2.00 | 0.40 |
| 1:D:375:ILE:HG23 | 1:D:379:GLU:HB2 | 2.03 | 0.40 |
| 1:E:165:ILE:HG22 | 1:E:173:LYS:HG2 | 2.03 | 0.40 |
| 1:E:240:ILE:H | 1:E:240:ILE:HG13 | 1.64 | 0.40 |
| 1:E:382:CYS:O | 1:E:383:LEU:HD23 | 2.21 | 0.40 |
| 1:F:204:PHE:O | 1:F:205:GLU:C | 2.60 | 0.40 |
| 1:F:242:GLU:HA | 1:F:242:GLU:OE1 | 2.21 | 0.40 |
| 1:G:165:ILE:O | 1:G:278:ALA:HA | 2.22 | 0.40 |
| 1:G:308:PRO:HG2 | 1:G:313:ARG:CD | 2.47 | 0.40 |
| 1:G:325:LEU:HD13 | 1:G:338:GLY:HA2 | 2.04 | 0.40 |
| 1:H:212:GLU:HA | 1:H:222:SER:CB | 2.52 | 0.40 |
| 1:H:280:ASN:O | 1:H:280:ASN:CG | 2.60 | 0.40 |
| 1:I:240:ILE:O | 1:I:241:GLY:C | 2.58 | 0.40 |
| 1:L:236:PHE:CD1 | 1:L:276:LEU:O | 2.74 | 0.40 |
| 1:L:322:ASN:O | 1:L:325:LEU:HB3 | 2.22 | 0.40 |
| 1:L:334:LYS:HZ2 | 1:L:367:VAL:HG22 | 1.86 | 0.40 |
| 1:M:152:LYS:O | 1:M:153:ILE:C | 2.60 | 0.40 |
| 1:N:211:TYR:CE2 | 1:N:223:LYS:HB2 | 2.56 | 0.40 |
| 1:N:320:LEU:HD23 | 1:N:320:LEU:N | 2.36 | 0.40 |

There are no symmetry-related clashes.

5.3 Torsion angles [\(i\)](#)

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

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

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

| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles |
|-----|-------|---------------|-----------|----------|----------|--------------------|
| 1 | A | 245/267 (92%) | 192 (78%) | 39 (16%) | 14 (6%) | 1 10 |

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| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|-----------------|------------|-----------|----------|-------------|---|
| 1 | B | 241/267 (90%) | 155 (64%) | 64 (27%) | 22 (9%) | 1 | 4 |
| 1 | C | 246/267 (92%) | 180 (73%) | 49 (20%) | 17 (7%) | 1 | 7 |
| 1 | D | 245/267 (92%) | 165 (67%) | 55 (22%) | 25 (10%) | 0 | 3 |
| 1 | E | 246/267 (92%) | 165 (67%) | 56 (23%) | 25 (10%) | 0 | 3 |
| 1 | F | 246/267 (92%) | 179 (73%) | 39 (16%) | 28 (11%) | 0 | 2 |
| 1 | G | 246/267 (92%) | 177 (72%) | 49 (20%) | 20 (8%) | 1 | 5 |
| 1 | H | 243/267 (91%) | 171 (70%) | 55 (23%) | 17 (7%) | 1 | 7 |
| 1 | I | 245/267 (92%) | 174 (71%) | 48 (20%) | 23 (9%) | 0 | 3 |
| 1 | J | 245/267 (92%) | 182 (74%) | 48 (20%) | 15 (6%) | 1 | 9 |
| 1 | K | 246/267 (92%) | 173 (70%) | 53 (22%) | 20 (8%) | 1 | 5 |
| 1 | L | 244/267 (91%) | 158 (65%) | 53 (22%) | 33 (14%) | 0 | 1 |
| 1 | M | 245/267 (92%) | 164 (67%) | 57 (23%) | 24 (10%) | 0 | 3 |
| 1 | N | 245/267 (92%) | 169 (69%) | 57 (23%) | 19 (8%) | 1 | 5 |
| All | All | 3428/3738 (92%) | 2404 (70%) | 722 (21%) | 302 (9%) | 1 | 4 |

All (302) Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 144 | PRO |
| 1 | A | 221 | SER |
| 1 | B | 157 | SER |
| 1 | B | 217 | THR |
| 1 | B | 381 | SER |
| 1 | B | 382 | CYS |
| 1 | C | 220 | VAL |
| 1 | C | 221 | SER |
| 1 | C | 283 | ILE |
| 1 | C | 301 | GLY |
| 1 | C | 317 | ILE |
| 1 | D | 144 | PRO |
| 1 | D | 157 | SER |
| 1 | D | 213 | LYS |
| 1 | D | 302 | VAL |
| 1 | D | 317 | ILE |
| 1 | D | 327 | LYS |
| 1 | D | 355 | ASN |
| 1 | D | 362 | VAL |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | E | 157 | SER |
| 1 | E | 196 | VAL |
| 1 | E | 314 | LYS |
| 1 | F | 157 | SER |
| 1 | F | 168 | GLU |
| 1 | F | 171 | VAL |
| 1 | F | 215 | ALA |
| 1 | F | 224 | GLU |
| 1 | F | 225 | GLY |
| 1 | F | 226 | PHE |
| 1 | F | 241 | GLY |
| 1 | F | 314 | LYS |
| 1 | F | 327 | LYS |
| 1 | F | 344 | GLN |
| 1 | F | 377 | ARG |
| 1 | G | 213 | LYS |
| 1 | G | 224 | GLU |
| 1 | H | 143 | SER |
| 1 | H | 144 | PRO |
| 1 | H | 217 | THR |
| 1 | H | 248 | GLN |
| 1 | H | 334 | LYS |
| 1 | H | 356 | VAL |
| 1 | I | 156 | ILE |
| 1 | I | 157 | SER |
| 1 | I | 213 | LYS |
| 1 | I | 220 | VAL |
| 1 | I | 356 | VAL |
| 1 | J | 224 | GLU |
| 1 | J | 241 | GLY |
| 1 | K | 140 | VAL |
| 1 | K | 189 | GLU |
| 1 | K | 217 | THR |
| 1 | K | 356 | VAL |
| 1 | L | 139 | TYR |
| 1 | L | 157 | SER |
| 1 | L | 240 | ILE |
| 1 | L | 262 | ARG |
| 1 | L | 287 | VAL |
| 1 | L | 344 | GLN |
| 1 | L | 347 | LEU |
| 1 | L | 348 | LEU |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | L | 377 | ARG |
| 1 | M | 142 | GLU |
| 1 | M | 144 | PRO |
| 1 | M | 283 | ILE |
| 1 | M | 355 | ASN |
| 1 | M | 370 | SER |
| 1 | N | 144 | PRO |
| 1 | N | 229 | LEU |
| 1 | N | 240 | ILE |
| 1 | N | 268 | GLU |
| 1 | N | 317 | ILE |
| 1 | A | 173 | LYS |
| 1 | A | 241 | GLY |
| 1 | A | 377 | ARG |
| 1 | A | 378 | GLY |
| 1 | B | 180 | ILE |
| 1 | B | 187 | SER |
| 1 | B | 206 | ALA |
| 1 | B | 207 | GLU |
| 1 | C | 311 | ARG |
| 1 | C | 355 | ASN |
| 1 | C | 377 | ARG |
| 1 | D | 158 | CYS |
| 1 | D | 214 | GLY |
| 1 | D | 225 | GLY |
| 1 | D | 241 | GLY |
| 1 | E | 168 | GLU |
| 1 | E | 173 | LYS |
| 1 | E | 245 | LEU |
| 1 | E | 317 | ILE |
| 1 | E | 321 | ALA |
| 1 | E | 325 | LEU |
| 1 | E | 347 | LEU |
| 1 | E | 352 | TRP |
| 1 | E | 382 | CYS |
| 1 | F | 196 | VAL |
| 1 | F | 218 | GLY |
| 1 | F | 311 | ARG |
| 1 | F | 315 | GLU |
| 1 | F | 360 | LYS |
| 1 | F | 367 | VAL |
| 1 | G | 149 | ILE |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | G | 158 | CYS |
| 1 | G | 173 | LYS |
| 1 | G | 174 | GLU |
| 1 | G | 201 | ARG |
| 1 | G | 263 | LEU |
| 1 | G | 366 | ALA |
| 1 | G | 377 | ARG |
| 1 | H | 335 | GLU |
| 1 | I | 221 | SER |
| 1 | I | 222 | SER |
| 1 | I | 242 | GLU |
| 1 | I | 252 | LEU |
| 1 | I | 301 | GLY |
| 1 | I | 311 | ARG |
| 1 | I | 367 | VAL |
| 1 | I | 377 | ARG |
| 1 | J | 311 | ARG |
| 1 | J | 317 | ILE |
| 1 | J | 356 | VAL |
| 1 | J | 372 | GLY |
| 1 | J | 377 | ARG |
| 1 | K | 196 | VAL |
| 1 | K | 214 | GLY |
| 1 | K | 249 | ALA |
| 1 | K | 309 | PRO |
| 1 | L | 185 | ASP |
| 1 | L | 196 | VAL |
| 1 | L | 215 | ALA |
| 1 | L | 219 | ALA |
| 1 | L | 311 | ARG |
| 1 | L | 356 | VAL |
| 1 | L | 372 | GLY |
| 1 | M | 156 | ILE |
| 1 | M | 157 | SER |
| 1 | M | 158 | CYS |
| 1 | M | 217 | THR |
| 1 | M | 249 | ALA |
| 1 | M | 267 | LYS |
| 1 | M | 359 | LEU |
| 1 | N | 182 | LYS |
| 1 | N | 201 | ARG |
| 1 | N | 314 | LYS |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | N | 373 | LYS |
| 1 | A | 152 | LYS |
| 1 | B | 203 | ILE |
| 1 | B | 205 | GLU |
| 1 | B | 208 | LEU |
| 1 | B | 222 | SER |
| 1 | B | 227 | PHE |
| 1 | B | 360 | LYS |
| 1 | C | 185 | ASP |
| 1 | C | 298 | TYR |
| 1 | D | 231 | ASP |
| 1 | D | 249 | ALA |
| 1 | D | 348 | LEU |
| 1 | E | 150 | LEU |
| 1 | E | 206 | ALA |
| 1 | E | 302 | VAL |
| 1 | F | 221 | SER |
| 1 | F | 328 | PHE |
| 1 | F | 359 | LEU |
| 1 | G | 214 | GLY |
| 1 | G | 311 | ARG |
| 1 | G | 355 | ASN |
| 1 | G | 356 | VAL |
| 1 | H | 289 | GLU |
| 1 | H | 309 | PRO |
| 1 | H | 381 | SER |
| 1 | I | 230 | ALA |
| 1 | I | 333 | ALA |
| 1 | I | 359 | LEU |
| 1 | J | 144 | PRO |
| 1 | K | 239 | GLU |
| 1 | K | 248 | GLN |
| 1 | K | 278 | ALA |
| 1 | K | 299 | ARG |
| 1 | K | 314 | LYS |
| 1 | L | 171 | VAL |
| 1 | L | 267 | LYS |
| 1 | L | 291 | LYS |
| 1 | L | 340 | THR |
| 1 | L | 380 | LEU |
| 1 | M | 196 | VAL |
| 1 | M | 257 | SER |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | M | 314 | LYS |
| 1 | M | 333 | ALA |
| 1 | M | 372 | GLY |
| 1 | N | 157 | SER |
| 1 | N | 278 | ALA |
| 1 | A | 218 | GLY |
| 1 | A | 311 | ARG |
| 1 | B | 251 | LEU |
| 1 | B | 372 | GLY |
| 1 | B | 383 | LEU |
| 1 | C | 162 | PRO |
| 1 | C | 239 | GLU |
| 1 | C | 322 | ASN |
| 1 | D | 215 | ALA |
| 1 | E | 138 | GLU |
| 1 | E | 182 | LYS |
| 1 | E | 204 | PHE |
| 1 | E | 227 | PHE |
| 1 | F | 138 | GLU |
| 1 | F | 294 | GLU |
| 1 | F | 295 | ASP |
| 1 | G | 156 | ILE |
| 1 | G | 157 | SER |
| 1 | H | 205 | GLU |
| 1 | H | 219 | ALA |
| 1 | H | 249 | ALA |
| 1 | H | 314 | LYS |
| 1 | I | 168 | GLU |
| 1 | I | 204 | PHE |
| 1 | I | 219 | ALA |
| 1 | I | 355 | ASN |
| 1 | J | 314 | LYS |
| 1 | J | 326 | LYS |
| 1 | K | 141 | PHE |
| 1 | K | 319 | PRO |
| 1 | K | 326 | LYS |
| 1 | L | 170 | GLY |
| 1 | L | 255 | ILE |
| 1 | L | 284 | LYS |
| 1 | L | 355 | ASN |
| 1 | L | 359 | LEU |
| 1 | L | 360 | LYS |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | M | 247 | ALA |
| 1 | M | 281 | ARG |
| 1 | N | 204 | PHE |
| 1 | N | 219 | ALA |
| 1 | N | 253 | ARG |
| 1 | N | 355 | ASN |
| 1 | A | 158 | CYS |
| 1 | A | 205 | GLU |
| 1 | B | 289 | GLU |
| 1 | B | 309 | PRO |
| 1 | D | 141 | PHE |
| 1 | D | 253 | ARG |
| 1 | D | 314 | LYS |
| 1 | D | 347 | LEU |
| 1 | D | 377 | ARG |
| 1 | E | 214 | GLY |
| 1 | E | 309 | PRO |
| 1 | E | 327 | LYS |
| 1 | G | 286 | LEU |
| 1 | G | 341 | LYS |
| 1 | G | 352 | TRP |
| 1 | H | 245 | LEU |
| 1 | H | 333 | ALA |
| 1 | I | 239 | GLU |
| 1 | J | 201 | ARG |
| 1 | J | 221 | SER |
| 1 | J | 278 | ALA |
| 1 | J | 344 | GLN |
| 1 | J | 355 | ASN |
| 1 | K | 190 | PRO |
| 1 | L | 153 | ILE |
| 1 | L | 204 | PHE |
| 1 | L | 295 | ASP |
| 1 | L | 381 | SER |
| 1 | M | 253 | ARG |
| 1 | M | 289 | GLU |
| 1 | N | 356 | VAL |
| 1 | A | 145 | LYS |
| 1 | B | 252 | LEU |
| 1 | C | 323 | HIS |
| 1 | F | 175 | VAL |
| 1 | I | 319 | PRO |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | K | 200 | PRO |
| 1 | K | 355 | ASN |
| 1 | L | 301 | GLY |
| 1 | L | 363 | ILE |
| 1 | M | 239 | GLU |
| 1 | M | 363 | ILE |
| 1 | A | 240 | ILE |
| 1 | B | 196 | VAL |
| 1 | B | 210 | GLY |
| 1 | F | 144 | PRO |
| 1 | F | 356 | VAL |
| 1 | M | 264 | GLY |
| 1 | N | 318 | ILE |
| 1 | C | 140 | VAL |
| 1 | D | 192 | VAL |
| 1 | D | 372 | GLY |
| 1 | E | 303 | ILE |
| 1 | F | 240 | ILE |
| 1 | K | 303 | ILE |
| 1 | N | 255 | ILE |
| 1 | A | 180 | ILE |
| 1 | D | 156 | ILE |
| 1 | D | 200 | PRO |
| 1 | E | 144 | PRO |
| 1 | E | 175 | VAL |
| 1 | G | 241 | GLY |
| 1 | N | 175 | VAL |
| 1 | C | 196 | VAL |
| 1 | C | 153 | ILE |
| 1 | H | 180 | ILE |
| 1 | I | 153 | ILE |

