



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 5, 2024 – 05:29 AM EST

PDB ID : 1XFY
Title : Crystal structure of anthrax edema factor (EF) in complex with calmodulin
Authors : Shen, Y.; Zhukovskaya, N.L.; Guo, Q.; Florian, J.; Tang, W.J.
Deposited on : 2004-09-15
Resolution : 3.30 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
Xtriage (Phenix) : 1.13
EDS : 2.36
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

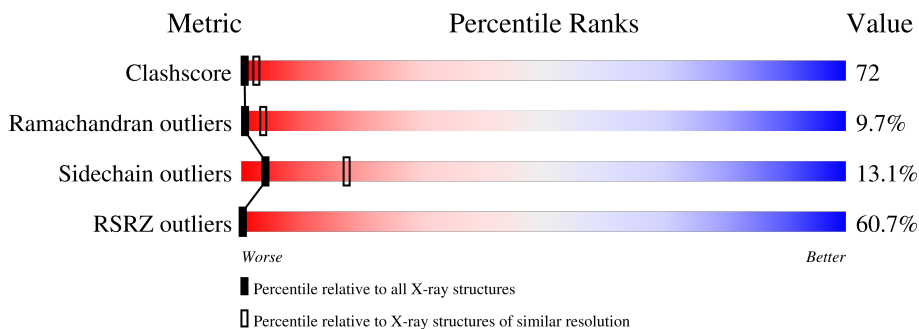
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.30 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)) |
|-----------------------|--------------------------|--|
| Clashscore | 141614 | 1205 (3.34-3.26) |
| Ramachandran outliers | 138981 | 1183 (3.34-3.26) |
| Sidechain outliers | 138945 | 1182 (3.34-3.26) |
| RSRZ outliers | 127900 | 1115 (3.34-3.26) |

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 | 777 | <div style="display: flex; align-items: center;"> <div style="width: 56%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">56%</div> </div> <div style="display: flex; align-items: center; margin-top: 5px;"> <div style="width: 23%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">23%</div> <div style="width: 56%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">56%</div> <div style="width: 14%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">14%</div> <div style="width: 5%; height: 10px; background: grey;"></div> <div style="margin-left: 5px;">• 5%</div> </div> |
| 1 | B | 777 | <div style="display: flex; align-items: center;"> <div style="width: 57%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">57%</div> </div> <div style="display: flex; align-items: center; margin-top: 5px;"> <div style="width: 23%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">23%</div> <div style="width: 56%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">56%</div> <div style="width: 14%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">14%</div> <div style="width: 5%; height: 10px; background: grey;"></div> <div style="margin-left: 5px;">• 5%</div> </div> |
| 1 | C | 777 | <div style="display: flex; align-items: center;"> <div style="width: 62%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">62%</div> </div> <div style="display: flex; align-items: center; margin-top: 5px;"> <div style="width: 23%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">23%</div> <div style="width: 56%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">56%</div> <div style="width: 14%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">14%</div> <div style="width: 5%; height: 10px; background: grey;"></div> <div style="margin-left: 5px;">• 5%</div> </div> |
| 1 | D | 777 | <div style="display: flex; align-items: center;"> <div style="width: 59%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">59%</div> </div> <div style="display: flex; align-items: center; margin-top: 5px;"> <div style="width: 23%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">23%</div> <div style="width: 56%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">56%</div> <div style="width: 14%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">14%</div> <div style="width: 5%; height: 10px; background: grey;"></div> <div style="margin-left: 5px;">• 5%</div> </div> |
| 1 | E | 777 | <div style="display: flex; align-items: center;"> <div style="width: 58%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">58%</div> </div> <div style="display: flex; align-items: center; margin-top: 5px;"> <div style="width: 23%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">23%</div> <div style="width: 56%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">56%</div> <div style="width: 14%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">14%</div> <div style="width: 5%; height: 10px; background: grey;"></div> <div style="margin-left: 5px;">• 5%</div> </div> |
| 1 | F | 777 | <div style="display: flex; align-items: center;"> <div style="width: 58%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">58%</div> </div> <div style="display: flex; align-items: center; margin-top: 5px;"> <div style="width: 23%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">23%</div> <div style="width: 56%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">56%</div> <div style="width: 14%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">14%</div> <div style="width: 5%; height: 10px; background: grey;"></div> <div style="margin-left: 5px;">• 5%</div> </div> |
| 2 | O | 149 | <div style="display: flex; align-items: center;"> <div style="width: 57%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">57%</div> </div> <div style="display: flex; align-items: center; margin-top: 5px;"> <div style="width: 17%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">17%</div> <div style="width: 64%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">64%</div> <div style="width: 16%; height: 10px; background: linear-gradient(to right, red, orange, yellow, green);"></div> <div style="margin-left: 10px;">16%</div> <div style="width: 2%; height: 10px; background: grey;"></div> <div style="margin-left: 5px;">••</div> </div> |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 2 | P | 149 | |
| 2 | Q | 149 | |
| 2 | R | 149 | |
| 2 | S | 149 | |
| 2 | T | 149 | |

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

| Mol | Type | Chain | Res | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|-----|-----------|----------|---------|------------------|
| 3 | MG | C | 902 | - | - | - | X |
| 4 | CA | P | 803 | - | - | - | X |

2 Entry composition [i](#)

There are 4 unique types of molecules in this entry. The entry contains 42846 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 Calmodulin-sensitive adenylate cyclase.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|------|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 1 | A | 735 | 5992 | 3828 | 995 | 1163 | 6 | 0 | 0 | 0 |
| 1 | B | 735 | 5992 | 3828 | 995 | 1163 | 6 | 0 | 0 | 0 |
| 1 | C | 735 | 5992 | 3828 | 995 | 1163 | 6 | 0 | 0 | 0 |
| 1 | D | 735 | 5992 | 3828 | 995 | 1163 | 6 | 0 | 0 | 0 |
| 1 | E | 735 | 5992 | 3828 | 995 | 1163 | 6 | 0 | 0 | 0 |
| 1 | F | 735 | 5992 | 3828 | 995 | 1163 | 6 | 0 | 0 | 0 |

There are 54 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|-----------------------|------------|
| A | 24 | MET | - | initiating methionine | UNP P40136 |
| A | 25 | HIS | - | expression tag | UNP P40136 |
| A | 26 | HIS | - | expression tag | UNP P40136 |
| A | 27 | HIS | - | expression tag | UNP P40136 |
| A | 28 | HIS | - | expression tag | UNP P40136 |
| A | 29 | HIS | - | expression tag | UNP P40136 |
| A | 30 | HIS | - | expression tag | UNP P40136 |
| A | 31 | ALA | - | cloning artifact | UNP P40136 |
| A | 32 | ALA | - | cloning artifact | UNP P40136 |
| B | 24 | MET | - | initiating methionine | UNP P40136 |
| B | 25 | HIS | - | expression tag | UNP P40136 |
| B | 26 | HIS | - | expression tag | UNP P40136 |
| B | 27 | HIS | - | expression tag | UNP P40136 |
| B | 28 | HIS | - | expression tag | UNP P40136 |
| B | 29 | HIS | - | expression tag | UNP P40136 |
| B | 30 | HIS | - | expression tag | UNP P40136 |
| B | 31 | ALA | - | cloning artifact | UNP P40136 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|-----------------------|------------|
| B | 32 | ALA | - | cloning artifact | UNP P40136 |
| C | 24 | MET | - | initiating methionine | UNP P40136 |
| C | 25 | HIS | - | expression tag | UNP P40136 |
| C | 26 | HIS | - | expression tag | UNP P40136 |
| C | 27 | HIS | - | expression tag | UNP P40136 |
| C | 28 | HIS | - | expression tag | UNP P40136 |
| C | 29 | HIS | - | expression tag | UNP P40136 |
| C | 30 | HIS | - | expression tag | UNP P40136 |
| C | 31 | ALA | - | cloning artifact | UNP P40136 |
| C | 32 | ALA | - | cloning artifact | UNP P40136 |
| D | 24 | MET | - | initiating methionine | UNP P40136 |
| D | 25 | HIS | - | expression tag | UNP P40136 |
| D | 26 | HIS | - | expression tag | UNP P40136 |
| D | 27 | HIS | - | expression tag | UNP P40136 |
| D | 28 | HIS | - | expression tag | UNP P40136 |
| D | 29 | HIS | - | expression tag | UNP P40136 |
| D | 30 | HIS | - | expression tag | UNP P40136 |
| D | 31 | ALA | - | cloning artifact | UNP P40136 |
| D | 32 | ALA | - | cloning artifact | UNP P40136 |
| E | 24 | MET | - | initiating methionine | UNP P40136 |
| E | 25 | HIS | - | expression tag | UNP P40136 |
| E | 26 | HIS | - | expression tag | UNP P40136 |
| E | 27 | HIS | - | expression tag | UNP P40136 |
| E | 28 | HIS | - | expression tag | UNP P40136 |
| E | 29 | HIS | - | expression tag | UNP P40136 |
| E | 30 | HIS | - | expression tag | UNP P40136 |
| E | 31 | ALA | - | cloning artifact | UNP P40136 |
| E | 32 | ALA | - | cloning artifact | UNP P40136 |
| F | 24 | MET | - | initiating methionine | UNP P40136 |
| F | 25 | HIS | - | expression tag | UNP P40136 |
| F | 26 | HIS | - | expression tag | UNP P40136 |
| F | 27 | HIS | - | expression tag | UNP P40136 |
| F | 28 | HIS | - | expression tag | UNP P40136 |
| F | 29 | HIS | - | expression tag | UNP P40136 |
| F | 30 | HIS | - | expression tag | UNP P40136 |
| F | 31 | ALA | - | cloning artifact | UNP P40136 |
| F | 32 | ALA | - | cloning artifact | UNP P40136 |

- Molecule 2 is a protein called Calmodulin 2.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 2 | O | 146 | 1146 | 702 | 186 | 249 | 9 | 0 | 0 | 0 |

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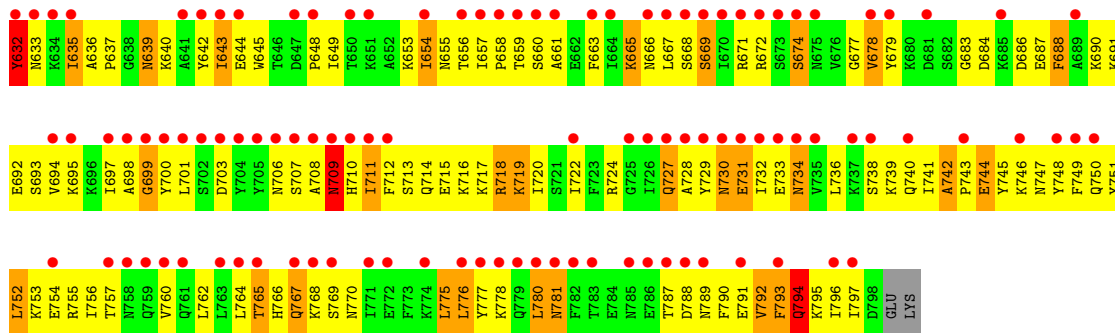
| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 2 | P | 146 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1146 | 702 | 186 | 249 | 9 | | | |
| 2 | Q | 146 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1146 | 702 | 186 | 249 | 9 | | | |
| 2 | R | 146 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1146 | 702 | 186 | 249 | 9 | | | |
| 2 | S | 146 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1146 | 702 | 186 | 249 | 9 | | | |
| 2 | T | 146 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1146 | 702 | 186 | 249 | 9 | | | |

- Molecule 3 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

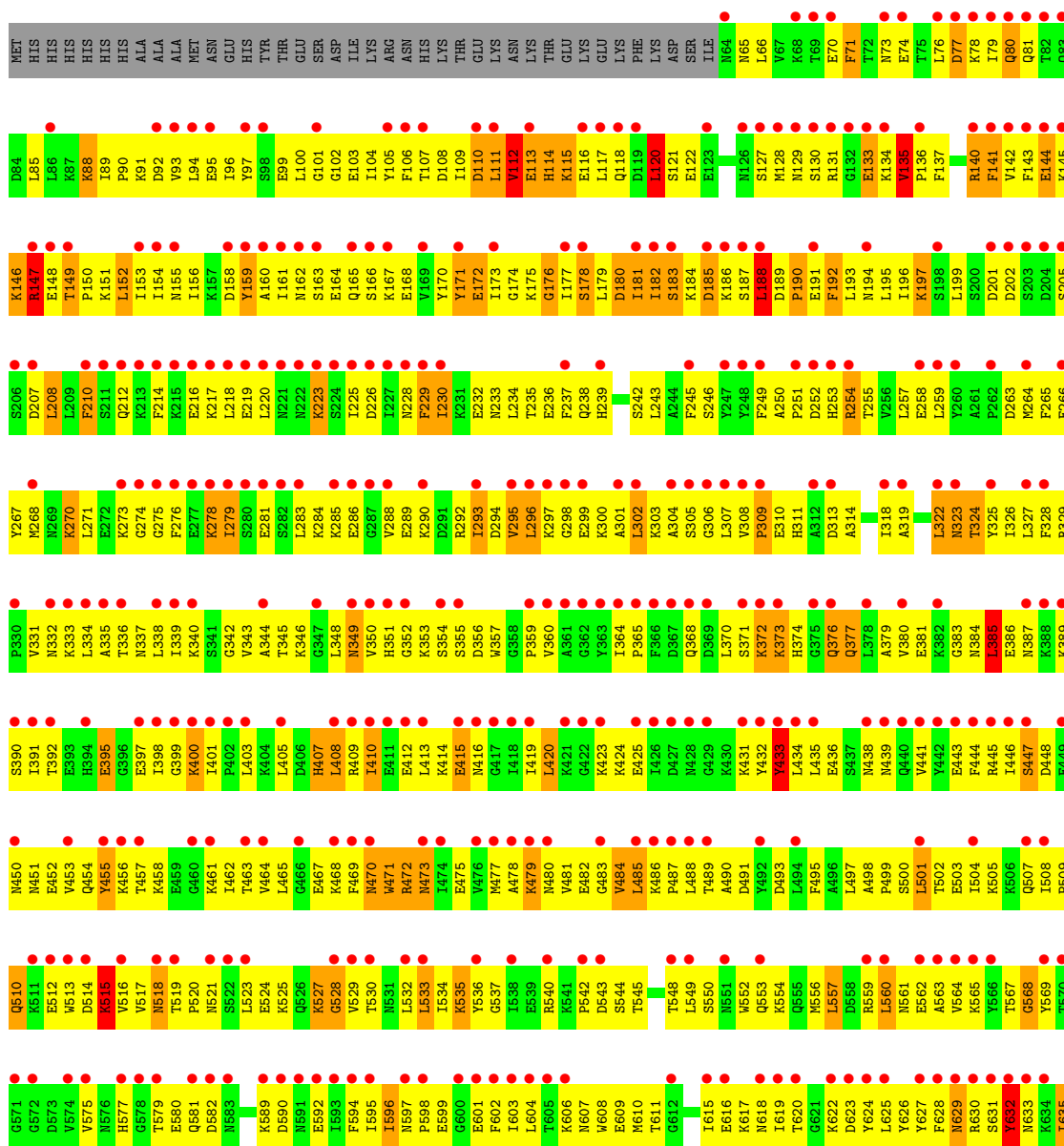
| Mol | Chain | Residues | Atoms | | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|---------|---------|
| 3 | A | 1 | Total | Mg | 0 | 0 |
| | | | 1 | 1 | | |
| 3 | B | 1 | Total | Mg | 0 | 0 |
| | | | 1 | 1 | | |
| 3 | C | 1 | Total | Mg | 0 | 0 |
| | | | 1 | 1 | | |
| 3 | D | 1 | Total | Mg | 0 | 0 |
| | | | 1 | 1 | | |
| 3 | E | 1 | Total | Mg | 0 | 0 |
| | | | 1 | 1 | | |
| 3 | F | 1 | Total | Mg | 0 | 0 |
| | | | 1 | 1 | | |

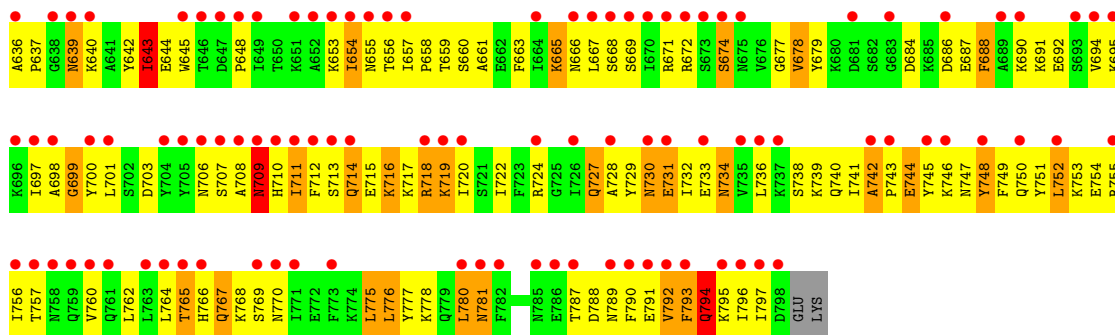
- Molecule 4 is CALCIUM ION (three-letter code: CA) (formula: Ca).

| Mol | Chain | Residues | Atoms | | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|---------|---------|
| 4 | O | 2 | Total | Ca | 0 | 0 |
| | | | 2 | 2 | | |
| 4 | P | 2 | Total | Ca | 0 | 0 |
| | | | 2 | 2 | | |
| 4 | Q | 2 | Total | Ca | 0 | 0 |
| | | | 2 | 2 | | |
| 4 | R | 2 | Total | Ca | 0 | 0 |
| | | | 2 | 2 | | |
| 4 | S | 2 | Total | Ca | 0 | 0 |
| | | | 2 | 2 | | |
| 4 | T | 2 | Total | Ca | 0 | 0 |
| | | | 2 | 2 | | |

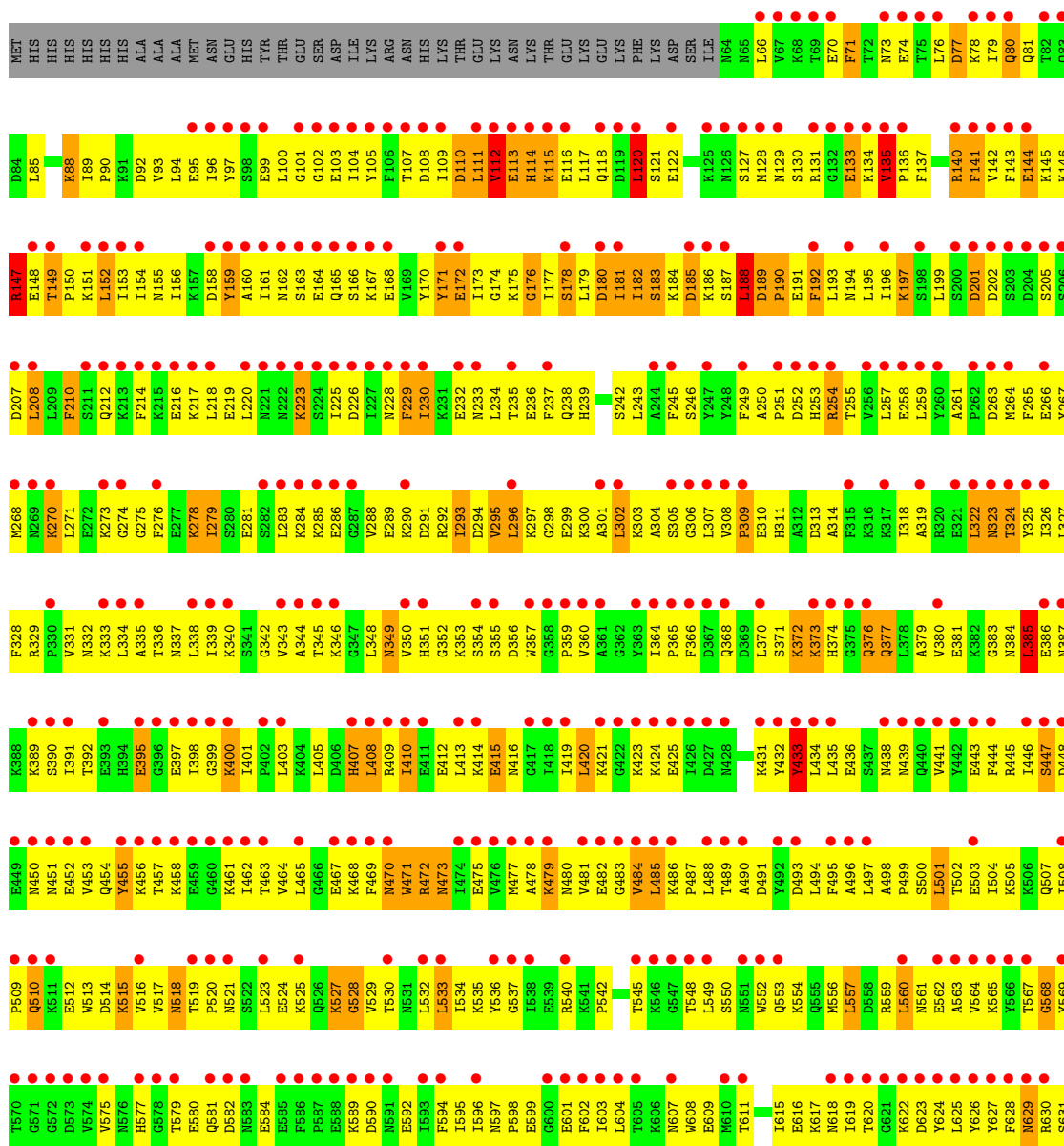


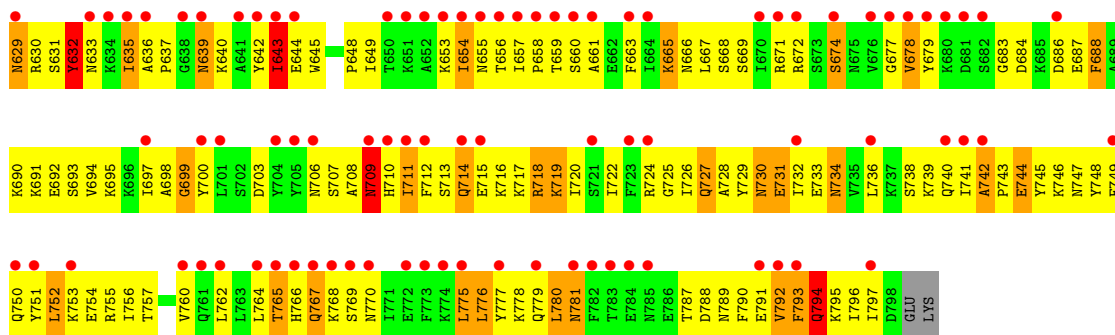
● Molecule 1: Calmodulin-sensitive adenylate cyclase



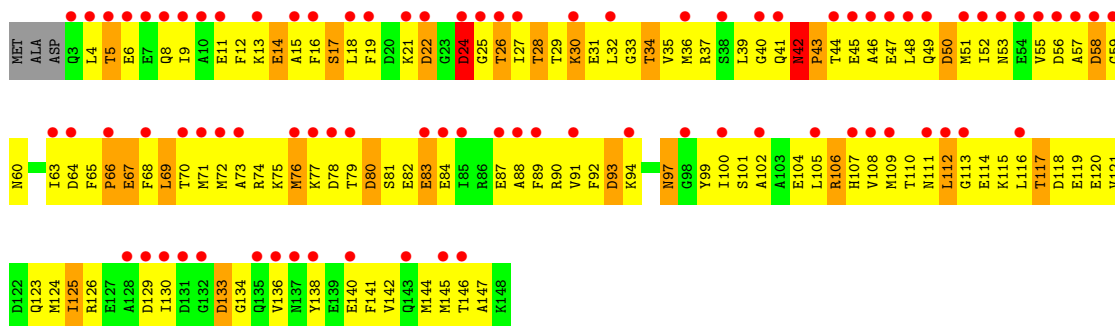


● Molecule 1: Calmodulin-sensitive adenylate cyclase

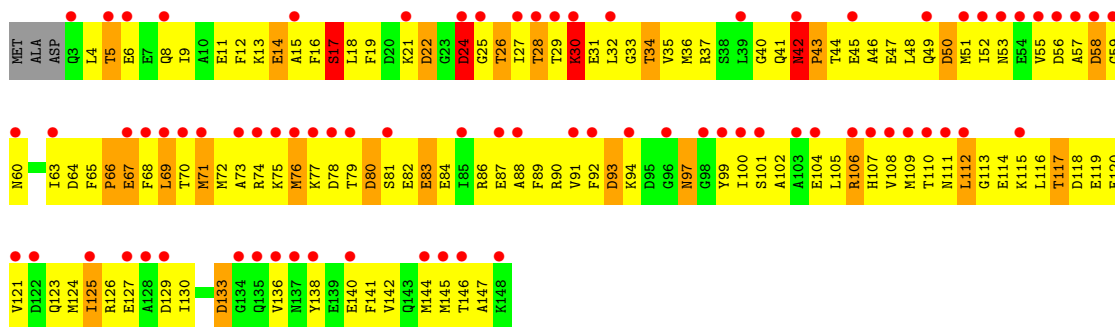




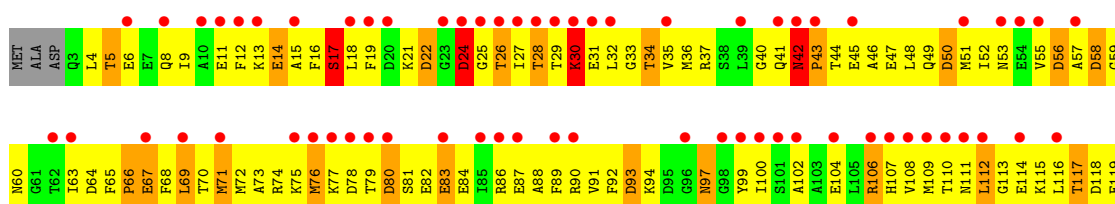
• Molecule 2: Calmodulin 2

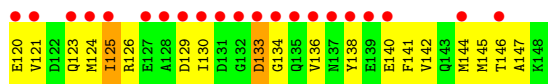


• Molecule 2: Calmodulin 2

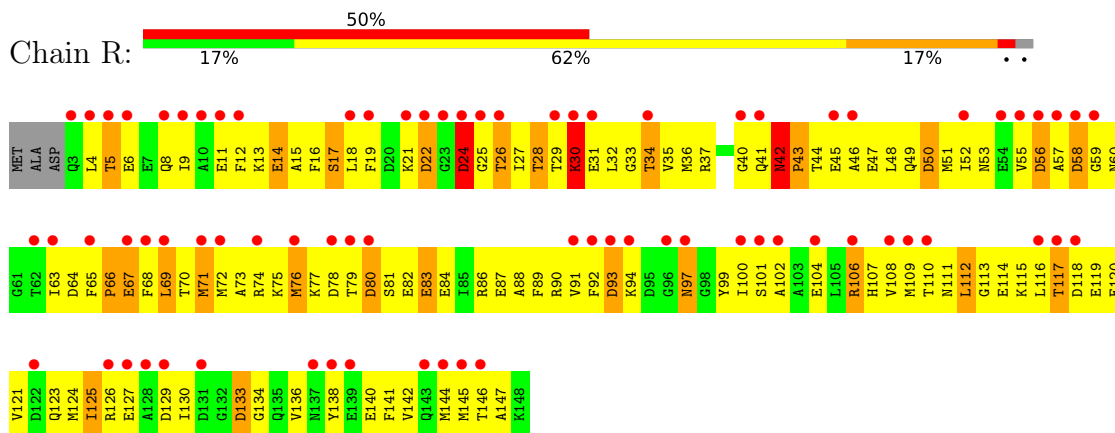


• Molecule 2: Calmodulin 2

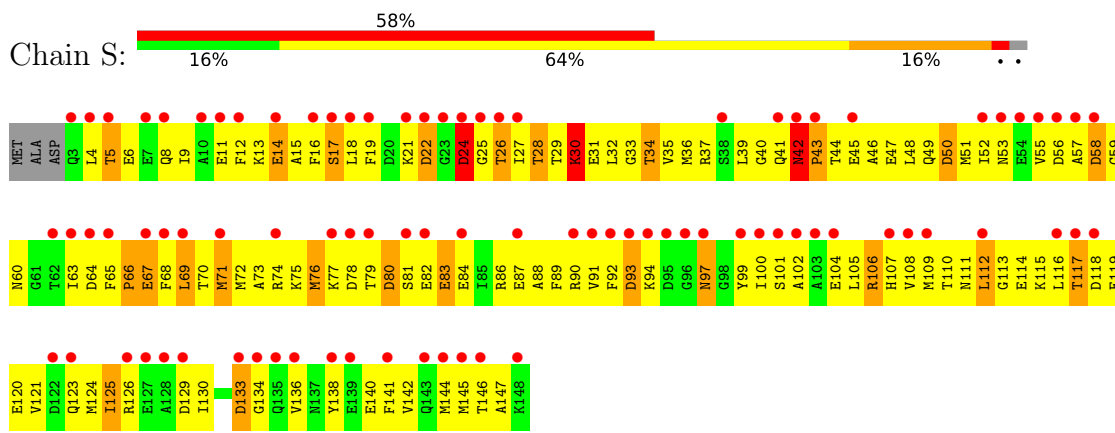




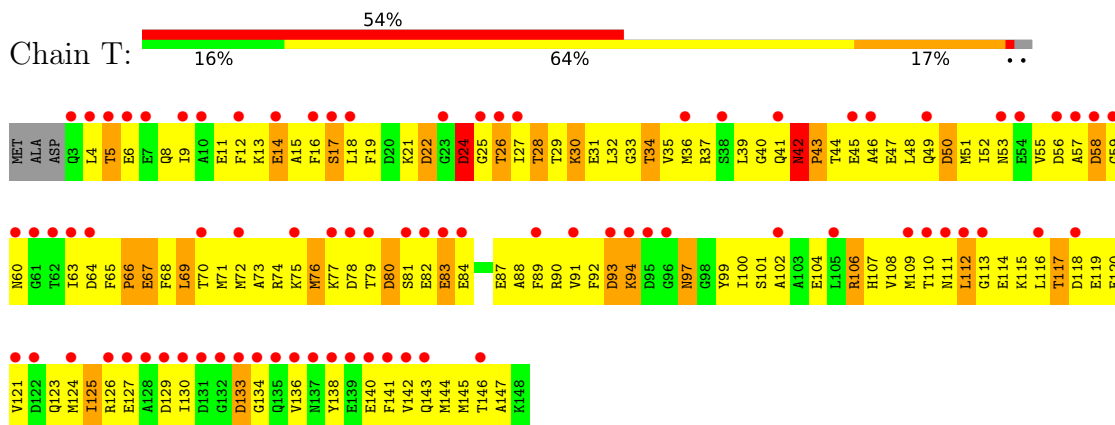
● Molecule 2: Calmodulin 2



● Molecule 2: Calmodulin 2



● Molecule 2: Calmodulin 2



4 Data and refinement statistics i

| Property | Value | Source |
|---|---|------------------|
| Space group | C 1 2 1 | Depositor |
| Cell constants a, b, c, α , β , γ | 315.62Å 182.04Å 141.02Å 90.00° 89.93° 90.00° | Depositor |
| Resolution (Å) | 10.00 – 3.30 29.82 – 3.26 | Depositor EDS |
| % Data completeness (in resolution range) | 93.9 (10.00-3.30) 91.8 (29.82-3.26) | Depositor EDS |
| R_{merge} | 0.05 | Depositor |
| R_{sym} | 0.03 | Depositor |
| $\langle I/\sigma(I) \rangle$ | - | Xtrriage |
| Refinement program | CNS 1.1 | Depositor |
| R, R_{free} | 0.269 , 0.289 0.273 , (Not available) | Depositor DCC |
| R_{free} test set | No test flags present. | wwPDB-VP |
| Wilson B-factor (Å ²) | 101.4 | Xtrriage |
| Anisotropy | 0.113 | Xtrriage |
| Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²) | 0.30 , 56.2 | EDS |
| L-test for twinning ¹ | $\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.31$ | Xtrriage |
| Estimated twinning fraction | 0.448 for -1/2*h-3/2*k,-1/2*h+1/2*k,-l 0.448 for -1/2*h+3/2*k,1/2*h+1/2*k,-l 0.448 for 1/2*h-3/2*k,-1/2*h-1/2*k,-l 0.448 for 1/2*h+3/2*k,1/2*h-1/2*k,-l 0.458 for -h,-k,l | Xtrriage |
| F_o, F_c correlation | 0.91 | EDS |
| Total number of atoms | 42846 | wwPDB-VP |
| Average B, all atoms (Å ²) | 83.0 | wwPDB-VP |

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.18% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Theoretical 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: MG, CA