5.3.2 Protein sidechains [i](#)

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

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

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| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|-----------------|------------|-----------|-------------|----|
| 1 | A | 212/232 (91%) | 187 (88%) | 25 (12%) | 5 | 21 |
| 1 | B | 208/232 (90%) | 185 (89%) | 23 (11%) | 6 | 24 |
| 1 | C | 213/232 (92%) | 188 (88%) | 25 (12%) | 5 | 22 |
| 1 | D | 212/232 (91%) | 180 (85%) | 32 (15%) | 3 | 12 |
| 1 | E | 213/232 (92%) | 176 (83%) | 37 (17%) | 2 | 9 |
| 1 | F | 213/232 (92%) | 175 (82%) | 38 (18%) | 2 | 8 |
| 1 | G | 213/232 (92%) | 188 (88%) | 25 (12%) | 5 | 22 |
| 1 | H | 208/232 (90%) | 187 (90%) | 21 (10%) | 7 | 28 |
| 1 | I | 209/232 (90%) | 187 (90%) | 22 (10%) | 7 | 26 |
| 1 | J | 211/232 (91%) | 193 (92%) | 18 (8%) | 10 | 37 |
| 1 | K | 213/232 (92%) | 188 (88%) | 25 (12%) | 5 | 22 |
| 1 | L | 211/232 (91%) | 171 (81%) | 40 (19%) | 1 | 6 |
| 1 | M | 212/232 (91%) | 186 (88%) | 26 (12%) | 4 | 19 |
| 1 | N | 212/232 (91%) | 185 (87%) | 27 (13%) | 4 | 18 |
| All | All | 2960/3248 (91%) | 2576 (87%) | 384 (13%) | 4 | 18 |

All (384) residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 154 | LYS |
| 1 | A | 179 | LEU |
| 1 | A | 194 | LEU |
| 1 | A | 201 | ARG |
| 1 | A | 202 | ASP |
| 1 | A | 211 | TYR |
| 1 | A | 216 | PHE |
| 1 | A | 222 | SER |
| 1 | A | 227 | PHE |
| 1 | A | 244 | SER |
| 1 | A | 246 | GLU |
| 1 | A | 251 | LEU |
| 1 | A | 262 | ARG |
| 1 | A | 263 | LEU |
| 1 | A | 274 | ARG |
| 1 | A | 285 | GLU |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | A | 299 | ARG |
| 1 | A | 310 | LEU |
| 1 | A | 318 | ILE |
| 1 | A | 322 | ASN |
| 1 | A | 339 | PHE |
| 1 | A | 342 | SER |
| 1 | A | 357 | ARG |
| 1 | A | 359 | LEU |
| 1 | A | 383 | LEU |
| 1 | B | 166 | THR |
| 1 | B | 178 | ARG |
| 1 | B | 189 | GLU |
| 1 | B | 200 | PRO |
| 1 | B | 202 | ASP |
| 1 | B | 226 | PHE |
| 1 | B | 227 | PHE |
| 1 | B | 229 | LEU |
| 1 | B | 239 | GLU |
| 1 | B | 251 | LEU |
| 1 | B | 260 | PHE |
| 1 | B | 262 | ARG |
| 1 | B | 266 | ARG |
| 1 | B | 272 | ASN |
| 1 | B | 274 | ARG |
| 1 | B | 275 | ILE |
| 1 | B | 281 | ARG |
| 1 | B | 284 | LYS |
| 1 | B | 285 | GLU |
| 1 | B | 299 | ARG |
| 1 | B | 314 | LYS |
| 1 | B | 318 | ILE |
| 1 | B | 377 | ARG |
| 1 | C | 139 | TYR |
| 1 | C | 178 | ARG |
| 1 | C | 181 | HIS |
| 1 | C | 194 | LEU |
| 1 | C | 203 | ILE |
| 1 | C | 211 | TYR |
| 1 | C | 217 | THR |
| 1 | C | 223 | LYS |
| 1 | C | 227 | PHE |
| 1 | C | 229 | LEU |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | C | 240 | ILE |
| 1 | C | 246 | GLU |
| 1 | C | 253 | ARG |
| 1 | C | 262 | ARG |
| 1 | C | 263 | LEU |
| 1 | C | 274 | ARG |
| 1 | C | 281 | ARG |
| 1 | C | 284 | LYS |
| 1 | C | 299 | ARG |
| 1 | C | 310 | LEU |
| 1 | C | 318 | ILE |
| 1 | C | 320 | LEU |
| 1 | C | 357 | ARG |
| 1 | C | 359 | LEU |
| 1 | C | 371 | GLU |
| 1 | D | 138 | GLU |
| 1 | D | 139 | TYR |
| 1 | D | 160 | GLU |
| 1 | D | 164 | LEU |
| 1 | D | 178 | ARG |
| 1 | D | 179 | LEU |
| 1 | D | 185 | ASP |
| 1 | D | 189 | GLU |
| 1 | D | 194 | LEU |
| 1 | D | 213 | LYS |
| 1 | D | 216 | PHE |
| 1 | D | 220 | VAL |
| 1 | D | 227 | PHE |
| 1 | D | 228 | GLU |
| 1 | D | 229 | LEU |
| 1 | D | 235 | LEU |
| 1 | D | 236 | PHE |
| 1 | D | 237 | LEU |
| 1 | D | 246 | GLU |
| 1 | D | 251 | LEU |
| 1 | D | 262 | ARG |
| 1 | D | 274 | ARG |
| 1 | D | 280 | ASN |
| 1 | D | 281 | ARG |
| 1 | D | 285 | GLU |
| 1 | D | 292 | PHE |
| 1 | D | 295 | ASP |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | D | 299 | ARG |
| 1 | D | 304 | GLU |
| 1 | D | 310 | LEU |
| 1 | D | 318 | ILE |
| 1 | D | 346 | LEU |
| 1 | E | 139 | TYR |
| 1 | E | 142 | GLU |
| 1 | E | 143 | SER |
| 1 | E | 150 | LEU |
| 1 | E | 156 | ILE |
| 1 | E | 158 | CYS |
| 1 | E | 164 | LEU |
| 1 | E | 173 | LYS |
| 1 | E | 175 | VAL |
| 1 | E | 179 | LEU |
| 1 | E | 184 | SER |
| 1 | E | 189 | GLU |
| 1 | E | 194 | LEU |
| 1 | E | 201 | ARG |
| 1 | E | 202 | ASP |
| 1 | E | 209 | PHE |
| 1 | E | 211 | TYR |
| 1 | E | 213 | LYS |
| 1 | E | 216 | PHE |
| 1 | E | 222 | SER |
| 1 | E | 234 | THR |
| 1 | E | 243 | LEU |
| 1 | E | 246 | GLU |
| 1 | E | 251 | LEU |
| 1 | E | 274 | ARG |
| 1 | E | 280 | ASN |
| 1 | E | 281 | ARG |
| 1 | E | 285 | GLU |
| 1 | E | 295 | ASP |
| 1 | E | 299 | ARG |
| 1 | E | 311 | ARG |
| 1 | E | 318 | ILE |
| 1 | E | 319 | PRO |
| 1 | E | 329 | SER |
| 1 | E | 355 | ASN |
| 1 | E | 359 | LEU |
| 1 | E | 361 | ASN |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | F | 138 | GLU |
| 1 | F | 142 | GLU |
| 1 | F | 166 | THR |
| 1 | F | 171 | VAL |
| 1 | F | 178 | ARG |
| 1 | F | 185 | ASP |
| 1 | F | 194 | LEU |
| 1 | F | 201 | ARG |
| 1 | F | 204 | PHE |
| 1 | F | 211 | TYR |
| 1 | F | 224 | GLU |
| 1 | F | 229 | LEU |
| 1 | F | 246 | GLU |
| 1 | F | 251 | LEU |
| 1 | F | 262 | ARG |
| 1 | F | 263 | LEU |
| 1 | F | 274 | ARG |
| 1 | F | 275 | ILE |
| 1 | F | 285 | GLU |
| 1 | F | 291 | LYS |
| 1 | F | 296 | LEU |
| 1 | F | 299 | ARG |
| 1 | F | 310 | LEU |
| 1 | F | 311 | ARG |
| 1 | F | 318 | ILE |
| 1 | F | 323 | HIS |
| 1 | F | 325 | LEU |
| 1 | F | 339 | PHE |
| 1 | F | 346 | LEU |
| 1 | F | 348 | LEU |
| 1 | F | 355 | ASN |
| 1 | F | 357 | ARG |
| 1 | F | 359 | LEU |
| 1 | F | 361 | ASN |
| 1 | F | 370 | SER |
| 1 | F | 380 | LEU |
| 1 | F | 383 | LEU |
| 1 | F | 384 | VAL |
| 1 | G | 139 | TYR |
| 1 | G | 161 | CYS |
| 1 | G | 178 | ARG |
| 1 | G | 179 | LEU |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | G | 191 | PHE |
| 1 | G | 194 | LEU |
| 1 | G | 195 | ASN |
| 1 | G | 201 | ARG |
| 1 | G | 211 | TYR |
| 1 | G | 221 | SER |
| 1 | G | 227 | PHE |
| 1 | G | 251 | LEU |
| 1 | G | 261 | TYR |
| 1 | G | 262 | ARG |
| 1 | G | 263 | LEU |
| 1 | G | 274 | ARG |
| 1 | G | 281 | ARG |
| 1 | G | 285 | GLU |
| 1 | G | 295 | ASP |
| 1 | G | 299 | ARG |
| 1 | G | 307 | ILE |
| 1 | G | 310 | LEU |
| 1 | G | 318 | ILE |
| 1 | G | 355 | ASN |
| 1 | G | 359 | LEU |
| 1 | H | 178 | ARG |
| 1 | H | 189 | GLU |
| 1 | H | 194 | LEU |
| 1 | H | 202 | ASP |
| 1 | H | 216 | PHE |
| 1 | H | 227 | PHE |
| 1 | H | 229 | LEU |
| 1 | H | 242 | GLU |
| 1 | H | 251 | LEU |
| 1 | H | 252 | LEU |
| 1 | H | 263 | LEU |
| 1 | H | 274 | ARG |
| 1 | H | 279 | THR |
| 1 | H | 280 | ASN |
| 1 | H | 293 | ARG |
| 1 | H | 299 | ARG |
| 1 | H | 311 | ARG |
| 1 | H | 323 | HIS |
| 1 | H | 328 | PHE |
| 1 | H | 339 | PHE |
| 1 | H | 369 | PHE |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | I | 158 | CYS |
| 1 | I | 178 | ARG |
| 1 | I | 195 | ASN |
| 1 | I | 202 | ASP |
| 1 | I | 227 | PHE |
| 1 | I | 229 | LEU |
| 1 | I | 242 | GLU |
| 1 | I | 246 | GLU |
| 1 | I | 251 | LEU |
| 1 | I | 262 | ARG |
| 1 | I | 274 | ARG |
| 1 | I | 281 | ARG |
| 1 | I | 285 | GLU |
| 1 | I | 295 | ASP |
| 1 | I | 299 | ARG |
| 1 | I | 311 | ARG |
| 1 | I | 318 | ILE |
| 1 | I | 346 | LEU |
| 1 | I | 357 | ARG |
| 1 | I | 359 | LEU |
| 1 | I | 365 | ARG |
| 1 | I | 373 | LYS |
| 1 | J | 141 | PHE |
| 1 | J | 143 | SER |
| 1 | J | 201 | ARG |
| 1 | J | 202 | ASP |
| 1 | J | 204 | PHE |
| 1 | J | 216 | PHE |
| 1 | J | 229 | LEU |
| 1 | J | 262 | ARG |
| 1 | J | 274 | ARG |
| 1 | J | 281 | ARG |
| 1 | J | 285 | GLU |
| 1 | J | 299 | ARG |
| 1 | J | 318 | ILE |
| 1 | J | 341 | LYS |
| 1 | J | 349 | SER |
| 1 | J | 363 | ILE |
| 1 | J | 376 | ASP |
| 1 | J | 383 | LEU |
| 1 | K | 141 | PHE |
| 1 | K | 147 | LYS |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | K | 160 | GLU |
| 1 | K | 179 | LEU |
| 1 | K | 189 | GLU |
| 1 | K | 190 | PRO |
| 1 | K | 201 | ARG |
| 1 | K | 209 | PHE |
| 1 | K | 216 | PHE |
| 1 | K | 221 | SER |
| 1 | K | 229 | LEU |
| 1 | K | 237 | LEU |
| 1 | K | 238 | ASP |
| 1 | K | 242 | GLU |
| 1 | K | 251 | LEU |
| 1 | K | 262 | ARG |
| 1 | K | 274 | ARG |
| 1 | K | 281 | ARG |
| 1 | K | 285 | GLU |
| 1 | K | 292 | PHE |
| 1 | K | 299 | ARG |
| 1 | K | 310 | LEU |
| 1 | K | 318 | ILE |
| 1 | K | 359 | LEU |
| 1 | K | 361 | ASN |
| 1 | L | 141 | PHE |
| 1 | L | 147 | LYS |
| 1 | L | 150 | LEU |
| 1 | L | 151 | GLU |
| 1 | L | 166 | THR |
| 1 | L | 178 | ARG |
| 1 | L | 189 | GLU |
| 1 | L | 211 | TYR |
| 1 | L | 217 | THR |
| 1 | L | 227 | PHE |
| 1 | L | 229 | LEU |
| 1 | L | 238 | ASP |
| 1 | L | 242 | GLU |
| 1 | L | 245 | LEU |
| 1 | L | 251 | LEU |
| 1 | L | 253 | ARG |
| 1 | L | 259 | LYS |
| 1 | L | 262 | ARG |
| 1 | L | 263 | LEU |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | L | 266 | ARG |
| 1 | L | 272 | ASN |
| 1 | L | 273 | VAL |
| 1 | L | 274 | ARG |
| 1 | L | 279 | THR |
| 1 | L | 296 | LEU |
| 1 | L | 297 | TYR |
| 1 | L | 299 | ARG |
| 1 | L | 305 | ILE |
| 1 | L | 315 | GLU |
| 1 | L | 318 | ILE |
| 1 | L | 325 | LEU |
| 1 | L | 334 | LYS |
| 1 | L | 335 | GLU |
| 1 | L | 337 | GLU |
| 1 | L | 344 | GLN |
| 1 | L | 348 | LEU |
| 1 | L | 350 | TYR |
| 1 | L | 369 | PHE |
| 1 | L | 370 | SER |
| 1 | L | 383 | LEU |
| 1 | M | 139 | TYR |
| 1 | M | 145 | LYS |
| 1 | M | 146 | MET |
| 1 | M | 161 | CYS |
| 1 | M | 178 | ARG |
| 1 | M | 179 | LEU |
| 1 | M | 191 | PHE |
| 1 | M | 198 | SER |
| 1 | M | 201 | ARG |
| 1 | M | 211 | TYR |
| 1 | M | 213 | LYS |
| 1 | M | 227 | PHE |
| 1 | M | 229 | LEU |
| 1 | M | 248 | GLN |
| 1 | M | 251 | LEU |
| 1 | M | 253 | ARG |
| 1 | M | 274 | ARG |
| 1 | M | 276 | LEU |
| 1 | M | 294 | GLU |
| 1 | M | 311 | ARG |
| 1 | M | 322 | ASN |

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Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | M | 352 | TRP |
| 1 | M | 359 | LEU |
| 1 | M | 361 | ASN |
| 1 | M | 368 | LEU |
| 1 | M | 374 | PHE |
| 1 | N | 138 | GLU |
| 1 | N | 148 | GLU |
| 1 | N | 152 | LYS |
| 1 | N | 189 | GLU |
| 1 | N | 194 | LEU |
| 1 | N | 201 | ARG |
| 1 | N | 205 | GLU |
| 1 | N | 207 | GLU |
| 1 | N | 212 | GLU |
| 1 | N | 227 | PHE |
| 1 | N | 229 | LEU |
| 1 | N | 239 | GLU |
| 1 | N | 262 | ARG |
| 1 | N | 263 | LEU |
| 1 | N | 266 | ARG |
| 1 | N | 281 | ARG |
| 1 | N | 292 | PHE |
| 1 | N | 295 | ASP |
| 1 | N | 296 | LEU |
| 1 | N | 299 | ARG |
| 1 | N | 314 | LYS |
| 1 | N | 318 | ILE |
| 1 | N | 320 | LEU |
| 1 | N | 339 | PHE |
| 1 | N | 346 | LEU |
| 1 | N | 350 | TYR |
| 1 | N | 356 | VAL |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (45) such sidechains are listed below:

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | A | 181 | HIS |
| 1 | A | 272 | ASN |
| 1 | A | 282 | ASN |
| 1 | A | 355 | ASN |
| 1 | A | 361 | ASN |
| 1 | B | 272 | ASN |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | B | 322 | ASN |
| 1 | B | 355 | ASN |
| 1 | B | 361 | ASN |
| 1 | C | 181 | HIS |
| 1 | C | 361 | ASN |
| 1 | D | 181 | HIS |
| 1 | D | 248 | GLN |
| 1 | D | 282 | ASN |
| 1 | D | 355 | ASN |
| 1 | D | 361 | ASN |
| 1 | E | 181 | HIS |
| 1 | E | 272 | ASN |
| 1 | E | 361 | ASN |
| 1 | F | 181 | HIS |
| 1 | F | 195 | ASN |
| 1 | F | 282 | ASN |
| 1 | G | 181 | HIS |
| 1 | G | 282 | ASN |
| 1 | G | 361 | ASN |
| 1 | H | 344 | GLN |
| 1 | I | 195 | ASN |
| 1 | I | 282 | ASN |
| 1 | I | 361 | ASN |
| 1 | J | 181 | HIS |
| 1 | J | 282 | ASN |
| 1 | K | 181 | HIS |
| 1 | K | 272 | ASN |
| 1 | K | 282 | ASN |
| 1 | K | 361 | ASN |
| 1 | L | 181 | HIS |
| 1 | L | 272 | ASN |
| 1 | L | 361 | ASN |
| 1 | M | 181 | HIS |
| 1 | M | 248 | GLN |
| 1 | M | 282 | ASN |
| 1 | M | 361 | ASN |
| 1 | N | 181 | HIS |
| 1 | N | 248 | GLN |
| 1 | N | 282 | ASN |

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

14 ligands are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 2 | ADP | D | 2 | - | 24,29,29 | 1.48 | 5 (20%) | 29,45,45 | 1.67 | 4 (13%) |
| 2 | ADP | N | 13 | - | 24,29,29 | 1.49 | 5 (20%) | 29,45,45 | 1.55 | 2 (6%) |
| 2 | ADP | J | 9 | - | 24,29,29 | 1.49 | 6 (25%) | 29,45,45 | 1.61 | 3 (10%) |
| 2 | ADP | L | 11 | - | 24,29,29 | 1.56 | 6 (25%) | 29,45,45 | 1.56 | 2 (6%) |
| 2 | ADP | A | 6 | - | 24,29,29 | 1.59 | 5 (20%) | 29,45,45 | 1.67 | 3 (10%) |
| 2 | ADP | F | 4 | - | 24,29,29 | 1.45 | 3 (12%) | 29,45,45 | 1.59 | 3 (10%) |
| 2 | ADP | C | 1 | - | 24,29,29 | 1.47 | 3 (12%) | 29,45,45 | 1.55 | 1 (3%) |
| 2 | ADP | K | 10 | - | 24,29,29 | 1.55 | 5 (20%) | 29,45,45 | 1.63 | 3 (10%) |
| 2 | ADP | E | 3 | - | 24,29,29 | 1.52 | 5 (20%) | 29,45,45 | 1.61 | 1 (3%) |
| 2 | ADP | M | 12 | - | 24,29,29 | 1.39 | 3 (12%) | 29,45,45 | 1.57 | 3 (10%) |
| 2 | ADP | B | 7 | - | 24,29,29 | 1.52 | 5 (20%) | 29,45,45 | 1.65 | 3 (10%) |
| 2 | ADP | H | 14 | - | 24,29,29 | 1.53 | 5 (20%) | 29,45,45 | 1.56 | 2 (6%) |
| 2 | ADP | G | 5 | - | 24,29,29 | 1.48 | 3 (12%) | 29,45,45 | 1.73 | 4 (13%) |
| 2 | ADP | I | 8 | - | 24,29,29 | 1.49 | 4 (16%) | 29,45,45 | 1.59 | 3 (10%) |

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|---------|------------|---------|
| 2 | ADP | D | 2 | - | - | 8/12/32/32 | 0/3/3/3 |
| 2 | ADP | N | 13 | - | - | 7/12/32/32 | 0/3/3/3 |
| 2 | ADP | J | 9 | - | - | 7/12/32/32 | 0/3/3/3 |
| 2 | ADP | L | 11 | - | - | 8/12/32/32 | 0/3/3/3 |
| 2 | ADP | A | 6 | - | - | 8/12/32/32 | 0/3/3/3 |
| 2 | ADP | F | 4 | - | - | 6/12/32/32 | 0/3/3/3 |
| 2 | ADP | C | 1 | - | - | 6/12/32/32 | 0/3/3/3 |
| 2 | ADP | K | 10 | - | - | 8/12/32/32 | 0/3/3/3 |
| 2 | ADP | E | 3 | - | - | 6/12/32/32 | 0/3/3/3 |
| 2 | ADP | M | 12 | - | - | 5/12/32/32 | 0/3/3/3 |
| 2 | ADP | B | 7 | - | - | 6/12/32/32 | 0/3/3/3 |
| 2 | ADP | H | 14 | - | - | 6/12/32/32 | 0/3/3/3 |
| 2 | ADP | G | 5 | - | - | 5/12/32/32 | 0/3/3/3 |
| 2 | ADP | I | 8 | - | - | 6/12/32/32 | 0/3/3/3 |

All (63) bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|------|-------------|----------|
| 2 | B | 7 | ADP | O4'-C1' | 3.53 | 1.46 | 1.41 |
| 2 | L | 11 | ADP | C2-N3 | 3.49 | 1.37 | 1.32 |
| 2 | H | 14 | ADP | O4'-C1' | 3.40 | 1.45 | 1.41 |
| 2 | H | 14 | ADP | C2-N3 | 3.31 | 1.37 | 1.32 |
| 2 | C | 1 | ADP | C2-N3 | 3.25 | 1.37 | 1.32 |
| 2 | K | 10 | ADP | C2-N3 | 3.19 | 1.37 | 1.32 |
| 2 | N | 13 | ADP | O4'-C1' | 3.18 | 1.45 | 1.41 |
| 2 | B | 7 | ADP | C2-N3 | 3.17 | 1.37 | 1.32 |
| 2 | F | 4 | ADP | O4'-C1' | 3.17 | 1.45 | 1.41 |
| 2 | K | 10 | ADP | O4'-C1' | 3.17 | 1.45 | 1.41 |
| 2 | D | 2 | ADP | C2-N3 | 3.14 | 1.37 | 1.32 |
| 2 | N | 13 | ADP | C2-N3 | 3.13 | 1.37 | 1.32 |
| 2 | F | 4 | ADP | C2-N3 | 3.10 | 1.37 | 1.32 |
| 2 | I | 8 | ADP | O4'-C1' | 3.09 | 1.45 | 1.41 |
| 2 | J | 9 | ADP | O4'-C1' | 3.09 | 1.45 | 1.41 |
| 2 | J | 9 | ADP | C2-N3 | 3.08 | 1.37 | 1.32 |
| 2 | A | 6 | ADP | O4'-C1' | 2.99 | 1.45 | 1.41 |
| 2 | E | 3 | ADP | C2-N3 | 2.94 | 1.36 | 1.32 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 2 | C | 1 | ADP | O4'-C1' | 2.93 | 1.45 | 1.41 |
| 2 | A | 6 | ADP | C2-N3 | 2.88 | 1.36 | 1.32 |
| 2 | G | 5 | ADP | C2-N3 | 2.86 | 1.36 | 1.32 |
| 2 | A | 6 | ADP | C5-N7 | -2.82 | 1.29 | 1.39 |
| 2 | I | 8 | ADP | C2-N3 | 2.77 | 1.36 | 1.32 |
| 2 | D | 2 | ADP | O4'-C1' | 2.67 | 1.44 | 1.41 |
| 2 | M | 12 | ADP | C2-N3 | 2.67 | 1.36 | 1.32 |
| 2 | C | 1 | ADP | C5-N7 | -2.66 | 1.30 | 1.39 |
| 2 | L | 11 | ADP | O4'-C1' | 2.65 | 1.44 | 1.41 |
| 2 | M | 12 | ADP | C5-N7 | -2.62 | 1.30 | 1.39 |
| 2 | E | 3 | ADP | O4'-C1' | 2.61 | 1.44 | 1.41 |
| 2 | E | 3 | ADP | C5-N7 | -2.54 | 1.30 | 1.39 |
| 2 | L | 11 | ADP | C5-N7 | -2.53 | 1.30 | 1.39 |
| 2 | K | 10 | ADP | C5-N7 | -2.48 | 1.30 | 1.39 |
| 2 | G | 5 | ADP | C5-N7 | -2.46 | 1.30 | 1.39 |
| 2 | I | 8 | ADP | C5-N7 | -2.44 | 1.30 | 1.39 |
| 2 | H | 14 | ADP | C4-N3 | 2.40 | 1.39 | 1.35 |
| 2 | F | 4 | ADP | C5-N7 | -2.39 | 1.31 | 1.39 |
| 2 | B | 7 | ADP | C5-N7 | -2.36 | 1.31 | 1.39 |
| 2 | H | 14 | ADP | C5-N7 | -2.36 | 1.31 | 1.39 |
| 2 | A | 6 | ADP | C8-N7 | -2.34 | 1.30 | 1.34 |
| 2 | D | 2 | ADP | C4-N3 | 2.31 | 1.38 | 1.35 |
| 2 | N | 13 | ADP | C5-N7 | -2.28 | 1.31 | 1.39 |
| 2 | J | 9 | ADP | C5-N7 | -2.28 | 1.31 | 1.39 |
| 2 | G | 5 | ADP | O4'-C1' | 2.24 | 1.44 | 1.41 |
| 2 | E | 3 | ADP | PA-O2A | -2.21 | 1.45 | 1.55 |
| 2 | K | 10 | ADP | C4-N3 | 2.20 | 1.38 | 1.35 |
| 2 | K | 10 | ADP | C5'-C4' | 2.20 | 1.58 | 1.51 |
| 2 | D | 2 | ADP | C5-N7 | -2.18 | 1.31 | 1.39 |
| 2 | L | 11 | ADP | C2-N1 | 2.16 | 1.37 | 1.33 |
| 2 | N | 13 | ADP | C4-N3 | 2.15 | 1.38 | 1.35 |
| 2 | M | 12 | ADP | C2'-C1' | -2.15 | 1.50 | 1.53 |
| 2 | B | 7 | ADP | C4-N3 | 2.14 | 1.38 | 1.35 |
| 2 | J | 9 | ADP | C4-N3 | 2.14 | 1.38 | 1.35 |
| 2 | I | 8 | ADP | C5'-C4' | 2.13 | 1.58 | 1.51 |
| 2 | L | 11 | ADP | C4-N3 | 2.13 | 1.38 | 1.35 |
| 2 | A | 6 | ADP | C2-N1 | 2.12 | 1.37 | 1.33 |
| 2 | L | 11 | ADP | C8-N7 | -2.11 | 1.30 | 1.34 |
| 2 | J | 9 | ADP | C5'-C4' | 2.11 | 1.58 | 1.51 |
| 2 | E | 3 | ADP | C4-N3 | 2.09 | 1.38 | 1.35 |
| 2 | D | 2 | ADP | PA-O2A | -2.08 | 1.45 | 1.55 |
| 2 | N | 13 | ADP | C5'-C4' | 2.08 | 1.58 | 1.51 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|------|-------------|----------|
| 2 | H | 14 | ADP | C5'-C4' | 2.06 | 1.58 | 1.51 |
| 2 | B | 7 | ADP | C5'-C4' | 2.03 | 1.57 | 1.51 |
| 2 | J | 9 | ADP | C2-N1 | 2.02 | 1.37 | 1.33 |

All (37) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 2 | E | 3 | ADP | N3-C2-N1 | -7.02 | 117.70 | 128.68 |
| 2 | K | 10 | ADP | N3-C2-N1 | -6.82 | 118.01 | 128.68 |
| 2 | G | 5 | ADP | N3-C2-N1 | -6.80 | 118.05 | 128.68 |
| 2 | D | 2 | ADP | N3-C2-N1 | -6.75 | 118.12 | 128.68 |
| 2 | J | 9 | ADP | N3-C2-N1 | -6.72 | 118.17 | 128.68 |
| 2 | H | 14 | ADP | N3-C2-N1 | -6.72 | 118.17 | 128.68 |
| 2 | A | 6 | ADP | N3-C2-N1 | -6.69 | 118.22 | 128.68 |
| 2 | L | 11 | ADP | N3-C2-N1 | -6.66 | 118.27 | 128.68 |
| 2 | B | 7 | ADP | N3-C2-N1 | -6.64 | 118.29 | 128.68 |
| 2 | N | 13 | ADP | N3-C2-N1 | -6.64 | 118.30 | 128.68 |
| 2 | M | 12 | ADP | N3-C2-N1 | -6.61 | 118.35 | 128.68 |
| 2 | I | 8 | ADP | N3-C2-N1 | -6.61 | 118.35 | 128.68 |
| 2 | F | 4 | ADP | N3-C2-N1 | -6.54 | 118.45 | 128.68 |
| 2 | C | 1 | ADP | N3-C2-N1 | -6.42 | 118.64 | 128.68 |
| 2 | B | 7 | ADP | C2'-C3'-C4' | 2.85 | 108.19 | 102.64 |
| 2 | A | 6 | ADP | C2'-C3'-C4' | 2.69 | 107.87 | 102.64 |
| 2 | K | 10 | ADP | C2'-C3'-C4' | 2.66 | 107.81 | 102.64 |
| 2 | G | 5 | ADP | C2'-C3'-C4' | 2.60 | 107.69 | 102.64 |
| 2 | G | 5 | ADP | O3B-PB-O3A | 2.54 | 113.15 | 104.64 |
| 2 | D | 2 | ADP | C2'-C3'-C4' | 2.50 | 107.50 | 102.64 |
| 2 | F | 4 | ADP | O4'-C4'-C5' | -2.42 | 101.40 | 109.37 |
| 2 | B | 7 | ADP | C3'-C2'-C1' | 2.39 | 104.57 | 100.98 |
| 2 | A | 6 | ADP | C3'-C2'-C1' | 2.34 | 104.49 | 100.98 |
| 2 | J | 9 | ADP | C2'-C3'-C4' | 2.31 | 107.14 | 102.64 |
| 2 | L | 11 | ADP | O4'-C4'-C5' | -2.29 | 101.83 | 109.37 |
| 2 | K | 10 | ADP | C3'-C2'-C1' | 2.24 | 104.35 | 100.98 |
| 2 | D | 2 | ADP | C3'-C2'-C1' | 2.22 | 104.31 | 100.98 |
| 2 | G | 5 | ADP | O4'-C1'-C2' | 2.19 | 110.13 | 106.93 |
| 2 | I | 8 | ADP | O5'-C5'-C4' | -2.15 | 101.58 | 108.99 |
| 2 | H | 14 | ADP | C2'-C3'-C4' | 2.14 | 106.79 | 102.64 |
| 2 | M | 12 | ADP | C2-N1-C6 | 2.08 | 122.32 | 118.75 |
| 2 | I | 8 | ADP | PA-O5'-C5' | 2.08 | 133.89 | 121.68 |
| 2 | F | 4 | ADP | C4-C5-N7 | -2.08 | 107.24 | 109.40 |
| 2 | D | 2 | ADP | C4-C5-N7 | -2.06 | 107.25 | 109.40 |
| 2 | N | 13 | ADP | C2'-C3'-C4' | 2.06 | 106.64 | 102.64 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|------|-------------|----------|
| 2 | M | 12 | ADP | C2'-C3'-C4' | 2.02 | 106.57 | 102.64 |
| 2 | J | 9 | ADP | C3'-C2'-C1' | 2.00 | 104.00 | 100.98 |

There are no chirality outliers.

All (92) torsion outliers are listed below:

| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 2 | A | 6 | ADP | PA-O3A-PB-O2B |
| 2 | A | 6 | ADP | C5'-O5'-PA-O1A |
| 2 | A | 6 | ADP | C5'-O5'-PA-O2A |
| 2 | A | 6 | ADP | C5'-O5'-PA-O3A |
| 2 | A | 6 | ADP | O4'-C4'-C5'-O5' |
| 2 | B | 7 | ADP | C5'-O5'-PA-O1A |
| 2 | B | 7 | ADP | C5'-O5'-PA-O2A |
| 2 | B | 7 | ADP | C5'-O5'-PA-O3A |
| 2 | C | 1 | ADP | C5'-O5'-PA-O1A |
| 2 | C | 1 | ADP | C5'-O5'-PA-O2A |
| 2 | C | 1 | ADP | C5'-O5'-PA-O3A |
| 2 | D | 2 | ADP | PA-O3A-PB-O2B |
| 2 | D | 2 | ADP | C5'-O5'-PA-O1A |
| 2 | D | 2 | ADP | C5'-O5'-PA-O2A |
| 2 | D | 2 | ADP | C5'-O5'-PA-O3A |
| 2 | E | 3 | ADP | PA-O3A-PB-O2B |
| 2 | E | 3 | ADP | C5'-O5'-PA-O1A |
| 2 | E | 3 | ADP | C5'-O5'-PA-O2A |
| 2 | E | 3 | ADP | C5'-O5'-PA-O3A |
| 2 | F | 4 | ADP | C5'-O5'-PA-O1A |
| 2 | F | 4 | ADP | C5'-O5'-PA-O2A |
| 2 | F | 4 | ADP | C5'-O5'-PA-O3A |
| 2 | G | 5 | ADP | C5'-O5'-PA-O1A |
| 2 | G | 5 | ADP | C5'-O5'-PA-O2A |
| 2 | G | 5 | ADP | C5'-O5'-PA-O3A |
| 2 | H | 14 | ADP | C5'-O5'-PA-O1A |
| 2 | H | 14 | ADP | C5'-O5'-PA-O2A |
| 2 | H | 14 | ADP | C5'-O5'-PA-O3A |
| 2 | H | 14 | ADP | O4'-C4'-C5'-O5' |
| 2 | I | 8 | ADP | C5'-O5'-PA-O1A |
| 2 | I | 8 | ADP | C5'-O5'-PA-O2A |
| 2 | I | 8 | ADP | C5'-O5'-PA-O3A |
| 2 | J | 9 | ADP | PA-O3A-PB-O2B |
| 2 | J | 9 | ADP | C5'-O5'-PA-O1A |
| 2 | J | 9 | ADP | C5'-O5'-PA-O2A |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 2 | J | 9 | ADP | C5'-O5'-PA-O3A |
| 2 | K | 10 | ADP | PA-O3A-PB-O2B |
| 2 | K | 10 | ADP | C5'-O5'-PA-O1A |
| 2 | K | 10 | ADP | C5'-O5'-PA-O2A |
| 2 | K | 10 | ADP | C5'-O5'-PA-O3A |
| 2 | L | 11 | ADP | PA-O3A-PB-O2B |
| 2 | L | 11 | ADP | C5'-O5'-PA-O1A |
| 2 | L | 11 | ADP | C5'-O5'-PA-O2A |
| 2 | L | 11 | ADP | C5'-O5'-PA-O3A |
| 2 | M | 12 | ADP | C5'-O5'-PA-O1A |
| 2 | M | 12 | ADP | C5'-O5'-PA-O2A |
| 2 | M | 12 | ADP | C5'-O5'-PA-O3A |
| 2 | N | 13 | ADP | PA-O3A-PB-O2B |
| 2 | N | 13 | ADP | C5'-O5'-PA-O1A |
| 2 | N | 13 | ADP | C5'-O5'-PA-O2A |
| 2 | N | 13 | ADP | C5'-O5'-PA-O3A |
| 2 | B | 7 | ADP | O4'-C4'-C5'-O5' |
| 2 | H | 14 | ADP | C3'-C4'-C5'-O5' |
| 2 | A | 6 | ADP | C3'-C4'-C5'-O5' |
| 2 | C | 1 | ADP | O4'-C4'-C5'-O5' |
| 2 | C | 1 | ADP | C3'-C4'-C5'-O5' |
| 2 | D | 2 | ADP | O4'-C4'-C5'-O5' |
| 2 | D | 2 | ADP | C3'-C4'-C5'-O5' |
| 2 | E | 3 | ADP | C3'-C4'-C5'-O5' |
| 2 | F | 4 | ADP | O4'-C4'-C5'-O5' |
| 2 | F | 4 | ADP | C3'-C4'-C5'-O5' |
| 2 | I | 8 | ADP | O4'-C4'-C5'-O5' |
| 2 | I | 8 | ADP | C3'-C4'-C5'-O5' |
| 2 | J | 9 | ADP | O4'-C4'-C5'-O5' |
| 2 | J | 9 | ADP | C3'-C4'-C5'-O5' |
| 2 | K | 10 | ADP | O4'-C4'-C5'-O5' |
| 2 | K | 10 | ADP | C3'-C4'-C5'-O5' |
| 2 | L | 11 | ADP | O4'-C4'-C5'-O5' |
| 2 | L | 11 | ADP | C3'-C4'-C5'-O5' |
| 2 | N | 13 | ADP | O4'-C4'-C5'-O5' |
| 2 | N | 13 | ADP | C3'-C4'-C5'-O5' |
| 2 | G | 5 | ADP | O4'-C4'-C5'-O5' |
| 2 | G | 5 | ADP | C3'-C4'-C5'-O5' |
| 2 | E | 3 | ADP | O4'-C4'-C5'-O5' |
| 2 | M | 12 | ADP | O4'-C4'-C5'-O5' |
| 2 | M | 12 | ADP | C3'-C4'-C5'-O5' |
| 2 | C | 1 | ADP | PA-O3A-PB-O1B |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 2 | F | 4 | ADP | PA-O3A-PB-O1B |
| 2 | H | 14 | ADP | PA-O3A-PB-O1B |
| 2 | I | 8 | ADP | PA-O3A-PB-O1B |
| 2 | B | 7 | ADP | C3'-C4'-C5'-O5' |
| 2 | D | 2 | ADP | PA-O3A-PB-O3B |
| 2 | B | 7 | ADP | PB-O3A-PA-O2A |
| 2 | A | 6 | ADP | PA-O3A-PB-O1B |
| 2 | K | 10 | ADP | PA-O3A-PB-O1B |
| 2 | A | 6 | ADP | PA-O3A-PB-O3B |
| 2 | K | 10 | ADP | PA-O3A-PB-O3B |
| 2 | L | 11 | ADP | PA-O3A-PB-O3B |
| 2 | N | 13 | ADP | PA-O3A-PB-O3B |
| 2 | D | 2 | ADP | PA-O3A-PB-O1B |
| 2 | J | 9 | ADP | PA-O3A-PB-O1B |
| 2 | L | 11 | ADP | PA-O3A-PB-O1B |

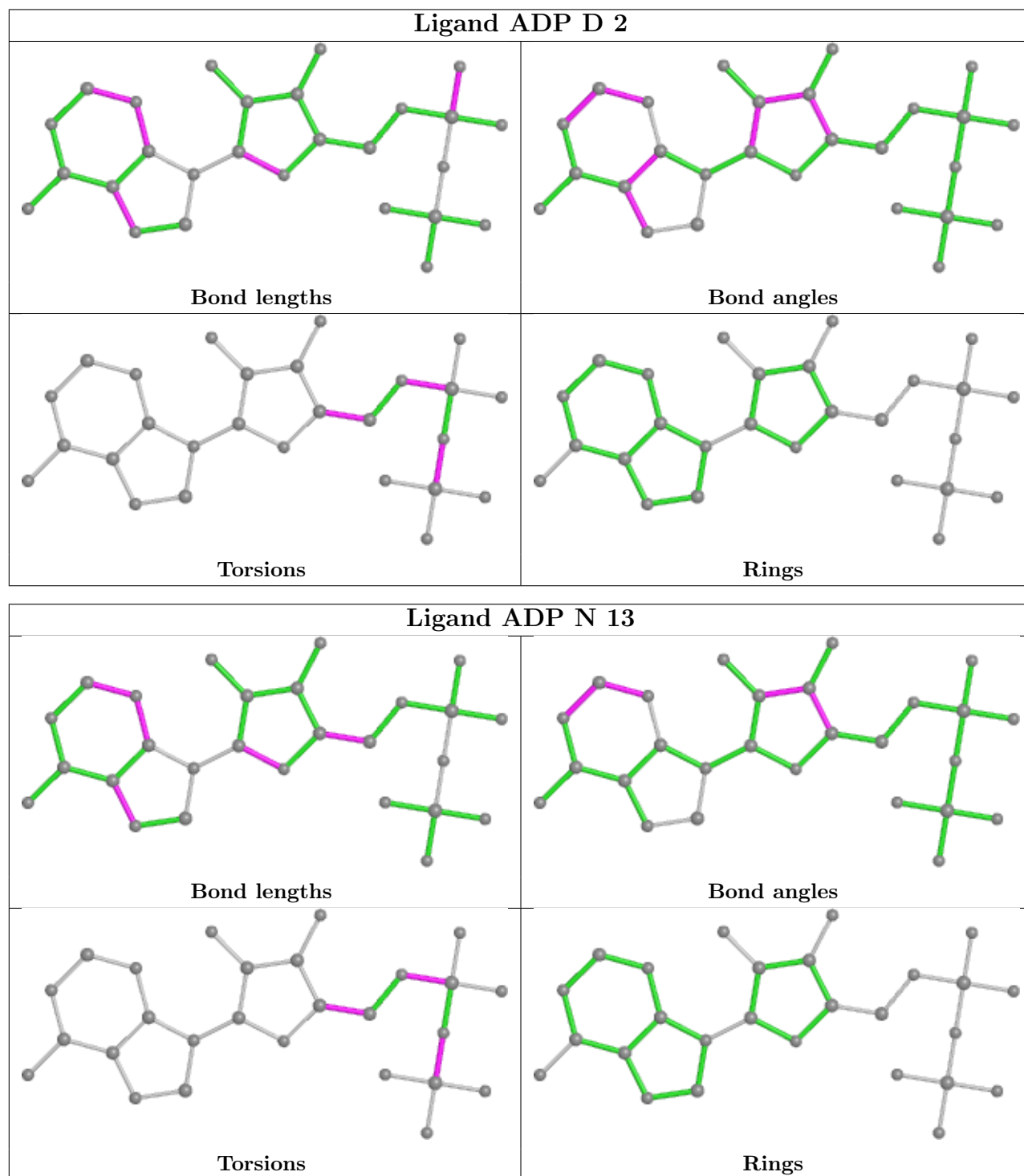
There are no ring outliers.

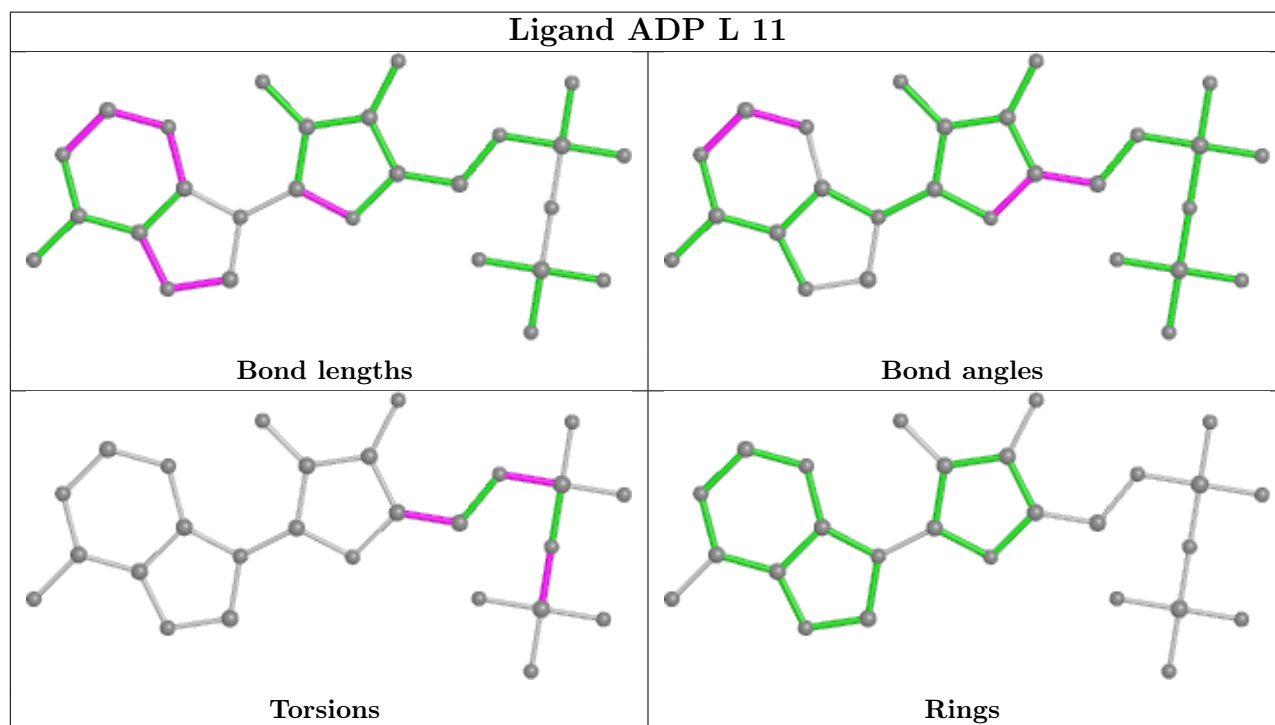
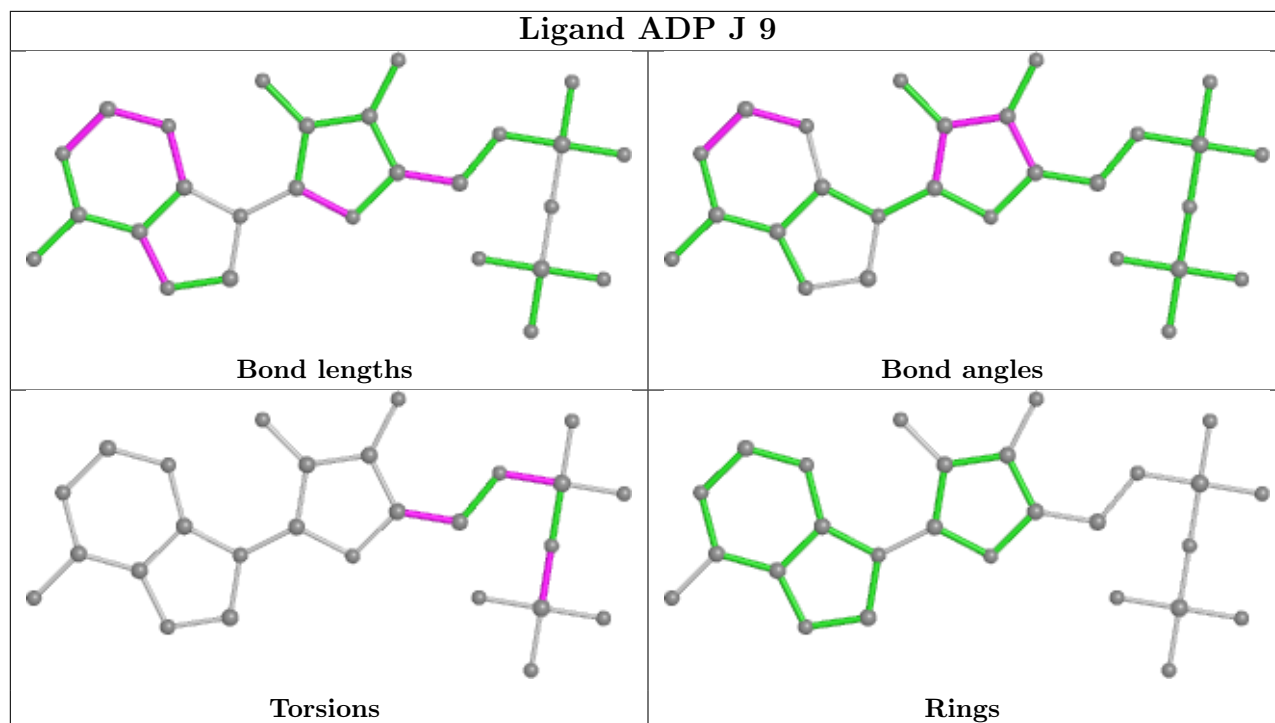
13 monomers are involved in 47 short contacts:

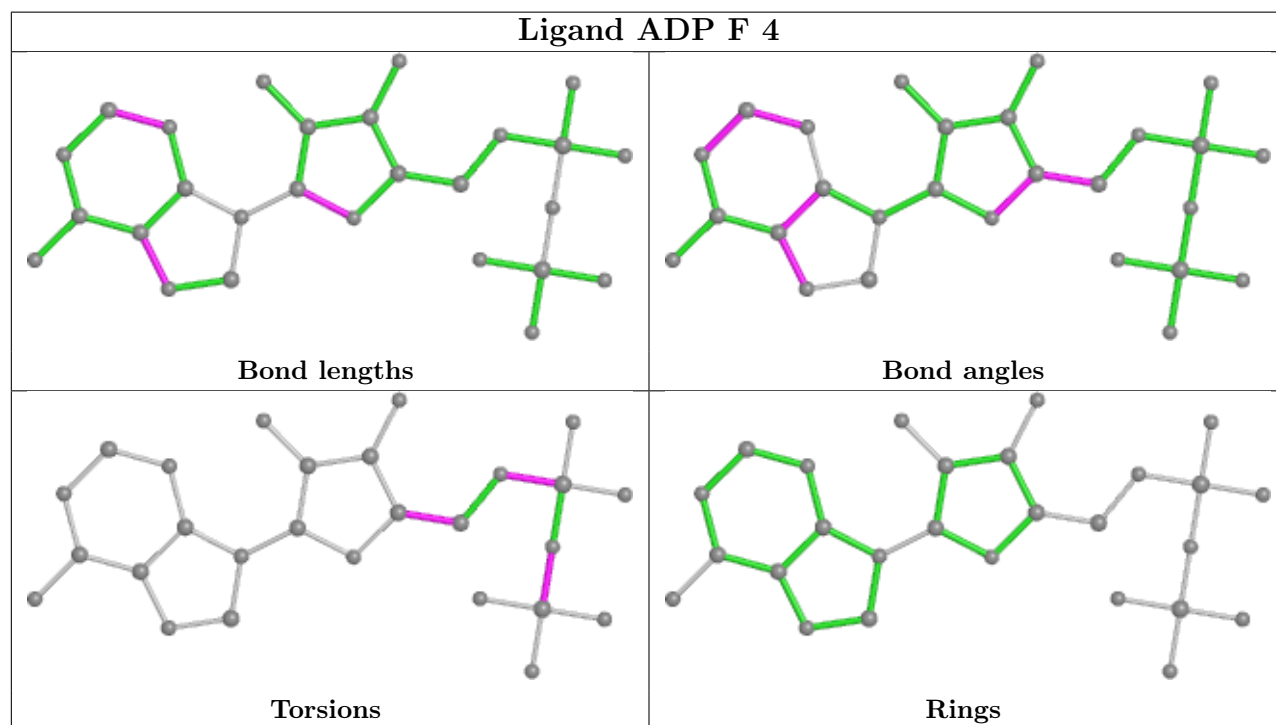
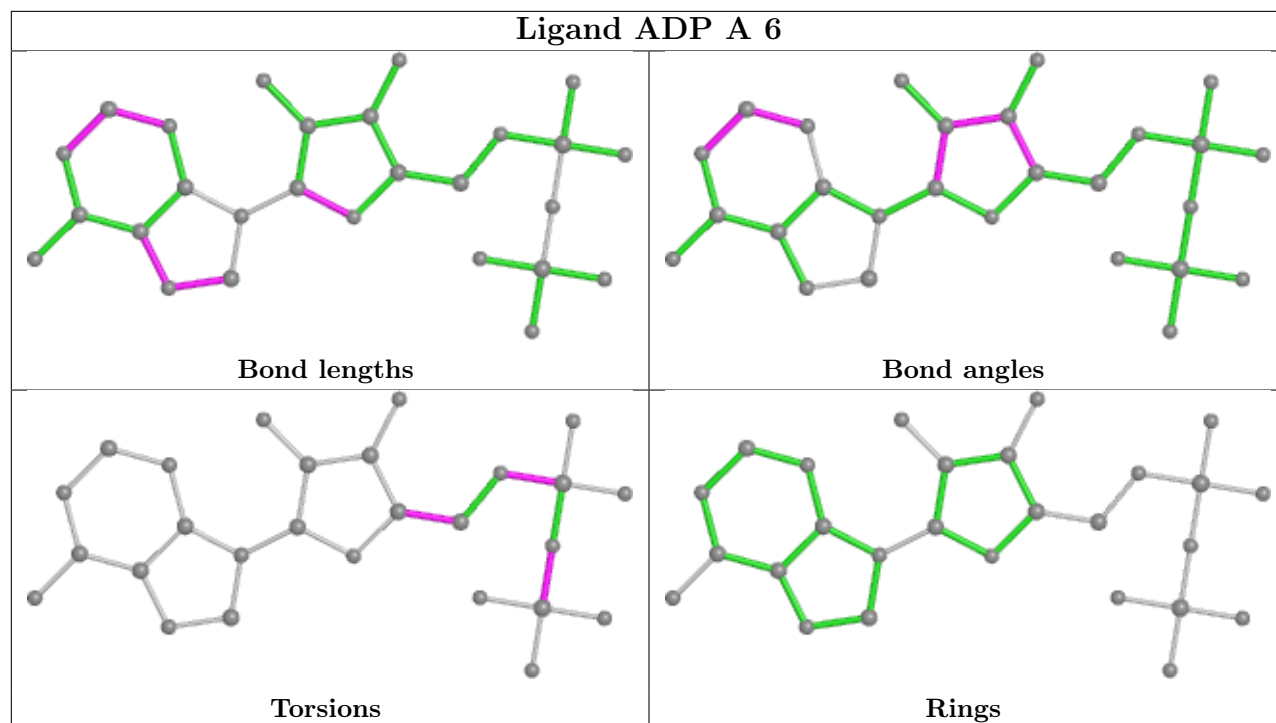
| Mol | Chain | Res | Type | Clashes | Symm-Clashes |
|-----|-------|-----|------|---------|--------------|
| 2 | D | 2 | ADP | 6 | 0 |
| 2 | N | 13 | ADP | 2 | 0 |
| 2 | J | 9 | ADP | 1 | 0 |
| 2 | L | 11 | ADP | 6 | 0 |
| 2 | A | 6 | ADP | 2 | 0 |
| 2 | F | 4 | ADP | 7 | 0 |
| 2 | C | 1 | ADP | 4 | 0 |
| 2 | K | 10 | ADP | 1 | 0 |
| 2 | E | 3 | ADP | 3 | 0 |
| 2 | M | 12 | ADP | 6 | 0 |
| 2 | B | 7 | ADP | 1 | 0 |
| 2 | H | 14 | ADP | 3 | 0 |
| 2 | I | 8 | ADP | 5 | 0 |

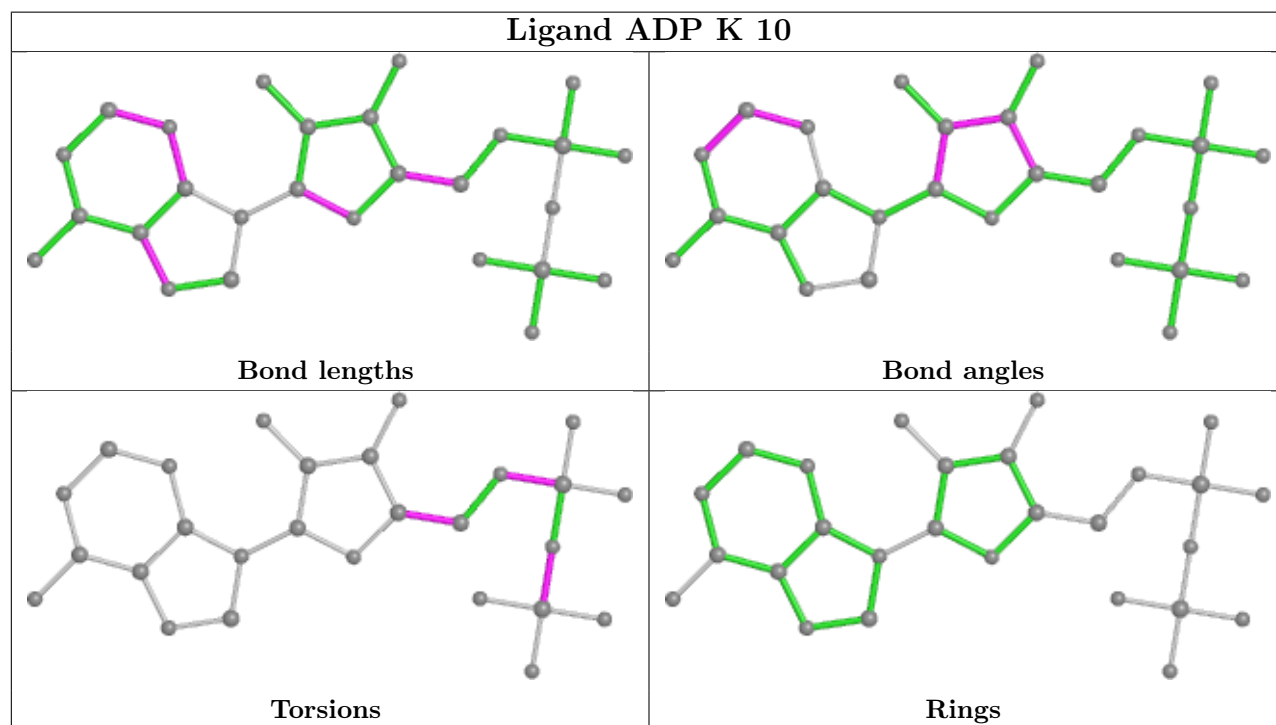
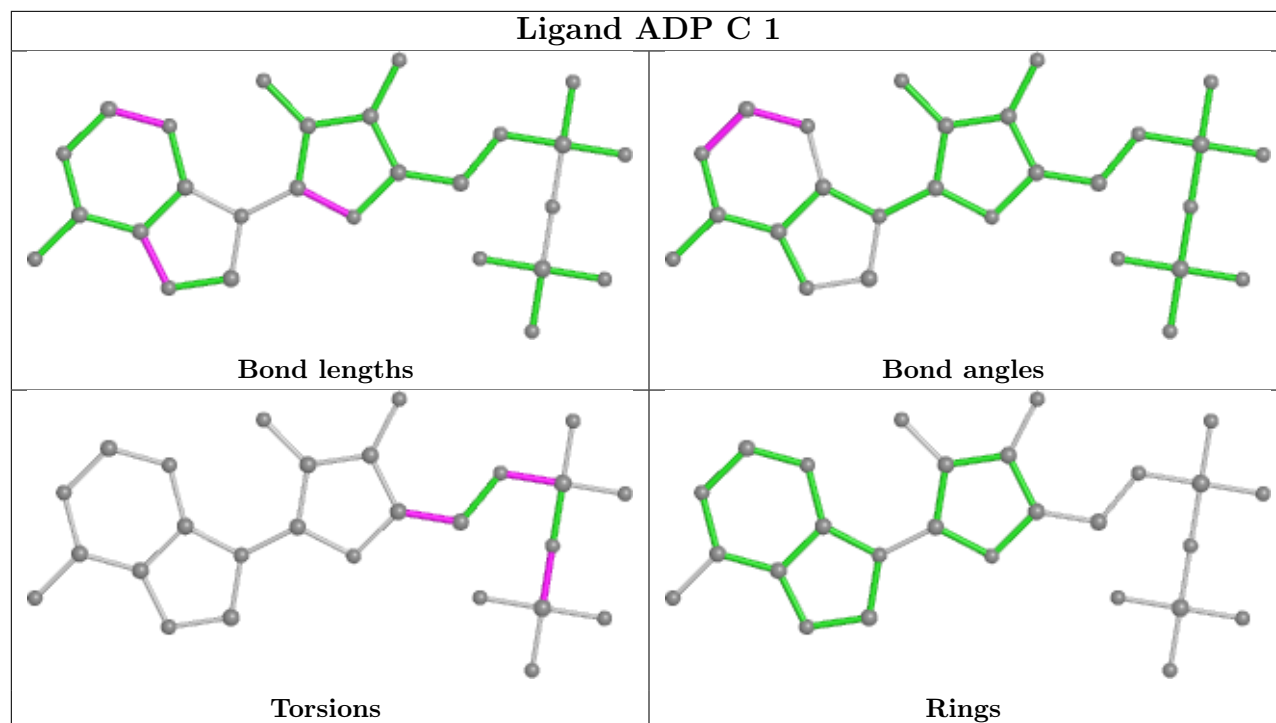
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the

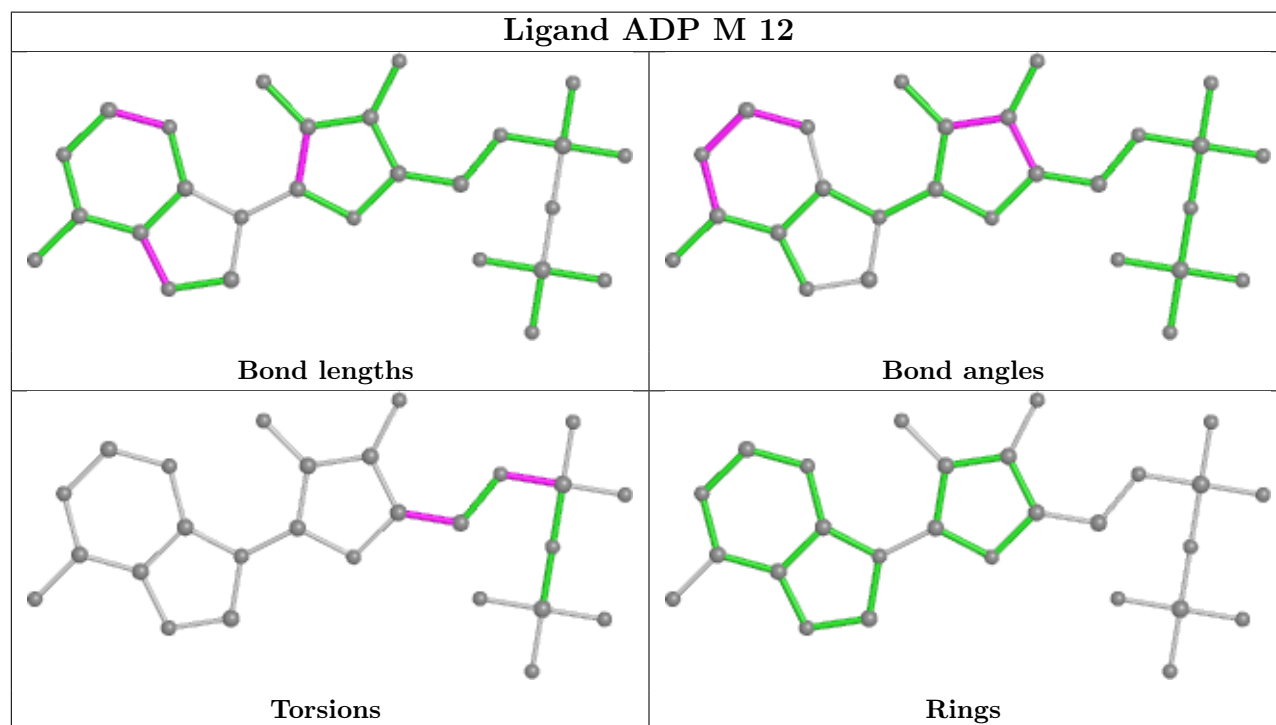
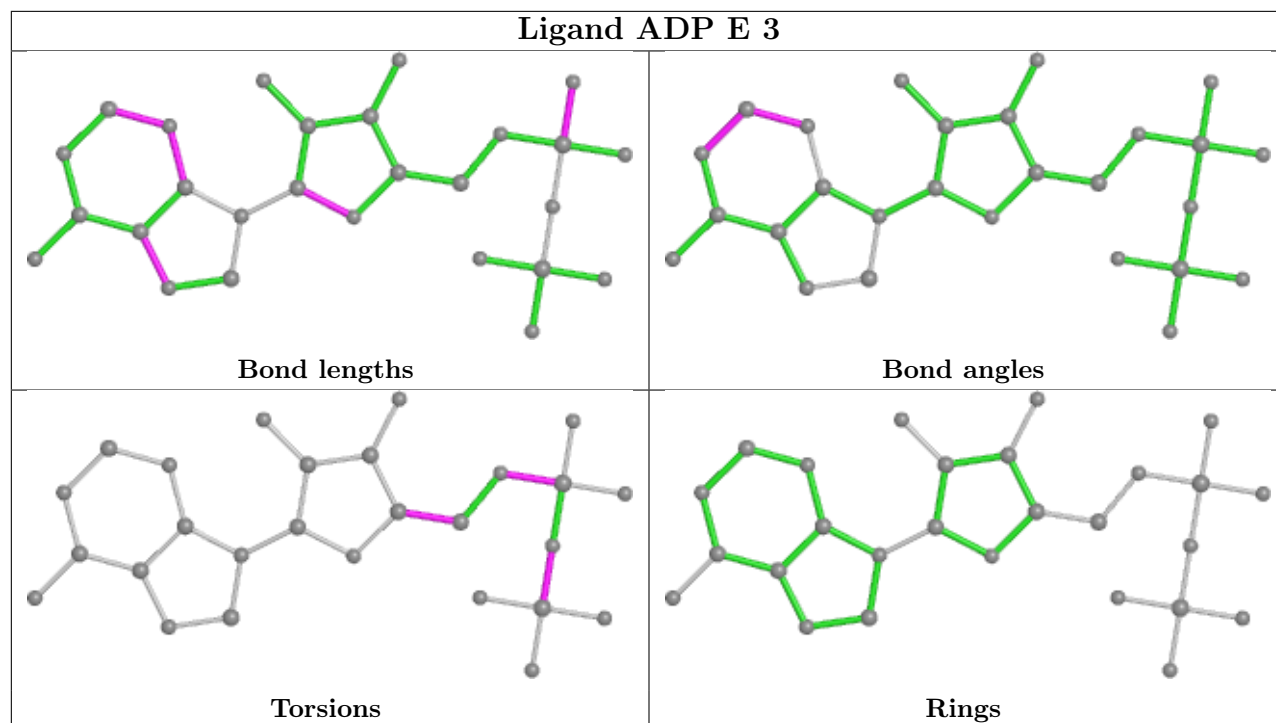
average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