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 | 0.54 | 0/6104 | 0.84 | 15/8208 (0.2%) |
| 1 | B | 0.54 | 0/6104 | 0.85 | 15/8208 (0.2%) |
| 1 | C | 0.54 | 0/6104 | 0.85 | 17/8208 (0.2%) |
| 1 | D | 0.54 | 1/6104 (0.0%) | 0.85 | 17/8208 (0.2%) |
| 1 | E | 0.54 | 0/6104 | 0.85 | 16/8208 (0.2%) |
| 1 | F | 0.54 | 0/6104 | 0.85 | 16/8208 (0.2%) |
| 2 | O | 0.54 | 0/1158 | 0.85 | 4/1553 (0.3%) |
| 2 | P | 0.54 | 0/1158 | 0.86 | 4/1553 (0.3%) |
| 2 | Q | 0.54 | 0/1158 | 0.85 | 4/1553 (0.3%) |
| 2 | R | 0.55 | 0/1158 | 0.85 | 4/1553 (0.3%) |
| 2 | S | 0.54 | 0/1158 | 0.85 | 4/1553 (0.3%) |
| 2 | T | 0.53 | 0/1158 | 0.85 | 4/1553 (0.3%) |
| All | All | 0.54 | 1/43572 (0.0%) | 0.85 | 120/58566 (0.2%) |

All (1) bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 1 | D | 190 | PRO | N-CA | -5.69 | 1.37 | 1.47 |

All (120) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed($^{\circ}$) | Ideal($^{\circ}$) |
|-----|-------|-----|------|--------|-------|------------------------|---------------------|
| 1 | B | 160 | ALA | N-CA-C | 9.55 | 136.80 | 111.00 |
| 1 | F | 160 | ALA | N-CA-C | 9.55 | 136.78 | 111.00 |
| 1 | E | 160 | ALA | N-CA-C | 9.54 | 136.76 | 111.00 |
| 1 | A | 160 | ALA | N-CA-C | 9.54 | 136.75 | 111.00 |
| 1 | D | 160 | ALA | N-CA-C | 9.53 | 136.74 | 111.00 |
| 1 | C | 160 | ALA | N-CA-C | 9.53 | 136.72 | 111.00 |
| 1 | F | 433 | TYR | N-CA-C | -7.82 | 89.88 | 111.00 |
| 1 | A | 433 | TYR | N-CA-C | -7.82 | 89.89 | 111.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 1 | B | 433 | TYR | N-CA-C | -7.82 | 89.89 | 111.00 |
| 1 | C | 433 | TYR | N-CA-C | -7.81 | 89.90 | 111.00 |
| 1 | D | 433 | TYR | N-CA-C | -7.81 | 89.92 | 111.00 |
| 1 | E | 433 | TYR | N-CA-C | -7.81 | 89.91 | 111.00 |
| 2 | Q | 22 | ASP | N-CA-C | -7.43 | 90.94 | 111.00 |
| 2 | O | 22 | ASP | N-CA-C | -7.41 | 90.99 | 111.00 |
| 2 | P | 22 | ASP | N-CA-C | -7.36 | 91.14 | 111.00 |
| 2 | R | 22 | ASP | N-CA-C | -7.33 | 91.21 | 111.00 |
| 2 | S | 22 | ASP | N-CA-C | -7.33 | 91.21 | 111.00 |
| 2 | T | 22 | ASP | N-CA-C | -7.32 | 91.23 | 111.00 |
| 1 | E | 433 | TYR | CB-CA-C | 7.25 | 124.89 | 110.40 |
| 1 | C | 433 | TYR | CB-CA-C | 7.25 | 124.89 | 110.40 |
| 1 | F | 433 | TYR | CB-CA-C | 7.24 | 124.88 | 110.40 |
| 1 | A | 433 | TYR | CB-CA-C | 7.24 | 124.87 | 110.40 |
| 1 | D | 433 | TYR | CB-CA-C | 7.24 | 124.87 | 110.40 |
| 1 | B | 433 | TYR | CB-CA-C | 7.22 | 124.84 | 110.40 |
| 1 | D | 322 | LEU | N-CA-C | -7.14 | 91.71 | 111.00 |
| 1 | A | 322 | LEU | N-CA-C | -7.14 | 91.73 | 111.00 |
| 1 | B | 322 | LEU | N-CA-C | -7.14 | 91.73 | 111.00 |
| 1 | F | 322 | LEU | N-CA-C | -7.13 | 91.75 | 111.00 |
| 1 | C | 322 | LEU | N-CA-C | -7.13 | 91.75 | 111.00 |
| 1 | E | 322 | LEU | N-CA-C | -7.12 | 91.77 | 111.00 |
| 1 | C | 188 | LEU | N-CA-C | -6.77 | 92.72 | 111.00 |
| 1 | F | 188 | LEU | N-CA-C | -6.77 | 92.72 | 111.00 |
| 1 | A | 188 | LEU | N-CA-C | -6.76 | 92.74 | 111.00 |
| 1 | E | 188 | LEU | N-CA-C | -6.76 | 92.74 | 111.00 |
| 1 | B | 188 | LEU | N-CA-C | -6.76 | 92.76 | 111.00 |
| 1 | D | 188 | LEU | N-CA-C | -6.75 | 92.78 | 111.00 |
| 1 | E | 183 | SER | N-CA-C | -6.63 | 93.09 | 111.00 |
| 1 | B | 674 | SER | N-CA-C | -6.62 | 93.12 | 111.00 |
| 1 | F | 674 | SER | N-CA-C | -6.62 | 93.12 | 111.00 |
| 1 | F | 183 | SER | N-CA-C | -6.62 | 93.13 | 111.00 |
| 1 | C | 183 | SER | N-CA-C | -6.62 | 93.14 | 111.00 |
| 1 | E | 674 | SER | N-CA-C | -6.62 | 93.14 | 111.00 |
| 1 | A | 674 | SER | N-CA-C | -6.61 | 93.14 | 111.00 |
| 1 | A | 183 | SER | N-CA-C | -6.61 | 93.15 | 111.00 |
| 1 | C | 674 | SER | N-CA-C | -6.61 | 93.16 | 111.00 |
| 1 | D | 674 | SER | N-CA-C | -6.61 | 93.16 | 111.00 |
| 1 | D | 183 | SER | N-CA-C | -6.60 | 93.17 | 111.00 |
| 1 | B | 183 | SER | N-CA-C | -6.59 | 93.19 | 111.00 |
| 1 | B | 159 | TYR | CB-CG-CD2 | -6.47 | 117.12 | 121.00 |
| 1 | D | 159 | TYR | CB-CG-CD2 | -6.44 | 117.14 | 121.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 1 | A | 159 | TYR | CB-CG-CD2 | -6.43 | 117.14 | 121.00 |
| 1 | F | 159 | TYR | CB-CG-CD2 | -6.40 | 117.16 | 121.00 |
| 1 | C | 147 | ARG | N-CA-C | 6.40 | 128.27 | 111.00 |
| 1 | D | 147 | ARG | N-CA-C | 6.39 | 128.27 | 111.00 |
| 1 | B | 147 | ARG | N-CA-C | 6.39 | 128.25 | 111.00 |
| 1 | A | 147 | ARG | N-CA-C | 6.38 | 128.24 | 111.00 |
| 1 | E | 147 | ARG | N-CA-C | 6.38 | 128.24 | 111.00 |
| 1 | C | 159 | TYR | CB-CG-CD2 | -6.38 | 117.17 | 121.00 |
| 1 | F | 147 | ARG | N-CA-C | 6.38 | 128.23 | 111.00 |
| 1 | E | 159 | TYR | CB-CG-CD2 | -6.38 | 117.17 | 121.00 |
| 2 | O | 25 | GLY | N-CA-C | -6.29 | 97.36 | 113.10 |
| 2 | T | 25 | GLY | N-CA-C | -6.29 | 97.36 | 113.10 |
| 2 | Q | 25 | GLY | N-CA-C | -6.28 | 97.41 | 113.10 |
| 2 | P | 25 | GLY | N-CA-C | -6.20 | 97.60 | 113.10 |
| 2 | S | 25 | GLY | N-CA-C | -6.14 | 97.75 | 113.10 |
| 2 | R | 25 | GLY | N-CA-C | -6.06 | 97.94 | 113.10 |
| 1 | B | 64 | ASN | C-N-CA | -5.76 | 107.29 | 121.70 |
| 1 | D | 159 | TYR | CB-CG-CD1 | 5.63 | 124.38 | 121.00 |
| 1 | B | 159 | TYR | CB-CG-CD1 | 5.59 | 124.35 | 121.00 |
| 1 | C | 159 | TYR | CB-CG-CD1 | 5.57 | 124.34 | 121.00 |
| 1 | A | 159 | TYR | CB-CG-CD1 | 5.56 | 124.33 | 121.00 |
| 1 | F | 159 | TYR | CB-CG-CD1 | 5.55 | 124.33 | 121.00 |
| 1 | E | 159 | TYR | CB-CG-CD1 | 5.52 | 124.31 | 121.00 |
| 2 | S | 24 | ASP | N-CA-CB | -5.36 | 100.95 | 110.60 |
| 2 | O | 24 | ASP | N-CA-CB | -5.36 | 100.96 | 110.60 |
| 2 | P | 24 | ASP | N-CA-CB | -5.35 | 100.97 | 110.60 |
| 1 | E | 120 | LEU | N-CA-C | 5.35 | 125.44 | 111.00 |
| 1 | C | 120 | LEU | N-CA-C | 5.35 | 125.44 | 111.00 |
| 1 | D | 120 | LEU | N-CA-C | 5.34 | 125.43 | 111.00 |
| 1 | A | 120 | LEU | N-CA-C | 5.34 | 125.42 | 111.00 |
| 1 | D | 190 | PRO | N-CA-C | -5.34 | 98.21 | 112.10 |
| 2 | Q | 24 | ASP | N-CA-CB | -5.34 | 100.99 | 110.60 |
| 1 | F | 120 | LEU | N-CA-C | 5.34 | 125.41 | 111.00 |
| 2 | R | 24 | ASP | N-CA-CB | -5.33 | 101.00 | 110.60 |
| 1 | B | 120 | LEU | N-CA-C | 5.33 | 125.40 | 111.00 |
| 2 | Q | 24 | ASP | CB-CG-OD1 | -5.33 | 113.50 | 118.30 |
| 2 | S | 24 | ASP | CB-CG-OD1 | -5.33 | 113.50 | 118.30 |
| 2 | T | 24 | ASP | CB-CG-OD1 | -5.33 | 113.50 | 118.30 |
| 1 | D | 146 | LYS | O-C-N | -5.32 | 114.19 | 122.70 |
| 2 | T | 24 | ASP | N-CA-CB | -5.31 | 101.04 | 110.60 |
| 1 | C | 190 | PRO | N-CA-C | -5.29 | 98.36 | 112.10 |
| 2 | P | 24 | ASP | CB-CG-OD1 | -5.28 | 113.55 | 118.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 1 | B | 632 | TYR | N-CA-C | 5.27 | 125.23 | 111.00 |
| 1 | E | 632 | TYR | N-CA-C | 5.26 | 125.20 | 111.00 |
| 1 | B | 188 | LEU | CA-C-N | 5.26 | 128.76 | 117.20 |
| 1 | D | 632 | TYR | N-CA-C | 5.26 | 125.19 | 111.00 |
| 1 | A | 632 | TYR | N-CA-C | 5.25 | 125.18 | 111.00 |
| 1 | D | 188 | LEU | CA-C-N | 5.25 | 128.75 | 117.20 |
| 1 | C | 632 | TYR | N-CA-C | 5.25 | 125.17 | 111.00 |
| 1 | F | 643 | ILE | CB-CA-C | 5.24 | 122.08 | 111.60 |
| 1 | A | 188 | LEU | CA-C-N | 5.24 | 128.73 | 117.20 |
| 1 | C | 188 | LEU | CA-C-N | 5.24 | 128.72 | 117.20 |
| 1 | E | 188 | LEU | CA-C-N | 5.23 | 128.71 | 117.20 |
| 1 | F | 632 | TYR | N-CA-C | 5.23 | 125.13 | 111.00 |
| 1 | F | 188 | LEU | CA-C-N | 5.21 | 128.66 | 117.20 |
| 1 | E | 190 | PRO | N-CA-C | -5.13 | 98.76 | 112.10 |
| 1 | C | 146 | LYS | O-C-N | -5.13 | 114.50 | 122.70 |
| 2 | R | 24 | ASP | CB-CG-OD1 | -5.13 | 113.69 | 118.30 |
| 1 | E | 219 | GLU | N-CA-C | -5.12 | 97.19 | 111.00 |
| 1 | D | 160 | ALA | N-CA-CB | -5.09 | 102.98 | 110.10 |
| 2 | O | 24 | ASP | CB-CG-OD1 | -5.08 | 113.73 | 118.30 |
| 1 | F | 160 | ALA | N-CA-CB | -5.07 | 103.01 | 110.10 |
| 1 | B | 160 | ALA | N-CA-CB | -5.06 | 103.01 | 110.10 |
| 1 | E | 160 | ALA | N-CA-CB | -5.06 | 103.01 | 110.10 |
| 1 | A | 160 | ALA | N-CA-CB | -5.05 | 103.02 | 110.10 |
| 1 | C | 160 | ALA | N-CA-CB | -5.03 | 103.06 | 110.10 |
| 1 | C | 219 | GLU | N-CA-C | -5.03 | 97.42 | 111.00 |
| 1 | D | 219 | GLU | N-CA-C | -5.03 | 97.43 | 111.00 |
| 1 | F | 219 | GLU | N-CA-C | -5.02 | 97.44 | 111.00 |
| 1 | A | 219 | GLU | N-CA-C | -5.01 | 97.46 | 111.00 |

There are no chirality outliers.

There are no planarity outliers.

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 | 5992 | 0 | 6010 | 866 | 0 |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1 | B | 5992 | 0 | 6010 | 875 | 0 |
| 1 | C | 5992 | 0 | 6010 | 855 | 0 |
| 1 | D | 5992 | 0 | 6010 | 863 | 0 |
| 1 | E | 5992 | 0 | 6010 | 863 | 0 |
| 1 | F | 5992 | 0 | 6010 | 862 | 0 |
| 2 | O | 1146 | 0 | 1071 | 195 | 0 |
| 2 | P | 1146 | 0 | 1071 | 195 | 0 |
| 2 | Q | 1146 | 0 | 1071 | 189 | 0 |
| 2 | R | 1146 | 0 | 1071 | 196 | 0 |
| 2 | S | 1146 | 0 | 1071 | 196 | 0 |
| 2 | T | 1146 | 0 | 1071 | 192 | 0 |
| 3 | A | 1 | 0 | 0 | 0 | 0 |
| 3 | B | 1 | 0 | 0 | 0 | 0 |
| 3 | C | 1 | 0 | 0 | 0 | 0 |
| 3 | D | 1 | 0 | 0 | 0 | 0 |
| 3 | E | 1 | 0 | 0 | 0 | 0 |
| 3 | F | 1 | 0 | 0 | 0 | 0 |
| 4 | O | 2 | 0 | 0 | 0 | 0 |
| 4 | P | 2 | 0 | 0 | 0 | 0 |
| 4 | Q | 2 | 0 | 0 | 0 | 0 |
| 4 | R | 2 | 0 | 0 | 0 | 0 |
| 4 | S | 2 | 0 | 0 | 0 | 0 |
| 4 | T | 2 | 0 | 0 | 0 | 0 |
| All | All | 42846 | 0 | 42486 | 6152 | 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 72.