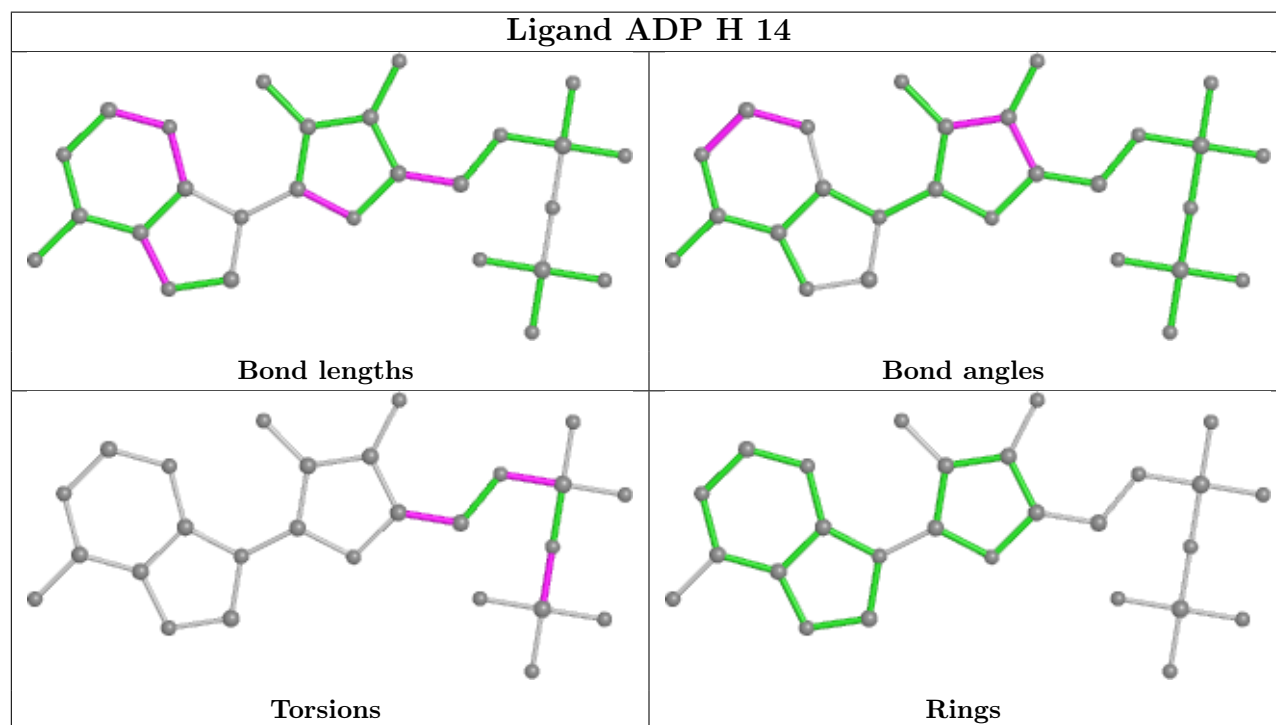
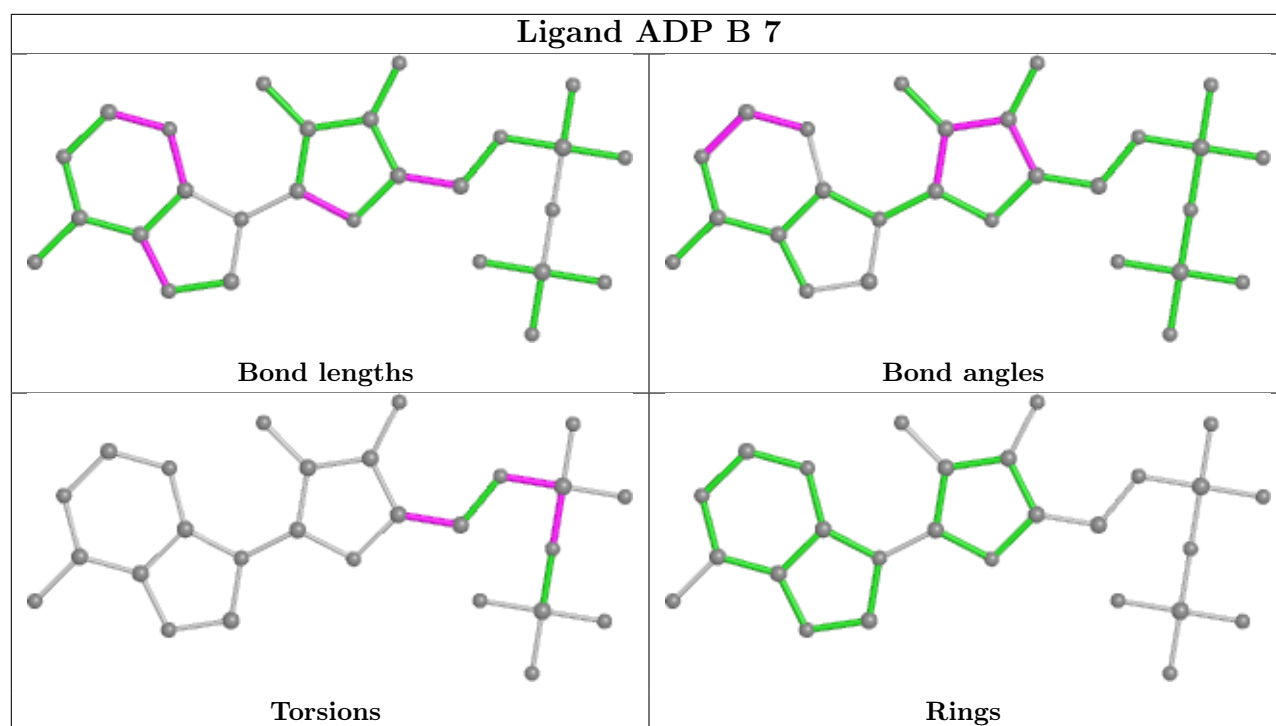


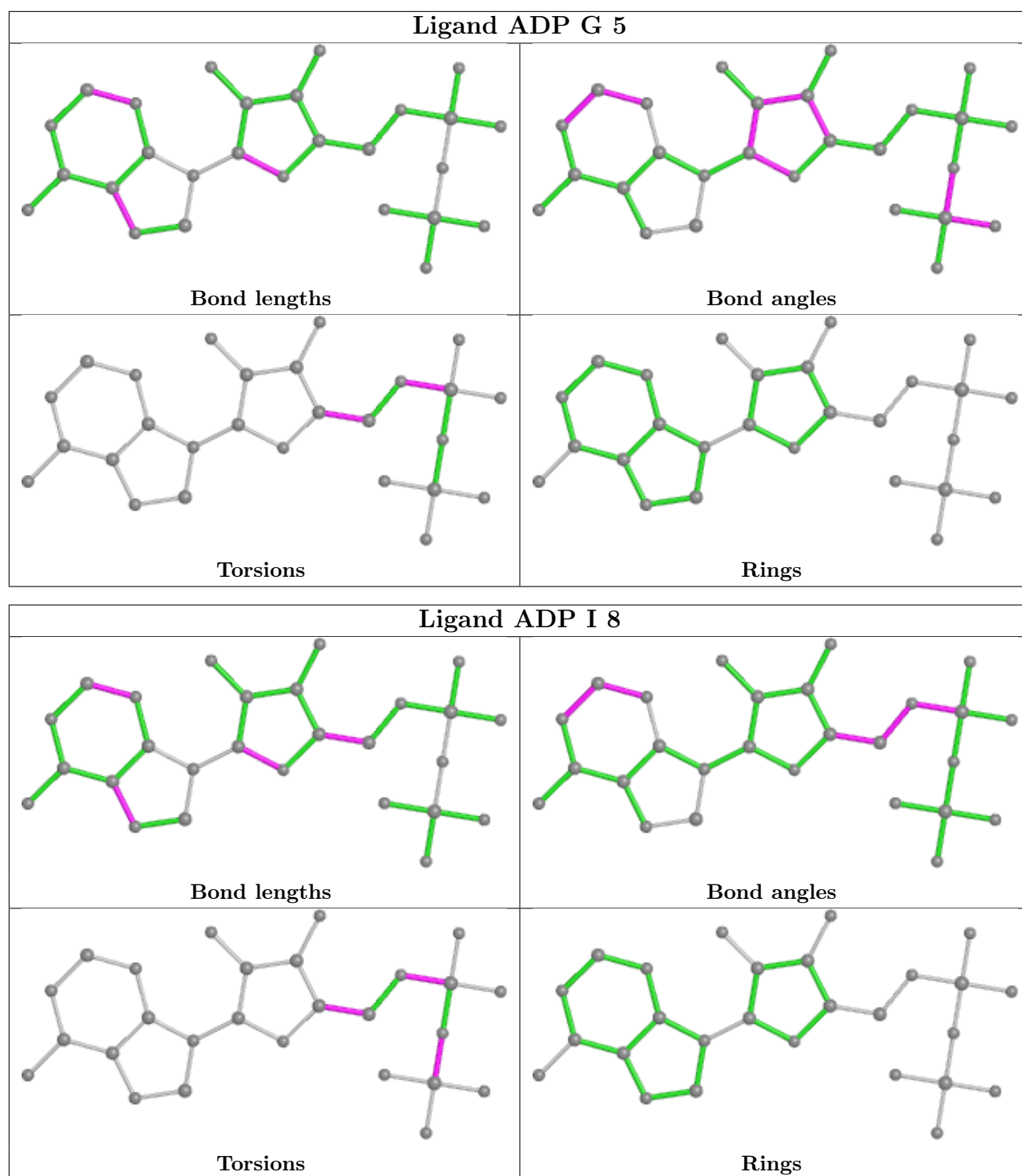












5.7 Other polymers [\(i\)](#)

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data [i](#)

6.1 Protein, DNA and RNA chains [i](#)

In the following table, the column labelled ‘#RSRZ > 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q < 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

| Mol | Chain | Analysed | <RSRZ> | #RSRZ>2 | OWAB(Å ²) | Q<0.9 |
|-----|-------|-----------------|--------|---------------|-----------------------|-------|
| 1 | A | 247/267 (92%) | -0.04 | 5 (2%) 65 44 | 29, 107, 142, 151 | 0 |
| 1 | B | 243/267 (91%) | 0.05 | 7 (2%) 51 28 | 18, 101, 150, 151 | 0 |
| 1 | C | 248/267 (92%) | -0.13 | 0 100 100 | 43, 85, 128, 142 | 0 |
| 1 | D | 247/267 (92%) | -0.15 | 0 100 100 | 43, 90, 136, 148 | 0 |
| 1 | E | 248/267 (92%) | -0.09 | 7 (2%) 53 30 | 18, 83, 140, 151 | 0 |
| 1 | F | 248/267 (92%) | -0.03 | 8 (3%) 47 25 | 44, 106, 146, 150 | 0 |
| 1 | G | 248/267 (92%) | 0.07 | 7 (2%) 53 30 | 64, 114, 150, 151 | 0 |
| 1 | H | 245/267 (91%) | 0.25 | 13 (5%) 26 12 | 77, 129, 151, 151 | 0 |
| 1 | I | 247/267 (92%) | -0.09 | 5 (2%) 65 44 | 65, 103, 147, 151 | 0 |
| 1 | J | 247/267 (92%) | 0.19 | 15 (6%) 21 9 | 71, 119, 147, 151 | 0 |
| 1 | K | 248/267 (92%) | 0.03 | 6 (2%) 59 37 | 57, 104, 137, 148 | 0 |
| 1 | L | 246/267 (92%) | -0.11 | 2 (0%) 86 72 | 27, 80, 126, 150 | 0 |
| 1 | M | 247/267 (92%) | -0.07 | 2 (0%) 86 72 | 25, 100, 139, 146 | 0 |
| 1 | N | 247/267 (92%) | -0.10 | 3 (1%) 79 61 | 67, 106, 138, 151 | 0 |
| All | All | 3456/3738 (92%) | -0.02 | 80 (2%) 60 39 | 18, 102, 148, 151 | 0 |

All (80) RSRZ outliers are listed below:

| Mol | Chain | Res | Type | RSRZ |
|-----|-------|-----|------|------|
| 1 | G | 382 | CYS | 6.9 |
| 1 | E | 264 | GLY | 6.0 |
| 1 | F | 276 | LEU | 5.4 |
| 1 | J | 305 | ILE | 5.0 |
| 1 | E | 211 | TYR | 4.6 |
| 1 | B | 339 | PHE | 4.6 |
| 1 | E | 263 | LEU | 4.4 |
| 1 | J | 255 | ILE | 4.2 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | B | 310 | LEU | 4.2 |
| 1 | H | 347 | LEU | 4.0 |
| 1 | H | 357 | ARG | 3.8 |
| 1 | H | 339 | PHE | 3.7 |
| 1 | A | 300 | LEU | 3.3 |
| 1 | F | 275 | ILE | 3.2 |
| 1 | H | 333 | ALA | 3.2 |
| 1 | H | 380 | LEU | 3.1 |
| 1 | I | 347 | LEU | 3.1 |
| 1 | J | 237 | LEU | 3.1 |
| 1 | G | 270 | GLU | 3.0 |
| 1 | N | 141 | PHE | 3.0 |
| 1 | H | 366 | ALA | 3.0 |
| 1 | M | 380 | LEU | 2.9 |
| 1 | J | 204 | PHE | 2.9 |
| 1 | I | 300 | LEU | 2.9 |
| 1 | G | 251 | LEU | 2.9 |
| 1 | E | 266 | ARG | 2.8 |
| 1 | E | 209 | PHE | 2.8 |
| 1 | K | 139 | TYR | 2.8 |
| 1 | A | 302 | VAL | 2.8 |
| 1 | H | 350 | TYR | 2.7 |
| 1 | I | 380 | LEU | 2.7 |
| 1 | J | 163 | VAL | 2.7 |
| 1 | J | 273 | VAL | 2.7 |
| 1 | J | 303 | ILE | 2.6 |
| 1 | H | 364 | GLU | 2.5 |
| 1 | G | 204 | PHE | 2.5 |
| 1 | K | 259 | LYS | 2.5 |
| 1 | E | 139 | TYR | 2.5 |
| 1 | B | 320 | LEU | 2.4 |
| 1 | K | 277 | ALA | 2.4 |
| 1 | J | 275 | ILE | 2.3 |
| 1 | F | 299 | ARG | 2.3 |
| 1 | G | 255 | ILE | 2.3 |
| 1 | K | 303 | ILE | 2.3 |
| 1 | B | 237 | LEU | 2.3 |
| 1 | J | 251 | LEU | 2.3 |
| 1 | A | 223 | LYS | 2.3 |
| 1 | H | 168 | GLU | 2.3 |
| 1 | E | 261 | TYR | 2.3 |
| 1 | N | 277 | ALA | 2.2 |