All (6152) 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:A:183:SER:O | 1:A:187:SER:CB | 1.70 | 1.39 |
| 1:D:183:SER:O | 1:D:187:SER:CB | 1.70 | 1.38 |
| 1:F:183:SER:O | 1:F:187:SER:CB | 1.70 | 1.37 |
| 1:E:183:SER:O | 1:E:187:SER:CB | 1.70 | 1.36 |
| 1:B:183:SER:O | 1:B:187:SER:CB | 1.70 | 1.35 |
| 1:C:183:SER:O | 1:C:187:SER:CB | 1.70 | 1.35 |
| 2:P:48:LEU:HA | 2:P:51:MET:HE2 | 1.22 | 1.19 |
| 1:B:120:LEU:O | 1:B:120:LEU:HD13 | 1.43 | 1.18 |
| 1:A:550:SER:HB3 | 1:A:553:GLN:HG3 | 1.19 | 1.18 |
| 1:E:120:LEU:O | 1:E:120:LEU:HD13 | 1.43 | 1.18 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:550:SER:HB3 | 1:C:553:GLN:HG3 | 1.19 | 1.17 |
| 1:F:550:SER:HB3 | 1:F:553:GLN:HG3 | 1.18 | 1.17 |
| 1:A:120:LEU:O | 1:A:120:LEU:HD13 | 1.43 | 1.15 |
| 2:O:48:LEU:HA | 2:O:51:MET:HE2 | 1.21 | 1.15 |
| 2:Q:48:LEU:HA | 2:Q:51:MET:HE2 | 1.19 | 1.15 |
| 1:C:120:LEU:O | 1:C:120:LEU:HD13 | 1.43 | 1.14 |
| 1:B:550:SER:HB3 | 1:B:553:GLN:HG3 | 1.18 | 1.14 |
| 1:D:550:SER:HB3 | 1:D:553:GLN:HG3 | 1.18 | 1.14 |
| 1:E:550:SER:HB3 | 1:E:553:GLN:HG3 | 1.20 | 1.14 |
| 1:F:120:LEU:O | 1:F:120:LEU:HD13 | 1.43 | 1.14 |
| 1:F:183:SER:C | 1:F:187:SER:HB2 | 1.68 | 1.13 |
| 1:D:765:THR:HA | 1:D:769:SER:HB2 | 1.28 | 1.13 |
| 1:D:120:LEU:O | 1:D:120:LEU:HD13 | 1.43 | 1.13 |
| 1:C:183:SER:C | 1:C:187:SER:HB2 | 1.68 | 1.12 |
| 1:E:183:SER:C | 1:E:187:SER:HB2 | 1.68 | 1.12 |
| 1:E:765:THR:HA | 1:E:769:SER:HB2 | 1.28 | 1.12 |
| 1:A:765:THR:HA | 1:A:769:SER:HB2 | 1.28 | 1.11 |
| 1:B:183:SER:C | 1:B:187:SER:HB2 | 1.68 | 1.11 |
| 1:A:183:SER:C | 1:A:187:SER:HB2 | 1.68 | 1.11 |
| 1:D:597:ASN:HD21 | 1:D:601:GLU:HB2 | 1.14 | 1.11 |
| 1:D:183:SER:C | 1:D:187:SER:HB2 | 1.68 | 1.11 |
| 1:F:765:THR:HA | 1:F:769:SER:HB2 | 1.29 | 1.10 |
| 1:C:765:THR:HA | 1:C:769:SER:HB2 | 1.29 | 1.10 |
| 2:T:48:LEU:HA | 2:T:51:MET:HE2 | 1.20 | 1.09 |
| 1:A:597:ASN:HD21 | 1:A:601:GLU:HB2 | 1.17 | 1.08 |
| 1:D:127:SER:O | 1:D:133:GLU:OE2 | 1.71 | 1.08 |
| 1:E:127:SER:O | 1:E:133:GLU:OE2 | 1.72 | 1.08 |
| 1:C:127:SER:O | 1:C:133:GLU:OE2 | 1.71 | 1.08 |
| 1:B:765:THR:HA | 1:B:769:SER:HB2 | 1.28 | 1.08 |
| 2:T:28:THR:HG23 | 2:T:31:GLU:HG2 | 1.35 | 1.08 |
| 1:B:597:ASN:HD21 | 1:B:601:GLU:HB2 | 1.18 | 1.08 |
| 1:F:127:SER:O | 1:F:133:GLU:OE2 | 1.71 | 1.08 |
| 1:B:127:SER:O | 1:B:133:GLU:OE2 | 1.72 | 1.07 |
| 1:A:127:SER:O | 1:A:133:GLU:OE2 | 1.71 | 1.07 |
| 1:B:64:ASN:HD22 | 1:B:64:ASN:N | 1.37 | 1.07 |
| 1:B:767:GLN:HG2 | 1:B:768:LYS:HG2 | 1.37 | 1.07 |
| 1:C:767:GLN:HG2 | 1:C:768:LYS:HG2 | 1.37 | 1.06 |
| 2:Q:28:THR:HG23 | 2:Q:31:GLU:HG2 | 1.37 | 1.06 |
| 1:A:767:GLN:HG2 | 1:A:768:LYS:HG2 | 1.37 | 1.06 |
| 2:R:28:THR:HG23 | 2:R:31:GLU:HG2 | 1.36 | 1.06 |
| 1:D:767:GLN:HG2 | 1:D:768:LYS:HG2 | 1.37 | 1.05 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:767:GLN:HG2 | 1:F:768:LYS:HG2 | 1.37 | 1.05 |
| 1:F:97:TYR:HE1 | 1:F:178:SER:HB2 | 1.19 | 1.05 |
| 1:E:597:ASN:HD21 | 1:E:601:GLU:HB2 | 1.18 | 1.04 |
| 1:E:767:GLN:HG2 | 1:E:768:LYS:HG2 | 1.37 | 1.04 |
| 2:O:28:THR:HG23 | 2:O:31:GLU:HG2 | 1.36 | 1.04 |
| 1:F:597:ASN:HD21 | 1:F:601:GLU:HB2 | 1.17 | 1.04 |
| 1:F:324:THR:HB | 1:F:499:PRO:HA | 1.39 | 1.04 |
| 1:C:324:THR:HB | 1:C:499:PRO:HA | 1.40 | 1.03 |
| 1:C:597:ASN:HD21 | 1:C:601:GLU:HB2 | 1.18 | 1.03 |
| 1:E:324:THR:HB | 1:E:499:PRO:HA | 1.38 | 1.03 |
| 1:D:324:THR:HB | 1:D:499:PRO:HA | 1.38 | 1.03 |
| 2:S:28:THR:HG23 | 2:S:31:GLU:HG2 | 1.37 | 1.03 |
| 1:C:97:TYR:HE1 | 1:C:178:SER:HB2 | 1.21 | 1.02 |
| 2:P:28:THR:HG23 | 2:P:31:GLU:HG2 | 1.36 | 1.02 |
| 2:S:48:LEU:HA | 2:S:51:MET:HE2 | 1.36 | 1.02 |
| 1:E:97:TYR:HE1 | 1:E:178:SER:HB2 | 1.21 | 1.02 |
| 2:O:51:MET:HB3 | 2:O:71:MET:HE2 | 1.42 | 1.02 |
| 1:D:183:SER:O | 1:D:187:SER:HB2 | 0.83 | 1.01 |
| 1:F:408:LEU:H | 1:F:408:LEU:HD12 | 1.25 | 1.01 |
| 1:A:183:SER:O | 1:A:187:SER:HB2 | 0.83 | 1.01 |
| 1:B:324:THR:HB | 1:B:499:PRO:HA | 1.38 | 1.01 |
| 1:B:97:TYR:HE1 | 1:B:178:SER:HB2 | 1.21 | 1.00 |
| 1:E:183:SER:O | 1:E:187:SER:HB2 | 0.83 | 1.00 |
| 1:F:183:SER:O | 1:F:187:SER:HB2 | 0.83 | 1.00 |
| 1:C:183:SER:O | 1:C:187:SER:HB2 | 0.83 | 1.00 |
| 1:B:183:SER:O | 1:B:187:SER:HB2 | 0.83 | 0.99 |
| 2:S:50:ASP:HA | 2:S:53:ASN:HB3 | 1.44 | 0.99 |
| 1:E:408:LEU:HD12 | 1:E:408:LEU:H | 1.26 | 0.99 |
| 1:A:324:THR:HB | 1:A:499:PRO:HA | 1.40 | 0.99 |
| 1:A:97:TYR:HE1 | 1:A:178:SER:HB2 | 1.20 | 0.99 |
| 1:D:97:TYR:HE1 | 1:D:178:SER:HB2 | 1.22 | 0.99 |
| 1:E:432:TYR:C | 1:E:433:TYR:O | 1.93 | 0.98 |
| 1:D:408:LEU:H | 1:D:408:LEU:HD12 | 1.27 | 0.98 |
| 1:A:408:LEU:H | 1:A:408:LEU:HD12 | 1.27 | 0.98 |
| 2:P:50:ASP:HA | 2:P:53:ASN:HB3 | 1.44 | 0.98 |
| 1:D:115:LYS:HZ2 | 1:D:116:GLU:H | 1.01 | 0.98 |
| 1:F:678:VAL:HG22 | 1:F:745:TYR:HE2 | 1.27 | 0.98 |
| 1:C:408:LEU:H | 1:C:408:LEU:HD12 | 1.28 | 0.97 |
| 1:F:115:LYS:HZ2 | 1:F:116:GLU:H | 0.98 | 0.97 |
| 2:Q:51:MET:HB3 | 2:Q:71:MET:HE2 | 1.42 | 0.97 |
| 2:T:50:ASP:HA | 2:T:53:ASN:HB3 | 1.45 | 0.97 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:408:LEU:HD12 | 1:B:408:LEU:H | 1.28 | 0.97 |
| 1:A:89:ILE:HG22 | 1:A:93:VAL:HG11 | 1.47 | 0.97 |
| 1:B:89:ILE:HG22 | 1:B:93:VAL:HG11 | 1.46 | 0.97 |
| 1:A:432:TYR:C | 1:A:433:TYR:O | 1.93 | 0.97 |
| 1:D:107:THR:HG21 | 1:D:115:LYS:HE2 | 1.47 | 0.97 |
| 2:O:50:ASP:HA | 2:O:53:ASN:HB3 | 1.45 | 0.97 |
| 1:D:432:TYR:C | 1:D:433:TYR:O | 1.94 | 0.96 |
| 1:C:678:VAL:HG22 | 1:C:745:TYR:HE2 | 1.28 | 0.96 |
| 1:F:90:PRO:HG2 | 1:F:93:VAL:HB | 1.47 | 0.96 |
| 1:A:592:GLU:HB3 | 1:A:604:LEU:HD11 | 1.47 | 0.96 |
| 1:D:89:ILE:HG22 | 1:D:93:VAL:HG11 | 1.46 | 0.96 |
| 1:F:617:LYS:HZ2 | 1:F:618:ASN:HD21 | 1.02 | 0.96 |
| 1:C:90:PRO:HG2 | 1:C:93:VAL:HB | 1.46 | 0.96 |
| 2:Q:50:ASP:HA | 2:Q:53:ASN:HB3 | 1.44 | 0.96 |
| 1:E:89:ILE:HG22 | 1:E:93:VAL:HG11 | 1.45 | 0.95 |
| 1:D:617:LYS:HZ2 | 1:D:618:ASN:HD21 | 1.00 | 0.95 |
| 1:D:678:VAL:HG22 | 1:D:745:TYR:HE2 | 1.29 | 0.95 |
| 1:C:89:ILE:HG22 | 1:C:93:VAL:HG11 | 1.45 | 0.95 |
| 1:C:115:LYS:HZ2 | 1:C:116:GLU:H | 0.98 | 0.95 |
| 1:B:432:TYR:C | 1:B:433:TYR:O | 1.93 | 0.95 |
| 1:C:107:THR:HG21 | 1:C:115:LYS:HE2 | 1.48 | 0.95 |
| 1:E:90:PRO:HG2 | 1:E:93:VAL:HB | 1.47 | 0.95 |
| 2:R:50:ASP:HA | 2:R:53:ASN:HB3 | 1.45 | 0.95 |
| 1:E:115:LYS:HZ2 | 1:E:116:GLU:H | 0.98 | 0.94 |
| 1:E:592:GLU:HB3 | 1:E:604:LEU:HD11 | 1.49 | 0.94 |
| 1:E:678:VAL:HG22 | 1:E:745:TYR:HE2 | 1.29 | 0.94 |
| 1:E:629:ASN:HD21 | 1:E:631:SER:HB2 | 1.32 | 0.94 |
| 1:B:90:PRO:HG2 | 1:B:93:VAL:HB | 1.47 | 0.94 |
| 1:C:617:LYS:HZ2 | 1:C:618:ASN:HD21 | 1.03 | 0.94 |
| 1:E:617:LYS:HZ2 | 1:E:618:ASN:HD21 | 1.00 | 0.94 |
| 1:A:678:VAL:HG22 | 1:A:745:TYR:HE2 | 1.28 | 0.94 |
| 1:B:115:LYS:HZ2 | 1:B:116:GLU:H | 1.00 | 0.94 |
| 1:B:186:LYS:HE3 | 1:B:234:LEU:HD12 | 1.49 | 0.94 |
| 1:C:432:TYR:C | 1:C:433:TYR:O | 1.94 | 0.94 |
| 1:D:133:GLU:HG3 | 1:D:133:GLU:O | 1.68 | 0.93 |
| 1:F:89:ILE:HG22 | 1:F:93:VAL:HG11 | 1.45 | 0.93 |
| 2:P:51:MET:HB3 | 2:P:71:MET:HE2 | 1.50 | 0.93 |
| 1:B:354:SER:O | 1:B:371:SER:HB2 | 1.68 | 0.93 |
| 1:F:441:VAL:HG22 | 1:F:461:LYS:HG2 | 1.51 | 0.93 |
| 1:F:133:GLU:O | 1:F:133:GLU:HG3 | 1.68 | 0.93 |
| 1:D:592:GLU:HB3 | 1:D:604:LEU:HD11 | 1.49 | 0.93 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:592:GLU:HB3 | 1:F:604:LEU:HD11 | 1.49 | 0.93 |
| 1:A:617:LYS:HZ2 | 1:A:618:ASN:HD21 | 1.05 | 0.93 |
| 1:B:592:GLU:HB3 | 1:B:604:LEU:HD11 | 1.50 | 0.93 |
| 1:F:354:SER:O | 1:F:371:SER:HB2 | 1.68 | 0.93 |
| 2:S:51:MET:HB3 | 2:S:71:MET:HE2 | 1.48 | 0.93 |
| 1:A:90:PRO:HG2 | 1:A:93:VAL:HB | 1.49 | 0.93 |
| 1:B:678:VAL:HG22 | 1:B:745:TYR:HE2 | 1.30 | 0.93 |
| 1:D:90:PRO:HG2 | 1:D:93:VAL:HB | 1.48 | 0.93 |
| 1:E:441:VAL:HG22 | 1:E:461:LYS:HG2 | 1.51 | 0.93 |
| 1:F:186:LYS:HE3 | 1:F:234:LEU:HD12 | 1.50 | 0.93 |
| 2:P:24:ASP:HB2 | 2:P:26:THR:HG23 | 1.50 | 0.93 |
| 1:A:441:VAL:HG22 | 1:A:461:LYS:HG2 | 1.50 | 0.93 |
| 1:E:133:GLU:HG3 | 1:E:133:GLU:O | 1.68 | 0.92 |
| 1:C:133:GLU:O | 1:C:133:GLU:HG3 | 1.68 | 0.92 |
| 1:D:441:VAL:HG22 | 1:D:461:LYS:HG2 | 1.51 | 0.92 |
| 2:Q:24:ASP:HB2 | 2:Q:26:THR:HG23 | 1.50 | 0.92 |
| 1:A:115:LYS:HZ2 | 1:A:116:GLU:H | 1.01 | 0.92 |
| 1:A:715:GLU:HA | 1:A:718:ARG:CZ | 2.00 | 0.92 |
| 2:S:24:ASP:HB2 | 2:S:26:THR:HG23 | 1.50 | 0.92 |
| 1:A:629:ASN:HD21 | 1:A:631:SER:HB2 | 1.32 | 0.92 |
| 1:B:715:GLU:HA | 1:B:718:ARG:CZ | 2.00 | 0.92 |
| 1:F:629:ASN:HD21 | 1:F:631:SER:HB2 | 1.34 | 0.92 |
| 1:B:441:VAL:HG22 | 1:B:461:LYS:HG2 | 1.50 | 0.92 |
| 1:D:667:LEU:HD13 | 1:D:678:VAL:HG21 | 1.51 | 0.92 |
| 1:E:715:GLU:HA | 1:E:718:ARG:CZ | 2.00 | 0.92 |
| 2:R:48:LEU:HD23 | 2:R:51:MET:HE2 | 1.49 | 0.92 |
| 2:R:51:MET:HB3 | 2:R:71:MET:HE2 | 1.51 | 0.92 |
| 1:B:629:ASN:HD21 | 1:B:631:SER:HB2 | 1.34 | 0.92 |
| 1:D:715:GLU:HA | 1:D:718:ARG:CZ | 1.99 | 0.92 |
| 1:F:722:ILE:HG23 | 1:F:760:VAL:HG13 | 1.52 | 0.92 |
| 1:A:354:SER:O | 1:A:371:SER:HB2 | 1.71 | 0.91 |
| 1:C:441:VAL:HG22 | 1:C:461:LYS:HG2 | 1.52 | 0.91 |
| 1:E:354:SER:O | 1:E:371:SER:HB2 | 1.70 | 0.91 |
| 2:T:24:ASP:HB2 | 2:T:26:THR:HG23 | 1.50 | 0.91 |
| 1:A:186:LYS:HE3 | 1:A:234:LEU:HD12 | 1.50 | 0.91 |
| 1:B:133:GLU:HG3 | 1:B:133:GLU:O | 1.68 | 0.91 |
| 1:B:617:LYS:HZ2 | 1:B:618:ASN:HD21 | 1.18 | 0.91 |
| 1:C:592:GLU:HB3 | 1:C:604:LEU:HD11 | 1.51 | 0.91 |
| 1:D:90:PRO:O | 1:D:93:VAL:HG12 | 1.70 | 0.91 |
| 1:E:186:LYS:HE3 | 1:E:234:LEU:HD12 | 1.50 | 0.91 |
| 1:A:617:LYS:NZ | 1:A:618:ASN:HD21 | 1.67 | 0.91 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:550:SER:CB | 1:B:553:GLN:HG3 | 2.01 | 0.91 |
| 1:E:581:GLN:NE2 | 1:E:629:ASN:H | 1.69 | 0.91 |
| 1:C:617:LYS:NZ | 1:C:618:ASN:HD21 | 1.68 | 0.91 |
| 1:F:617:LYS:NZ | 1:F:618:ASN:HD21 | 1.68 | 0.91 |
| 1:D:354:SER:O | 1:D:371:SER:HB2 | 1.70 | 0.91 |
| 1:A:133:GLU:HG3 | 1:A:133:GLU:O | 1.68 | 0.91 |
| 1:D:617:LYS:NZ | 1:D:618:ASN:HD21 | 1.67 | 0.91 |
| 1:D:629:ASN:HD21 | 1:D:631:SER:HB2 | 1.33 | 0.91 |
| 1:C:715:GLU:HA | 1:C:718:ARG:CZ | 2.00 | 0.90 |
| 1:F:715:GLU:HA | 1:F:718:ARG:CZ | 2.00 | 0.90 |
| 1:C:354:SER:O | 1:C:371:SER:HB2 | 1.70 | 0.90 |
| 1:A:97:TYR:CE1 | 1:A:178:SER:HB2 | 2.06 | 0.90 |
| 1:A:581:GLN:NE2 | 1:A:629:ASN:H | 1.69 | 0.90 |
| 1:A:722:ILE:HG23 | 1:A:760:VAL:HG13 | 1.52 | 0.90 |
| 1:F:107:THR:HG21 | 1:F:115:LYS:HE2 | 1.53 | 0.90 |
| 1:A:667:LEU:HD13 | 1:A:678:VAL:HG21 | 1.53 | 0.90 |
| 1:C:186:LYS:HE3 | 1:C:234:LEU:HD12 | 1.52 | 0.90 |
| 1:C:629:ASN:HD21 | 1:C:631:SER:HB2 | 1.35 | 0.90 |
| 1:D:550:SER:CB | 1:D:553:GLN:HG3 | 2.01 | 0.90 |
| 1:F:140:ARG:HA | 1:F:140:ARG:HE | 1.36 | 0.90 |
| 2:R:24:ASP:HB2 | 2:R:26:THR:HG23 | 1.52 | 0.90 |
| 1:F:90:PRO:O | 1:F:93:VAL:HG12 | 1.72 | 0.90 |
| 2:O:24:ASP:HB2 | 2:O:26:THR:HG23 | 1.50 | 0.90 |
| 1:F:581:GLN:NE2 | 1:F:629:ASN:H | 1.69 | 0.90 |
| 1:A:107:THR:HG21 | 1:A:115:LYS:HE2 | 1.52 | 0.90 |
| 1:B:722:ILE:HG23 | 1:B:760:VAL:HG13 | 1.52 | 0.90 |
| 1:F:97:TYR:CE1 | 1:F:178:SER:HB2 | 2.05 | 0.90 |
| 1:D:140:ARG:HA | 1:D:140:ARG:HE | 1.37 | 0.89 |
| 1:A:197:LYS:HZ2 | 1:A:197:LYS:HB3 | 1.38 | 0.89 |
| 1:A:550:SER:CB | 1:A:553:GLN:HG3 | 2.03 | 0.89 |
| 1:A:724:ARG:O | 1:A:727:GLN:HB2 | 1.72 | 0.89 |
| 1:F:432:TYR:C | 1:F:433:TYR:O | 1.93 | 0.89 |
| 1:C:142:VAL:HG22 | 1:C:154:ILE:HD12 | 1.55 | 0.89 |
| 1:E:667:LEU:HD13 | 1:E:678:VAL:HG21 | 1.53 | 0.89 |
| 1:D:186:LYS:HE3 | 1:D:234:LEU:HD12 | 1.52 | 0.89 |
| 1:E:722:ILE:HG23 | 1:E:760:VAL:HG13 | 1.53 | 0.89 |
| 1:E:90:PRO:O | 1:E:93:VAL:HG12 | 1.71 | 0.89 |
| 1:B:617:LYS:NZ | 1:B:618:ASN:HD21 | 1.68 | 0.89 |
| 1:F:142:VAL:HG22 | 1:F:154:ILE:HD12 | 1.55 | 0.89 |
| 1:A:140:ARG:HA | 1:A:140:ARG:HE | 1.36 | 0.89 |
| 1:C:722:ILE:HG23 | 1:C:760:VAL:HG13 | 1.54 | 0.89 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:722:ILE:HG23 | 1:D:760:VAL:HG13 | 1.53 | 0.88 |
| 1:B:667:LEU:HD13 | 1:B:678:VAL:HG21 | 1.52 | 0.88 |
| 1:B:715:GLU:HG3 | 1:B:718:ARG:HH12 | 1.39 | 0.88 |
| 1:D:581:GLN:NE2 | 1:D:629:ASN:H | 1.71 | 0.88 |
| 1:B:97:TYR:CE1 | 1:B:178:SER:HB2 | 2.07 | 0.88 |
| 1:E:140:ARG:HA | 1:E:140:ARG:HE | 1.37 | 0.88 |
| 1:E:617:LYS:NZ | 1:E:618:ASN:HD21 | 1.70 | 0.88 |
| 1:C:550:SER:CB | 1:C:553:GLN:HG3 | 2.02 | 0.88 |
| 1:B:64:ASN:N | 1:B:64:ASN:ND2 | 2.12 | 0.88 |
| 1:C:140:ARG:HA | 1:C:140:ARG:HE | 1.38 | 0.88 |
| 1:D:97:TYR:CE1 | 1:D:178:SER:HB2 | 2.08 | 0.88 |
| 1:B:90:PRO:O | 1:B:93:VAL:HG12 | 1.71 | 0.88 |
| 1:C:197:LYS:HZ2 | 1:C:197:LYS:HB3 | 1.38 | 0.88 |
| 1:E:142:VAL:HG22 | 1:E:154:ILE:HD12 | 1.56 | 0.88 |
| 2:T:24:ASP:N | 2:T:24:ASP:OD1 | 2.05 | 0.88 |
| 1:D:197:LYS:HZ2 | 1:D:197:LYS:HB3 | 1.39 | 0.88 |
| 1:E:97:TYR:CE1 | 1:E:178:SER:HB2 | 2.07 | 0.88 |
| 1:A:214:PHE:HB3 | 1:A:218:LEU:HB3 | 1.56 | 0.88 |
| 1:E:107:THR:HG21 | 1:E:115:LYS:HE2 | 1.53 | 0.88 |
| 1:E:214:PHE:HB3 | 1:E:218:LEU:HB3 | 1.56 | 0.88 |
| 1:B:724:ARG:O | 1:B:727:GLN:HB2 | 1.73 | 0.88 |
| 1:C:90:PRO:O | 1:C:93:VAL:HG12 | 1.73 | 0.88 |
| 1:D:142:VAL:HG22 | 1:D:154:ILE:HD12 | 1.54 | 0.88 |
| 1:F:154:ILE:HG13 | 1:F:171:TYR:CZ | 2.08 | 0.88 |
| 1:F:667:LEU:HD13 | 1:F:678:VAL:HG21 | 1.55 | 0.87 |
| 1:F:724:ARG:O | 1:F:727:GLN:HB2 | 1.73 | 0.87 |
| 1:C:581:GLN:NE2 | 1:C:629:ASN:H | 1.72 | 0.87 |
| 1:E:76:LEU:H | 1:E:76:LEU:HD22 | 1.40 | 0.87 |
| 1:B:140:ARG:HA | 1:B:140:ARG:HE | 1.37 | 0.87 |
| 1:B:142:VAL:HG22 | 1:B:154:ILE:HD12 | 1.55 | 0.87 |
| 1:D:214:PHE:HB3 | 1:D:218:LEU:HB3 | 1.55 | 0.87 |
| 1:F:254:ARG:H | 1:F:254:ARG:HD2 | 1.39 | 0.87 |
| 1:C:97:TYR:CE1 | 1:C:178:SER:HB2 | 2.08 | 0.87 |
| 1:D:550:SER:HB3 | 1:D:553:GLN:CG | 2.04 | 0.87 |
| 1:A:142:VAL:HG22 | 1:A:154:ILE:HD12 | 1.56 | 0.87 |
| 1:C:667:LEU:HD13 | 1:C:678:VAL:HG21 | 1.55 | 0.87 |
| 1:B:76:LEU:H | 1:B:76:LEU:HD22 | 1.40 | 0.87 |
| 1:D:254:ARG:H | 1:D:254:ARG:HD2 | 1.39 | 0.87 |
| 1:A:715:GLU:HG3 | 1:A:718:ARG:HH12 | 1.39 | 0.87 |
| 1:B:581:GLN:NE2 | 1:B:629:ASN:H | 1.72 | 0.87 |
| 2:O:24:ASP:N | 2:O:24:ASP:OD1 | 2.05 | 0.87 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:720:ILE:HD11 | 1:A:724:ARG:NH2 | 1.90 | 0.87 |
| 1:B:214:PHE:HB3 | 1:B:218:LEU:HB3 | 1.57 | 0.86 |
| 1:E:550:SER:CB | 1:E:553:GLN:HG3 | 2.02 | 0.86 |
| 1:A:499:PRO:HG2 | 1:A:504:ILE:HD11 | 1.56 | 0.86 |
| 1:A:615:ILE:HG23 | 1:A:619:ILE:HD12 | 1.55 | 0.86 |
| 1:B:325:TYR:HB2 | 1:B:498:ALA:HB3 | 1.58 | 0.86 |
| 1:B:499:PRO:HG2 | 1:B:504:ILE:HD11 | 1.56 | 0.86 |
| 1:B:550:SER:HB3 | 1:B:553:GLN:CG | 2.04 | 0.86 |
| 1:D:724:ARG:O | 1:D:727:GLN:HB2 | 1.76 | 0.86 |
| 1:F:550:SER:CB | 1:F:553:GLN:HG3 | 2.01 | 0.86 |
| 1:F:462:ILE:HG12 | 1:F:463:THR:H | 1.40 | 0.86 |
| 1:F:550:SER:HB3 | 1:F:553:GLN:CG | 2.05 | 0.86 |
| 1:E:715:GLU:HG3 | 1:E:718:ARG:HH12 | 1.38 | 0.86 |
| 1:F:197:LYS:HB3 | 1:F:197:LYS:HZ2 | 1.39 | 0.86 |
| 1:D:462:ILE:HG12 | 1:D:463:THR:H | 1.39 | 0.86 |
| 1:D:499:PRO:HG2 | 1:D:504:ILE:HD11 | 1.56 | 0.86 |
| 1:A:462:ILE:HG12 | 1:A:463:THR:H | 1.39 | 0.86 |
| 1:B:462:ILE:HG12 | 1:B:463:THR:H | 1.41 | 0.86 |
| 1:E:254:ARG:H | 1:E:254:ARG:HD2 | 1.39 | 0.86 |
| 1:E:695:LYS:HB2 | 2:S:18:LEU:HD22 | 1.55 | 0.86 |
| 1:A:140:ARG:HA | 1:A:140:ARG:NE | 1.89 | 0.86 |
| 1:A:254:ARG:H | 1:A:254:ARG:HD2 | 1.38 | 0.86 |
| 1:B:107:THR:HG21 | 1:B:115:LYS:HE2 | 1.55 | 0.86 |
| 1:C:154:ILE:HG13 | 1:C:171:TYR:CZ | 2.11 | 0.86 |
| 1:C:695:LYS:HB2 | 2:Q:18:LEU:HD22 | 1.57 | 0.86 |
| 1:F:499:PRO:HG2 | 1:F:504:ILE:HD11 | 1.57 | 0.86 |
| 2:S:24:ASP:OD1 | 2:S:24:ASP:N | 2.05 | 0.86 |
| 1:A:90:PRO:O | 1:A:93:VAL:HG12 | 1.76 | 0.86 |
| 1:C:499:PRO:HG2 | 1:C:504:ILE:HD11 | 1.58 | 0.86 |
| 1:C:715:GLU:HG3 | 1:C:718:ARG:HH12 | 1.38 | 0.86 |
| 1:C:140:ARG:HA | 1:C:140:ARG:NE | 1.90 | 0.85 |
| 1:F:76:LEU:HD22 | 1:F:76:LEU:H | 1.40 | 0.85 |
| 1:F:140:ARG:HA | 1:F:140:ARG:NE | 1.89 | 0.85 |
| 1:A:550:SER:HB3 | 1:A:553:GLN:CG | 2.05 | 0.85 |
| 1:B:140:ARG:HA | 1:B:140:ARG:NE | 1.90 | 0.85 |
| 1:C:214:PHE:HB3 | 1:C:218:LEU:HB3 | 1.55 | 0.85 |
| 1:E:326:ILE:HG22 | 1:E:328:PHE:CE1 | 2.11 | 0.85 |
| 1:A:154:ILE:HG13 | 1:A:171:TYR:CZ | 2.11 | 0.85 |
| 1:C:254:ARG:H | 1:C:254:ARG:HD2 | 1.40 | 0.85 |
| 1:D:720:ILE:HD11 | 1:D:724:ARG:NH2 | 1.92 | 0.85 |
| 1:E:615:ILE:HG23 | 1:E:619:ILE:HD12 | 1.58 | 0.85 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:325:TYR:HB2 | 1:A:498:ALA:HB3 | 1.59 | 0.85 |
| 1:C:720:ILE:HD11 | 1:C:724:ARG:NH2 | 1.92 | 0.85 |
| 1:D:140:ARG:HA | 1:D:140:ARG:NE | 1.90 | 0.85 |
| 1:E:550:SER:HB3 | 1:E:553:GLN:CG | 2.05 | 0.85 |
| 1:D:615:ILE:HG23 | 1:D:619:ILE:HD12 | 1.57 | 0.85 |
| 1:E:288:VAL:HG23 | 1:E:289:GLU:H | 1.40 | 0.85 |
| 2:T:28:THR:HG23 | 2:T:31:GLU:CG | 2.06 | 0.85 |
| 1:F:715:GLU:HG3 | 1:F:718:ARG:HH12 | 1.38 | 0.84 |
| 1:D:325:TYR:HB2 | 1:D:498:ALA:HB3 | 1.59 | 0.84 |
| 1:E:479:LYS:HG2 | 1:E:488:LEU:HD21 | 1.59 | 0.84 |
| 2:O:28:THR:HG23 | 2:O:31:GLU:CG | 2.06 | 0.84 |
| 2:R:41:GLN:C | 2:R:43:PRO:HD2 | 1.98 | 0.84 |
| 1:D:154:ILE:HG13 | 1:D:171:TYR:CZ | 2.12 | 0.84 |
| 2:R:28:THR:HG23 | 2:R:31:GLU:CG | 2.06 | 0.84 |
| 1:C:724:ARG:O | 1:C:727:GLN:HB2 | 1.77 | 0.84 |
| 1:E:197:LYS:HZ2 | 1:E:197:LYS:HB3 | 1.41 | 0.84 |
| 2:P:41:GLN:C | 2:P:43:PRO:HD2 | 1.97 | 0.84 |
| 2:S:28:THR:HG23 | 2:S:31:GLU:CG | 2.07 | 0.84 |
| 2:S:41:GLN:C | 2:S:43:PRO:HD2 | 1.96 | 0.84 |
| 1:B:326:ILE:HG22 | 1:B:328:PHE:CE1 | 2.13 | 0.84 |
| 1:E:325:TYR:HB2 | 1:E:498:ALA:HB3 | 1.59 | 0.84 |
| 1:F:214:PHE:HB3 | 1:F:218:LEU:HB3 | 1.58 | 0.84 |
| 1:D:288:VAL:HG23 | 1:D:289:GLU:H | 1.40 | 0.84 |
| 1:E:462:ILE:HG12 | 1:E:463:THR:H | 1.40 | 0.84 |
| 1:A:326:ILE:HG22 | 1:A:328:PHE:CE1 | 2.13 | 0.84 |
| 1:B:720:ILE:HD11 | 1:B:724:ARG:NH2 | 1.92 | 0.84 |
| 1:C:288:VAL:HG23 | 1:C:289:GLU:H | 1.40 | 0.84 |
| 1:E:720:ILE:HD11 | 1:E:724:ARG:NH2 | 1.92 | 0.84 |
| 1:F:720:ILE:HD11 | 1:F:724:ARG:NH2 | 1.92 | 0.84 |
| 2:P:28:THR:HG23 | 2:P:31:GLU:CG | 2.07 | 0.84 |
| 1:B:479:LYS:HG2 | 1:B:488:LEU:HD21 | 1.59 | 0.84 |
| 1:E:154:ILE:HG13 | 1:E:171:TYR:CZ | 2.12 | 0.84 |
| 1:E:724:ARG:O | 1:E:727:GLN:HB2 | 1.76 | 0.84 |
| 2:O:47:GLU:O | 2:O:51:MET:HG3 | 1.78 | 0.84 |
| 2:P:47:GLU:O | 2:P:51:MET:HG3 | 1.78 | 0.84 |
| 2:Q:41:GLN:C | 2:Q:43:PRO:HD2 | 1.98 | 0.84 |
| 2:T:47:GLU:O | 2:T:51:MET:HG3 | 1.78 | 0.84 |
| 1:B:154:ILE:HG13 | 1:B:171:TYR:CZ | 2.11 | 0.83 |
| 1:C:671:ARG:NH1 | 1:C:677:GLY:HA3 | 1.93 | 0.83 |
| 1:F:615:ILE:HG23 | 1:F:619:ILE:HD12 | 1.59 | 0.83 |
| 2:Q:28:THR:HG23 | 2:Q:31:GLU:CG | 2.07 | 0.83 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:715:GLU:HG3 | 1:D:718:ARG:HH12 | 1.40 | 0.83 |
| 1:E:140:ARG:HA | 1:E:140:ARG:NE | 1.91 | 0.83 |
| 1:F:326:ILE:HG22 | 1:F:328:PHE:CE1 | 2.13 | 0.83 |
| 2:Q:24:ASP:N | 2:Q:24:ASP:OD1 | 2.05 | 0.83 |
| 2:T:41:GLN:C | 2:T:43:PRO:HD2 | 1.98 | 0.83 |
| 1:B:615:ILE:HG23 | 1:B:619:ILE:HD12 | 1.58 | 0.83 |
| 1:E:499:PRO:HG2 | 1:E:504:ILE:HD11 | 1.57 | 0.83 |
| 1:F:678:VAL:HG22 | 1:F:745:TYR:CE2 | 2.13 | 0.83 |
| 1:A:76:LEU:HD22 | 1:A:76:LEU:H | 1.41 | 0.83 |
| 1:B:695:LYS:HB2 | 2:P:18:LEU:HD22 | 1.59 | 0.83 |
| 1:C:325:TYR:HB2 | 1:C:498:ALA:HB3 | 1.59 | 0.83 |
| 1:D:372:LYS:HG3 | 1:D:373:LYS:H | 1.42 | 0.83 |
| 1:F:254:ARG:HB3 | 1:F:254:ARG:HH11 | 1.43 | 0.83 |
| 1:C:550:SER:HB3 | 1:C:553:GLN:CG | 2.06 | 0.83 |
| 1:F:671:ARG:NH1 | 1:F:677:GLY:HA3 | 1.93 | 0.83 |
| 1:B:657:ILE:HG13 | 1:B:756:ILE:HD13 | 1.60 | 0.83 |
| 1:E:165:GLN:NE2 | 1:E:252:ASP:HB3 | 1.93 | 0.83 |
| 1:F:288:VAL:HG23 | 1:F:289:GLU:H | 1.41 | 0.83 |
| 1:A:671:ARG:NH1 | 1:A:677:GLY:HA3 | 1.94 | 0.83 |
| 1:B:254:ARG:H | 1:B:254:ARG:HD2 | 1.41 | 0.83 |
| 1:B:288:VAL:HG23 | 1:B:289:GLU:H | 1.42 | 0.83 |
| 1:F:479:LYS:HG2 | 1:F:488:LEU:HD21 | 1.60 | 0.83 |
| 2:R:47:GLU:O | 2:R:51:MET:HG3 | 1.79 | 0.83 |
| 2:S:47:GLU:O | 2:S:51:MET:HG3 | 1.79 | 0.83 |
| 1:A:479:LYS:HG2 | 1:A:488:LEU:HD21 | 1.59 | 0.83 |
| 1:A:695:LYS:HB2 | 2:O:18:LEU:HD22 | 1.60 | 0.83 |
| 1:E:607:ASN:HB3 | 1:E:609:GLU:OE2 | 1.79 | 0.83 |
| 1:E:671:ARG:NH1 | 1:E:677:GLY:HA3 | 1.94 | 0.83 |
| 1:C:355:SER:CB | 1:C:371:SER:HA | 2.09 | 0.82 |
| 1:F:355:SER:HB2 | 1:F:371:SER:HA | 1.61 | 0.82 |
| 1:A:678:VAL:HG22 | 1:A:745:TYR:CE2 | 2.14 | 0.82 |
| 1:C:607:ASN:HB3 | 1:C:609:GLU:OE2 | 1.79 | 0.82 |
| 1:D:165:GLN:NE2 | 1:D:252:ASP:HB3 | 1.93 | 0.82 |
| 1:D:479:LYS:HG2 | 1:D:488:LEU:HD21 | 1.61 | 0.82 |
| 1:F:345:THR:HB | 1:F:491:ASP:HB3 | 1.61 | 0.82 |
| 1:B:671:ARG:NH1 | 1:B:677:GLY:HA3 | 1.94 | 0.82 |
| 1:E:345:THR:HB | 1:E:491:ASP:HB3 | 1.61 | 0.82 |
| 1:F:722:ILE:HG23 | 1:F:760:VAL:CG1 | 2.10 | 0.82 |
| 1:A:254:ARG:HB3 | 1:A:254:ARG:HH11 | 1.43 | 0.82 |
| 1:B:154:ILE:HG13 | 1:B:171:TYR:CE2 | 2.14 | 0.82 |
| 1:D:607:ASN:HB3 | 1:D:609:GLU:OE2 | 1.80 | 0.82 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:288:VAL:HG23 | 1:A:289:GLU:H | 1.42 | 0.82 |
| 1:E:372:LYS:HG3 | 1:E:373:LYS:H | 1.43 | 0.82 |
| 2:Q:47:GLU:O | 2:Q:51:MET:HG3 | 1.79 | 0.82 |
| 1:C:462:ILE:HG12 | 1:C:463:THR:H | 1.41 | 0.82 |
| 1:C:678:VAL:HG22 | 1:C:745:TYR:CE2 | 2.14 | 0.82 |
| 1:D:678:VAL:HG22 | 1:D:745:TYR:CE2 | 2.14 | 0.82 |
| 1:F:154:ILE:HG13 | 1:F:171:TYR:CE2 | 2.14 | 0.82 |
| 1:D:326:ILE:HG22 | 1:D:328:PHE:CE1 | 2.13 | 0.82 |
| 1:E:355:SER:CB | 1:E:371:SER:HA | 2.10 | 0.82 |
| 1:A:345:THR:HB | 1:A:491:ASP:HB3 | 1.61 | 0.82 |
| 1:A:581:GLN:HE21 | 1:A:629:ASN:H | 1.26 | 0.82 |
| 1:A:607:ASN:HB3 | 1:A:609:GLU:OE2 | 1.79 | 0.82 |
| 1:C:76:LEU:HD22 | 1:C:76:LEU:H | 1.44 | 0.82 |
| 2:P:100:ILE:HB | 2:P:136:VAL:CG2 | 2.10 | 0.82 |
| 2:R:24:ASP:OD1 | 2:R:24:ASP:N | 2.06 | 0.82 |
| 2:T:51:MET:HB3 | 2:T:71:MET:HE2 | 1.60 | 0.82 |
| 1:B:355:SER:HB2 | 1:B:371:SER:HA | 1.62 | 0.82 |
| 1:E:678:VAL:HG22 | 1:E:745:TYR:CE2 | 2.15 | 0.82 |
| 1:A:154:ILE:HG13 | 1:A:171:TYR:CE2 | 2.15 | 0.81 |
| 1:A:324:THR:HB | 1:A:499:PRO:CA | 2.10 | 0.81 |
| 1:D:657:ILE:HG13 | 1:D:756:ILE:HD13 | 1.62 | 0.81 |
| 1:D:722:ILE:HG23 | 1:D:760:VAL:CG1 | 2.10 | 0.81 |
| 1:E:275:GLY:HA2 | 1:E:278:LYS:CD | 2.10 | 0.81 |
| 1:E:722:ILE:HG23 | 1:E:760:VAL:CG1 | 2.09 | 0.81 |
| 1:A:355:SER:CB | 1:A:371:SER:HA | 2.11 | 0.81 |
| 1:C:184:LYS:O | 1:C:185:ASP:C | 2.19 | 0.81 |
| 1:D:324:THR:HB | 1:D:499:PRO:CA | 2.10 | 0.81 |
| 2:S:100:ILE:HB | 2:S:136:VAL:CG2 | 2.10 | 0.81 |
| 1:A:184:LYS:O | 1:A:185:ASP:C | 2.19 | 0.81 |
| 1:A:372:LYS:HG3 | 1:A:373:LYS:H | 1.45 | 0.81 |
| 1:A:722:ILE:HG23 | 1:A:760:VAL:CG1 | 2.10 | 0.81 |
| 1:B:324:THR:HB | 1:B:499:PRO:CA | 2.10 | 0.81 |
| 1:B:345:THR:HB | 1:B:491:ASP:HB3 | 1.60 | 0.81 |
| 1:C:326:ILE:HG22 | 1:C:328:PHE:CE1 | 2.15 | 0.81 |
| 1:C:345:THR:HB | 1:C:491:ASP:HB3 | 1.61 | 0.81 |
| 1:D:355:SER:CB | 1:D:371:SER:HA | 2.10 | 0.81 |
| 1:D:671:ARG:NH1 | 1:D:677:GLY:HA3 | 1.94 | 0.81 |
| 1:D:695:LYS:HB2 | 2:R:18:LEU:HD22 | 1.60 | 0.81 |
| 1:F:175:LYS:HB2 | 1:F:175:LYS:HZ2 | 1.44 | 0.81 |
| 1:F:324:THR:CB | 1:F:499:PRO:HA | 2.10 | 0.81 |
| 2:O:41:GLN:C | 2:O:43:PRO:HD2 | 2.00 | 0.81 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:O:100:ILE:HB | 2:O:136:VAL:CG2 | 2.10 | 0.81 |
| 1:C:479:LYS:HG2 | 1:C:488:LEU:HD21 | 1.62 | 0.81 |
| 1:C:764:LEU:C | 1:C:766:HIS:H | 1.83 | 0.81 |
| 1:F:325:TYR:HB2 | 1:F:498:ALA:HB3 | 1.61 | 0.81 |
| 2:R:100:ILE:HB | 2:R:136:VAL:CG2 | 2.11 | 0.81 |
| 2:T:100:ILE:HB | 2:T:136:VAL:CG2 | 2.09 | 0.81 |
| 1:A:355:SER:HB2 | 1:A:371:SER:HA | 1.62 | 0.81 |
| 1:F:695:LYS:HB2 | 2:T:18:LEU:HD22 | 1.62 | 0.81 |
| 1:C:154:ILE:HG13 | 1:C:171:TYR:CE2 | 2.14 | 0.81 |
| 1:D:76:LEU:HD22 | 1:D:76:LEU:H | 1.44 | 0.81 |
| 1:F:355:SER:CB | 1:F:371:SER:HA | 2.09 | 0.81 |
| 1:A:443:GLU:OE2 | 1:A:458:LYS:HG2 | 1.81 | 0.81 |
| 1:C:722:ILE:HG23 | 1:C:760:VAL:CG1 | 2.10 | 0.81 |
| 1:E:154:ILE:HG13 | 1:E:171:TYR:CE2 | 2.16 | 0.81 |
| 1:F:462:ILE:HG12 | 1:F:463:THR:N | 1.93 | 0.81 |
| 2:P:24:ASP:OD1 | 2:P:24:ASP:N | 2.05 | 0.81 |
| 1:B:372:LYS:HG3 | 1:B:373:LYS:H | 1.45 | 0.81 |
| 1:B:607:ASN:HB3 | 1:B:609:GLU:OE2 | 1.79 | 0.81 |
| 1:C:275:GLY:HA2 | 1:C:278:LYS:CD | 2.10 | 0.81 |
| 1:D:154:ILE:HG13 | 1:D:171:TYR:CE2 | 2.15 | 0.81 |
| 1:A:165:GLN:NE2 | 1:A:252:ASP:HB3 | 1.96 | 0.81 |
| 1:B:324:THR:CB | 1:B:499:PRO:HA | 2.10 | 0.81 |
| 1:C:355:SER:HB2 | 1:C:371:SER:HA | 1.60 | 0.81 |
| 1:D:567:THR:HG23 | 1:D:568:GLY:N | 1.96 | 0.81 |
| 1:E:355:SER:HB2 | 1:E:371:SER:HA | 1.62 | 0.81 |
| 1:F:607:ASN:HB3 | 1:F:609:GLU:OE2 | 1.81 | 0.81 |
| 1:A:324:THR:CB | 1:A:499:PRO:HA | 2.11 | 0.81 |
| 1:A:462:ILE:HG12 | 1:A:463:THR:N | 1.94 | 0.81 |
| 1:E:254:ARG:HB3 | 1:E:254:ARG:HH11 | 1.46 | 0.81 |
| 1:B:165:GLN:NE2 | 1:B:252:ASP:HB3 | 1.96 | 0.80 |
| 1:D:581:GLN:HE21 | 1:D:629:ASN:H | 1.27 | 0.80 |
| 1:D:597:ASN:ND2 | 1:D:601:GLU:HB2 | 1.96 | 0.80 |
| 2:Q:100:ILE:HB | 2:Q:136:VAL:CG2 | 2.10 | 0.80 |
| 1:D:275:GLY:HA2 | 1:D:278:LYS:CD | 2.11 | 0.80 |
| 1:F:165:GLN:NE2 | 1:F:252:ASP:HB3 | 1.95 | 0.80 |
| 1:B:355:SER:CB | 1:B:371:SER:HA | 2.10 | 0.80 |
| 1:C:372:LYS:HG3 | 1:C:373:LYS:H | 1.45 | 0.80 |
| 1:C:450:ASN:HD22 | 1:C:452:GLU:H | 1.29 | 0.80 |
| 1:F:184:LYS:O | 1:F:185:ASP:C | 2.19 | 0.80 |
| 1:F:372:LYS:HG3 | 1:F:373:LYS:H | 1.45 | 0.80 |
| 1:B:192:PHE:HA | 1:B:195:LEU:HB3 | 1.63 | 0.80 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:615:ILE:HG23 | 1:C:619:ILE:HD12 | 1.61 | 0.80 |
| 1:D:345:THR:HB | 1:D:491:ASP:HB3 | 1.61 | 0.80 |
| 1:E:184:LYS:O | 1:E:185:ASP:C | 2.19 | 0.80 |
| 1:F:184:LYS:HA | 1:F:187:SER:HB3 | 1.63 | 0.80 |
| 1:A:409:ARG:NE | 1:A:413:LEU:HD21 | 1.96 | 0.80 |
| 1:B:722:ILE:HG23 | 1:B:760:VAL:CG1 | 2.10 | 0.80 |
| 1:D:184:LYS:O | 1:D:185:ASP:C | 2.19 | 0.80 |
| 1:E:324:THR:HB | 1:E:499:PRO:CA | 2.10 | 0.80 |
| 1:E:581:GLN:HE21 | 1:E:629:ASN:H | 1.26 | 0.80 |
| 1:F:324:THR:HB | 1:F:499:PRO:CA | 2.10 | 0.80 |
| 1:C:657:ILE:HG13 | 1:C:756:ILE:HD13 | 1.63 | 0.80 |
| 1:D:443:GLU:OE2 | 1:D:458:LYS:HG2 | 1.82 | 0.80 |
| 1:F:581:GLN:HE21 | 1:F:629:ASN:H | 1.25 | 0.80 |
| 1:A:567:THR:HG23 | 1:A:568:GLY:N | 1.97 | 0.80 |
| 1:B:450:ASN:HD22 | 1:B:452:GLU:H | 1.30 | 0.80 |
| 1:B:462:ILE:HG12 | 1:B:463:THR:N | 1.95 | 0.80 |
| 1:E:192:PHE:HA | 1:E:195:LEU:HB3 | 1.64 | 0.80 |
| 1:F:295:VAL:C | 1:F:296:LEU:HD23 | 2.02 | 0.80 |
| 1:D:462:ILE:HG12 | 1:D:463:THR:N | 1.94 | 0.80 |
| 1:F:450:ASN:HD22 | 1:F:452:GLU:H | 1.30 | 0.80 |
| 1:A:295:VAL:C | 1:A:296:LEU:HD23 | 2.03 | 0.80 |
| 1:B:184:LYS:O | 1:B:185:ASP:C | 2.19 | 0.80 |
| 1:C:120:LEU:O | 1:C:120:LEU:CD1 | 2.28 | 0.80 |
| 1:C:324:THR:CB | 1:C:499:PRO:HA | 2.11 | 0.80 |
| 1:C:443:GLU:OE2 | 1:C:458:LYS:HG2 | 1.82 | 0.80 |
| 1:E:657:ILE:HG13 | 1:E:756:ILE:HD13 | 1.63 | 0.80 |
| 1:B:175:LYS:HB2 | 1:B:175:LYS:HZ2 | 1.47 | 0.79 |
| 1:C:184:LYS:HA | 1:C:187:SER:HB3 | 1.63 | 0.79 |
| 1:D:254:ARG:HB3 | 1:D:254:ARG:HH11 | 1.45 | 0.79 |
| 1:E:462:ILE:HG12 | 1:E:463:THR:N | 1.95 | 0.79 |
| 1:F:764:LEU:C | 1:F:766:HIS:H | 1.85 | 0.79 |
| 1:A:472:ARG:HB3 | 1:A:472:ARG:HH11 | 1.47 | 0.79 |
| 1:B:189:ASP:O | 1:B:191:GLU:N | 2.16 | 0.79 |
| 1:B:275:GLY:HA2 | 1:B:278:LYS:CD | 2.12 | 0.79 |
| 1:B:443:GLU:OE2 | 1:B:458:LYS:HG2 | 1.82 | 0.79 |
| 1:B:581:GLN:HE21 | 1:B:629:ASN:H | 1.28 | 0.79 |
| 1:B:678:VAL:HG22 | 1:B:745:TYR:CE2 | 2.16 | 0.79 |
| 1:C:324:THR:HB | 1:C:499:PRO:CA | 2.11 | 0.79 |
| 1:A:275:GLY:HA2 | 1:A:278:LYS:CD | 2.12 | 0.79 |
| 1:C:409:ARG:NE | 1:C:413:LEU:HD21 | 1.97 | 0.79 |
| 1:C:462:ILE:HG12 | 1:C:463:THR:N | 1.95 | 0.79 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:120:LEU:O | 1:D:120:LEU:CD1 | 2.28 | 0.79 |
| 1:E:184:LYS:HA | 1:E:187:SER:HB3 | 1.63 | 0.79 |
| 1:E:295:VAL:C | 1:E:296:LEU:HD23 | 2.03 | 0.79 |
| 1:C:165:GLN:NE2 | 1:C:252:ASP:HB3 | 1.96 | 0.79 |
| 1:E:360:VAL:HG21 | 1:E:365:PRO:HB3 | 1.63 | 0.79 |
| 1:C:254:ARG:HB3 | 1:C:254:ARG:HH11 | 1.46 | 0.79 |
| 1:C:567:THR:HG23 | 1:C:568:GLY:N | 1.97 | 0.79 |
| 1:C:581:GLN:HE21 | 1:C:629:ASN:H | 1.27 | 0.79 |
| 1:D:324:THR:CB | 1:D:499:PRO:HA | 2.11 | 0.79 |
| 1:B:567:THR:HG23 | 1:B:568:GLY:N | 1.98 | 0.79 |
| 1:D:597:ASN:HD21 | 1:D:601:GLU:CB | 1.94 | 0.79 |
| 1:D:709:ASN:O | 1:D:717:LYS:HE3 | 1.83 | 0.79 |
| 1:E:120:LEU:O | 1:E:120:LEU:CD1 | 2.28 | 0.79 |
| 1:F:275:GLY:HA2 | 1:F:278:LYS:CD | 2.12 | 0.79 |
| 1:F:597:ASN:HD21 | 1:F:601:GLU:CB | 1.96 | 0.79 |
| 1:F:657:ILE:HG13 | 1:F:756:ILE:HD13 | 1.63 | 0.79 |
| 1:D:450:ASN:HD22 | 1:D:452:GLU:H | 1.30 | 0.79 |
| 1:E:324:THR:CB | 1:E:499:PRO:HA | 2.10 | 0.79 |
| 1:F:360:VAL:HG21 | 1:F:365:PRO:HB3 | 1.64 | 0.79 |
| 1:A:308:VAL:HB | 1:A:311:HIS:ND1 | 1.98 | 0.79 |
| 2:Q:77:LYS:O | 2:Q:80:ASP:HB2 | 1.84 | 0.79 |
| 2:S:48:LEU:HA | 2:S:51:MET:CE | 2.13 | 0.79 |
| 1:A:175:LYS:HB2 | 1:A:175:LYS:HZ2 | 1.46 | 0.78 |
| 1:A:657:ILE:HG13 | 1:A:756:ILE:HD13 | 1.64 | 0.78 |
| 1:E:115:LYS:HZ2 | 1:E:116:GLU:N | 1.79 | 0.78 |
| 1:F:443:GLU:OE2 | 1:F:458:LYS:HG2 | 1.82 | 0.78 |
| 1:B:184:LYS:HA | 1:B:187:SER:HB3 | 1.63 | 0.78 |
| 1:E:658:PRO:HG3 | 1:E:752:LEU:HD21 | 1.65 | 0.78 |
| 2:O:77:LYS:O | 2:O:80:ASP:HB2 | 1.84 | 0.78 |
| 1:B:254:ARG:HB3 | 1:B:254:ARG:HH11 | 1.48 | 0.78 |
| 1:E:214:PHE:CD1 | 1:E:218:LEU:HD23 | 2.19 | 0.78 |
| 1:E:443:GLU:OE2 | 1:E:458:LYS:HG2 | 1.83 | 0.78 |
| 1:D:192:PHE:HA | 1:D:195:LEU:HB3 | 1.65 | 0.78 |
| 1:D:658:PRO:HG3 | 1:D:752:LEU:HD21 | 1.64 | 0.78 |
| 2:R:48:LEU:HA | 2:R:51:MET:CE | 2.14 | 0.78 |
| 1:A:184:LYS:HA | 1:A:187:SER:HB3 | 1.63 | 0.78 |
| 1:A:360:VAL:HG21 | 1:A:365:PRO:HB3 | 1.64 | 0.78 |
| 1:B:293:ILE:HD13 | 1:B:617:LYS:HD3 | 1.66 | 0.78 |
| 1:E:450:ASN:HD22 | 1:E:452:GLU:H | 1.31 | 0.78 |
| 1:B:658:PRO:HG3 | 1:B:752:LEU:HD21 | 1.66 | 0.78 |
| 1:C:295:VAL:C | 1:C:296:LEU:HD23 | 2.03 | 0.78 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:709:ASN:O | 1:C:717:LYS:HE3 | 1.84 | 0.78 |
| 1:D:355:SER:HB2 | 1:D:371:SER:HA | 1.63 | 0.78 |
| 1:F:192:PHE:HA | 1:F:195:LEU:HB3 | 1.64 | 0.78 |
| 1:F:409:ARG:NE | 1:F:413:LEU:HD21 | 1.97 | 0.78 |
| 1:B:295:VAL:C | 1:B:296:LEU:HD23 | 2.03 | 0.78 |
| 1:D:308:VAL:HB | 1:D:311:HIS:ND1 | 1.99 | 0.78 |
| 1:A:112:VAL:HG12 | 1:A:113:GLU:H | 1.47 | 0.78 |
| 1:A:658:PRO:HG3 | 1:A:752:LEU:HD21 | 1.66 | 0.78 |
| 1:B:764:LEU:C | 1:B:766:HIS:H | 1.86 | 0.78 |
| 1:D:184:LYS:HA | 1:D:187:SER:HB3 | 1.63 | 0.78 |
| 1:F:658:PRO:HG3 | 1:F:752:LEU:HD21 | 1.66 | 0.78 |
| 1:E:409:ARG:NE | 1:E:413:LEU:HD21 | 1.99 | 0.78 |
| 2:P:77:LYS:O | 2:P:80:ASP:HB2 | 1.84 | 0.78 |
| 1:B:639:ASN:HD22 | 1:B:639:ASN:H | 1.31 | 0.77 |
| 1:B:765:THR:HG22 | 1:B:769:SER:OG | 1.84 | 0.77 |
| 1:C:776:LEU:HD23 | 1:C:776:LEU:O | 1.84 | 0.77 |
| 1:D:729:TYR:HB2 | 1:D:756:ILE:HG21 | 1.67 | 0.77 |
| 1:A:214:PHE:CD1 | 1:A:218:LEU:HD23 | 2.19 | 0.77 |
| 1:C:360:VAL:HG11 | 1:C:370:LEU:HD22 | 1.67 | 0.77 |
| 1:A:120:LEU:O | 1:A:120:LEU:CD1 | 2.28 | 0.77 |
| 1:B:409:ARG:NE | 1:B:413:LEU:HD21 | 2.00 | 0.77 |
| 1:C:192:PHE:HA | 1:C:195:LEU:HB3 | 1.64 | 0.77 |
| 1:E:112:VAL:HG12 | 1:E:113:GLU:H | 1.49 | 0.77 |
| 1:E:567:THR:HG23 | 1:E:568:GLY:N | 1.96 | 0.77 |
| 1:A:450:ASN:HD22 | 1:A:452:GLU:H | 1.31 | 0.77 |
| 1:D:214:PHE:CD1 | 1:D:218:LEU:HD23 | 2.20 | 0.77 |
| 1:F:765:THR:HG22 | 1:F:769:SER:OG | 1.84 | 0.77 |
| 2:S:77:LYS:O | 2:S:80:ASP:HB2 | 1.84 | 0.77 |
| 1:C:308:VAL:HB | 1:C:311:HIS:ND1 | 1.99 | 0.77 |
| 1:D:360:VAL:HG21 | 1:D:365:PRO:HB3 | 1.64 | 0.77 |
| 1:E:175:LYS:HB2 | 1:E:175:LYS:HZ2 | 1.49 | 0.77 |
| 2:R:77:LYS:O | 2:R:80:ASP:HB2 | 1.83 | 0.77 |
| 1:B:639:ASN:H | 1:B:639:ASN:ND2 | 1.83 | 0.77 |
| 1:C:597:ASN:HD21 | 1:C:601:GLU:CB | 1.97 | 0.77 |
| 1:C:639:ASN:ND2 | 1:C:639:ASN:H | 1.83 | 0.77 |
| 1:F:308:VAL:HB | 1:F:311:HIS:ND1 | 1.99 | 0.77 |
| 1:C:214:PHE:CD1 | 1:C:218:LEU:HD23 | 2.19 | 0.77 |
| 1:D:409:ARG:NE | 1:D:413:LEU:HD21 | 1.98 | 0.77 |
| 1:E:153:ILE:O | 1:E:154:ILE:HD13 | 1.84 | 0.77 |
| 1:E:765:THR:HG22 | 1:E:769:SER:OG | 1.85 | 0.77 |
| 1:B:214:PHE:CD1 | 1:B:218:LEU:HD23 | 2.20 | 0.77 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:120:LEU:O | 1:F:120:LEU:CD1 | 2.28 | 0.77 |
| 1:A:115:LYS:HG3 | 1:A:153:ILE:HG21 | 1.67 | 0.77 |
| 1:B:360:VAL:HG21 | 1:B:365:PRO:HB3 | 1.64 | 0.77 |
| 1:B:472:ARG:HB3 | 1:B:472:ARG:HH11 | 1.50 | 0.77 |
| 1:C:360:VAL:HG21 | 1:C:365:PRO:HB3 | 1.65 | 0.77 |
| 1:F:472:ARG:HB3 | 1:F:472:ARG:HH11 | 1.50 | 0.77 |
| 1:B:788:ASP:O | 1:B:792:VAL:HG23 | 1.85 | 0.77 |
| 1:D:764:LEU:C | 1:D:766:HIS:H | 1.85 | 0.77 |
| 1:A:639:ASN:H | 1:A:639:ASN:HD22 | 1.33 | 0.76 |
| 1:A:639:ASN:H | 1:A:639:ASN:ND2 | 1.83 | 0.76 |
| 1:B:308:VAL:HB | 1:B:311:HIS:ND1 | 1.99 | 0.76 |
| 1:C:729:TYR:HB2 | 1:C:756:ILE:HG21 | 1.66 | 0.76 |
| 1:D:295:VAL:C | 1:D:296:LEU:HD23 | 2.05 | 0.76 |
| 1:D:742:ALA:HB1 | 1:D:744:GLU:OE1 | 1.85 | 0.76 |
| 1:D:765:THR:HG22 | 1:D:769:SER:OG | 1.85 | 0.76 |
| 1:F:165:GLN:HG2 | 1:F:251:PRO:HG2 | 1.68 | 0.76 |
| 1:F:639:ASN:ND2 | 1:F:639:ASN:H | 1.84 | 0.76 |
| 2:T:77:LYS:O | 2:T:80:ASP:HB2 | 1.84 | 0.76 |
| 1:A:293:ILE:HD13 | 1:A:617:LYS:HD3 | 1.65 | 0.76 |
| 1:A:764:LEU:C | 1:A:766:HIS:H | 1.87 | 0.76 |
| 1:C:293:ILE:HD13 | 1:C:617:LYS:HD3 | 1.65 | 0.76 |
| 1:B:112:VAL:HG12 | 1:B:113:GLU:H | 1.50 | 0.76 |
| 1:D:184:LYS:HE3 | 1:D:191:GLU:HB2 | 1.67 | 0.76 |
| 1:E:639:ASN:H | 1:E:639:ASN:ND2 | 1.83 | 0.76 |
| 1:F:112:VAL:HG12 | 1:F:113:GLU:H | 1.49 | 0.76 |
| 1:A:192:PHE:HA | 1:A:195:LEU:HB3 | 1.65 | 0.76 |
| 1:D:189:ASP:O | 1:D:190:PRO:C | 2.22 | 0.76 |
| 1:D:360:VAL:HG11 | 1:D:370:LEU:HD22 | 1.67 | 0.76 |
| 1:E:597:ASN:ND2 | 1:E:601:GLU:HB2 | 2.00 | 0.76 |
| 1:E:293:ILE:HD13 | 1:E:617:LYS:HD3 | 1.66 | 0.76 |
| 1:E:776:LEU:HD23 | 1:E:776:LEU:O | 1.85 | 0.76 |
| 1:F:115:LYS:HZ2 | 1:F:116:GLU:N | 1.81 | 0.76 |
| 1:F:214:PHE:CD1 | 1:F:218:LEU:HD23 | 2.20 | 0.76 |
| 1:F:293:ILE:HD13 | 1:F:617:LYS:HD3 | 1.67 | 0.76 |
| 1:C:472:ARG:HB3 | 1:C:472:ARG:HH11 | 1.50 | 0.76 |
| 1:C:643:ILE:HG22 | 1:C:644:GLU:H | 1.48 | 0.76 |
| 1:F:499:PRO:HD3 | 1:F:552:TRP:CH2 | 2.20 | 0.76 |
| 1:B:120:LEU:O | 1:B:120:LEU:CD1 | 2.28 | 0.76 |
| 1:D:186:LYS:O | 1:D:186:LYS:HG2 | 1.86 | 0.76 |
| 1:E:308:VAL:HB | 1:E:311:HIS:ND1 | 1.99 | 0.76 |
| 1:E:709:ASN:O | 1:E:717:LYS:HE3 | 1.85 | 0.76 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:567:THR:HG23 | 1:F:568:GLY:N | 1.98 | 0.76 |
| 1:A:765:THR:HG22 | 1:A:769:SER:OG | 1.86 | 0.76 |
| 1:C:115:LYS:HZ2 | 1:C:116:GLU:N | 1.81 | 0.76 |
| 1:C:333:LYS:H | 1:C:333:LYS:HD2 | 1.51 | 0.76 |
| 1:C:658:PRO:HG3 | 1:C:752:LEU:HD21 | 1.67 | 0.76 |
| 1:D:639:ASN:H | 1:D:639:ASN:HD22 | 1.34 | 0.76 |
| 1:E:333:LYS:H | 1:E:333:LYS:HD2 | 1.51 | 0.76 |
| 1:C:186:LYS:O | 1:C:186:LYS:HG2 | 1.86 | 0.76 |
| 1:D:589:LYS:HB2 | 1:D:643:ILE:HD13 | 1.68 | 0.76 |
| 1:E:499:PRO:HD3 | 1:E:552:TRP:CH2 | 2.21 | 0.76 |
| 1:F:357:TRP:HZ3 | 1:F:439:ASN:HB2 | 1.51 | 0.76 |
| 2:Q:102:ALA:HB2 | 2:Q:125:ILE:HG13 | 1.68 | 0.76 |
| 1:A:742:ALA:HB1 | 1:A:744:GLU:OE1 | 1.86 | 0.76 |
| 1:B:729:TYR:HB2 | 1:B:756:ILE:HG21 | 1.67 | 0.76 |
| 1:C:189:ASP:O | 1:C:191:GLU:N | 2.19 | 0.76 |
| 1:C:765:THR:HG22 | 1:C:769:SER:OG | 1.85 | 0.76 |
| 2:S:100:ILE:HB | 2:S:136:VAL:HG23 | 1.67 | 0.76 |
| 1:A:333:LYS:H | 1:A:333:LYS:HD2 | 1.51 | 0.75 |
| 1:A:597:ASN:HD21 | 1:A:601:GLU:CB | 1.97 | 0.75 |
| 1:A:709:ASN:O | 1:A:717:LYS:HE3 | 1.86 | 0.75 |
| 1:C:788:ASP:O | 1:C:792:VAL:HG23 | 1.86 | 0.75 |
| 1:D:175:LYS:HB2 | 1:D:175:LYS:HZ2 | 1.48 | 0.75 |
| 1:D:333:LYS:HD2 | 1:D:333:LYS:H | 1.51 | 0.75 |
| 1:D:639:ASN:H | 1:D:639:ASN:ND2 | 1.84 | 0.75 |
| 1:F:776:LEU:HD23 | 1:F:776:LEU:O | 1.85 | 0.75 |
| 1:A:186:LYS:O | 1:A:186:LYS:HG2 | 1.86 | 0.75 |
| 1:C:165:GLN:HG2 | 1:C:251:PRO:HG2 | 1.68 | 0.75 |
| 1:D:112:VAL:HG12 | 1:D:113:GLU:H | 1.49 | 0.75 |
| 1:F:694:VAL:CG2 | 2:T:18:LEU:HD21 | 2.16 | 0.75 |
| 1:A:153:ILE:O | 1:A:154:ILE:HD13 | 1.86 | 0.75 |
| 1:A:788:ASP:O | 1:A:792:VAL:HG23 | 1.87 | 0.75 |
| 1:B:333:LYS:H | 1:B:333:LYS:HD2 | 1.51 | 0.75 |
| 1:C:639:ASN:H | 1:C:639:ASN:HD22 | 1.32 | 0.75 |
| 1:C:694:VAL:CG2 | 2:Q:18:LEU:HD21 | 2.17 | 0.75 |
| 2:P:100:ILE:HB | 2:P:136:VAL:HG23 | 1.69 | 0.75 |
| 1:F:186:LYS:O | 1:F:186:LYS:HG2 | 1.86 | 0.75 |
| 1:C:112:VAL:HG12 | 1:C:113:GLU:H | 1.49 | 0.75 |
| 1:D:293:ILE:HD13 | 1:D:617:LYS:HD3 | 1.66 | 0.75 |
| 1:C:115:LYS:HG3 | 1:C:153:ILE:HG21 | 1.69 | 0.75 |
| 1:B:597:ASN:HD21 | 1:B:601:GLU:CB | 1.97 | 0.75 |
| 1:C:742:ALA:HB1 | 1:C:744:GLU:OE1 | 1.87 | 0.75 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:D:472:ARG:HB3 | 1:D:472:ARG:HH11 | 1.51 | 0.75 |
| 1:E:115:LYS:CB | 1:E:118:GLN:HG2 | 2.17 | 0.75 |
| 1:E:764:LEU:C | 1:E:766:HIS:H | 1.88 | 0.75 |
| 1:F:184:LYS:HE3 | 1:F:191:GLU:HB2 | 1.69 | 0.75 |
| 1:F:716:LYS:O | 1:F:720:ILE:HG22 | 1.87 | 0.75 |
| 2:O:79:THR:C | 2:O:81:SER:H | 1.89 | 0.75 |
| 2:P:79:THR:C | 2:P:81:SER:H | 1.90 | 0.75 |
| 2:Q:100:ILE:HB | 2:Q:136:VAL:HG23 | 1.67 | 0.75 |