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Continued from previous page...

| Mol | Chain | Res | Type | RSRZ |
|-----|-------|-----|------|------|
| 1 | H | 163 | VAL | 2.2 |
| 1 | I | 260 | PHE | 2.2 |
| 1 | F | 191 | PHE | 2.2 |
| 1 | G | 369 | PHE | 2.2 |
| 1 | K | 380 | LEU | 2.1 |
| 1 | H | 310 | LEU | 2.1 |
| 1 | L | 139 | TYR | 2.1 |
| 1 | J | 208 | LEU | 2.1 |
| 1 | B | 240 | ILE | 2.1 |
| 1 | N | 216 | PHE | 2.1 |
| 1 | A | 180 | ILE | 2.1 |
| 1 | J | 153 | ILE | 2.1 |
| 1 | B | 332 | TYR | 2.1 |
| 1 | L | 298 | TYR | 2.1 |
| 1 | J | 381 | SER | 2.1 |
| 1 | H | 276 | LEU | 2.1 |
| 1 | F | 165 | ILE | 2.1 |
| 1 | I | 221 | SER | 2.1 |
| 1 | M | 266 | ARG | 2.1 |
| 1 | H | 328 | PHE | 2.1 |
| 1 | G | 269 | ILE | 2.1 |
| 1 | F | 227 | PHE | 2.0 |
| 1 | F | 213 | LYS | 2.0 |
| 1 | J | 227 | PHE | 2.0 |
| 1 | B | 382 | CYS | 2.0 |
| 1 | A | 183 | LEU | 2.0 |
| 1 | J | 375 | ILE | 2.0 |
| 1 | F | 237 | LEU | 2.0 |
| 1 | J | 339 | PHE | 2.0 |
| 1 | K | 305 | ILE | 2.0 |

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

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

6.3 Carbohydrates [i](#)

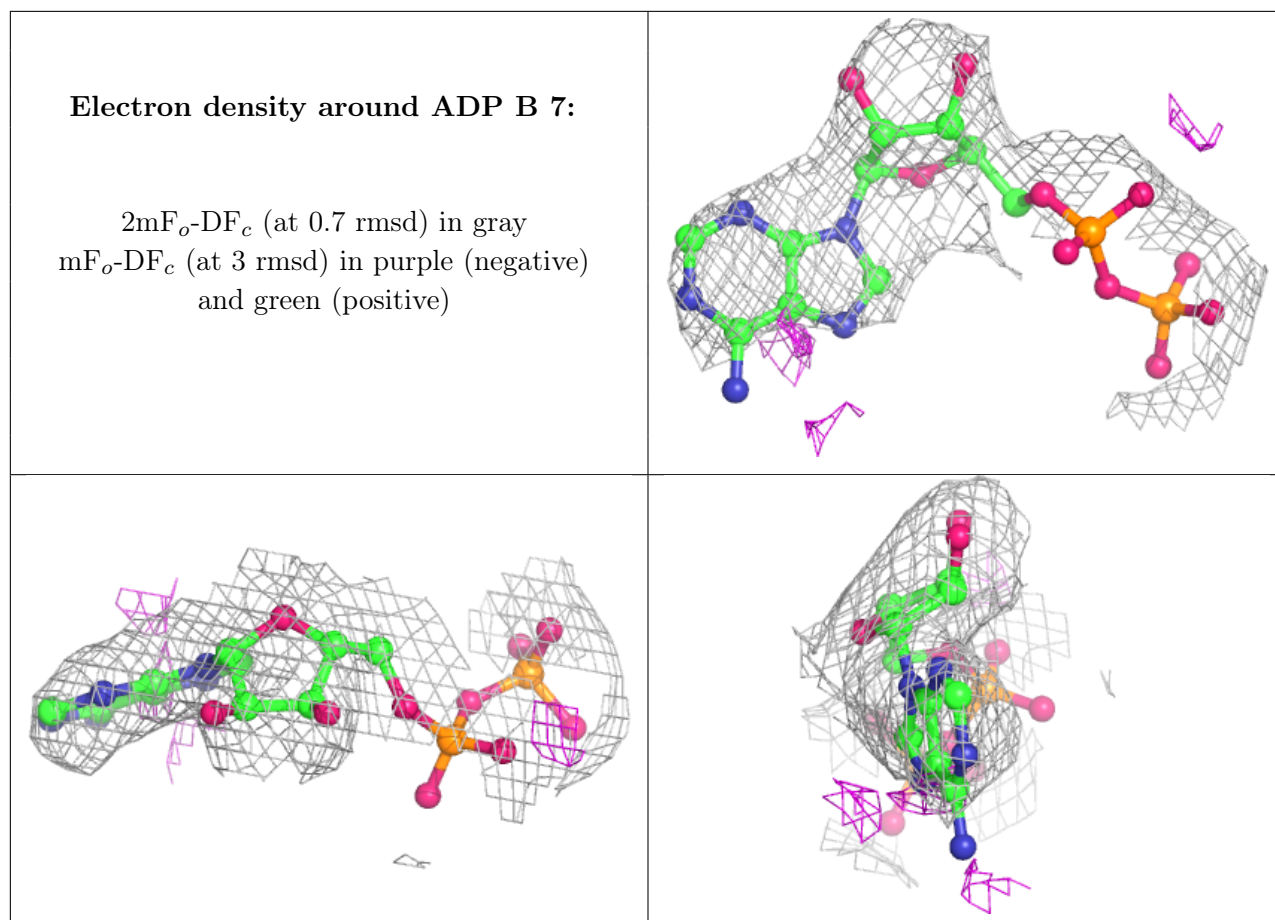
There are no monosaccharides in this entry.

6.4 Ligands

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

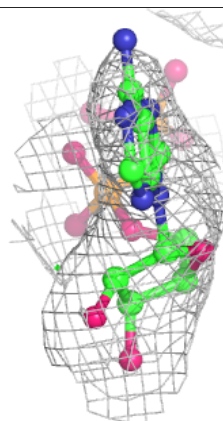
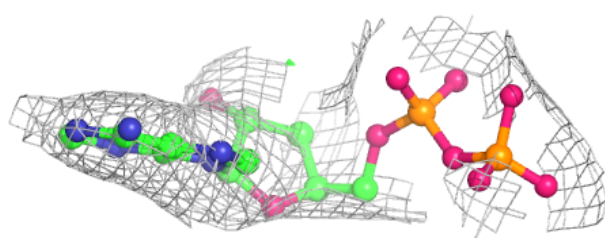
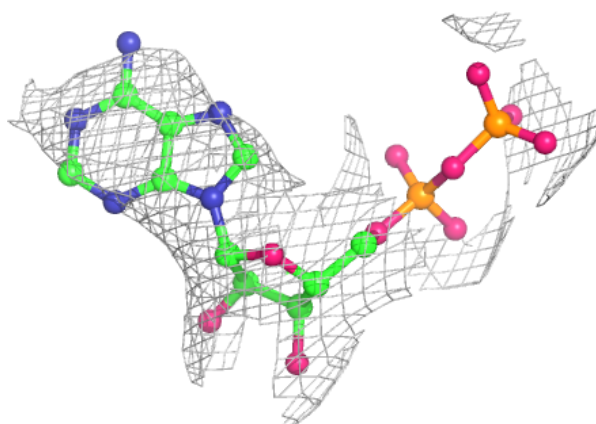
| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|-----|-------|------|------|----------------------------|-------|
| 2 | ADP | B | 7 | 27/27 | 0.91 | 0.21 | 96,111,114,114 | 0 |
| 2 | ADP | K | 10 | 27/27 | 0.91 | 0.21 | 99,103,108,110 | 0 |
| 2 | ADP | N | 13 | 27/27 | 0.91 | 0.18 | 100,106,110,111 | 0 |
| 2 | ADP | J | 9 | 27/27 | 0.92 | 0.16 | 92,95,102,104 | 0 |
| 2 | ADP | D | 2 | 27/27 | 0.92 | 0.22 | 71,82,91,93 | 0 |
| 2 | ADP | H | 14 | 27/27 | 0.92 | 0.24 | 125,141,143,143 | 0 |
| 2 | ADP | A | 6 | 27/27 | 0.93 | 0.20 | 84,88,92,96 | 0 |
| 2 | ADP | M | 12 | 27/27 | 0.93 | 0.18 | 51,67,86,87 | 0 |
| 2 | ADP | G | 5 | 27/27 | 0.93 | 0.19 | 52,65,75,80 | 0 |
| 2 | ADP | F | 4 | 27/27 | 0.94 | 0.17 | 62,66,84,87 | 0 |
| 2 | ADP | L | 11 | 27/27 | 0.94 | 0.20 | 48,60,84,93 | 0 |
| 2 | ADP | I | 8 | 27/27 | 0.96 | 0.18 | 66,81,87,90 | 0 |
| 2 | ADP | E | 3 | 27/27 | 0.96 | 0.18 | 51,64,70,79 | 0 |
| 2 | ADP | C | 1 | 27/27 | 0.96 | 0.19 | 54,70,77,79 | 0 |

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

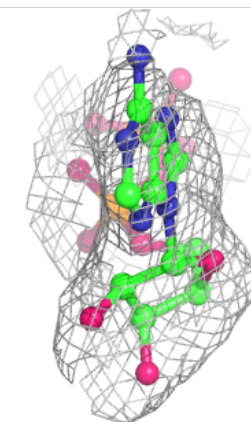
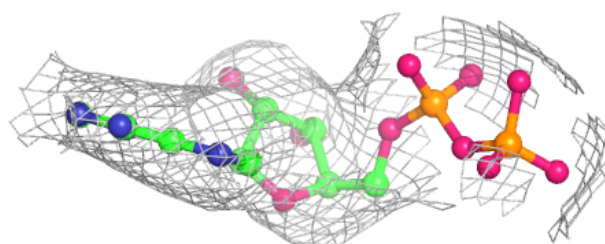
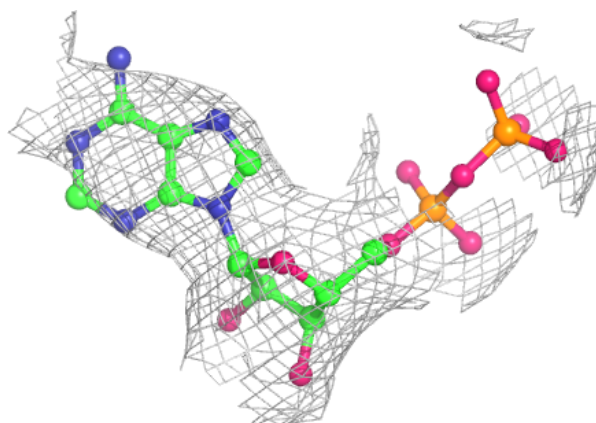


Electron density around ADP K 10:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

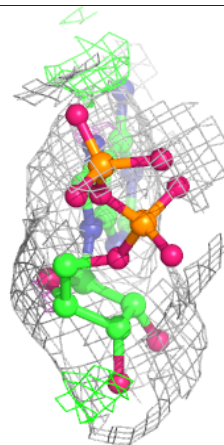
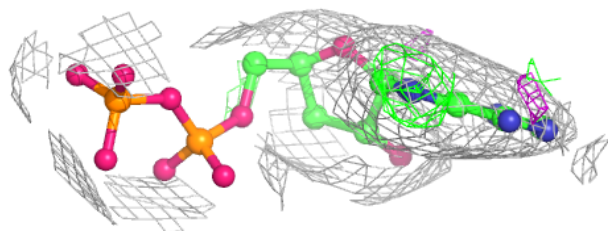
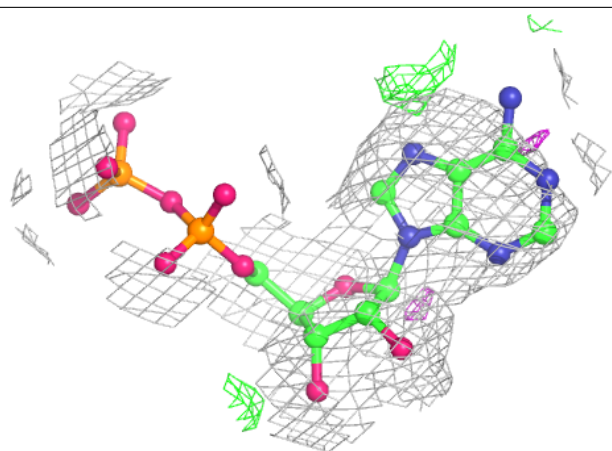
**Electron density around ADP N 13:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

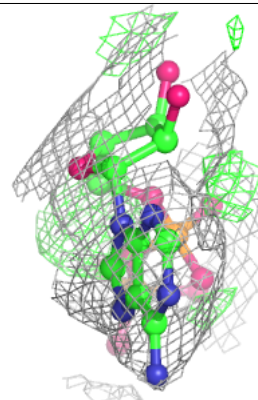
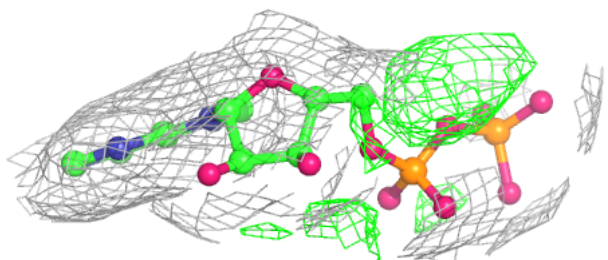
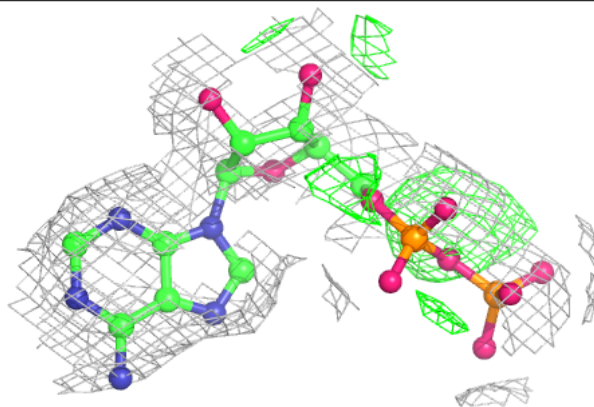


Electron density around ADP J 9:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

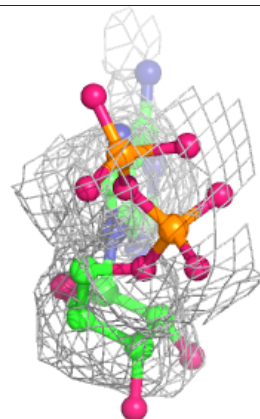
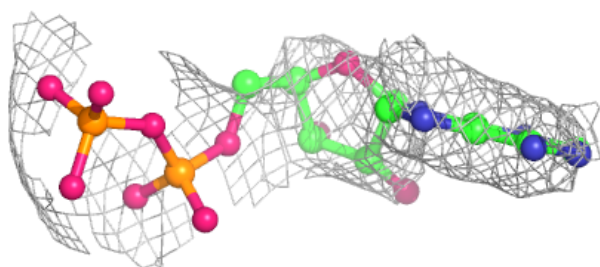
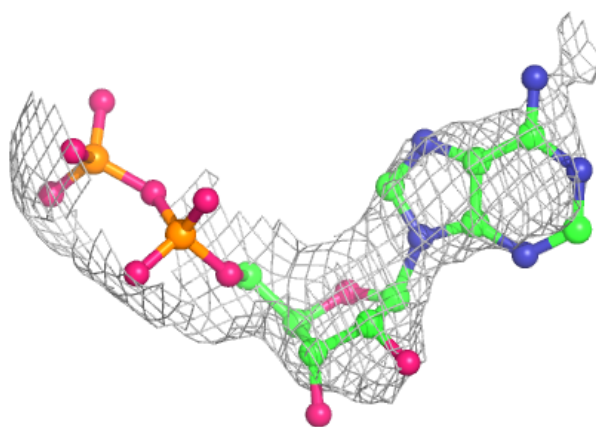
**Electron density around ADP D 2:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