| 2:R:102:ALA:HB2 | 2:R:125:ILE:HG13 | 1.68 | 0.75 |
| 1:B:579:THR:O | 1:B:581:GLN:N | 2.20 | 0.75 |
| 1:F:337:ASN:ND2 | 1:F:412:GLU:OE2 | 2.20 | 0.75 |
| 1:C:357:TRP:HZ3 | 1:C:439:ASN:HB2 | 1.52 | 0.74 |
| 1:D:115:LYS:HZ2 | 1:D:116:GLU:N | 1.83 | 0.74 |
| 1:D:115:LYS:HG3 | 1:D:153:ILE:HG21 | 1.69 | 0.74 |
| 1:E:357:TRP:HZ3 | 1:E:439:ASN:HB2 | 1.51 | 0.74 |
| 1:E:742:ALA:HB1 | 1:E:744:GLU:OE1 | 1.87 | 0.74 |
| 1:F:597:ASN:ND2 | 1:F:601:GLU:HB2 | 1.99 | 0.74 |
| 1:F:709:ASN:O | 1:F:717:LYS:HE3 | 1.86 | 0.74 |
| 1:A:115:LYS:CB | 1:A:118:GLN:HG2 | 2.16 | 0.74 |
| 1:A:337:ASN:ND2 | 1:A:412:GLU:OE2 | 2.20 | 0.74 |
| 1:C:115:LYS:CB | 1:C:118:GLN:HG2 | 2.17 | 0.74 |
| 1:C:329:ARG:HD2 | 1:C:590:ASP:OD2 | 1.87 | 0.74 |
| 1:D:153:ILE:O | 1:D:154:ILE:HD13 | 1.87 | 0.74 |
| 1:E:353:LYS:H | 1:E:368:GLN:HE22 | 1.33 | 0.74 |
| 1:F:729:TYR:HB2 | 1:F:756:ILE:HG21 | 1.67 | 0.74 |
| 1:A:499:PRO:HD3 | 1:A:552:TRP:CH2 | 2.21 | 0.74 |
| 1:A:694:VAL:CG2 | 2:O:18:LEU:HD21 | 2.17 | 0.74 |
| 1:D:357:TRP:HZ3 | 1:D:439:ASN:HB2 | 1.51 | 0.74 |
| 1:D:499:PRO:HD3 | 1:D:552:TRP:CH2 | 2.23 | 0.74 |
| 1:D:776:LEU:O | 1:D:776:LEU:HD23 | 1.87 | 0.74 |
| 1:F:333:LYS:H | 1:F:333:LYS:HD2 | 1.51 | 0.74 |
| 1:B:115:LYS:HG3 | 1:B:153:ILE:HG21 | 1.69 | 0.74 |
| 1:C:499:PRO:HD3 | 1:C:552:TRP:CH2 | 2.22 | 0.74 |
| 1:D:788:ASP:O | 1:D:792:VAL:HG23 | 1.86 | 0.74 |
| 1:E:694:VAL:CG2 | 2:S:18:LEU:HD21 | 2.17 | 0.74 |
| 1:E:729:TYR:HB2 | 1:E:756:ILE:HG21 | 1.68 | 0.74 |
| 1:F:579:THR:O | 1:F:581:GLN:N | 2.21 | 0.74 |
| 1:A:357:TRP:HZ3 | 1:A:439:ASN:HB2 | 1.52 | 0.74 |
| 1:A:729:TYR:HB2 | 1:A:756:ILE:HG21 | 1.69 | 0.74 |
| 1:E:579:THR:O | 1:E:581:GLN:N | 2.21 | 0.74 |
| 2:O:110:THR:HA | 2:O:114:GLU:O | 1.88 | 0.74 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:P:92:PHE:O | 2:P:94:LYS:N | 2.21 | 0.74 |
| 1:B:357:TRP:HZ3 | 1:B:439:ASN:HB2 | 1.51 | 0.74 |
| 1:C:134:LYS:O | 1:C:135:VAL:HG12 | 1.88 | 0.74 |
| 1:D:337:ASN:ND2 | 1:D:412:GLU:OE2 | 2.20 | 0.74 |
| 1:D:446:ILE:HD11 | 1:D:451:ASN:HB3 | 1.69 | 0.74 |
| 1:E:165:GLN:HG2 | 1:E:251:PRO:HG2 | 1.70 | 0.74 |
| 1:E:472:ARG:HB3 | 1:E:472:ARG:HH11 | 1.50 | 0.74 |
| 1:F:360:VAL:HG11 | 1:F:370:LEU:HD22 | 1.68 | 0.74 |
| 1:F:446:ILE:HD11 | 1:F:451:ASN:HB3 | 1.70 | 0.74 |
| 1:F:742:ALA:HB1 | 1:F:744:GLU:OE1 | 1.87 | 0.74 |
| 1:F:788:ASP:O | 1:F:792:VAL:HG23 | 1.87 | 0.74 |
| 1:B:186:LYS:HG2 | 1:B:186:LYS:O | 1.86 | 0.74 |
| 1:E:186:LYS:HG2 | 1:E:186:LYS:O | 1.86 | 0.74 |
| 1:B:446:ILE:HD11 | 1:B:451:ASN:HB3 | 1.70 | 0.74 |
| 1:B:694:VAL:CG2 | 2:P:18:LEU:HD21 | 2.17 | 0.74 |
| 2:O:100:ILE:HB | 2:O:136:VAL:HG23 | 1.69 | 0.74 |
| 1:B:478:ALA:HB1 | 1:B:486:LYS:O | 1.88 | 0.74 |
| 1:D:401:ILE:HD13 | 1:D:485:LEU:O | 1.88 | 0.74 |
| 1:E:597:ASN:HD21 | 1:E:601:GLU:CB | 1.96 | 0.74 |
| 2:T:100:ILE:HB | 2:T:136:VAL:HG23 | 1.69 | 0.74 |
| 1:B:360:VAL:HG11 | 1:B:370:LEU:HD22 | 1.68 | 0.74 |
| 1:E:639:ASN:H | 1:E:639:ASN:HD22 | 1.33 | 0.74 |
| 1:F:153:ILE:O | 1:F:154:ILE:HD13 | 1.86 | 0.74 |
| 1:A:401:ILE:HD13 | 1:A:485:LEU:O | 1.88 | 0.73 |
| 1:B:499:PRO:HD3 | 1:B:552:TRP:CH2 | 2.23 | 0.73 |
| 1:C:597:ASN:ND2 | 1:C:601:GLU:HB2 | 2.00 | 0.73 |
| 1:D:512:GLU:O | 1:D:516:VAL:HG23 | 1.88 | 0.73 |
| 1:E:360:VAL:HG11 | 1:E:370:LEU:HD22 | 1.68 | 0.73 |
| 1:E:401:ILE:HD13 | 1:E:485:LEU:O | 1.87 | 0.73 |
| 2:R:100:ILE:HB | 2:R:136:VAL:HG23 | 1.68 | 0.73 |
| 1:A:184:LYS:HE3 | 1:A:191:GLU:HB2 | 1.69 | 0.73 |
| 1:A:776:LEU:O | 1:A:776:LEU:HD23 | 1.86 | 0.73 |
| 1:B:115:LYS:CB | 1:B:118:GLN:HG2 | 2.18 | 0.73 |
| 1:D:115:LYS:CB | 1:D:118:GLN:HG2 | 2.18 | 0.73 |
| 1:D:464:VAL:HG23 | 1:D:465:LEU:HD12 | 1.71 | 0.73 |
| 1:D:694:VAL:CG2 | 2:R:18:LEU:HD21 | 2.18 | 0.73 |
| 1:D:716:LYS:O | 1:D:720:ILE:HG22 | 1.87 | 0.73 |
| 1:E:629:ASN:ND2 | 1:E:631:SER:HB2 | 2.03 | 0.73 |
| 2:R:110:THR:HA | 2:R:114:GLU:O | 1.88 | 0.73 |
| 1:A:360:VAL:HG11 | 1:A:370:LEU:HD22 | 1.68 | 0.73 |
| 1:A:446:ILE:HD11 | 1:A:451:ASN:HB3 | 1.70 | 0.73 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:709:ASN:O | 1:B:717:LYS:HE3 | 1.87 | 0.73 |
| 1:C:530:THR:HG21 | 2:Q:145:MET:HE3 | 1.69 | 0.73 |
| 1:E:512:GLU:O | 1:E:516:VAL:HG23 | 1.88 | 0.73 |
| 2:S:92:PHE:O | 2:S:94:LYS:N | 2.21 | 0.73 |
| 1:A:510:GLN:O | 1:A:514:ASP:HB2 | 1.89 | 0.73 |
| 2:O:115:LYS:HA | 2:O:115:LYS:HZ3 | 1.53 | 0.73 |
| 2:O:115:LYS:HA | 2:O:115:LYS:NZ | 2.04 | 0.73 |
| 1:E:142:VAL:HG22 | 1:E:154:ILE:HG23 | 1.70 | 0.73 |
| 1:E:446:ILE:HD11 | 1:E:451:ASN:HB3 | 1.71 | 0.73 |
| 1:E:530:THR:HG21 | 2:S:145:MET:HE3 | 1.70 | 0.73 |
| 2:S:48:LEU:O | 2:S:52:ILE:HG22 | 1.88 | 0.73 |
| 1:C:337:ASN:ND2 | 1:C:412:GLU:OE2 | 2.21 | 0.73 |
| 1:B:353:LYS:H | 1:B:368:GLN:HE22 | 1.34 | 0.73 |
| 1:B:742:ALA:HB1 | 1:B:744:GLU:OE1 | 1.88 | 0.73 |
| 1:C:464:VAL:HG23 | 1:C:465:LEU:HD12 | 1.71 | 0.73 |
| 1:F:353:LYS:H | 1:F:368:GLN:HE22 | 1.35 | 0.73 |
| 2:R:79:THR:C | 2:R:81:SER:H | 1.89 | 0.73 |
| 1:A:165:GLN:HG2 | 1:A:251:PRO:HG2 | 1.70 | 0.73 |
| 1:B:302:LEU:HD22 | 1:B:602:PHE:CE1 | 2.24 | 0.73 |
| 1:B:337:ASN:ND2 | 1:B:412:GLU:OE2 | 2.21 | 0.73 |
| 1:B:776:LEU:O | 1:B:776:LEU:HD23 | 1.87 | 0.73 |
| 1:D:302:LEU:HD22 | 1:D:602:PHE:CE1 | 2.24 | 0.73 |
| 1:E:329:ARG:HD2 | 1:E:590:ASP:OD2 | 1.88 | 0.73 |
| 1:E:788:ASP:O | 1:E:792:VAL:HG23 | 1.87 | 0.73 |
| 2:T:79:THR:C | 2:T:81:SER:H | 1.89 | 0.73 |
| 1:B:165:GLN:HG2 | 1:B:251:PRO:HG2 | 1.71 | 0.73 |
| 1:D:142:VAL:HG22 | 1:D:154:ILE:HG23 | 1.71 | 0.73 |
| 1:D:329:ARG:HD2 | 1:D:590:ASP:OD2 | 1.89 | 0.73 |
| 1:D:615:ILE:HD12 | 1:D:645:TRP:HH2 | 1.54 | 0.73 |
| 2:Q:110:THR:HA | 2:Q:114:GLU:O | 1.88 | 0.73 |
| 1:A:611:THR:O | 1:A:615:ILE:HG13 | 1.89 | 0.73 |
| 1:C:161:ILE:HG23 | 1:C:168:GLU:HB2 | 1.70 | 0.73 |
| 1:E:337:ASN:ND2 | 1:E:412:GLU:OE2 | 2.21 | 0.73 |
| 2:O:4:LEU:CB | 2:O:8:GLN:HE21 | 2.02 | 0.73 |
| 2:T:102:ALA:HB2 | 2:T:125:ILE:HG13 | 1.71 | 0.73 |
| 1:E:115:LYS:HG3 | 1:E:153:ILE:HG21 | 1.69 | 0.72 |
| 1:C:446:ILE:HD11 | 1:C:451:ASN:HB3 | 1.71 | 0.72 |
| 1:D:161:ILE:HG23 | 1:D:168:GLU:HB2 | 1.69 | 0.72 |
| 1:F:115:LYS:CB | 1:F:118:GLN:HG2 | 2.18 | 0.72 |
| 2:O:48:LEU:O | 2:O:52:ILE:HG22 | 1.89 | 0.72 |
| 2:R:48:LEU:O | 2:R:52:ILE:HG22 | 1.88 | 0.72 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:S:79:THR:C | 2:S:81:SER:H | 1.89 | 0.72 |
| 1:C:175:LYS:HZ2 | 1:C:175:LYS:HB2 | 1.53 | 0.72 |
| 1:C:302:LEU:HD22 | 1:C:602:PHE:CE1 | 2.23 | 0.72 |
| 1:E:617:LYS:HZ2 | 1:E:618:ASN:ND2 | 1.84 | 0.72 |
| 1:B:301:ALA:C | 1:B:303:LYS:H | 1.92 | 0.72 |
| 1:B:512:GLU:O | 1:B:516:VAL:HG23 | 1.90 | 0.72 |
| 1:C:615:ILE:HD12 | 1:C:645:TRP:HH2 | 1.55 | 0.72 |
| 1:D:165:GLN:HG2 | 1:D:251:PRO:HG2 | 1.71 | 0.72 |
| 1:F:530:THR:HG21 | 2:T:145:MET:HE3 | 1.71 | 0.72 |
| 1:A:515:LYS:NZ | 1:A:515:LYS:HB3 | 2.03 | 0.72 |
| 1:B:197:LYS:HZ2 | 1:B:197:LYS:HB3 | 1.54 | 0.72 |
| 1:B:297:LYS:HA | 1:B:602:PHE:O | 1.89 | 0.72 |
| 2:P:102:ALA:HB2 | 2:P:125:ILE:HG13 | 1.71 | 0.72 |
| 2:R:115:LYS:NZ | 2:R:115:LYS:HA | 2.05 | 0.72 |
| 2:S:102:ALA:HB2 | 2:S:125:ILE:HG13 | 1.72 | 0.72 |
| 1:C:512:GLU:O | 1:C:516:VAL:HG23 | 1.90 | 0.72 |
| 1:E:184:LYS:HE3 | 1:E:191:GLU:HB2 | 1.72 | 0.72 |
| 2:T:48:LEU:O | 2:T:52:ILE:HG22 | 1.88 | 0.72 |
| 1:D:611:THR:O | 1:D:615:ILE:HG13 | 1.89 | 0.72 |
| 1:E:510:GLN:O | 1:E:514:ASP:HB2 | 1.89 | 0.72 |
| 2:P:51:MET:HB3 | 2:P:71:MET:CE | 2.20 | 0.72 |
| 1:A:115:LYS:NZ | 1:A:116:GLU:H | 1.85 | 0.72 |
| 1:A:329:ARG:HD2 | 1:A:590:ASP:OD2 | 1.89 | 0.72 |
| 1:A:629:ASN:ND2 | 1:A:631:SER:HB2 | 2.04 | 0.72 |
| 1:B:153:ILE:O | 1:B:154:ILE:HD13 | 1.90 | 0.72 |
| 1:B:450:ASN:ND2 | 1:B:452:GLU:HG3 | 2.05 | 0.72 |
| 1:B:510:GLN:O | 1:B:514:ASP:HB2 | 1.89 | 0.72 |
| 1:D:515:LYS:HB3 | 1:D:515:LYS:NZ | 2.04 | 0.72 |
| 1:E:302:LEU:HD22 | 1:E:602:PHE:CE1 | 2.24 | 0.72 |
| 1:F:401:ILE:HD13 | 1:F:485:LEU:O | 1.90 | 0.72 |
| 1:F:615:ILE:HD12 | 1:F:645:TRP:HH2 | 1.54 | 0.72 |
| 1:F:639:ASN:H | 1:F:639:ASN:HD22 | 1.33 | 0.72 |
| 2:R:51:MET:HB3 | 2:R:71:MET:CE | 2.20 | 0.72 |
| 2:T:110:THR:HA | 2:T:114:GLU:O | 1.89 | 0.72 |
| 1:D:450:ASN:ND2 | 1:D:452:GLU:HG3 | 2.04 | 0.72 |
| 1:E:464:VAL:HG23 | 1:E:465:LEU:HD12 | 1.72 | 0.72 |
| 1:F:302:LEU:HD22 | 1:F:602:PHE:CE1 | 2.24 | 0.72 |
| 1:F:329:ARG:HD2 | 1:F:590:ASP:OD2 | 1.90 | 0.72 |
| 2:Q:48:LEU:O | 2:Q:52:ILE:HG22 | 1.88 | 0.72 |
| 1:F:115:LYS:HG3 | 1:F:153:ILE:HG21 | 1.71 | 0.72 |
| 1:F:510:GLN:O | 1:F:514:ASP:HB2 | 1.89 | 0.72 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:P:115:LYS:HA | 2:P:115:LYS:NZ | 2.05 | 0.72 |
| 1:A:615:ILE:HD12 | 1:A:645:TRP:HH2 | 1.55 | 0.71 |
| 1:C:579:THR:O | 1:C:581:GLN:N | 2.23 | 0.71 |
| 1:D:515:LYS:HG2 | 1:D:515:LYS:O | 1.90 | 0.71 |
| 1:E:611:THR:O | 1:E:615:ILE:HG13 | 1.90 | 0.71 |
| 1:E:615:ILE:HD12 | 1:E:645:TRP:HH2 | 1.55 | 0.71 |
| 1:F:441:VAL:HG22 | 1:F:461:LYS:CG | 2.20 | 0.71 |
| 2:P:48:LEU:O | 2:P:52:ILE:HG22 | 1.88 | 0.71 |
| 2:Q:79:THR:C | 2:Q:81:SER:H | 1.89 | 0.71 |
| 1:A:464:VAL:HG23 | 1:A:465:LEU:HD12 | 1.72 | 0.71 |
| 1:F:464:VAL:HG23 | 1:F:465:LEU:HD12 | 1.72 | 0.71 |
| 1:F:512:GLU:O | 1:F:516:VAL:HG23 | 1.90 | 0.71 |
| 1:A:302:LEU:HD22 | 1:A:602:PHE:CE1 | 2.26 | 0.71 |
| 1:F:450:ASN:ND2 | 1:F:452:GLU:HG3 | 2.05 | 0.71 |
| 1:F:711:ILE:HG13 | 1:F:712:PHE:CD2 | 2.25 | 0.71 |
| 1:F:736:LEU:HD21 | 1:F:750:GLN:NE2 | 2.05 | 0.71 |
| 1:B:611:THR:O | 1:B:615:ILE:HG13 | 1.91 | 0.71 |
| 1:D:579:THR:O | 1:D:581:GLN:N | 2.24 | 0.71 |
| 1:D:629:ASN:ND2 | 1:D:631:SER:HB2 | 2.05 | 0.71 |
| 1:D:711:ILE:HG13 | 1:D:712:PHE:CD2 | 2.26 | 0.71 |
| 1:F:408:LEU:HD12 | 1:F:408:LEU:N | 2.04 | 0.71 |
| 2:P:110:THR:HA | 2:P:114:GLU:O | 1.90 | 0.71 |
| 1:C:510:GLN:O | 1:C:514:ASP:HB2 | 1.89 | 0.71 |
| 1:E:630:ARG:HH11 | 1:E:630:ARG:HG3 | 1.55 | 0.71 |
| 2:O:102:ALA:HB2 | 2:O:125:ILE:HG13 | 1.71 | 0.71 |
| 2:T:92:PHE:O | 2:T:94:LYS:N | 2.20 | 0.71 |
| 1:B:464:VAL:HG23 | 1:B:465:LEU:HD12 | 1.72 | 0.71 |
| 1:B:716:LYS:O | 1:B:720:ILE:HG22 | 1.89 | 0.71 |
| 1:C:515:LYS:NZ | 1:C:515:LYS:HB3 | 2.06 | 0.71 |
| 1:C:711:ILE:HG13 | 1:C:712:PHE:CD2 | 2.26 | 0.71 |
| 1:C:716:LYS:O | 1:C:720:ILE:HG22 | 1.90 | 0.71 |
| 1:D:301:ALA:C | 1:D:303:LYS:H | 1.93 | 0.71 |
| 1:E:589:LYS:HB2 | 1:E:643:ILE:HD13 | 1.70 | 0.71 |
| 2:Q:51:MET:HB3 | 2:Q:71:MET:CE | 2.20 | 0.71 |
| 2:Q:115:LYS:HA | 2:Q:115:LYS:NZ | 2.05 | 0.71 |
| 1:A:353:LYS:H | 1:A:368:GLN:HE22 | 1.36 | 0.71 |
| 1:C:153:ILE:O | 1:C:154:ILE:HD13 | 1.90 | 0.71 |
| 1:C:409:ARG:CZ | 1:C:413:LEU:HD21 | 2.21 | 0.71 |
| 1:D:142:VAL:HG13 | 1:D:154:ILE:CD1 | 2.21 | 0.71 |
| 1:E:338:LEU:HD21 | 1:E:409:ARG:CZ | 2.21 | 0.71 |
| 1:E:441:VAL:HG22 | 1:E:461:LYS:CG | 2.20 | 0.71 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:142:VAL:HG22 | 1:F:154:ILE:HG23 | 1.73 | 0.71 |
| 1:F:301:ALA:C | 1:F:303:LYS:H | 1.93 | 0.71 |
| 1:A:409:ARG:CZ | 1:A:413:LEU:HD21 | 2.21 | 0.71 |
| 1:A:579:THR:O | 1:A:581:GLN:N | 2.22 | 0.71 |
| 1:B:441:VAL:HG22 | 1:B:461:LYS:CG | 2.20 | 0.71 |
| 1:C:184:LYS:HE3 | 1:C:191:GLU:HB2 | 1.73 | 0.71 |
| 1:C:297:LYS:HA | 1:C:602:PHE:O | 1.91 | 0.71 |
| 1:D:441:VAL:HG22 | 1:D:461:LYS:CG | 2.20 | 0.71 |
| 2:T:4:LEU:CB | 2:T:8:GLN:HE21 | 2.03 | 0.71 |
| 2:T:106:ARG:HB2 | 2:T:121:VAL:HG21 | 1.71 | 0.71 |
| 1:A:450:ASN:ND2 | 1:A:452:GLU:HG3 | 2.05 | 0.71 |
| 1:B:615:ILE:HD12 | 1:B:645:TRP:HH2 | 1.55 | 0.71 |
| 1:C:630:ARG:CZ | 2:Q:83:GLU:HG2 | 2.21 | 0.71 |
| 1:D:409:ARG:CZ | 1:D:413:LEU:HD21 | 2.20 | 0.71 |
| 1:D:736:LEU:HD21 | 1:D:750:GLN:NE2 | 2.06 | 0.71 |
| 1:F:161:ILE:HG23 | 1:F:168:GLU:HB2 | 1.73 | 0.71 |
| 2:S:110:THR:HA | 2:S:114:GLU:O | 1.90 | 0.71 |
| 1:B:115:LYS:NZ | 1:B:116:GLU:H | 1.85 | 0.71 |
| 1:B:736:LEU:HD21 | 1:B:750:GLN:NE2 | 2.06 | 0.71 |
| 1:C:353:LYS:H | 1:C:368:GLN:HE22 | 1.36 | 0.71 |
| 1:D:478:ALA:HB1 | 1:D:486:LYS:O | 1.91 | 0.71 |
| 1:E:297:LYS:HA | 1:E:602:PHE:O | 1.91 | 0.71 |
| 1:E:694:VAL:HG23 | 2:S:18:LEU:HD11 | 1.73 | 0.71 |
| 2:R:4:LEU:CB | 2:R:8:GLN:HE21 | 2.04 | 0.71 |
| 1:B:515:LYS:NZ | 1:B:515:LYS:HB3 | 2.04 | 0.70 |
| 1:B:530:THR:HG21 | 2:P:145:MET:HE3 | 1.72 | 0.70 |
| 1:D:107:THR:CG2 | 1:D:115:LYS:HE2 | 2.21 | 0.70 |
| 1:D:134:LYS:O | 1:D:135:VAL:HG12 | 1.91 | 0.70 |
| 1:D:353:LYS:H | 1:D:368:GLN:HE22 | 1.35 | 0.70 |
| 1:D:510:GLN:O | 1:D:514:ASP:HB2 | 1.91 | 0.70 |
| 1:E:716:LYS:O | 1:E:720:ILE:HG22 | 1.91 | 0.70 |
| 2:O:106:ARG:HB2 | 2:O:121:VAL:HG21 | 1.72 | 0.70 |
| 2:P:48:LEU:HA | 2:P:51:MET:CE | 2.12 | 0.70 |
| 2:Q:92:PHE:O | 2:Q:94:LYS:N | 2.22 | 0.70 |
| 2:S:4:LEU:CB | 2:S:8:GLN:HE21 | 2.03 | 0.70 |
| 1:A:301:ALA:C | 1:A:303:LYS:H | 1.94 | 0.70 |
| 1:D:355:SER:OG | 1:D:371:SER:HA | 1.90 | 0.70 |
| 1:E:355:SER:OG | 1:E:371:SER:HA | 1.91 | 0.70 |
| 1:E:409:ARG:CZ | 1:E:413:LEU:HD21 | 2.21 | 0.70 |
| 1:E:450:ASN:ND2 | 1:E:452:GLU:HG3 | 2.06 | 0.70 |
| 1:E:736:LEU:HD21 | 1:E:750:GLN:NE2 | 2.07 | 0.70 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:409:ARG:CZ | 1:F:413:LEU:HD21 | 2.21 | 0.70 |
| 1:F:515:LYS:NZ | 1:F:515:LYS:HB3 | 2.06 | 0.70 |
| 2:O:92:PHE:O | 2:O:94:LYS:N | 2.23 | 0.70 |
| 1:B:134:LYS:O | 1:B:135:VAL:HG12 | 1.91 | 0.70 |
| 1:B:338:LEU:HD21 | 1:B:409:ARG:CZ | 2.22 | 0.70 |
| 1:C:142:VAL:HG22 | 1:C:154:ILE:HG23 | 1.72 | 0.70 |
| 1:E:134:LYS:O | 1:E:135:VAL:HG12 | 1.91 | 0.70 |
| 1:E:515:LYS:NZ | 1:E:515:LYS:HB3 | 2.05 | 0.70 |
| 1:A:115:LYS:HZ3 | 1:A:115:LYS:HA | 1.56 | 0.70 |
| 1:B:142:VAL:HG13 | 1:B:154:ILE:CD1 | 2.21 | 0.70 |
| 2:O:32:LEU:HD22 | 2:O:63:ILE:CD1 | 2.21 | 0.70 |
| 2:P:4:LEU:CB | 2:P:8:GLN:HE21 | 2.04 | 0.70 |
| 2:R:32:LEU:HD22 | 2:R:63:ILE:CD1 | 2.21 | 0.70 |
| 2:R:92:PHE:O | 2:R:94:LYS:N | 2.22 | 0.70 |
| 1:A:441:VAL:HG22 | 1:A:461:LYS:CG | 2.20 | 0.70 |
| 1:C:671:ARG:HH12 | 1:C:677:GLY:HA3 | 1.56 | 0.70 |
| 1:F:540:ARG:HD3 | 1:F:627:TYR:OH | 1.92 | 0.70 |
| 2:T:51:MET:HB3 | 2:T:71:MET:CE | 2.20 | 0.70 |
| 1:C:764:LEU:O | 1:C:766:HIS:N | 2.25 | 0.70 |
| 1:D:279:ILE:O | 1:D:283:LEU:HD13 | 1.92 | 0.70 |
| 1:A:540:ARG:HD3 | 1:A:627:TYR:OH | 1.92 | 0.70 |
| 1:A:711:ILE:HG13 | 1:A:712:PHE:CD2 | 2.27 | 0.70 |
| 1:D:268:MET:O | 1:D:271:LEU:HB2 | 1.92 | 0.70 |
| 1:F:629:ASN:ND2 | 1:F:631:SER:HB2 | 2.06 | 0.70 |
| 2:O:51:MET:HB3 | 2:O:71:MET:CE | 2.20 | 0.70 |
| 1:A:716:LYS:O | 1:A:720:ILE:HG22 | 1.90 | 0.70 |
| 1:B:329:ARG:HD2 | 1:B:590:ASP:OD2 | 1.91 | 0.70 |
| 1:C:408:LEU:HD12 | 1:C:408:LEU:N | 2.06 | 0.70 |
| 1:C:450:ASN:ND2 | 1:C:452:GLU:HG3 | 2.06 | 0.70 |
| 1:F:297:LYS:HA | 1:F:602:PHE:O | 1.92 | 0.70 |
| 2:T:32:LEU:HD22 | 2:T:63:ILE:CD1 | 2.22 | 0.70 |
| 1:A:736:LEU:HD21 | 1:A:750:GLN:NE2 | 2.07 | 0.70 |
| 1:E:279:ILE:O | 1:E:283:LEU:HD13 | 1.92 | 0.70 |
| 1:F:279:ILE:O | 1:F:283:LEU:HD13 | 1.92 | 0.70 |
| 2:P:32:LEU:HD22 | 2:P:63:ILE:CD1 | 2.22 | 0.70 |
| 1:A:515:LYS:HG2 | 1:A:515:LYS:O | 1.91 | 0.70 |
| 1:B:401:ILE:HD13 | 1:B:485:LEU:O | 1.91 | 0.70 |
| 1:D:764:LEU:O | 1:D:766:HIS:N | 2.25 | 0.70 |
| 1:E:301:ALA:C | 1:E:303:LYS:H | 1.94 | 0.70 |
| 1:F:338:LEU:HD21 | 1:F:409:ARG:CZ | 2.22 | 0.70 |
| 2:O:16:PHE:CE2 | 2:O:27:ILE:HD11 | 2.26 | 0.70 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:355:SER:OG | 1:B:371:SER:HA | 1.92 | 0.69 |
| 1:C:401:ILE:HD13 | 1:C:485:LEU:O | 1.91 | 0.69 |
| 1:C:441:VAL:HG22 | 1:C:461:LYS:CG | 2.21 | 0.69 |
| 1:C:611:THR:O | 1:C:615:ILE:HG13 | 1.92 | 0.69 |
| 1:F:697:ILE:HD13 | 1:F:732:ILE:HD12 | 1.72 | 0.69 |
| 2:O:117:THR:HG23 | 2:O:120:GLU:HB2 | 1.74 | 0.69 |
| 1:B:409:ARG:CZ | 1:B:413:LEU:HD21 | 2.22 | 0.69 |
| 1:E:478:ALA:HB1 | 1:E:486:LYS:O | 1.92 | 0.69 |
| 2:S:32:LEU:HD22 | 2:S:63:ILE:CD1 | 2.22 | 0.69 |
| 1:A:142:VAL:HG22 | 1:A:154:ILE:HG23 | 1.72 | 0.69 |
| 1:A:279:ILE:O | 1:A:283:LEU:HD13 | 1.92 | 0.69 |
| 1:A:512:GLU:O | 1:A:516:VAL:HG23 | 1.91 | 0.69 |
| 1:B:142:VAL:HG22 | 1:B:154:ILE:HG23 | 1.72 | 0.69 |
| 1:C:142:VAL:HG13 | 1:C:154:ILE:CD1 | 2.22 | 0.69 |
| 1:C:279:ILE:O | 1:C:283:LEU:HD13 | 1.91 | 0.69 |
| 1:C:629:ASN:ND2 | 1:C:631:SER:HB2 | 2.07 | 0.69 |
| 1:C:697:ILE:HD13 | 1:C:732:ILE:CD1 | 2.21 | 0.69 |
| 1:C:697:ILE:HD13 | 1:C:732:ILE:HD12 | 1.73 | 0.69 |
| 1:F:142:VAL:HG13 | 1:F:154:ILE:CD1 | 2.22 | 0.69 |
| 1:A:161:ILE:HG23 | 1:A:168:GLU:HB2 | 1.72 | 0.69 |
| 1:A:597:ASN:ND2 | 1:A:601:GLU:HB2 | 1.99 | 0.69 |
| 1:B:711:ILE:HG13 | 1:B:712:PHE:CD2 | 2.27 | 0.69 |
| 2:Q:32:LEU:HD22 | 2:Q:63:ILE:CD1 | 2.22 | 0.69 |
| 1:C:301:ALA:C | 1:C:303:LYS:H | 1.94 | 0.69 |
| 1:C:515:LYS:O | 1:C:515:LYS:HG2 | 1.92 | 0.69 |
| 1:E:142:VAL:HG13 | 1:E:154:ILE:CD1 | 2.22 | 0.69 |
| 1:E:161:ILE:HG23 | 1:E:168:GLU:HB2 | 1.73 | 0.69 |
| 1:F:134:LYS:O | 1:F:135:VAL:HG12 | 1.93 | 0.69 |
| 1:F:154:ILE:HG21 | 1:F:171:TYR:CE2 | 2.27 | 0.69 |
| 2:P:106:ARG:HB2 | 2:P:121:VAL:HG21 | 1.75 | 0.69 |
| 2:Q:48:LEU:HD23 | 2:Q:51:MET:HE1 | 1.74 | 0.69 |
| 1:C:736:LEU:HD21 | 1:C:750:GLN:NE2 | 2.07 | 0.69 |
| 1:E:515:LYS:O | 1:E:515:LYS:HG2 | 1.91 | 0.69 |
| 1:A:478:ALA:HB1 | 1:A:486:LYS:O | 1.91 | 0.69 |
| 1:A:630:ARG:CZ | 2:O:83:GLU:HG2 | 2.22 | 0.69 |
| 1:B:201:ASP:HA | 1:B:210:PHE:HE2 | 1.58 | 0.69 |
| 1:E:348:LEU:HD12 | 1:E:545:THR:O | 1.92 | 0.69 |
| 1:E:697:ILE:HD13 | 1:E:732:ILE:CD1 | 2.22 | 0.69 |
| 1:F:405:LEU:HD13 | 1:F:453:VAL:HG21 | 1.75 | 0.69 |
| 1:A:189:ASP:O | 1:A:191:GLU:N | 2.26 | 0.69 |
| 1:A:355:SER:OG | 1:A:371:SER:HA | 1.93 | 0.69 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:671:ARG:HH12 | 1:A:677:GLY:HA3 | 1.57 | 0.69 |
| 1:B:515:LYS:O | 1:B:515:LYS:HG2 | 1.91 | 0.69 |
| 1:B:694:VAL:HG23 | 2:P:18:LEU:HD11 | 1.75 | 0.69 |
| 1:D:297:LYS:HA | 1:D:602:PHE:O | 1.92 | 0.69 |
| 1:D:711:ILE:HG13 | 1:D:712:PHE:CE2 | 2.28 | 0.69 |
| 1:E:201:ASP:HA | 1:E:210:PHE:HE2 | 1.58 | 0.69 |
| 1:E:457:THR:HG21 | 1:E:468:LYS:HA | 1.75 | 0.69 |
| 1:F:189:ASP:O | 1:F:191:GLU:N | 2.25 | 0.69 |
| 1:F:201:ASP:HA | 1:F:210:PHE:HE2 | 1.58 | 0.69 |
| 1:F:611:THR:O | 1:F:615:ILE:HG13 | 1.92 | 0.69 |
| 1:F:630:ARG:CZ | 2:T:83:GLU:HG2 | 2.22 | 0.69 |
| 1:F:711:ILE:HG13 | 1:F:712:PHE:CE2 | 2.28 | 0.69 |
| 2:T:117:THR:HG23 | 2:T:120:GLU:HB2 | 1.75 | 0.69 |
| 1:A:297:LYS:HA | 1:A:602:PHE:O | 1.92 | 0.69 |
| 1:A:697:ILE:HD13 | 1:A:732:ILE:HD12 | 1.75 | 0.69 |
| 1:B:161:ILE:HG23 | 1:B:168:GLU:HB2 | 1.73 | 0.69 |
| 1:B:470:ASN:O | 1:B:472:ARG:HG3 | 1.93 | 0.69 |
| 1:C:338:LEU:HD21 | 1:C:409:ARG:CZ | 2.22 | 0.69 |
| 1:D:540:ARG:HD3 | 1:D:627:TYR:OH | 1.93 | 0.69 |
| 1:E:470:ASN:O | 1:E:472:ARG:HG3 | 1.93 | 0.69 |
| 1:F:478:ALA:HB1 | 1:F:486:LYS:O | 1.92 | 0.69 |
| 2:Q:49:GLN:O | 2:Q:53:ASN:HB2 | 1.93 | 0.69 |
| 2:S:24:ASP:CB | 2:S:26:THR:HG23 | 2.23 | 0.69 |
| 2:S:115:LYS:HA | 2:S:115:LYS:NZ | 2.07 | 0.69 |
| 2:T:115:LYS:HA | 2:T:115:LYS:NZ | 2.07 | 0.69 |
| 1:B:234:LEU:HD23 | 1:B:235:THR:H | 1.58 | 0.69 |
| 1:B:457:THR:HG21 | 1:B:468:LYS:HA | 1.75 | 0.69 |
| 1:B:597:ASN:ND2 | 1:B:601:GLU:HB2 | 2.00 | 0.69 |
| 1:C:270:LYS:O | 1:C:273:LYS:HB2 | 1.93 | 0.69 |
| 2:Q:117:THR:HG23 | 2:Q:120:GLU:HB2 | 1.75 | 0.69 |
| 2:S:106:ARG:HB2 | 2:S:121:VAL:HG21 | 1.75 | 0.69 |
| 1:A:179:LEU:HD23 | 1:A:179:LEU:H | 1.58 | 0.68 |
| 1:C:478:ALA:HB1 | 1:C:486:LYS:O | 1.92 | 0.68 |
| 1:F:327:LEU:HG | 1:F:595:ILE:HG12 | 1.75 | 0.68 |
| 1:F:515:LYS:HG2 | 1:F:515:LYS:O | 1.92 | 0.68 |
| 1:F:268:MET:O | 1:F:271:LEU:HB2 | 1.93 | 0.68 |
| 1:F:355:SER:OG | 1:F:371:SER:HA | 1.92 | 0.68 |
| 1:F:457:THR:HG21 | 1:F:468:LYS:HA | 1.74 | 0.68 |
| 2:Q:64:ASP:HB3 | 2:Q:67:GLU:OE2 | 1.93 | 0.68 |
| 2:R:49:GLN:O | 2:R:53:ASN:HB2 | 1.94 | 0.68 |
| 2:R:64:ASP:HB3 | 2:R:67:GLU:OE2 | 1.92 | 0.68 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:201:ASP:HA | 1:C:210:PHE:HE2 | 1.58 | 0.68 |
| 1:C:355:SER:OG | 1:C:371:SER:HA | 1.91 | 0.68 |
| 1:C:470:ASN:O | 1:C:472:ARG:HG3 | 1.92 | 0.68 |
| 1:D:179:LEU:HD23 | 1:D:179:LEU:H | 1.58 | 0.68 |
| 1:D:270:LYS:O | 1:D:273:LYS:HB2 | 1.94 | 0.68 |
| 1:D:530:THR:HG21 | 2:R:145:MET:HE3 | 1.74 | 0.68 |
| 1:D:671:ARG:HH12 | 1:D:677:GLY:HA3 | 1.58 | 0.68 |
| 1:F:199:LEU:C | 1:F:201:ASP:H | 1.96 | 0.68 |
| 1:B:279:ILE:O | 1:B:283:LEU:HD13 | 1.92 | 0.68 |
| 1:B:711:ILE:HG13 | 1:B:712:PHE:CE2 | 2.28 | 0.68 |
| 1:C:630:ARG:HG3 | 1:C:630:ARG:HH11 | 1.59 | 0.68 |
| 1:D:630:ARG:HH11 | 1:D:630:ARG:HG3 | 1.57 | 0.68 |
| 1:F:201:ASP:OD1 | 1:F:218:LEU:HD21 | 1.93 | 0.68 |
| 1:F:470:ASN:O | 1:F:472:ARG:HG3 | 1.93 | 0.68 |
| 2:Q:4:LEU:CB | 2:Q:8:GLN:HE21 | 2.06 | 0.68 |
| 1:C:107:THR:CG2 | 1:C:115:LYS:HE2 | 2.24 | 0.68 |
| 1:D:630:ARG:CZ | 2:R:83:GLU:HG2 | 2.24 | 0.68 |
| 1:E:540:ARG:HD3 | 1:E:627:TYR:OH | 1.94 | 0.68 |
| 1:E:697:ILE:HD13 | 1:E:732:ILE:HD12 | 1.74 | 0.68 |
| 2:O:64:ASP:HB3 | 2:O:67:GLU:OE2 | 1.94 | 0.68 |
| 2:P:64:ASP:HB3 | 2:P:67:GLU:OE2 | 1.94 | 0.68 |
| 1:A:630:ARG:HH11 | 1:A:630:ARG:HG3 | 1.58 | 0.68 |
| 1:D:697:ILE:HD13 | 1:D:732:ILE:CD1 | 2.23 | 0.68 |
| 1:F:105:TYR:HE1 | 1:F:151:LYS:HZ2 | 1.41 | 0.68 |
| 1:F:179:LEU:HD23 | 1:F:179:LEU:H | 1.58 | 0.68 |
| 1:F:186:LYS:HE3 | 1:F:234:LEU:CD1 | 2.24 | 0.68 |
| 1:F:671:ARG:HH12 | 1:F:677:GLY:HA3 | 1.57 | 0.68 |
| 2:Q:106:ARG:HB2 | 2:Q:121:VAL:HG21 | 1.74 | 0.68 |
| 2:S:51:MET:HB3 | 2:S:71:MET:CE | 2.20 | 0.68 |
| 1:A:348:LEU:HD12 | 1:A:545:THR:O | 1.93 | 0.68 |
| 1:D:470:ASN:O | 1:D:472:ARG:HG3 | 1.93 | 0.68 |
| 1:D:697:ILE:HD13 | 1:D:732:ILE:HD12 | 1.74 | 0.68 |
| 1:E:179:LEU:HD23 | 1:E:179:LEU:H | 1.59 | 0.68 |
| 1:E:711:ILE:HG13 | 1:E:712:PHE:CD2 | 2.27 | 0.68 |
| 2:P:24:ASP:CB | 2:P:26:THR:HG23 | 2.23 | 0.68 |
| 2:S:64:ASP:HB3 | 2:S:67:GLU:OE2 | 1.94 | 0.68 |
| 2:T:64:ASP:HB3 | 2:T:67:GLU:OE2 | 1.94 | 0.68 |
| 1:A:697:ILE:HD13 | 1:A:732:ILE:CD1 | 2.24 | 0.68 |
| 1:C:268:MET:O | 1:C:271:LEU:HB2 | 1.94 | 0.68 |
| 1:D:338:LEU:HD21 | 1:D:409:ARG:CZ | 2.23 | 0.68 |
| 1:E:630:ARG:CZ | 2:S:83:GLU:HG2 | 2.23 | 0.68 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:268:MET:O | 1:A:271:LEU:HB2 | 1.93 | 0.68 |
| 1:E:115:LYS:HB3 | 1:E:118:GLN:HG2 | 1.76 | 0.68 |
| 1:E:408:LEU:HD12 | 1:E:408:LEU:N | 2.06 | 0.68 |
| 2:S:115:LYS:HA | 2:S:115:LYS:HZ3 | 1.57 | 0.68 |
| 1:A:326:ILE:HG22 | 1:A:328:PHE:HE1 | 1.59 | 0.68 |
| 1:A:478:ALA:HA | 1:A:488:LEU:HG | 1.75 | 0.68 |
| 1:A:557:LEU:HG | 1:A:575:VAL:HG12 | 1.76 | 0.68 |
| 1:A:581:GLN:NE2 | 1:A:581:GLN:HA | 2.09 | 0.68 |
| 1:A:711:ILE:HG13 | 1:A:712:PHE:CE2 | 2.29 | 0.68 |
| 1:B:115:LYS:HZ2 | 1:B:116:GLU:N | 1.83 | 0.68 |
| 1:B:115:LYS:HB3 | 1:B:118:GLN:HG2 | 1.76 | 0.68 |
| 1:B:405:LEU:HD13 | 1:B:453:VAL:HG21 | 1.76 | 0.68 |
| 1:F:104:ILE:HG23 | 1:F:152:LEU:HD23 | 1.75 | 0.68 |
| 2:T:49:GLN:O | 2:T:53:ASN:HB2 | 1.93 | 0.68 |
| 1:A:186:LYS:HE3 | 1:A:234:LEU:CD1 | 2.24 | 0.67 |
| 1:A:470:ASN:O | 1:A:472:ARG:HG3 | 1.94 | 0.67 |
| 1:B:348:LEU:HD12 | 1:B:545:THR:O | 1.94 | 0.67 |
| 1:C:711:ILE:HG13 | 1:C:712:PHE:CE2 | 2.29 | 0.67 |
| 1:F:115:LYS:HB3 | 1:F:118:GLN:HG2 | 1.75 | 0.67 |
| 1:F:697:ILE:HD13 | 1:F:732:ILE:CD1 | 2.23 | 0.67 |
| 1:A:457:THR:HG21 | 1:A:468:LYS:HA | 1.75 | 0.67 |
| 1:A:750:GLN:O | 1:A:753:LYS:HB2 | 1.94 | 0.67 |
| 1:A:764:LEU:O | 1:A:766:HIS:N | 2.28 | 0.67 |
| 1:B:478:ALA:HA | 1:B:488:LEU:HG | 1.76 | 0.67 |
| 1:B:629:ASN:ND2 | 1:B:631:SER:HB2 | 2.06 | 0.67 |
| 1:B:764:LEU:O | 1:B:766:HIS:N | 2.27 | 0.67 |
| 1:C:115:LYS:HB3 | 1:C:118:GLN:HG2 | 1.75 | 0.67 |
| 1:F:183:SER:O | 1:F:187:SER:CA | 2.43 | 0.67 |
| 1:F:557:LEU:HG | 1:F:575:VAL:HG12 | 1.76 | 0.67 |
| 2:O:49:GLN:O | 2:O:53:ASN:HB2 | 1.94 | 0.67 |
| 2:O:138:TYR:O | 2:O:142:VAL:HG23 | 1.94 | 0.67 |
| 2:P:49:GLN:O | 2:P:53:ASN:HB2 | 1.94 | 0.67 |
| 2:Q:16:PHE:CE2 | 2:Q:27:ILE:HD11 | 2.30 | 0.67 |
| 1:A:134:LYS:O | 1:A:135:VAL:HG12 | 1.93 | 0.67 |
| 1:A:201:ASP:OD1 | 1:A:218:LEU:HD21 | 1.94 | 0.67 |
| 1:B:179:LEU:HG | 1:B:180:ASP:N | 2.08 | 0.67 |
| 1:C:105:TYR:HE1 | 1:C:151:LYS:HZ2 | 1.41 | 0.67 |
| 1:C:179:LEU:HG | 1:C:180:ASP:N | 2.10 | 0.67 |
| 1:C:201:ASP:OD1 | 1:C:218:LEU:HD21 | 1.95 | 0.67 |
| 1:D:71:PHE:CD2 | 1:D:73:ASN:HB2 | 2.29 | 0.67 |
| 1:D:348:LEU:HD12 | 1:D:545:THR:O | 1.94 | 0.67 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:254:ARG:HD2 | 1:E:254:ARG:N | 2.10 | 0.67 |
| 1:E:405:LEU:HD13 | 1:E:453:VAL:HG21 | 1.75 | 0.67 |
| 1:F:764:LEU:O | 1:F:766:HIS:N | 2.27 | 0.67 |
| 2:S:48:LEU:HD23 | 2:S:51:MET:HE2 | 1.75 | 0.67 |
| 1:A:270:LYS:O | 1:A:273:LYS:HB2 | 1.94 | 0.67 |
| 1:A:338:LEU:HD21 | 1:A:409:ARG:CZ | 2.24 | 0.67 |
| 1:C:199:LEU:C | 1:C:201:ASP:H | 1.97 | 0.67 |
| 1:C:405:LEU:HD13 | 1:C:453:VAL:HG21 | 1.76 | 0.67 |
| 1:D:457:THR:HG21 | 1:D:468:LYS:HA | 1.75 | 0.67 |
| 1:D:478:ALA:HA | 1:D:488:LEU:HG | 1.76 | 0.67 |
| 1:F:179:LEU:HG | 1:F:180:ASP:N | 2.09 | 0.67 |
| 2:R:106:ARG:HB2 | 2:R:121:VAL:HG21 | 1.74 | 0.67 |
| 1:A:179:LEU:HG | 1:A:180:ASP:N | 2.08 | 0.67 |
| 1:A:199:LEU:C | 1:A:201:ASP:H | 1.96 | 0.67 |
| 1:A:540:ARG:HD3 | 1:A:627:TYR:CZ | 2.30 | 0.67 |
| 1:B:199:LEU:C | 1:B:201:ASP:H | 1.96 | 0.67 |
| 1:B:540:ARG:HD3 | 1:B:627:TYR:OH | 1.95 | 0.67 |
| 1:B:695:LYS:HG3 | 2:P:19:PHE:CE1 | 2.30 | 0.67 |
| 1:C:78:LYS:HG3 | 1:C:79:ILE:N | 2.09 | 0.67 |
| 1:C:504:ILE:O | 1:C:507:GLN:HB3 | 1.94 | 0.67 |
| 1:C:540:ARG:HD3 | 1:C:627:TYR:OH | 1.95 | 0.67 |
| 1:D:504:ILE:O | 1:D:507:GLN:HB3 | 1.95 | 0.67 |
| 2:S:49:GLN:O | 2:S:53:ASN:HB2 | 1.93 | 0.67 |
| 1:A:179:LEU:HG | 1:A:180:ASP:H | 1.59 | 0.67 |
| 1:C:183:SER:O | 1:C:187:SER:CA | 2.43 | 0.67 |
| 1:C:327:LEU:HG | 1:C:595:ILE:HG12 | 1.77 | 0.67 |
| 1:D:201:ASP:HA | 1:D:210:PHE:HE2 | 1.59 | 0.67 |
| 1:D:201:ASP:OD1 | 1:D:218:LEU:HD21 | 1.95 | 0.67 |
| 1:D:405:LEU:HD13 | 1:D:453:VAL:HG21 | 1.76 | 0.67 |
| 1:E:630:ARG:HG3 | 1:E:630:ARG:NH1 | 2.09 | 0.67 |
| 1:F:694:VAL:HG23 | 2:T:18:LEU:HD11 | 1.76 | 0.67 |
| 1:A:254:ARG:HD2 | 1:A:254:ARG:N | 2.09 | 0.67 |
| 1:A:530:THR:HG21 | 2:O:145:MET:HE3 | 1.76 | 0.67 |
| 1:B:671:ARG:HH12 | 1:B:677:GLY:HA3 | 1.57 | 0.67 |
| 1:D:171:TYR:O | 1:D:171:TYR:HD1 | 1.78 | 0.67 |
| 1:D:617:LYS:HZ2 | 1:D:618:ASN:ND2 | 1.84 | 0.67 |
| 1:E:711:ILE:HG13 | 1:E:712:PHE:CE2 | 2.29 | 0.67 |
| 1:F:478:ALA:HA | 1:F:488:LEU:HG | 1.76 | 0.67 |
| 1:B:697:ILE:HD13 | 1:B:732:ILE:HD12 | 1.77 | 0.67 |
| 1:C:424:LYS:HZ2 | 1:C:424:LYS:HB3 | 1.60 | 0.67 |
| 1:E:671:ARG:HH12 | 1:E:677:GLY:HA3 | 1.57 | 0.67 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:201:ASP:HA | 1:A:210:PHE:HE2 | 1.59 | 0.67 |
| 1:A:405:LEU:HD13 | 1:A:453:VAL:HG21 | 1.77 | 0.67 |
| 1:A:408:LEU:HD12 | 1:A:408:LEU:N | 2.06 | 0.67 |
| 1:B:697:ILE:HD13 | 1:B:732:ILE:CD1 | 2.25 | 0.67 |
| 1:C:179:LEU:HD23 | 1:C:179:LEU:H | 1.59 | 0.67 |
| 1:D:115:LYS:HB3 | 1:D:118:GLN:HG2 | 1.76 | 0.67 |
| 1:E:695:LYS:HG3 | 2:S:19:PHE:CE1 | 2.29 | 0.67 |
| 2:R:48:LEU:HA | 2:R:51:MET:HE3 | 1.77 | 0.67 |
| 1:A:115:LYS:HZ2 | 1:A:116:GLU:N | 1.85 | 0.67 |
| 1:B:268:MET:O | 1:B:271:LEU:HB2 | 1.95 | 0.67 |
| 1:C:557:LEU:HG | 1:C:575:VAL:HG12 | 1.76 | 0.67 |
| 1:D:189:ASP:O | 1:D:191:GLU:N | 2.28 | 0.67 |
| 1:F:348:LEU:HD12 | 1:F:545:THR:O | 1.94 | 0.67 |
| 1:A:115:LYS:HB3 | 1:A:118:GLN:HG2 | 1.75 | 0.66 |
| 1:A:142:VAL:HG13 | 1:A:154:ILE:CD1 | 2.25 | 0.66 |
| 1:A:154:ILE:HG21 | 1:A:171:TYR:CE2 | 2.30 | 0.66 |
| 1:B:661:ALA:O | 1:B:665:LYS:HB2 | 1.95 | 0.66 |
| 1:C:581:GLN:NE2 | 1:C:581:GLN:HA | 2.09 | 0.66 |
| 1:C:694:VAL:HG23 | 2:Q:18:LEU:HD11 | 1.76 | 0.66 |
| 1:D:557:LEU:HG | 1:D:575:VAL:HG12 | 1.75 | 0.66 |
| 1:D:581:GLN:NE2 | 1:D:581:GLN:HA | 2.09 | 0.66 |
| 1:E:122:GLU:O | 1:E:146:LYS:HE2 | 1.95 | 0.66 |
| 1:E:199:LEU:C | 1:E:201:ASP:H | 1.97 | 0.66 |
| 1:E:557:LEU:HG | 1:E:575:VAL:HG12 | 1.76 | 0.66 |
| 1:F:540:ARG:HD3 | 1:F:627:TYR:CZ | 2.29 | 0.66 |
| 2:P:117:THR:HG23 | 2:P:120:GLU:HB2 | 1.77 | 0.66 |
| 2:R:16:PHE:CE2 | 2:R:27:ILE:HD11 | 2.30 | 0.66 |
| 1:A:715:GLU:HA | 1:A:718:ARG:NH1 | 2.10 | 0.66 |
| 1:B:408:LEU:HD12 | 1:B:408:LEU:N | 2.06 | 0.66 |
| 1:C:189:ASP:O | 1:C:190:PRO:C | 2.32 | 0.66 |
| 1:C:397:GLU:O | 1:C:479:LYS:HA | 1.95 | 0.66 |
| 1:D:567:THR:CG2 | 1:D:568:GLY:N | 2.58 | 0.66 |
| 1:E:268:MET:O | 1:E:271:LEU:HB2 | 1.95 | 0.66 |
| 2:T:4:LEU:HA | 2:T:8:GLN:HE21 | 1.60 | 0.66 |
| 1:C:179:LEU:HG | 1:C:180:ASP:H | 1.60 | 0.66 |
| 1:C:348:LEU:HD12 | 1:C:545:THR:O | 1.94 | 0.66 |
| 1:C:478:ALA:HA | 1:C:488:LEU:HG | 1.78 | 0.66 |
| 1:D:78:LYS:HG3 | 1:D:79:ILE:N | 2.10 | 0.66 |
| 1:D:183:SER:O | 1:D:187:SER:CA | 2.43 | 0.66 |
| 1:D:695:LYS:HG3 | 2:R:19:PHE:CE1 | 2.30 | 0.66 |
| 1:E:478:ALA:HA | 1:E:488:LEU:HG | 1.77 | 0.66 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:715:GLU:HA | 1:F:718:ARG:NH1 | 2.10 | 0.66 |
| 2:Q:13:LYS:HA | 2:Q:65:PHE:CZ | 2.30 | 0.66 |
| 2:S:64:ASP:CG | 2:S:66:PRO:HD2 | 2.16 | 0.66 |
| 2:S:117:THR:HG23 | 2:S:120:GLU:HB2 | 1.77 | 0.66 |
| 1:B:115:LYS:HA | 1:B:115:LYS:HZ3 | 1.60 | 0.66 |
| 1:C:457:THR:HG21 | 1:C:468:LYS:HA | 1.75 | 0.66 |
| 1:A:234:LEU:HD23 | 1:A:235:THR:H | 1.60 | 0.66 |
| 1:A:472:ARG:HB3 | 1:A:472:ARG:NH1 | 2.11 | 0.66 |
| 1:B:179:LEU:HD23 | 1:B:179:LEU:H | 1.60 | 0.66 |
| 1:B:254:ARG:HD2 | 1:B:254:ARG:N | 2.10 | 0.66 |
| 1:B:540:ARG:HD3 | 1:B:627:TYR:CZ | 2.30 | 0.66 |
| 1:C:712:PHE:HB3 | 1:C:716:LYS:HG2 | 1.77 | 0.66 |
| 1:E:201:ASP:OD1 | 1:E:218:LEU:HD21 | 1.95 | 0.66 |
| 1:E:540:ARG:HD3 | 1:E:627:TYR:CZ | 2.30 | 0.66 |
| 1:E:581:GLN:NE2 | 1:E:581:GLN:HA | 2.10 | 0.66 |
| 1:F:736:LEU:HD21 | 1:F:750:GLN:CD | 2.15 | 0.66 |
| 2:P:13:LYS:HA | 2:P:65:PHE:CZ | 2.31 | 0.66 |
| 1:A:171:TYR:HD1 | 1:A:171:TYR:O | 1.79 | 0.66 |
| 1:B:557:LEU:HG | 1:B:575:VAL:HG12 | 1.78 | 0.66 |
| 1:D:540:ARG:HD3 | 1:D:627:TYR:CZ | 2.31 | 0.66 |
| 1:D:736:LEU:HD21 | 1:D:750:GLN:CD | 2.15 | 0.66 |
| 1:E:764:LEU:O | 1:E:766:HIS:N | 2.29 | 0.66 |
| 1:F:504:ILE:O | 1:F:507:GLN:HB3 | 1.96 | 0.66 |
| 2:P:64:ASP:CG | 2:P:66:PRO:HD2 | 2.16 | 0.66 |
| 2:Q:5:THR:HG23 | 2:Q:8:GLN:HB2 | 1.78 | 0.66 |
| 2:R:48:LEU:HA | 2:R:51:MET:HE2 | 1.77 | 0.66 |
| 2:S:16:PHE:CE2 | 2:S:27:ILE:HD11 | 2.31 | 0.66 |
| 1:A:78:LYS:HG3 | 1:A:79:ILE:N | 2.09 | 0.66 |
| 1:A:424:LYS:HZ2 | 1:A:424:LYS:HB3 | 1.60 | 0.66 |
| 1:B:179:LEU:HG | 1:B:180:ASP:H | 1.60 | 0.66 |
| 1:B:217:LYS:NZ | 1:B:236:GLU:HB2 | 2.11 | 0.66 |
| 1:C:115:LYS:NZ | 1:C:116:GLU:H | 1.85 | 0.66 |
| 1:C:661:ALA:O | 1:C:665:LYS:HB2 | 1.96 | 0.66 |
| 1:D:694:VAL:HG23 | 2:R:18:LEU:HD11 | 1.76 | 0.66 |
| 1:E:154:ILE:HG21 | 1:E:171:TYR:CE2 | 2.31 | 0.66 |
| 1:F:480:ASN:HD21 | 1:F:483:GLY:H | 1.44 | 0.66 |
| 1:F:630:ARG:HH11 | 1:F:630:ARG:HG3 | 1.59 | 0.66 |
| 2:T:16:PHE:CE2 | 2:T:27:ILE:HD11 | 2.31 | 0.66 |
| 1:B:201:ASP:OD1 | 1:B:218:LEU:HD21 | 1.95 | 0.66 |
| 1:B:504:ILE:O | 1:B:507:GLN:HB3 | 1.96 | 0.66 |
| 1:C:171:TYR:O | 1:C:171:TYR:HD1 | 1.79 | 0.66 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:199:LEU:C | 1:D:201:ASP:H | 1.96 | 0.66 |
| 1:D:372:LYS:HG3 | 1:D:373:LYS:N | 2.11 | 0.66 |
| 2:R:13:LYS:HA | 2:R:65:PHE:CZ | 2.31 | 0.66 |
| 1:A:504:ILE:O | 1:A:507:GLN:HB3 | 1.95 | 0.66 |
| 1:B:302:LEU:HD22 | 1:B:602:PHE:HE1 | 1.61 | 0.66 |
| 1:C:764:LEU:C | 1:C:766:HIS:N | 2.49 | 0.66 |
| 1:D:179:LEU:HG | 1:D:180:ASP:N | 2.10 | 0.66 |
| 1:D:372:LYS:O | 1:D:374:HIS:N | 2.29 | 0.66 |
| 1:D:408:LEU:HD12 | 1:D:408:LEU:N | 2.06 | 0.66 |
| 1:E:171:TYR:O | 1:E:171:TYR:HD1 | 1.79 | 0.66 |
| 1:E:234:LEU:HD23 | 1:E:235:THR:H | 1.59 | 0.66 |
| 1:E:504:ILE:O | 1:E:507:GLN:HB3 | 1.96 | 0.66 |
| 2:O:24:ASP:CB | 2:O:26:THR:HG23 | 2.24 | 0.66 |
| 2:O:64:ASP:CG | 2:O:66:PRO:HD2 | 2.16 | 0.66 |
| 1:B:171:TYR:O | 1:B:171:TYR:HD1 | 1.79 | 0.66 |
| 1:D:105:TYR:HE1 | 1:D:151:LYS:HZ2 | 1.43 | 0.66 |
| 1:D:376:GLN:O | 1:D:380:VAL:HG23 | 1.96 | 0.66 |
| 1:D:750:GLN:O | 1:D:753:LYS:HB2 | 1.95 | 0.66 |
| 1:E:131:ARG:H | 1:E:170:TYR:HE2 | 1.44 | 0.66 |
| 1:E:179:LEU:HG | 1:E:180:ASP:N | 2.10 | 0.66 |
| 1:E:397:GLU:O | 1:E:479:LYS:HA | 1.96 | 0.66 |
| 1:E:567:THR:CG2 | 1:E:568:GLY:N | 2.58 | 0.66 |
| 1:F:234:LEU:HD23 | 1:F:235:THR:H | 1.59 | 0.66 |
| 2:O:13:LYS:HA | 2:O:65:PHE:CZ | 2.31 | 0.66 |
| 2:Q:12:PHE:CD1 | 2:Q:72:MET:HG3 | 2.31 | 0.66 |
| 2:Q:42:ASN:N | 2:Q:43:PRO:HD2 | 2.11 | 0.66 |
| 2:R:5:THR:HG23 | 2:R:8:GLN:HB2 | 1.78 | 0.66 |
| 2:R:115:LYS:HA | 2:R:115:LYS:HZ3 | 1.60 | 0.66 |
| 1:A:630:ARG:HG3 | 1:A:630:ARG:NH1 | 2.10 | 0.65 |
| 1:B:182:ILE:HD13 | 1:B:182:ILE:O | 1.96 | 0.65 |
| 1:B:700:TYR:HD1 | 1:B:728:ALA:N | 1.95 | 0.65 |
| 1:B:736:LEU:HD21 | 1:B:750:GLN:CD | 2.16 | 0.65 |
| 1:C:567:THR:CG2 | 1:C:568:GLY:N | 2.59 | 0.65 |
| 1:D:630:ARG:HG3 | 1:D:630:ARG:NH1 | 2.10 | 0.65 |
| 1:E:180:ASP:CG | 1:E:181:ILE:H | 2.00 | 0.65 |
| 1:F:708:ALA:O | 1:F:710:HIS:N | 2.30 | 0.65 |
| 2:P:16:PHE:CE2 | 2:P:27:ILE:HD11 | 2.31 | 0.65 |
| 2:Q:64:ASP:CG | 2:Q:66:PRO:HD2 | 2.17 | 0.65 |
| 2:S:13:LYS:HA | 2:S:65:PHE:CZ | 2.31 | 0.65 |
| 1:A:397:GLU:O | 1:A:479:LYS:HA | 1.96 | 0.65 |
| 1:C:695:LYS:HG3 | 2:Q:19:PHE:CE1 | 2.31 | 0.65 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:518:ASN:HD22 | 1:D:518:ASN:N | 1.95 | 0.65 |
| 1:E:78:LYS:HG3 | 1:E:79:ILE:N | 2.09 | 0.65 |
| 1:E:736:LEU:HD21 | 1:E:750:GLN:CD | 2.16 | 0.65 |
| 1:F:115:LYS:NZ | 1:F:116:GLU:H | 1.85 | 0.65 |
| 1:F:424:LYS:HZ2 | 1:F:424:LYS:HB3 | 1.60 | 0.65 |
| 2:O:12:PHE:CD1 | 2:O:72:MET:HG3 | 2.31 | 0.65 |
| 2:T:42:ASN:N | 2:T:43:PRO:HD2 | 2.11 | 0.65 |
| 2:T:138:TYR:O | 2:T:142:VAL:HG23 | 1.96 | 0.65 |
| 1:A:183:SER:O | 1:A:187:SER:CA | 2.43 | 0.65 |
| 1:A:617:LYS:NZ | 1:A:618:ASN:ND2 | 2.44 | 0.65 |
| 1:B:326:ILE:HG22 | 1:B:328:PHE:HE1 | 1.60 | 0.65 |
| 1:C:480:ASN:HD21 | 1:C:483:GLY:H | 1.44 | 0.65 |
| 1:C:540:ARG:HD3 | 1:C:627:TYR:CZ | 2.30 | 0.65 |
| 1:E:275:GLY:HA2 | 1:E:278:LYS:CE | 2.26 | 0.65 |
| 1:E:372:LYS:O | 1:E:374:HIS:N | 2.28 | 0.65 |
| 1:E:643:ILE:HG22 | 1:E:644:GLU:H | 1.61 | 0.65 |
| 1:F:750:GLN:O | 1:F:753:LYS:HB2 | 1.95 | 0.65 |
| 2:Q:106:ARG:O | 2:Q:110:THR:HG23 | 1.97 | 0.65 |
| 2:R:117:THR:HG23 | 2:R:120:GLU:HB2 | 1.78 | 0.65 |
| 2:T:5:THR:HG23 | 2:T:8:GLN:HB2 | 1.78 | 0.65 |
| 2:T:13:LYS:HA | 2:T:65:PHE:CZ | 2.30 | 0.65 |
| 1:B:154:ILE:HG21 | 1:B:171:TYR:CE2 | 2.32 | 0.65 |
| 1:C:517:VAL:HG23 | 1:C:518:ASN:HD22 | 1.62 | 0.65 |
| 1:D:175:LYS:HB2 | 1:D:175:LYS:NZ | 2.12 | 0.65 |
| 1:E:302:LEU:HD22 | 1:E:602:PHE:HE1 | 1.61 | 0.65 |
| 1:E:715:GLU:HA | 1:E:718:ARG:NH1 | 2.11 | 0.65 |
| 1:F:78:LYS:HG3 | 1:F:79:ILE:N | 2.10 | 0.65 |
| 2:R:42:ASN:N | 2:R:43:PRO:HD2 | 2.10 | 0.65 |
| 1:A:567:THR:CG2 | 1:A:568:GLY:N | 2.59 | 0.65 |
| 1:B:567:THR:CG2 | 1:B:568:GLY:N | 2.60 | 0.65 |
| 1:D:104:ILE:HG23 | 1:D:152:LEU:HD23 | 1.78 | 0.65 |
| 1:F:131:ARG:H | 1:F:170:TYR:HE2 | 1.44 | 0.65 |
| 2:R:12:PHE:CD1 | 2:R:72:MET:HG3 | 2.32 | 0.65 |
| 2:R:64:ASP:CG | 2:R:66:PRO:HD2 | 2.16 | 0.65 |
| 2:T:48:LEU:HD23 | 2:T:51:MET:CE | 2.27 | 0.65 |
| 1:A:712:PHE:HB3 | 1:A:716:LYS:HG2 | 1.78 | 0.65 |
| 1:B:197:LYS:C | 1:B:197:LYS:HZ3 | 1.99 | 0.65 |
| 1:B:270:LYS:O | 1:B:273:LYS:HB2 | 1.96 | 0.65 |
| 1:B:750:GLN:O | 1:B:753:LYS:HB2 | 1.96 | 0.65 |
| 1:C:275:GLY:HA2 | 1:C:278:LYS:CE | 2.26 | 0.65 |
| 1:C:302:LEU:HD22 | 1:C:602:PHE:HE1 | 1.62 | 0.65 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:89:ILE:HD13 | 1:D:175:LYS:HE2 | 1.78 | 0.65 |
| 1:D:794:GLN:HE22 | 1:D:795:LYS:HG3 | 1.61 | 0.65 |
| 1:E:122:GLU:OE2 | 1:E:145:LYS:HE2 | 1.97 | 0.65 |
| 1:E:184:LYS:HA | 1:E:187:SER:CB | 2.27 | 0.65 |
| 2:S:42:ASN:N | 2:S:43:PRO:HD2 | 2.10 | 0.65 |
| 1:A:182:ILE:O | 1:A:182:ILE:HD13 | 1.96 | 0.65 |
| 1:B:131:ARG:H | 1:B:170:TYR:HE2 | 1.44 | 0.65 |
| 1:B:183:SER:O | 1:B:187:SER:CA | 2.42 | 0.65 |
| 1:B:350:VAL:HG12 | 1:B:352:GLY:H | 1.61 | 0.65 |
| 1:C:115:LYS:HZ3 | 1:C:115:LYS:HA | 1.62 | 0.65 |
| 1:C:154:ILE:HG22 | 1:C:155:ASN:H | 1.62 | 0.65 |
| 1:D:234:LEU:HD23 | 1:D:235:THR:H | 1.59 | 0.65 |
| 1:F:122:GLU:OE2 | 1:F:145:LYS:HE2 | 1.97 | 0.65 |
| 1:F:171:TYR:HD1 | 1:F:171:TYR:O | 1.79 | 0.65 |
| 2:S:48:LEU:HD23 | 2:S:51:MET:CE | 2.26 | 0.65 |
| 1:A:107:THR:CG2 | 1:A:115:LYS:HE2 | 2.26 | 0.65 |
| 1:A:480:ASN:HD21 | 1:A:483:GLY:H | 1.45 | 0.65 |
| 1:A:695:LYS:HG3 | 2:O:19:PHE:CE1 | 2.32 | 0.65 |
| 1:B:186:LYS:HE3 | 1:B:234:LEU:CD1 | 2.25 | 0.65 |
| 1:B:424:LYS:HB3 | 1:B:424:LYS:HZ2 | 1.61 | 0.65 |
| 1:B:718:ARG:O | 1:B:722:ILE:HG13 | 1.97 | 0.65 |
| 1:C:629:ASN:ND2 | 1:C:631:SER:H | 1.95 | 0.65 |
| 1:D:715:GLU:HA | 1:D:718:ARG:NH1 | 2.10 | 0.65 |
| 1:E:217:LYS:NZ | 1:E:236:GLU:HB2 | 2.12 | 0.65 |
| 1:E:372:LYS:HG3 | 1:E:373:LYS:N | 2.11 | 0.65 |
| 1:F:217:LYS:NZ | 1:F:236:GLU:HB2 | 2.11 | 0.65 |
| 1:F:712:PHE:HB3 | 1:F:716:LYS:HG2 | 1.77 | 0.65 |
| 2:R:72:MET:C | 2:R:74:ARG:H | 2.00 | 0.65 |
| 1:A:115:LYS:HB2 | 1:A:118:GLN:HG2 | 1.79 | 0.65 |
| 1:A:372:LYS:HG3 | 1:A:373:LYS:N | 2.12 | 0.65 |