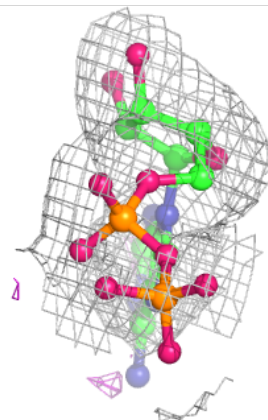
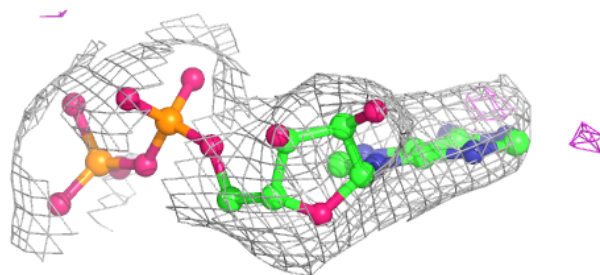
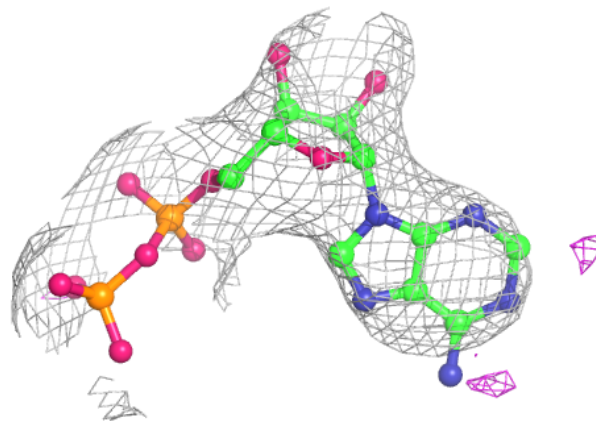


Electron density around ADP H 14:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

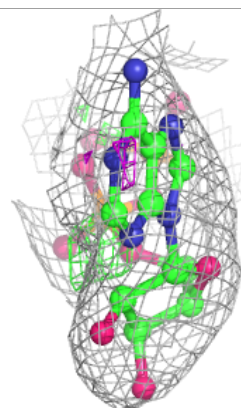
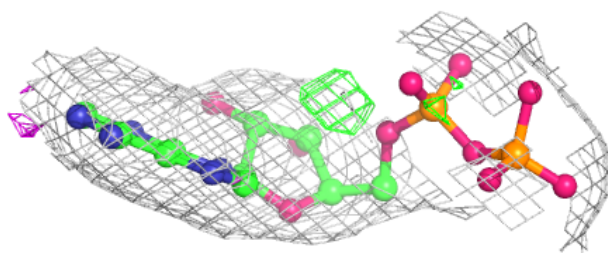
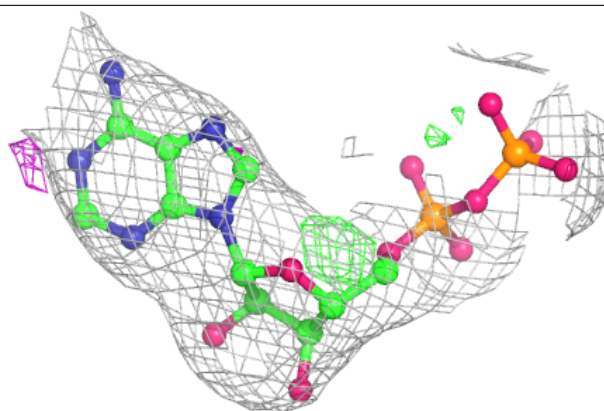
**Electron density around ADP A 6:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

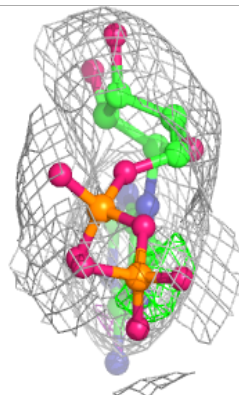
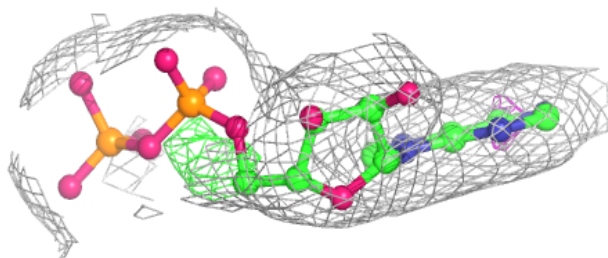
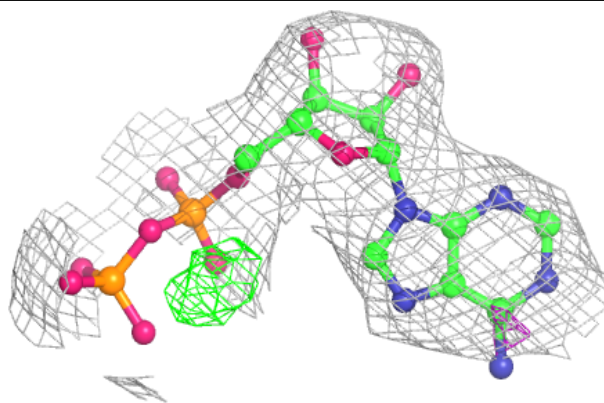


Electron density around ADP M 12:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

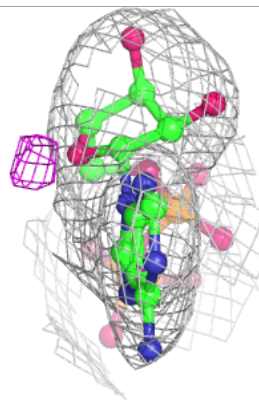
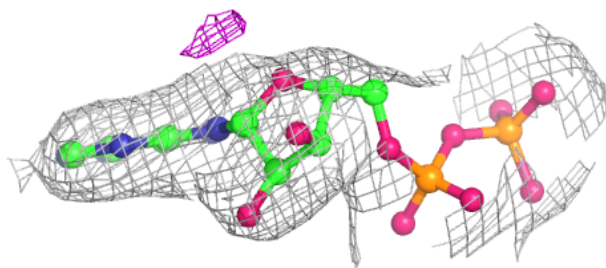
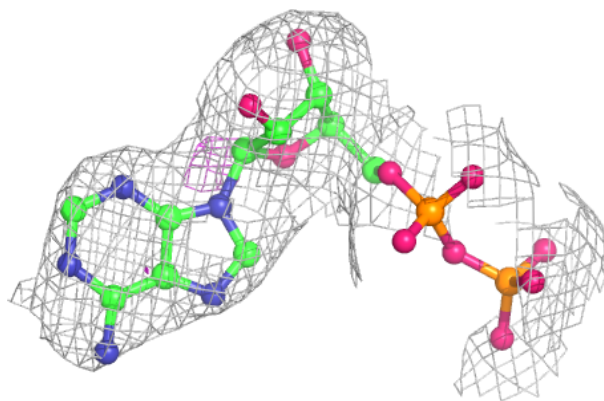
**Electron density around ADP G 5:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



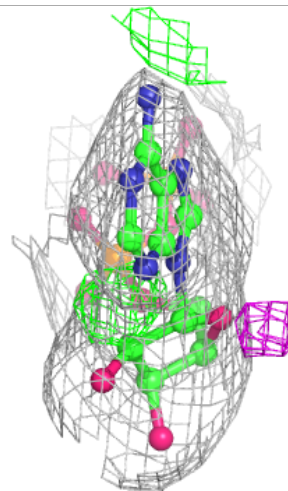
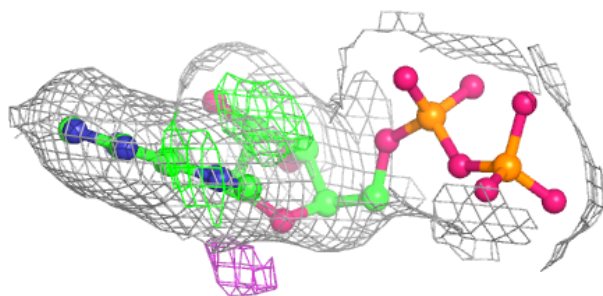
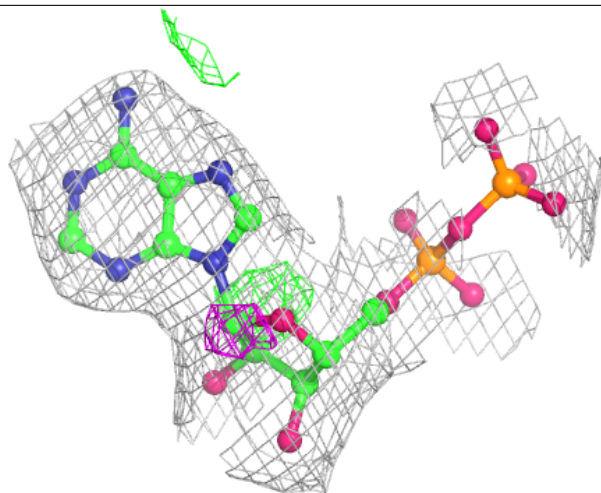
Electron density around ADP F 4:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



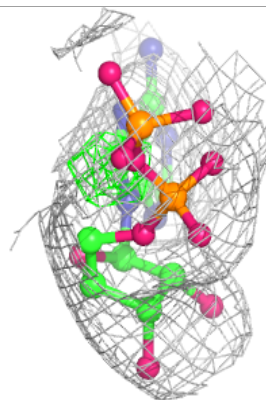
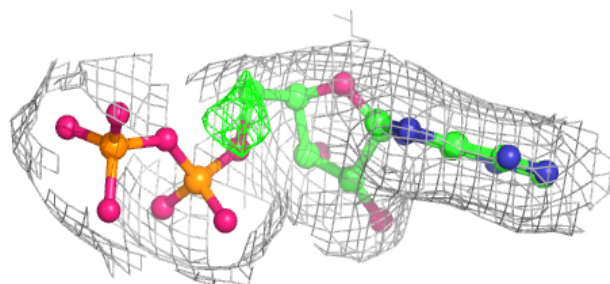
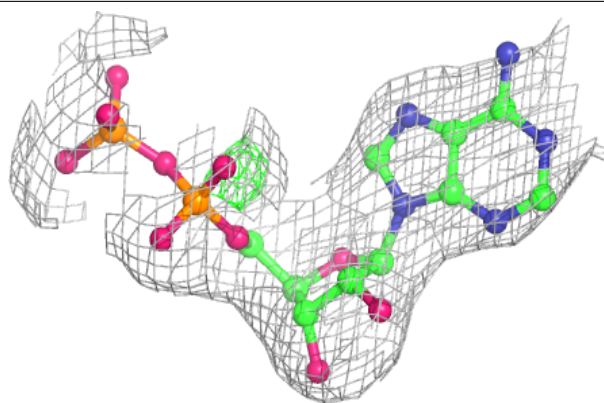
Electron density around ADP L 11:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

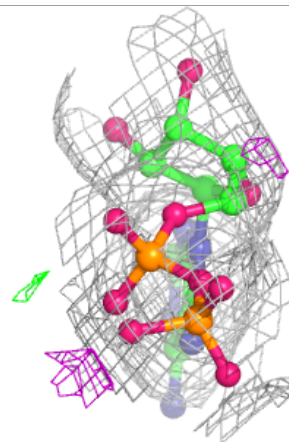
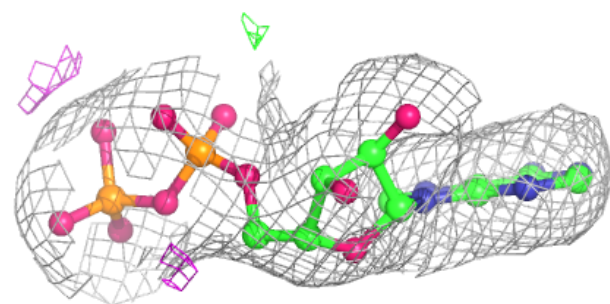
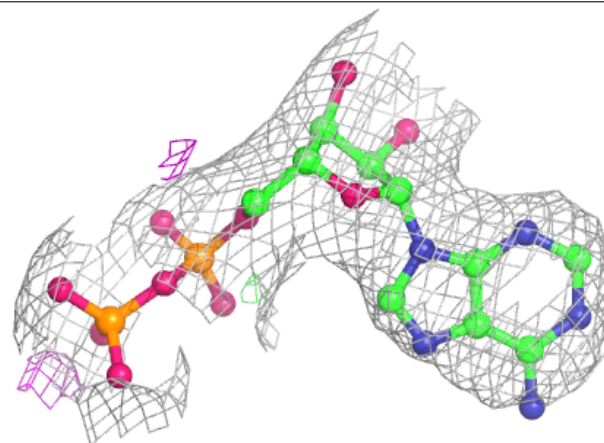


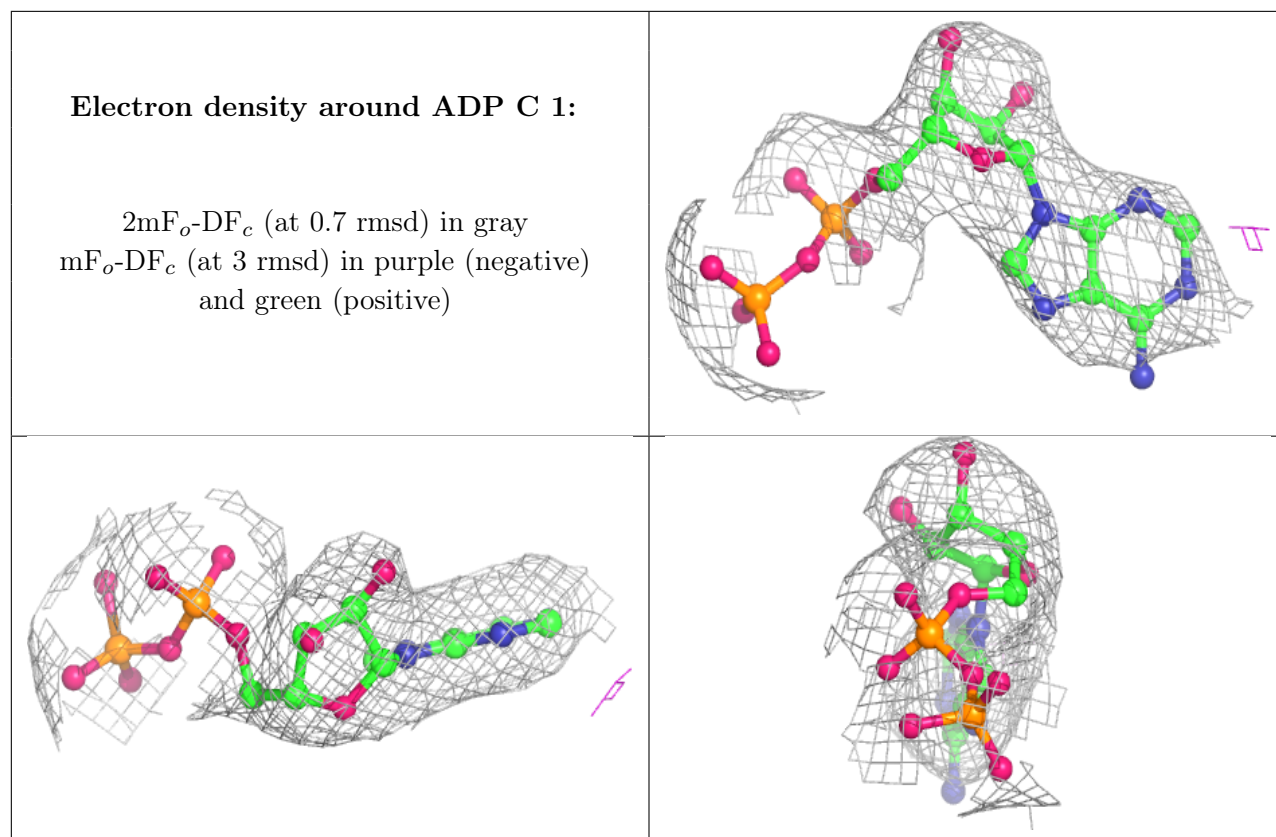
Electron density around ADP I 8:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

**Electron density around ADP E 3:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





6.5 Other polymers [i](#)

There are no such residues in this entry.