| 1:A:372:LYS:O | 1:A:374:HIS:N | 2.29 | 0.65 |
| 1:B:217:LYS:HZ1 | 1:B:233:ASN:HB3 | 1.61 | 0.65 |
| 1:B:372:LYS:HG3 | 1:B:373:LYS:N | 2.12 | 0.65 |
| 1:B:794:GLN:HE22 | 1:B:795:LYS:HG3 | 1.61 | 0.65 |
| 1:C:104:ILE:HG23 | 1:C:152:LEU:HD23 | 1.79 | 0.65 |
| 1:C:630:ARG:HG3 | 1:C:630:ARG:NH1 | 2.11 | 0.65 |
| 1:D:182:ILE:O | 1:D:182:ILE:HD13 | 1.97 | 0.65 |
| 1:E:105:TYR:HE1 | 1:E:151:LYS:HZ2 | 1.42 | 0.65 |
| 1:E:712:PHE:HB3 | 1:E:716:LYS:HG2 | 1.77 | 0.65 |
| 1:F:107:THR:CG2 | 1:F:115:LYS:HE2 | 2.27 | 0.65 |
| 1:F:122:GLU:O | 1:F:146:LYS:HE2 | 1.97 | 0.65 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:182:ILE:O | 1:F:182:ILE:HD13 | 1.96 | 0.65 |
| 2:P:42:ASN:N | 2:P:43:PRO:HD2 | 2.10 | 0.65 |
| 1:A:639:ASN:HD22 | 1:A:639:ASN:N | 1.95 | 0.65 |
| 1:B:184:LYS:HA | 1:B:187:SER:CB | 2.27 | 0.65 |
| 1:B:275:GLY:HA2 | 1:B:278:LYS:CE | 2.27 | 0.65 |
| 1:B:630:ARG:HH11 | 1:B:630:ARG:HG3 | 1.62 | 0.65 |
| 1:B:630:ARG:CZ | 2:P:83:GLU:HG2 | 2.27 | 0.65 |
| 1:D:311:HIS:O | 1:D:314:ALA:HB3 | 1.96 | 0.65 |
| 1:E:311:HIS:O | 1:E:314:ALA:HB3 | 1.97 | 0.65 |
| 1:E:521:ASN:HB3 | 1:E:524:GLU:HB3 | 1.79 | 0.65 |
| 1:E:694:VAL:HG22 | 2:S:18:LEU:HD21 | 1.78 | 0.65 |
| 1:F:326:ILE:HG22 | 1:F:328:PHE:HE1 | 1.59 | 0.65 |
| 1:F:376:GLN:O | 1:F:380:VAL:HG23 | 1.96 | 0.65 |
| 2:Q:4:LEU:HA | 2:Q:8:GLN:HE21 | 1.62 | 0.65 |
| 2:Q:22:ASP:OD2 | 2:Q:24:ASP:OD1 | 2.14 | 0.65 |
| 2:S:4:LEU:HA | 2:S:8:GLN:HE21 | 1.62 | 0.65 |
| 2:T:115:LYS:HA | 2:T:115:LYS:HZ3 | 1.60 | 0.65 |
| 1:A:327:LEU:HG | 1:A:595:ILE:HG12 | 1.80 | 0.64 |
| 1:A:718:ARG:O | 1:A:722:ILE:HG13 | 1.96 | 0.64 |
| 1:C:182:ILE:O | 1:C:182:ILE:HD13 | 1.97 | 0.64 |
| 1:D:88:LYS:NZ | 1:D:172:GLU:OE2 | 2.29 | 0.64 |
| 1:D:122:GLU:O | 1:D:146:LYS:HE2 | 1.97 | 0.64 |
| 1:D:397:GLU:O | 1:D:479:LYS:HA | 1.96 | 0.64 |
| 1:E:183:SER:O | 1:E:187:SER:CA | 2.43 | 0.64 |
| 1:F:372:LYS:O | 1:F:374:HIS:N | 2.29 | 0.64 |
| 2:S:9:ILE:HD12 | 2:S:69:LEU:HD22 | 1.79 | 0.64 |
| 2:T:22:ASP:OD2 | 2:T:24:ASP:OD1 | 2.15 | 0.64 |
| 1:A:275:GLY:HA2 | 1:A:278:LYS:CE | 2.27 | 0.64 |
| 1:A:700:TYR:HD1 | 1:A:728:ALA:N | 1.96 | 0.64 |
| 1:A:736:LEU:HD21 | 1:A:750:GLN:CD | 2.17 | 0.64 |
| 1:C:236:GLU:HA | 1:C:239:HIS:CD2 | 2.32 | 0.64 |
| 1:C:794:GLN:HE22 | 1:C:795:LYS:HG3 | 1.61 | 0.64 |
| 1:D:179:LEU:HG | 1:D:180:ASP:H | 1.62 | 0.64 |
| 1:D:343:VAL:HG13 | 1:D:487:PRO:HG2 | 1.78 | 0.64 |
| 1:D:708:ALA:O | 1:D:710:HIS:N | 2.30 | 0.64 |
| 1:E:376:GLN:O | 1:E:380:VAL:HG23 | 1.96 | 0.64 |
| 1:F:567:THR:CG2 | 1:F:568:GLY:N | 2.60 | 0.64 |
| 1:F:700:TYR:HD1 | 1:F:728:ALA:N | 1.95 | 0.64 |
| 2:Q:138:TYR:O | 2:Q:142:VAL:HG23 | 1.97 | 0.64 |
| 1:A:122:GLU:O | 1:A:146:LYS:HE2 | 1.97 | 0.64 |
| 1:A:661:ALA:O | 1:A:665:LYS:HB2 | 1.96 | 0.64 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:794:GLN:HE22 | 1:A:795:LYS:HG3 | 1.61 | 0.64 |
| 1:B:397:GLU:O | 1:B:479:LYS:HA | 1.96 | 0.64 |
| 1:B:472:ARG:HB3 | 1:B:472:ARG:NH1 | 2.13 | 0.64 |
| 1:C:71:PHE:CD2 | 1:C:73:ASN:HB2 | 2.33 | 0.64 |
| 1:C:186:LYS:HE3 | 1:C:234:LEU:CD1 | 2.27 | 0.64 |
| 1:C:254:ARG:HD2 | 1:C:254:ARG:N | 2.09 | 0.64 |
| 1:C:521:ASN:HB3 | 1:C:524:GLU:HB3 | 1.80 | 0.64 |
| 1:D:217:LYS:HZ1 | 1:D:233:ASN:HB3 | 1.60 | 0.64 |
| 1:D:275:GLY:HA2 | 1:D:278:LYS:CE | 2.27 | 0.64 |
| 1:D:302:LEU:HD22 | 1:D:602:PHE:HE1 | 1.61 | 0.64 |
| 1:F:88:LYS:NZ | 1:F:172:GLU:OE2 | 2.30 | 0.64 |
| 1:F:89:ILE:HD13 | 1:F:175:LYS:HE2 | 1.78 | 0.64 |
| 1:F:270:LYS:O | 1:F:273:LYS:HB2 | 1.96 | 0.64 |
| 1:F:311:HIS:O | 1:F:314:ALA:HB3 | 1.97 | 0.64 |
| 1:F:540:ARG:HD2 | 1:F:582:ASP:OD1 | 1.97 | 0.64 |
| 2:P:12:PHE:CD1 | 2:P:72:MET:HG3 | 2.31 | 0.64 |
| 2:Q:48:LEU:HD23 | 2:Q:51:MET:CE | 2.28 | 0.64 |
| 2:Q:115:LYS:HA | 2:Q:115:LYS:HZ3 | 1.61 | 0.64 |
| 2:R:48:LEU:HD23 | 2:R:51:MET:CE | 2.27 | 0.64 |
| 2:T:64:ASP:CG | 2:T:66:PRO:HD2 | 2.17 | 0.64 |
| 1:B:78:LYS:HG3 | 1:B:79:ILE:N | 2.11 | 0.64 |
| 1:B:540:ARG:HD2 | 1:B:582:ASP:OD1 | 1.97 | 0.64 |
| 1:B:715:GLU:HA | 1:B:718:ARG:NH1 | 2.11 | 0.64 |
| 1:C:131:ARG:H | 1:C:170:TYR:HE2 | 1.45 | 0.64 |
| 1:E:182:ILE:HD13 | 1:E:182:ILE:O | 1.97 | 0.64 |
| 1:E:270:LYS:O | 1:E:273:LYS:HB2 | 1.96 | 0.64 |
| 2:O:72:MET:C | 2:O:74:ARG:H | 2.01 | 0.64 |
| 2:P:9:ILE:HD12 | 2:P:69:LEU:HD22 | 1.79 | 0.64 |
| 2:S:5:THR:HG23 | 2:S:8:GLN:HB2 | 1.79 | 0.64 |
| 2:T:12:PHE:CD1 | 2:T:72:MET:HG3 | 2.32 | 0.64 |
| 1:A:217:LYS:NZ | 1:A:236:GLU:HB2 | 2.12 | 0.64 |
| 1:A:594:PHE:HE2 | 1:A:596:ILE:HD11 | 1.62 | 0.64 |
| 1:B:357:TRP:CZ3 | 1:B:439:ASN:HB2 | 2.33 | 0.64 |
| 1:C:234:LEU:HD23 | 1:C:235:THR:H | 1.61 | 0.64 |
| 1:C:372:LYS:O | 1:C:374:HIS:N | 2.30 | 0.64 |
| 1:C:376:GLN:O | 1:C:380:VAL:HG23 | 1.98 | 0.64 |
| 1:C:715:GLU:HA | 1:C:718:ARG:NH1 | 2.11 | 0.64 |
| 1:C:750:GLN:O | 1:C:753:LYS:HB2 | 1.96 | 0.64 |
| 1:D:79:ILE:C | 1:D:81:GLN:H | 2.01 | 0.64 |
| 1:D:111:LEU:HD23 | 1:D:155:ASN:HD21 | 1.63 | 0.64 |
| 1:D:217:LYS:NZ | 1:D:236:GLU:HB2 | 2.11 | 0.64 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:517:VAL:HG23 | 1:D:518:ASN:HD22 | 1.61 | 0.64 |
| 1:D:764:LEU:C | 1:D:766:HIS:N | 2.51 | 0.64 |
| 1:E:88:LYS:NZ | 1:E:172:GLU:OE2 | 2.30 | 0.64 |
| 1:E:700:TYR:HD1 | 1:E:728:ALA:N | 1.96 | 0.64 |
| 1:F:372:LYS:HG3 | 1:F:373:LYS:N | 2.12 | 0.64 |
| 1:F:397:GLU:O | 1:F:479:LYS:HA | 1.97 | 0.64 |
| 2:R:55:VAL:HG11 | 2:R:71:MET:HE3 | 1.79 | 0.64 |
| 2:S:12:PHE:CD1 | 2:S:72:MET:HG3 | 2.32 | 0.64 |
| 1:A:376:GLN:O | 1:A:380:VAL:HG23 | 1.97 | 0.64 |
| 1:A:435:LEU:HG | 1:A:446:ILE:HG22 | 1.80 | 0.64 |
| 1:A:694:VAL:HG23 | 2:O:18:LEU:HD11 | 1.78 | 0.64 |
| 1:B:712:PHE:HB3 | 1:B:716:LYS:HG2 | 1.78 | 0.64 |
| 1:C:372:LYS:HG3 | 1:C:373:LYS:N | 2.12 | 0.64 |
| 1:C:736:LEU:HD21 | 1:C:750:GLN:CD | 2.17 | 0.64 |
| 1:D:480:ASN:HD21 | 1:D:483:GLY:H | 1.45 | 0.64 |
| 1:D:540:ARG:HD2 | 1:D:582:ASP:OD1 | 1.97 | 0.64 |
| 1:D:712:PHE:HB3 | 1:D:716:LYS:HG2 | 1.79 | 0.64 |
| 1:E:326:ILE:HG22 | 1:E:328:PHE:HE1 | 1.58 | 0.64 |
| 1:E:357:TRP:CZ3 | 1:E:439:ASN:HB2 | 2.33 | 0.64 |
| 1:E:518:ASN:HD22 | 1:E:518:ASN:N | 1.94 | 0.64 |
| 2:O:87:GLU:O | 2:O:91:VAL:HG23 | 1.98 | 0.64 |
| 2:S:76:MET:O | 2:S:77:LYS:HD2 | 1.98 | 0.64 |
| 1:A:318:ILE:HG23 | 1:A:322:LEU:HD12 | 1.78 | 0.64 |
| 1:E:318:ILE:HG23 | 1:E:322:LEU:HD12 | 1.79 | 0.64 |
| 1:E:750:GLN:O | 1:E:753:LYS:HB2 | 1.97 | 0.64 |
| 1:F:180:ASP:CG | 1:F:181:ILE:H | 2.01 | 0.64 |
| 1:F:184:LYS:HA | 1:F:187:SER:CB | 2.27 | 0.64 |
| 1:F:318:ILE:HG23 | 1:F:322:LEU:HD12 | 1.80 | 0.64 |
| 2:O:48:LEU:HD23 | 2:O:51:MET:HE1 | 1.80 | 0.64 |
| 1:A:122:GLU:OE2 | 1:A:145:LYS:HE2 | 1.96 | 0.64 |
| 1:B:115:LYS:HG3 | 1:B:153:ILE:HD13 | 1.79 | 0.64 |
| 1:C:154:ILE:HG21 | 1:C:171:TYR:CE2 | 2.33 | 0.64 |
| 1:C:180:ASP:CG | 1:C:181:ILE:H | 2.01 | 0.64 |
| 1:E:186:LYS:HE3 | 1:E:234:LEU:CD1 | 2.24 | 0.64 |
| 1:E:719:LYS:HG2 | 1:E:797:ILE:CD1 | 2.28 | 0.64 |
| 1:F:152:LEU:HD21 | 1:F:171:TYR:CE1 | 2.33 | 0.64 |
| 1:F:236:GLU:HA | 1:F:239:HIS:CD2 | 2.33 | 0.64 |
| 1:F:617:LYS:NZ | 1:F:618:ASN:ND2 | 2.45 | 0.64 |
| 1:F:794:GLN:HE22 | 1:F:795:LYS:HG3 | 1.61 | 0.64 |
| 2:O:4:LEU:HA | 2:O:8:GLN:HE21 | 1.62 | 0.64 |
| 2:O:16:PHE:CE2 | 2:O:27:ILE:CD1 | 2.81 | 0.64 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:P:87:GLU:O | 2:P:91:VAL:HG23 | 1.98 | 0.64 |
| 2:Q:24:ASP:CB | 2:Q:26:THR:HG23 | 2.24 | 0.64 |
| 2:T:48:LEU:HD23 | 2:T:51:MET:HE1 | 1.79 | 0.64 |
| 1:A:540:ARG:HD2 | 1:A:582:ASP:OD1 | 1.97 | 0.64 |
| 1:B:88:LYS:NZ | 1:B:172:GLU:OE2 | 2.31 | 0.64 |
| 1:B:122:GLU:OE2 | 1:B:145:LYS:HE2 | 1.98 | 0.64 |
| 1:C:302:LEU:HB2 | 1:C:602:PHE:HD1 | 1.63 | 0.64 |
| 1:C:435:LEU:HG | 1:C:446:ILE:HG22 | 1.79 | 0.64 |
| 1:C:700:TYR:HD1 | 1:C:728:ALA:N | 1.96 | 0.64 |
| 1:D:184:LYS:HA | 1:D:187:SER:CB | 2.27 | 0.64 |
| 1:D:220:LEU:HD11 | 1:D:223:LYS:HB2 | 1.80 | 0.64 |
| 2:P:4:LEU:HA | 2:P:8:GLN:HE21 | 1.62 | 0.64 |
| 2:P:48:LEU:HD23 | 2:P:51:MET:CE | 2.27 | 0.64 |
| 2:Q:72:MET:C | 2:Q:74:ARG:H | 2.00 | 0.64 |
| 2:R:4:LEU:HA | 2:R:8:GLN:HE21 | 1.62 | 0.64 |
| 1:B:111:LEU:HD23 | 1:B:155:ASN:HD21 | 1.63 | 0.64 |
| 1:B:180:ASP:CG | 1:B:181:ILE:H | 2.01 | 0.64 |
| 1:B:435:LEU:HG | 1:B:446:ILE:HG22 | 1.79 | 0.64 |
| 1:C:88:LYS:NZ | 1:C:172:GLU:OE2 | 2.30 | 0.64 |
| 1:C:518:ASN:HD22 | 1:C:518:ASN:N | 1.95 | 0.64 |
| 1:E:99:GLU:C | 1:E:101:GLY:H | 2.01 | 0.64 |
| 1:E:115:LYS:HB2 | 1:E:118:GLN:HG2 | 1.80 | 0.64 |
| 1:F:480:ASN:HD21 | 1:F:483:GLY:N | 1.96 | 0.64 |
| 2:P:5:THR:HG23 | 2:P:8:GLN:HB2 | 1.79 | 0.64 |
| 1:A:104:ILE:HG23 | 1:A:152:LEU:HD23 | 1.79 | 0.63 |
| 1:A:105:TYR:HE1 | 1:A:151:LYS:HZ2 | 1.45 | 0.63 |
| 1:A:517:VAL:HG23 | 1:A:518:ASN:HD22 | 1.62 | 0.63 |
| 1:C:311:HIS:O | 1:C:314:ALA:HB3 | 1.97 | 0.63 |
| 1:C:515:LYS:HB3 | 1:C:515:LYS:HZ2 | 1.63 | 0.63 |
| 1:D:186:LYS:HE3 | 1:D:234:LEU:CD1 | 2.25 | 0.63 |
| 1:D:236:GLU:HA | 1:D:239:HIS:CD2 | 2.33 | 0.63 |
| 1:D:472:ARG:HB3 | 1:D:472:ARG:NH1 | 2.13 | 0.63 |
| 1:D:594:PHE:HE2 | 1:D:596:ILE:HD11 | 1.63 | 0.63 |
| 1:E:594:PHE:HE2 | 1:E:596:ILE:HD11 | 1.63 | 0.63 |
| 1:E:794:GLN:HE22 | 1:E:795:LYS:HG3 | 1.63 | 0.63 |
| 1:F:254:ARG:HD2 | 1:F:254:ARG:N | 2.10 | 0.63 |
| 1:F:301:ALA:O | 1:F:303:LYS:N | 2.31 | 0.63 |
| 1:F:350:VAL:HG12 | 1:F:352:GLY:H | 1.62 | 0.63 |
| 1:F:550:SER:H | 1:F:553:GLN:HE21 | 1.44 | 0.63 |
| 1:F:581:GLN:NE2 | 1:F:581:GLN:HA | 2.12 | 0.63 |
| 2:S:138:TYR:O | 2:S:142:VAL:HG23 | 1.98 | 0.63 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:581:GLN:HE21 | 1:A:629:ASN:N | 1.97 | 0.63 |
| 1:A:625:LEU:HD12 | 1:A:626:TYR:N | 2.13 | 0.63 |
| 1:C:318:ILE:HG23 | 1:C:322:LEU:HD12 | 1.80 | 0.63 |
| 1:C:694:VAL:HG22 | 2:Q:18:LEU:HD21 | 1.80 | 0.63 |
| 1:D:173:ILE:HG23 | 1:D:174:GLY:H | 1.63 | 0.63 |
| 1:D:350:VAL:HG12 | 1:D:352:GLY:H | 1.63 | 0.63 |
| 1:E:104:ILE:HG23 | 1:E:152:LEU:HD23 | 1.78 | 0.63 |
| 1:E:115:LYS:NZ | 1:E:116:GLU:H | 1.85 | 0.63 |
| 1:E:718:ARG:O | 1:E:722:ILE:HG13 | 1.99 | 0.63 |
| 1:F:175:LYS:HB2 | 1:F:175:LYS:NZ | 2.13 | 0.63 |
| 1:F:302:LEU:HD22 | 1:F:602:PHE:HE1 | 1.61 | 0.63 |
| 1:F:731:GLU:O | 1:F:734:ASN:HB3 | 1.97 | 0.63 |
| 2:O:12:PHE:CE1 | 2:O:72:MET:HG3 | 2.33 | 0.63 |
| 2:R:22:ASP:OD2 | 2:R:24:ASP:OD1 | 2.17 | 0.63 |
| 2:R:87:GLU:O | 2:R:91:VAL:HG23 | 1.98 | 0.63 |
| 1:A:180:ASP:CG | 1:A:181:ILE:H | 2.02 | 0.63 |
| 1:A:184:LYS:HA | 1:A:187:SER:CB | 2.27 | 0.63 |
| 1:A:236:GLU:HA | 1:A:239:HIS:CD2 | 2.33 | 0.63 |
| 1:A:357:TRP:CZ3 | 1:A:439:ASN:HB2 | 2.33 | 0.63 |
| 1:E:472:ARG:HB3 | 1:E:472:ARG:NH1 | 2.13 | 0.63 |
| 1:F:589:LYS:HE3 | 1:F:608:TRP:CG | 2.34 | 0.63 |
| 2:O:5:THR:HG23 | 2:O:8:GLN:HB2 | 1.79 | 0.63 |
| 2:O:22:ASP:OD2 | 2:O:24:ASP:OD1 | 2.16 | 0.63 |
| 1:A:217:LYS:HZ1 | 1:A:233:ASN:HB3 | 1.63 | 0.63 |
| 1:A:220:LEU:HD11 | 1:A:223:LYS:HB2 | 1.80 | 0.63 |
| 1:A:302:LEU:HD22 | 1:A:602:PHE:HE1 | 1.63 | 0.63 |
| 1:B:540:ARG:NH2 | 2:P:87:GLU:OE1 | 2.32 | 0.63 |
| 1:B:581:GLN:NE2 | 1:B:581:GLN:HA | 2.12 | 0.63 |
| 1:C:472:ARG:HB3 | 1:C:472:ARG:NH1 | 2.12 | 0.63 |
| 1:D:173:ILE:HG23 | 1:D:174:GLY:N | 2.13 | 0.63 |
| 1:E:350:VAL:HG12 | 1:E:352:GLY:H | 1.63 | 0.63 |
| 1:E:424:LYS:HZ2 | 1:E:424:LYS:HB3 | 1.61 | 0.63 |
| 1:E:517:VAL:HG23 | 1:E:518:ASN:HD22 | 1.62 | 0.63 |
| 1:E:625:LEU:HD12 | 1:E:626:TYR:N | 2.13 | 0.63 |
| 2:O:76:MET:O | 2:O:77:LYS:HD2 | 1.98 | 0.63 |
| 1:A:88:LYS:NZ | 1:A:172:GLU:OE2 | 2.31 | 0.63 |
| 1:B:104:ILE:HG23 | 1:B:152:LEU:HD23 | 1.78 | 0.63 |
| 1:C:122:GLU:OE2 | 1:C:145:LYS:HE2 | 1.99 | 0.63 |
| 1:E:236:GLU:HA | 1:E:239:HIS:CD2 | 2.33 | 0.63 |
| 1:F:517:VAL:HG23 | 1:F:518:ASN:HD22 | 1.62 | 0.63 |
| 2:O:106:ARG:O | 2:O:110:THR:HG23 | 1.98 | 0.63 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:T:76:MET:O | 2:T:77:LYS:HD2 | 1.99 | 0.63 |
| 1:A:518:ASN:HD22 | 1:A:518:ASN:N | 1.95 | 0.63 |
| 1:A:521:ASN:HB3 | 1:A:524:GLU:HB3 | 1.79 | 0.63 |
| 1:A:540:ARG:NH2 | 2:O:87:GLU:OE1 | 2.32 | 0.63 |
| 1:B:89:ILE:HD13 | 1:B:175:LYS:HE2 | 1.80 | 0.63 |
| 1:B:301:ALA:O | 1:B:303:LYS:N | 2.32 | 0.63 |
| 1:B:480:ASN:HD21 | 1:B:483:GLY:H | 1.47 | 0.63 |
| 1:B:521:ASN:HB3 | 1:B:524:GLU:HB3 | 1.80 | 0.63 |
| 1:B:625:LEU:HD12 | 1:B:626:TYR:N | 2.13 | 0.63 |
| 1:B:708:ALA:O | 1:B:710:HIS:N | 2.32 | 0.63 |
| 1:C:516:VAL:HG21 | 1:C:532:LEU:HD11 | 1.81 | 0.63 |
| 1:C:617:LYS:NZ | 1:C:618:ASN:ND2 | 2.45 | 0.63 |
| 1:D:90:PRO:HG2 | 1:D:93:VAL:CB | 2.26 | 0.63 |
| 1:D:115:LYS:HB2 | 1:D:118:GLN:HG2 | 1.81 | 0.63 |
| 1:D:184:LYS:CE | 1:D:191:GLU:HB2 | 2.29 | 0.63 |
| 1:D:326:ILE:HG22 | 1:D:328:PHE:HE1 | 1.62 | 0.63 |
| 1:D:694:VAL:HG22 | 2:R:18:LEU:HD21 | 1.81 | 0.63 |
| 1:D:700:TYR:HD1 | 1:D:728:ALA:N | 1.97 | 0.63 |
| 2:O:9:ILE:HD12 | 2:O:69:LEU:HD22 | 1.81 | 0.63 |
| 2:Q:12:PHE:CE1 | 2:Q:72:MET:HG3 | 2.34 | 0.63 |
| 2:S:72:MET:C | 2:S:74:ARG:H | 2.00 | 0.63 |
| 1:A:708:ALA:O | 1:A:710:HIS:N | 2.32 | 0.63 |
| 1:B:518:ASN:HD22 | 1:B:518:ASN:N | 1.95 | 0.63 |
| 1:C:122:GLU:O | 1:C:146:LYS:HE2 | 1.99 | 0.63 |
| 1:C:175:LYS:HB2 | 1:C:175:LYS:NZ | 2.13 | 0.63 |
| 1:D:357:TRP:CZ3 | 1:D:439:ASN:HB2 | 2.33 | 0.63 |
| 1:E:79:ILE:C | 1:E:81:GLN:H | 2.01 | 0.63 |
| 1:E:179:LEU:HG | 1:E:180:ASP:H | 1.62 | 0.63 |
| 1:E:589:LYS:HE3 | 1:E:608:TRP:CG | 2.34 | 0.63 |
| 1:F:472:ARG:HB3 | 1:F:472:ARG:NH1 | 2.12 | 0.63 |
| 1:F:581:GLN:HE21 | 1:F:629:ASN:N | 1.95 | 0.63 |
| 1:F:695:LYS:HG3 | 2:T:19:PHE:CE1 | 2.33 | 0.63 |
| 2:Q:9:ILE:HD12 | 2:Q:69:LEU:HD22 | 1.79 | 0.63 |
| 1:A:515:LYS:HB3 | 1:A:515:LYS:HZ2 | 1.62 | 0.63 |
| 1:B:311:HIS:O | 1:B:314:ALA:HB3 | 1.99 | 0.63 |
| 1:C:184:LYS:HA | 1:C:187:SER:CB | 2.27 | 0.63 |
| 1:D:154:ILE:HG21 | 1:D:171:TYR:CE2 | 2.33 | 0.63 |
| 1:E:189:ASP:O | 1:E:190:PRO:C | 2.33 | 0.63 |
| 1:E:255:THR:O | 1:E:259:LEU:N | 2.28 | 0.63 |
| 1:E:326:ILE:CG2 | 1:E:328:PHE:CE1 | 2.82 | 0.63 |
| 1:E:550:SER:H | 1:E:553:GLN:HE21 | 1.46 | 0.63 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:521:ASN:HB3 | 1:F:524:GLU:HB3 | 1.81 | 0.63 |
| 1:F:594:PHE:HE2 | 1:F:596:ILE:HD11 | 1.64 | 0.63 |
| 1:F:629:ASN:ND2 | 1:F:631:SER:H | 1.97 | 0.63 |
| 1:F:630:ARG:HG3 | 1:F:630:ARG:NH1 | 2.12 | 0.63 |
| 2:S:12:PHE:CE1 | 2:S:72:MET:HG3 | 2.34 | 0.63 |
| 1:B:517:VAL:HG23 | 1:B:518:ASN:HD22 | 1.62 | 0.63 |
| 1:C:173:ILE:HG23 | 1:C:174:GLY:N | 2.14 | 0.63 |
| 1:D:301:ALA:C | 1:D:303:LYS:N | 2.52 | 0.63 |
| 1:E:581:GLN:HE21 | 1:E:629:ASN:N | 1.96 | 0.63 |
| 1:F:301:ALA:C | 1:F:303:LYS:N | 2.52 | 0.63 |
| 1:F:719:LYS:HG2 | 1:F:797:ILE:CD1 | 2.29 | 0.63 |
| 2:R:9:ILE:HD12 | 2:R:69:LEU:HD22 | 1.80 | 0.63 |
| 2:R:76:MET:O | 2:R:77:LYS:HD2 | 1.98 | 0.63 |
| 2:T:9:ILE:HD12 | 2:T:69:LEU:HD22 | 1.80 | 0.63 |
| 1:A:111:LEU:HD23 | 1:A:155:ASN:HD21 | 1.64 | 0.62 |
| 1:B:76:LEU:O | 1:B:79:ILE:N | 2.32 | 0.62 |
| 1:B:376:GLN:O | 1:B:380:VAL:HG23 | 1.98 | 0.62 |
| 1:B:629:ASN:ND2 | 1:B:631:SER:H | 1.96 | 0.62 |
| 1:D:521:ASN:HB3 | 1:D:524:GLU:HB3 | 1.81 | 0.62 |
| 1:E:76:LEU:O | 1:E:79:ILE:N | 2.32 | 0.62 |
| 1:E:173:ILE:HG23 | 1:E:174:GLY:N | 2.14 | 0.62 |
| 1:E:629:ASN:ND2 | 1:E:631:SER:H | 1.97 | 0.62 |
| 1:F:302:LEU:HB2 | 1:F:602:PHE:HD1 | 1.64 | 0.62 |
| 2:P:55:VAL:HG11 | 2:P:71:MET:HE3 | 1.80 | 0.62 |
| 1:A:131:ARG:H | 1:A:170:TYR:HE2 | 1.46 | 0.62 |
| 1:A:175:LYS:HB2 | 1:A:175:LYS:NZ | 2.13 | 0.62 |
| 1:B:236:GLU:HA | 1:B:239:HIS:CD2 | 2.34 | 0.62 |
| 1:C:111:LEU:HD23 | 1:C:155:ASN:HD21 | 1.65 | 0.62 |
| 1:C:220:LEU:HD11 | 1:C:223:LYS:HB2 | 1.81 | 0.62 |
| 1:C:708:ALA:O | 1:C:710:HIS:N | 2.32 | 0.62 |
| 1:D:617:LYS:NZ | 1:D:618:ASN:ND2 | 2.43 | 0.62 |
| 1:F:435:LEU:HG | 1:F:446:ILE:HG22 | 1.80 | 0.62 |
| 1:F:661:ALA:O | 1:F:665:LYS:HB2 | 1.99 | 0.62 |
| 2:O:48:LEU:HD23 | 2:O:51:MET:CE | 2.28 | 0.62 |
| 2:O:93:ASP:OD1 | 2:O:97:ASN:ND2 | 2.32 | 0.62 |
| 1:A:302:LEU:HB2 | 1:A:602:PHE:HD1 | 1.64 | 0.62 |
| 1:A:764:LEU:C | 1:A:766:HIS:N | 2.53 | 0.62 |
| 1:C:217:LYS:NZ | 1:C:236:GLU:HB2 | 2.13 | 0.62 |
| 1:D:301:ALA:O | 1:D:303:LYS:N | 2.32 | 0.62 |
| 1:D:435:LEU:HG | 1:D:446:ILE:HG22 | 1.81 | 0.62 |
| 1:D:480:ASN:HD21 | 1:D:483:GLY:N | 1.98 | 0.62 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:625:LEU:HD12 | 1:F:626:TYR:N | 2.14 | 0.62 |
| 2:P:72:MET:C | 2:P:74:ARG:H | 2.01 | 0.62 |
| 2:R:24:ASP:CB | 2:R:26:THR:HG23 | 2.26 | 0.62 |
| 1:A:173:ILE:HG23 | 1:A:174:GLY:H | 1.64 | 0.62 |
| 1:A:311:HIS:O | 1:A:314:ALA:HB3 | 1.98 | 0.62 |
| 1:B:327:LEU:HG | 1:B:595:ILE:HG12 | 1.81 | 0.62 |
| 1:B:617:LYS:NZ | 1:B:618:ASN:ND2 | 2.45 | 0.62 |
| 1:C:255:THR:O | 1:C:259:LEU:N | 2.28 | 0.62 |
| 1:C:540:ARG:HD2 | 1:C:582:ASP:OD1 | 1.99 | 0.62 |
| 1:D:661:ALA:O | 1:D:665:LYS:HB2 | 1.98 | 0.62 |
| 1:E:435:LEU:HG | 1:E:446:ILE:HG22 | 1.80 | 0.62 |
| 1:E:516:VAL:HG21 | 1:E:532:LEU:HD11 | 1.81 | 0.62 |
| 1:E:708:ALA:O | 1:E:710:HIS:N | 2.32 | 0.62 |
| 1:F:179:LEU:HG | 1:F:180:ASP:H | 1.62 | 0.62 |
| 1:F:540:ARG:NH2 | 2:T:87:GLU:OE1 | 2.32 | 0.62 |
| 1:F:767:GLN:CG | 1:F:768:LYS:HG2 | 2.24 | 0.62 |
| 2:R:138:TYR:O | 2:R:142:VAL:HG23 | 2.00 | 0.62 |
| 2:S:22:ASP:OD2 | 2:S:24:ASP:OD1 | 2.18 | 0.62 |
| 1:C:350:VAL:HG12 | 1:C:352:GLY:H | 1.64 | 0.62 |
| 1:D:254:ARG:HD2 | 1:D:254:ARG:N | 2.10 | 0.62 |
| 1:F:357:TRP:CZ3 | 1:F:439:ASN:HB2 | 2.33 | 0.62 |
| 2:O:48:LEU:HA | 2:O:51:MET:CE | 2.14 | 0.62 |
| 2:P:138:TYR:O | 2:P:142:VAL:HG23 | 2.00 | 0.62 |
| 2:T:24:ASP:CB | 2:T:26:THR:HG23 | 2.24 | 0.62 |
| 2:T:106:ARG:O | 2:T:110:THR:HG23 | 1.99 | 0.62 |
| 1:A:731:GLU:O | 1:A:734:ASN:HB3 | 2.00 | 0.62 |
| 1:B:220:LEU:HD11 | 1:B:223:LYS:HB2 | 1.82 | 0.62 |
| 1:C:99:GLU:C | 1:C:101:GLY:H | 2.01 | 0.62 |
| 1:C:152:LEU:HD21 | 1:C:171:TYR:CE1 | 2.35 | 0.62 |
| 1:D:122:GLU:OE2 | 1:D:145:LYS:HE2 | 1.99 | 0.62 |
| 1:D:318:ILE:HG23 | 1:D:322:LEU:HD12 | 1.81 | 0.62 |
| 1:D:731:GLU:O | 1:D:734:ASN:HB3 | 2.00 | 0.62 |
| 1:E:220:LEU:HD11 | 1:E:223:LYS:HB2 | 1.81 | 0.62 |
| 1:E:540:ARG:NH2 | 2:S:87:GLU:OE1 | 2.33 | 0.62 |
| 1:E:661:ALA:O | 1:E:665:LYS:HB2 | 1.98 | 0.62 |
| 2:P:124:MET:O | 2:P:125:ILE:C | 2.38 | 0.62 |
| 2:Q:48:LEU:HA | 2:Q:51:MET:CE | 2.13 | 0.62 |
| 2:S:106:ARG:O | 2:S:110:THR:HG23 | 1.98 | 0.62 |
| 1:C:357:TRP:CZ3 | 1:C:439:ASN:HB2 | 2.33 | 0.62 |
| 1:C:540:ARG:NH2 | 2:Q:87:GLU:OE1 | 2.33 | 0.62 |
| 1:C:731:GLU:O | 1:C:734:ASN:HB3 | 1.99 | 0.62 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:76:LEU:O | 1:D:79:ILE:N | 2.32 | 0.62 |
| 1:D:131:ARG:H | 1:D:170:TYR:HE2 | 1.47 | 0.62 |
| 1:D:302:LEU:HB2 | 1:D:602:PHE:HD1 | 1.65 | 0.62 |
| 1:D:540:ARG:NH2 | 2:R:87:GLU:OE1 | 2.33 | 0.62 |
| 1:D:589:LYS:HE3 | 1:D:608:TRP:CG | 2.35 | 0.62 |
| 1:D:636:ALA:O | 1:D:640:LYS:HA | 2.00 | 0.62 |
| 1:F:220:LEU:HD11 | 1:F:223:LYS:HB2 | 1.81 | 0.62 |
| 1:F:694:VAL:HG22 | 2:T:18:LEU:HD21 | 1.80 | 0.62 |
| 1:F:764:LEU:C | 1:F:766:HIS:N | 2.51 | 0.62 |
| 2:P:22:ASP:OD2 | 2:P:24:ASP:OD1 | 2.17 | 0.62 |
| 2:P:42:ASN:N | 2:P:43:PRO:CD | 2.63 | 0.62 |
| 2:P:93:ASP:OD1 | 2:P:97:ASN:ND2 | 2.32 | 0.62 |
| 2:Q:76:MET:O | 2:Q:77:LYS:HD2 | 2.00 | 0.62 |
| 1:B:90:PRO:HG2 | 1:B:93:VAL:CB | 2.24 | 0.62 |
| 1:B:122:GLU:O | 1:B:146:LYS:HE2 | 1.99 | 0.62 |
| 1:B:589:LYS:HE3 | 1:B:608:TRP:CG | 2.34 | 0.62 |
| 1:B:694:VAL:HG22 | 2:P:18:LEU:HD21 | 1.80 | 0.62 |
| 1:B:719:LYS:HG2 | 1:B:797:ILE:CD1 | 2.30 | 0.62 |
| 1:C:767:GLN:CG | 1:C:768:LYS:HG2 | 2.24 | 0.62 |
| 1:D:180:ASP:CG | 1:D:181:ILE:H | 2.03 | 0.62 |
| 1:E:107:THR:CG2 | 1:E:115:LYS:HE2 | 2.27 | 0.62 |
| 1:E:327:LEU:HG | 1:E:595:ILE:HG12 | 1.80 | 0.62 |
| 1:F:76:LEU:O | 1:F:79:ILE:N | 2.32 | 0.62 |
| 1:F:184:LYS:CE | 1:F:191:GLU:HB2 | 2.29 | 0.62 |
| 1:F:255:THR:O | 1:F:259:LEU:N | 2.27 | 0.62 |
| 2:O:42:ASN:N | 2:O:43:PRO:HD2 | 2.13 | 0.62 |
| 2:P:76:MET:O | 2:P:77:LYS:HD2 | 1.99 | 0.62 |
| 2:S:72:MET:O | 2:S:74:ARG:N | 2.32 | 0.62 |
| 1:A:79:ILE:C | 1:A:81:GLN:H | 2.02 | 0.62 |
| 1:A:480:ASN:HD21 | 1:A:483:GLY:N | 1.98 | 0.62 |
| 1:B:279:ILE:HG22 | 1:B:283:LEU:CD1 | 2.30 | 0.62 |
| 1:B:480:ASN:HD21 | 1:B:483:GLY:N | 1.98 | 0.62 |
| 1:C:581:GLN:HE21 | 1:C:629:ASN:N | 1.98 | 0.62 |
| 1:D:719:LYS:HG2 | 1:D:797:ILE:CD1 | 2.30 | 0.62 |
| 1:E:184:LYS:CE | 1:E:191:GLU:HB2 | 2.30 | 0.62 |
| 1:E:301:ALA:C | 1:E:303:LYS:N | 2.53 | 0.62 |
| 1:E:629:ASN:HD21 | 1:E:631:SER:CB | 2.10 | 0.62 |
| 1:F:105:TYR:HB2 | 1:F:153:ILE:HG12 | 1.82 | 0.62 |
| 1:F:111:LEU:HD23 | 1:F:155:ASN:HD21 | 1.65 | 0.62 |
| 1:F:189:ASP:O | 1:F:190:PRO:C | 2.38 | 0.62 |
| 2:T:12:PHE:CE1 | 2:T:72:MET:HG3 | 2.35 | 0.62 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:173:ILE:HG23 | 1:B:174:GLY:N | 2.14 | 0.62 |
| 1:B:318:ILE:HG23 | 1:B:322:LEU:HD12 | 1.80 | 0.62 |
| 1:B:728:ALA:O | 1:B:732:ILE:HG12 | 2.00 | 0.62 |
| 1:B:731:GLU:O | 1:B:734:ASN:HB3 | 2.00 | 0.62 |
| 1:D:154:ILE:HG22 | 1:D:155:ASN:H | 1.64 | 0.62 |
| 1:D:424:LYS:HZ2 | 1:D:424:LYS:HB3 | 1.64 | 0.62 |
| 1:E:154:ILE:HG22 | 1:E:155:ASN:H | 1.65 | 0.62 |
| 1:E:513:TRP:CZ2 | 2:S:114:GLU:HB2 | 2.35 | 0.62 |
| 1:E:731:GLU:O | 1:E:734:ASN:HB3 | 1.99 | 0.62 |
| 2:Q:87:GLU:O | 2:Q:91:VAL:HG23 | 1.99 | 0.62 |
| 2:R:12:PHE:CE1 | 2:R:72:MET:HG3 | 2.34 | 0.62 |
| 1:A:589:LYS:HE3 | 1:A:608:TRP:CG | 2.35 | 0.61 |
| 1:B:99:GLU:C | 1:B:101:GLY:H | 2.02 | 0.61 |
| 1:B:173:ILE:HG23 | 1:B:174:GLY:H | 1.64 | 0.61 |
| 1:C:89:ILE:HD13 | 1:C:175:LYS:HE2 | 1.81 | 0.61 |
| 1:C:173:ILE:HG23 | 1:C:174:GLY:H | 1.63 | 0.61 |
| 1:C:719:LYS:HG2 | 1:C:797:ILE:CD1 | 2.30 | 0.61 |
| 1:E:480:ASN:HD21 | 1:E:483:GLY:H | 1.47 | 0.61 |
| 1:F:516:VAL:HG21 | 1:F:532:LEU:HD11 | 1.82 | 0.61 |
| 1:F:518:ASN:HD22 | 1:F:518:ASN:N | 1.96 | 0.61 |
| 1:F:718:ARG:O | 1:F:722:ILE:HG13 | 2.00 | 0.61 |
| 1:A:350:VAL:HG12 | 1:A:352:GLY:H | 1.63 | 0.61 |
| 1:B:79:ILE:C | 1:B:81:GLN:H | 2.02 | 0.61 |
| 1:B:217:LYS:HZ2 | 1:B:236:GLU:HB2 | 1.65 | 0.61 |
| 1:C:76:LEU:O | 1:C:79:ILE:N | 2.32 | 0.61 |
| 1:C:279:ILE:HG22 | 1:C:283:LEU:CD1 | 2.31 | 0.61 |
| 1:C:718:ARG:O | 1:C:722:ILE:HG13 | 2.00 | 0.61 |
| 1:E:111:LEU:HD23 | 1:E:155:ASN:HD21 | 1.65 | 0.61 |
| 1:E:173:ILE:HG23 | 1:E:174:GLY:H | 1.64 | 0.61 |
| 2:P:12:PHE:CE1 | 2:P:72:MET:HG3 | 2.34 | 0.61 |
| 2:S:93:ASP:OD1 | 2:S:97:ASN:ND2 | 2.32 | 0.61 |
| 1:A:301:ALA:O | 1:A:303:LYS:N | 2.33 | 0.61 |
| 1:B:630:ARG:HG3 | 1:B:630:ARG:NH1 | 2.14 | 0.61 |
| 1:C:79:ILE:C | 1:C:81:GLN:H | 2.02 | 0.61 |
| 1:E:175:LYS:HB2 | 1:E:175:LYS:NZ | 2.15 | 0.61 |
| 1:F:275:GLY:HA2 | 1:F:278:LYS:CE | 2.29 | 0.61 |
| 1:F:794:GLN:NE2 | 1:F:795:LYS:HG3 | 2.16 | 0.61 |
| 2:O:13:LYS:O | 2:O:15:ALA:N | 2.31 | 0.61 |
| 2:T:42:ASN:N | 2:T:43:PRO:CD | 2.62 | 0.61 |
| 2:T:72:MET:C | 2:T:74:ARG:H | 2.01 | 0.61 |
| 1:A:89:ILE:HD13 | 1:A:175:LYS:HE2 | 1.82 | 0.61 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:589:LYS:HE3 | 1:C:608:TRP:CG | 2.35 | 0.61 |
| 2:R:124:MET:O | 2:R:125:ILE:C | 2.39 | 0.61 |
| 2:S:55:VAL:HG11 | 2:S:71:MET:HE3 | 1.82 | 0.61 |
| 1:A:694:VAL:HG22 | 2:O:18:LEU:HD21 | 1.82 | 0.61 |
| 1:B:191:GLU:O | 1:B:194:ASN:N | 2.34 | 0.61 |
| 1:B:567:THR:HG23 | 1:B:568:GLY:H | 1.66 | 0.61 |
| 1:C:597:ASN:OD1 | 1:C:599:GLU:HB2 | 2.01 | 0.61 |
| 1:D:700:TYR:HD1 | 1:D:728:ALA:HA | 1.65 | 0.61 |
| 1:F:99:GLU:C | 1:F:101:GLY:H | 2.02 | 0.61 |
| 2:R:106:ARG:O | 2:R:110:THR:HG23 | 2.00 | 0.61 |
| 2:T:87:GLU:O | 2:T:91:VAL:HG23 | 2.00 | 0.61 |
| 1:B:201:ASP:HA | 1:B:210:PHE:CE2 | 2.35 | 0.61 |
| 1:B:326:ILE:CG2 | 1:B:328:PHE:CE1 | 2.84 | 0.61 |
| 1:B:372:LYS:O | 1:B:374:HIS:N | 2.31 | 0.61 |
| 1:C:513:TRP:CZ2 | 2:Q:114:GLU:HB2 | 2.35 | 0.61 |
| 1:C:636:ALA:O | 1:C:640:LYS:HA | 2.01 | 0.61 |
| 1:D:205:SER:C | 1:D:207:ASP:H | 2.04 | 0.61 |
| 1:D:327:LEU:HG | 1:D:595:ILE:HG12 | 1.81 | 0.61 |
| 1:E:296:LEU:HD23 | 1:E:296:LEU:N | 2.15 | 0.61 |
| 1:E:301:ALA:O | 1:E:303:LYS:N | 2.33 | 0.61 |
| 1:E:597:ASN:OD1 | 1:E:599:GLU:HB2 | 2.00 | 0.61 |
| 1:F:115:LYS:HB2 | 1:F:118:GLN:HG2 | 1.81 | 0.61 |
| 1:F:173:ILE:HG23 | 1:F:174:GLY:N | 2.15 | 0.61 |
| 1:F:700:TYR:HD1 | 1:F:728:ALA:HA | 1.65 | 0.61 |
| 1:A:719:LYS:HG2 | 1:A:797:ILE:CD1 | 2.30 | 0.61 |
| 1:A:767:GLN:CG | 1:A:768:LYS:HG2 | 2.24 | 0.61 |
| 1:C:164:GLU:HG2 | 1:C:166:SER:HB3 | 1.83 | 0.61 |
| 1:C:480:ASN:HD21 | 1:C:483:GLY:N | 1.98 | 0.61 |
| 1:D:567:THR:HG23 | 1:D:568:GLY:H | 1.65 | 0.61 |
| 1:D:597:ASN:OD1 | 1:D:599:GLU:HB2 | 2.00 | 0.61 |
| 1:D:625:LEU:HD12 | 1:D:626:TYR:N | 2.14 | 0.61 |
| 1:E:728:ALA:O | 1:E:732:ILE:HG12 | 2.00 | 0.61 |
| 1:F:201:ASP:HA | 1:F:210:PHE:CE2 | 2.35 | 0.61 |
| 1:F:513:TRP:CZ2 | 2:T:114:GLU:HB2 | 2.36 | 0.61 |
| 1:F:597:ASN:OD1 | 1:F:599:GLU:HB2 | 2.00 | 0.61 |
| 2:O:44:THR:C | 2:O:46:ALA:H | 2.03 | 0.61 |
| 2:P:115:LYS:HA | 2:P:115:LYS:HZ3 | 1.66 | 0.61 |
| 1:A:105:TYR:HB2 | 1:A:153:ILE:HG12 | 1.82 | 0.61 |
| 1:A:521:ASN:CB | 1:A:524:GLU:HB3 | 2.31 | 0.61 |
| 1:C:275:GLY:HA2 | 1:C:278:LYS:HE3 | 1.82 | 0.61 |
| 1:D:567:THR:CG2 | 1:D:568:GLY:H | 2.14 | 0.61 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:105:TYR:HB2 | 1:E:153:ILE:HG12 | 1.82 | 0.61 |
| 1:E:302:LEU:HB2 | 1:E:602:PHE:HD1 | 1.64 | 0.61 |
| 1:F:137:PHE:O | 1:F:140:ARG:HB2 | 2.01 | 0.61 |
| 1:F:326:ILE:CG2 | 1:F:328:PHE:CE1 | 2.84 | 0.61 |
| 2:O:4:LEU:HA | 2:O:8:GLN:NE2 | 2.16 | 0.61 |
| 2:Q:16:PHE:CE2 | 2:Q:27:ILE:CD1 | 2.83 | 0.61 |
| 2:T:4:LEU:CA | 2:T:8:GLN:HE21 | 2.13 | 0.61 |
| 2:T:124:MET:O | 2:T:125:ILE:C | 2.39 | 0.61 |
| 1:A:180:ASP:HA | 1:A:183:SER:HB3 | 1.81 | 0.61 |
| 1:A:629:ASN:ND2 | 1:A:631:SER:H | 1.98 | 0.61 |
| 1:B:301:ALA:C | 1:B:303:LYS:N | 2.52 | 0.61 |
| 1:C:643:ILE:HG22 | 1:C:644:GLU:N | 2.15 | 0.61 |
| 1:C:700:TYR:HD1 | 1:C:728:ALA:HA | 1.65 | 0.61 |
| 1:D:201:ASP:HA | 1:D:210:PHE:CE2 | 2.36 | 0.61 |
| 1:F:79:ILE:C | 1:F:81:GLN:H | 2.02 | 0.61 |
| 1:F:699:GLY:O | 1:F:703:ASP:N | 2.34 | 0.61 |
| 2:Q:93:ASP:OD1 | 2:Q:97:ASN:ND2 | 2.34 | 0.61 |
| 2:R:42:ASN:N | 2:R:43:PRO:CD | 2.64 | 0.61 |
| 1:A:115:LYS:HG3 | 1:A:153:ILE:HD13 | 1.81 | 0.61 |
| 1:A:154:ILE:HG22 | 1:A:155:ASN:H | 1.65 | 0.61 |
| 1:C:201:ASP:HA | 1:C:210:PHE:CE2 | 2.35 | 0.61 |
| 1:C:288:VAL:HG23 | 1:C:289:GLU:N | 2.15 | 0.61 |
| 1:C:625:LEU:HD12 | 1:C:626:TYR:N | 2.15 | 0.61 |
| 1:D:99:GLU:C | 1:D:101:GLY:H | 2.04 | 0.61 |
| 1:D:516:VAL:HG21 | 1:D:532:LEU:HD11 | 1.81 | 0.61 |
| 1:D:767:GLN:CG | 1:D:768:LYS:HG2 | 2.24 | 0.61 |
| 1:E:89:ILE:HD13 | 1:E:175:LYS:HE2 | 1.83 | 0.61 |
| 1:E:201:ASP:HA | 1:E:210:PHE:CE2 | 2.35 | 0.61 |
| 1:E:205:SER:C | 1:E:207:ASP:H | 2.05 | 0.61 |
| 1:E:567:THR:CG2 | 1:E:568:GLY:H | 2.14 | 0.61 |
| 1:F:115:LYS:HZ3 | 1:F:115:LYS:HA | 1.66 | 0.61 |
| 1:F:639:ASN:HD22 | 1:F:639:ASN:N | 1.95 | 0.61 |
| 2:P:9:ILE:HD12 | 2:P:69:LEU:CD2 | 2.31 | 0.61 |
| 2:P:106:ARG:O | 2:P:110:THR:HG23 | 1.99 | 0.61 |
| 2:Q:9:ILE:HD12 | 2:Q:69:LEU:CD2 | 2.30 | 0.61 |
| 2:R:4:LEU:HA | 2:R:8:GLN:NE2 | 2.16 | 0.61 |
| 2:T:4:LEU:HA | 2:T:8:GLN:NE2 | 2.15 | 0.61 |
| 1:A:99:GLU:C | 1:A:101:GLY:H | 2.02 | 0.60 |
| 1:A:173:ILE:HG23 | 1:A:174:GLY:N | 2.15 | 0.60 |
| 1:A:567:THR:HG23 | 1:A:568:GLY:H | 1.66 | 0.60 |
| 1:A:728:ALA:O | 1:A:732:ILE:HG12 | 2.00 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:478:ALA:CB | 1:B:486:LYS:O | 2.48 | 0.60 |
| 1:B:480:ASN:HD21 | 1:B:483:GLY:CA | 2.14 | 0.60 |
| 1:B:550:SER:H | 1:B:553:GLN:HE21 | 1.49 | 0.60 |
| 1:C:728:ALA:O | 1:C:732:ILE:HG12 | 2.00 | 0.60 |
| 1:D:288:VAL:HG23 | 1:D:289:GLU:N | 2.15 | 0.60 |
| 2:R:93:ASP:OD1 | 2:R:97:ASN:ND2 | 2.33 | 0.60 |
| 2:S:16:PHE:CE2 | 2:S:27:ILE:CD1 | 2.84 | 0.60 |
| 1:A:279:ILE:HG22 | 1:A:283:LEU:CD1 | 2.30 | 0.60 |
| 1:A:326:ILE:CG2 | 1:A:328:PHE:CE1 | 2.84 | 0.60 |
| 1:B:270:LYS:HD3 | 1:B:273:LYS:HD2 | 1.83 | 0.60 |
| 1:C:296:LEU:HD23 | 1:C:296:LEU:N | 2.16 | 0.60 |
| 1:D:581:GLN:HE21 | 1:D:629:ASN:N | 1.98 | 0.60 |
| 1:E:115:LYS:HG3 | 1:E:153:ILE:HD13 | 1.83 | 0.60 |
| 1:E:164:GLU:HG2 | 1:E:166:SER:HB3 | 1.83 | 0.60 |
| 1:E:335:ALA:O | 1:E:339:ILE:HG13 | 2.02 | 0.60 |
| 1:F:173:ILE:HG23 | 1:F:174:GLY:H | 1.65 | 0.60 |
| 2:O:42:ASN:N | 2:O:43:PRO:CD | 2.64 | 0.60 |
| 2:O:124:MET:O | 2:O:125:ILE:C | 2.38 | 0.60 |
| 2:T:93:ASP:OD1 | 2:T:97:ASN:ND2 | 2.34 | 0.60 |
| 1:A:275:GLY:HA2 | 1:A:278:LYS:HE3 | 1.82 | 0.60 |
| 1:B:567:THR:CG2 | 1:B:568:GLY:H | 2.15 | 0.60 |
| 1:C:128:MET:HE1 | 1:C:235:THR:HB | 1.83 | 0.60 |
| 1:C:616:GLU:HA | 1:C:620:THR:HB | 1.83 | 0.60 |
| 1:D:199:LEU:HD21 | 1:D:225:ILE:O | 2.02 | 0.60 |
| 1:D:615:ILE:HD12 | 1:D:645:TRP:CH2 | 2.37 | 0.60 |
| 1:D:728:ALA:O | 1:D:732:ILE:HG12 | 2.01 | 0.60 |
| 2:S:9:ILE:HD12 | 2:S:69:LEU:CD2 | 2.31 | 0.60 |
| 1:A:90:PRO:HG2 | 1:A:93:VAL:CB | 2.27 | 0.60 |
| 1:A:201:ASP:HA | 1:A:210:PHE:CE2 | 2.36 | 0.60 |
| 1:B:594:PHE:HE2 | 1:B:596:ILE:HD11 | 1.65 | 0.60 |
| 1:B:597:ASN:OD1 | 1:B:599:GLU:HB2 | 2.01 | 0.60 |
| 1:C:639:ASN:HD22 | 1:C:639:ASN:N | 1.95 | 0.60 |
| 1:C:775:LEU:O | 1:C:777:TYR:N | 2.35 | 0.60 |
| 1:E:90:PRO:HG2 | 1:E:93:VAL:CB | 2.25 | 0.60 |
| 1:F:335:ALA:O | 1:F:339:ILE:HG13 | 2.02 | 0.60 |
| 2:Q:72:MET:O | 2:Q:74:ARG:N | 2.33 | 0.60 |
| 1:A:301:ALA:C | 1:A:303:LYS:N | 2.53 | 0.60 |
| 1:C:205:SER:C | 1:C:207:ASP:H | 2.05 | 0.60 |
| 1:D:279:ILE:HG22 | 1:D:283:LEU:CD1 | 2.31 | 0.60 |
| 1:D:692:GLU:OE1 | 2:R:21:LYS:NZ | 2.32 | 0.60 |
| 1:E:279:ILE:HG22 | 1:E:283:LEU:CD1 | 2.32 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:504:ILE:HG12 | 1:E:625:LEU:HD23 | 1.83 | 0.60 |
| 1:E:767:GLN:CG | 1:E:768:LYS:HG2 | 2.24 | 0.60 |
| 1:F:164:GLU:HG2 | 1:F:166:SER:HB3 | 1.83 | 0.60 |
| 1:F:296:LEU:HD23 | 1:F:296:LEU:N | 2.16 | 0.60 |
| 2:Q:42:ASN:N | 2:Q:43:PRO:CD | 2.63 | 0.60 |
| 2:R:72:MET:O | 2:R:74:ARG:N | 2.32 | 0.60 |
| 2:S:4:LEU:HA | 2:S:8:GLN:NE2 | 2.16 | 0.60 |
| 2:T:72:MET:O | 2:T:74:ARG:N | 2.33 | 0.60 |
| 1:A:76:LEU:O | 1:A:79:ILE:N | 2.34 | 0.60 |
| 1:A:700:TYR:HD1 | 1:A:728:ALA:HA | 1.66 | 0.60 |
| 1:B:96:ILE:HG22 | 1:B:100:LEU:HD11 | 1.83 | 0.60 |
| 1:B:105:TYR:HB2 | 1:B:153:ILE:HG12 | 1.82 | 0.60 |
| 1:B:255:THR:O | 1:B:259:LEU:N | 2.27 | 0.60 |
| 1:C:345:THR:HA | 1:C:489:THR:O | 2.02 | 0.60 |
| 1:D:71:PHE:CG | 1:D:73:ASN:HB2 | 2.37 | 0.60 |
| 1:D:629:ASN:ND2 | 1:D:631:SER:H | 2.00 | 0.60 |
| 1:D:794:GLN:NE2 | 1:D:795:LYS:HG3 | 2.16 | 0.60 |
| 1:E:199:LEU:HD21 | 1:E:225:ILE:O | 2.02 | 0.60 |
| 1:E:275:GLY:HA2 | 1:E:278:LYS:HE3 | 1.82 | 0.60 |
| 1:E:434:LEU:HD22 | 1:E:445:ARG:HB3 | 1.84 | 0.60 |
| 1:E:617:LYS:NZ | 1:E:618:ASN:ND2 | 2.46 | 0.60 |
| 1:F:154:ILE:HG22 | 1:F:155:ASN:H | 1.67 | 0.60 |
| 1:F:775:LEU:O | 1:F:777:TYR:N | 2.35 | 0.60 |
| 2:O:4:LEU:CA | 2:O:8:GLN:HE21 | 2.14 | 0.60 |
| 2:P:16:PHE:CE2 | 2:P:27:ILE:CD1 | 2.85 | 0.60 |
| 2:R:16:PHE:CE2 | 2:R:27:ILE:CD1 | 2.84 | 0.60 |
| 2:R:102:ALA:HB1 | 2:R:121:VAL:HG12 | 1.82 | 0.60 |
| 2:S:4:LEU:CA | 2:S:8:GLN:HE21 | 2.15 | 0.60 |
| 2:T:16:PHE:CE2 | 2:T:27:ILE:CD1 | 2.84 | 0.60 |
| 1:B:115:LYS:HB2 | 1:B:118:GLN:HG2 | 1.82 | 0.60 |
| 1:C:115:LYS:HB2 | 1:C:118:GLN:HG2 | 1.81 | 0.60 |
| 1:C:550:SER:H | 1:C:553:GLN:HE21 | 1.48 | 0.60 |
| 1:D:326:ILE:CG2 | 1:D:328:PHE:CE1 | 2.84 | 0.60 |
| 1:D:775:LEU:O | 1:D:777:TYR:N | 2.35 | 0.60 |
| 1:E:184:LYS:HE3 | 1:E:191:GLU:CB | 2.32 | 0.60 |
| 2:O:72:MET:O | 2:O:74:ARG:N | 2.32 | 0.60 |
| 2:P:4:LEU:HA | 2:P:8:GLN:NE2 | 2.17 | 0.60 |
| 2:P:44:THR:C | 2:P:46:ALA:H | 2.04 | 0.60 |
| 2:R:44:THR:C | 2:R:46:ALA:H | 2.03 | 0.60 |
| 1:A:205:SER:C | 1:A:207:ASP:H | 2.05 | 0.60 |
| 1:A:504:ILE:HG12 | 1:A:625:LEU:HD23 | 1.82 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:629:ASN:HD21 | 1:A:631:SER:CB | 2.11 | 0.60 |
| 1:A:720:ILE:HD11 | 1:A:724:ARG:CZ | 2.32 | 0.60 |
| 1:A:794:GLN:NE2 | 1:A:795:LYS:HG3 | 2.16 | 0.60 |
| 1:B:156:ILE:HD12 | 1:B:156:ILE:N | 2.17 | 0.60 |
| 1:B:184:LYS:HE3 | 1:B:191:GLU:HB2 | 1.83 | 0.60 |
| 1:B:275:GLY:HA2 | 1:B:278:LYS:HE3 | 1.82 | 0.60 |
| 1:B:513:TRP:CZ2 | 2:P:114:GLU:HB2 | 2.35 | 0.60 |
| 1:B:636:ALA:O | 1:B:640:LYS:HA | 2.00 | 0.60 |
| 1:C:90:PRO:HG2 | 1:C:93:VAL:CB | 2.26 | 0.60 |
| 1:C:301:ALA:O | 1:C:303:LYS:N | 2.35 | 0.60 |
| 1:D:71:PHE:CB | 1:D:108:ASP:HB2 | 2.31 | 0.60 |
| 1:E:275:GLY:HA2 | 1:E:278:LYS:HD2 | 1.83 | 0.60 |
| 1:E:480:ASN:HD21 | 1:E:483:GLY:N | 1.99 | 0.60 |
| 1:E:794:GLN:NE2 | 1:E:795:LYS:HG3 | 2.17 | 0.60 |
| 2:T:9:ILE:HD12 | 2:T:69:LEU:CD2 | 2.32 | 0.60 |
| 1:A:255:THR:O | 1:A:259:LEU:N | 2.28 | 0.60 |
| 1:A:343:VAL:HG13 | 1:A:487:PRO:HG2 | 1.82 | 0.60 |
| 1:A:567:THR:CG2 | 1:A:568:GLY:H | 2.15 | 0.60 |
| 1:B:180:ASP:HA | 1:B:183:SER:HB3 | 1.82 | 0.60 |
| 1:B:434:LEU:HD22 | 1:B:445:ARG:HB3 | 1.84 | 0.60 |
| 1:B:478:ALA:HB1 | 1:B:486:LYS:C | 2.22 | 0.60 |
| 1:C:71:PHE:CB | 1:C:108:ASP:HB2 | 2.31 | 0.60 |
| 1:C:594:PHE:HE2 | 1:C:596:ILE:HD11 | 1.67 | 0.60 |
| 1:D:275:GLY:HA2 | 1:D:278:LYS:HD2 | 1.83 | 0.60 |
| 1:E:521:ASN:CB | 1:E:524:GLU:HB3 | 2.32 | 0.60 |
| 1:F:184:LYS:HE3 | 1:F:191:GLU:CB | 2.32 | 0.60 |
| 1:F:217:LYS:HZ1 | 1:F:233:ASN:HB3 | 1.67 | 0.60 |
| 1:F:520:PRO:HG2 | 1:F:521:ASN:H | 1.66 | 0.60 |
| 2:Q:4:LEU:HA | 2:Q:8:GLN:NE2 | 2.16 | 0.60 |
| 2:Q:97:ASN:ND2 | 2:Q:99:TYR:H | 2.00 | 0.60 |
| 2:S:42:ASN:N | 2:S:43:PRO:CD | 2.64 | 0.60 |
| 1:A:96:ILE:HG22 | 1:A:100:LEU:HD11 | 1.82 | 0.60 |
| 1:B:154:ILE:HG22 | 1:B:155:ASN:H | 1.66 | 0.60 |
| 1:B:345:THR:HA | 1:B:489:THR:O | 2.02 | 0.60 |
| 1:D:275:GLY:HA2 | 1:D:278:LYS:HE3 | 1.84 | 0.60 |
| 1:E:225:ILE:HG12 | 1:E:229:PHE:CD2 | 2.37 | 0.60 |
| 1:E:343:VAL:HG13 | 1:E:487:PRO:HG2 | 1.82 | 0.60 |
| 1:E:679:TYR:CD2 | 1:E:691:LYS:HB2 | 2.36 | 0.60 |
| 1:E:775:LEU:O | 1:E:777:TYR:N | 2.35 | 0.60 |
| 1:F:175:LYS:HZ2 | 1:F:175:LYS:CB | 2.15 | 0.60 |
| 1:F:343:VAL:HG13 | 1:F:487:PRO:HG2 | 1.82 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:R:4:LEU:CA | 2:R:8:GLN:HE21 | 2.15 | 0.60 |
| 2:R:97:ASN:ND2 | 2:R:99:TYR:H | 2.00 | 0.60 |
| 2:T:114:GLU:HA | 2:T:114:GLU:OE2 | 2.02 | 0.60 |
| 1:A:199:LEU:HD21 | 1:A:225:ILE:O | 2.02 | 0.59 |
| 1:B:302:LEU:HB2 | 1:B:602:PHE:HD1 | 1.65 | 0.59 |
| 1:C:567:THR:HG23 | 1:C:568:GLY:H | 1.66 | 0.59 |
| 1:D:152:LEU:HD21 | 1:D:171:TYR:CE1 | 2.37 | 0.59 |
| 1:D:432:TYR:CD2 | 1:D:447:SER:HA | 2.37 | 0.59 |
| 1:D:550:SER:H | 1:D:553:GLN:HE21 | 1.48 | 0.59 |
| 1:E:189:ASP:O | 1:E:191:GLU:N | 2.35 | 0.59 |
| 1:E:189:ASP:HB3 | 1:E:190:PRO:HD2 | 1.84 | 0.59 |
| 1:E:700:TYR:HD1 | 1:E:728:ALA:HA | 1.66 | 0.59 |
| 1:F:205:SER:C | 1:F:207:ASP:H | 2.04 | 0.59 |
| 2:P:114:GLU:HA | 2:P:114:GLU:OE2 | 2.02 | 0.59 |
| 1:A:597:ASN:OD1 | 1:A:599:GLU:HB2 | 2.02 | 0.59 |
| 1:A:615:ILE:HD12 | 1:A:645:TRP:CH2 | 2.37 | 0.59 |
| 1:B:137:PHE:O | 1:B:140:ARG:HB2 | 2.03 | 0.59 |
| 1:B:480:ASN:HD21 | 1:B:483:GLY:HA2 | 1.67 | 0.59 |
| 1:B:521:ASN:CB | 1:B:524:GLU:HB3 | 2.32 | 0.59 |
| 1:B:794:GLN:NE2 | 1:B:795:LYS:HG3 | 2.16 | 0.59 |
| 1:C:301:ALA:C | 1:C:303:LYS:N | 2.54 | 0.59 |
| 1:C:794:GLN:NE2 | 1:C:795:LYS:HG3 | 2.16 | 0.59 |
| 1:D:95:GLU:O | 1:D:99:GLU:HB2 | 2.02 | 0.59 |
| 1:D:175:LYS:HZ2 | 1:D:175:LYS:CB | 2.15 | 0.59 |
| 1:D:296:LEU:HD23 | 1:D:296:LEU:N | 2.17 | 0.59 |
| 1:E:432:TYR:CD2 | 1:E:447:SER:HA | 2.37 | 0.59 |
| 1:E:540:ARG:HD2 | 1:E:582:ASP:OD1 | 2.01 | 0.59 |
| 1:A:297:LYS:NZ | 1:A:601:GLU:OE1 | 2.30 | 0.59 |
| 1:C:326:ILE:HG22 | 1:C:328:PHE:HE1 | 1.63 | 0.59 |
| 1:C:432:TYR:CD2 | 1:C:447:SER:HA | 2.37 | 0.59 |
| 1:C:567:THR:CG2 | 1:C:568:GLY:H | 2.15 | 0.59 |
| 1:E:275:GLY:HA2 | 1:E:278:LYS:HG3 | 1.84 | 0.59 |
| 1:F:297:LYS:NZ | 1:F:601:GLU:OE1 | 2.30 | 0.59 |
| 2:P:4:LEU:CA | 2:P:8:GLN:HE21 | 2.15 | 0.59 |
| 2:Q:13:LYS:O | 2:Q:15:ALA:N | 2.31 | 0.59 |
| 1:A:95:GLU:O | 1:A:99:GLU:HB2 | 2.03 | 0.59 |
| 1:A:679:TYR:CD2 | 1:A:691:LYS:HB2 | 2.37 | 0.59 |
| 1:B:296:LEU:HD23 | 1:B:296:LEU:N | 2.16 | 0.59 |
| 1:D:66:LEU:HD12 | 1:D:103:GLU:HA | 1.84 | 0.59 |
| 1:F:180:ASP:HA | 1:F:183:SER:HB3 | 1.83 | 0.59 |
| 1:F:481:VAL:O | 1:F:484:VAL:HG23 | 2.02 | 0.59 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:636:ALA:O | 1:F:640:LYS:HA | 2.02 | 0.59 |
| 2:S:114:GLU:HA | 2:S:114:GLU:OE2 | 2.03 | 0.59 |
| 1:A:296:LEU:HD23 | 1:A:296:LEU:N | 2.17 | 0.59 |
| 1:A:480:ASN:HD21 | 1:A:483:GLY:CA | 2.15 | 0.59 |
| 1:A:520:PRO:HG2 | 1:A:521:ASN:H | 1.68 | 0.59 |
| 1:B:66:LEU:HD12 | 1:B:103:GLU:HA | 1.83 | 0.59 |
| 1:B:775:LEU:O | 1:B:777:TYR:N | 2.36 | 0.59 |
| 1:C:243:LEU:HA | 1:C:246:SER:OG | 2.03 | 0.59 |
| 1:D:164:GLU:HG2 | 1:D:166:SER:HB3 | 1.85 | 0.59 |
| 1:D:478:ALA:CB | 1:D:486:LYS:O | 2.51 | 0.59 |
| 1:D:657:ILE:HG13 | 1:D:756:ILE:CD1 | 2.32 | 0.59 |
| 1:E:481:VAL:O | 1:E:484:VAL:HG23 | 2.03 | 0.59 |
| 2:T:97:ASN:ND2 | 2:T:99:TYR:H | 2.00 | 0.59 |
| 2:T:133:ASP:N | 2:T:133:ASP:OD1 | 2.35 | 0.59 |
| 1:A:137:PHE:O | 1:A:140:ARG:HB2 | 2.02 | 0.59 |
| 1:B:184:LYS:HE3 | 1:B:191:GLU:CB | 2.32 | 0.59 |
| 1:B:199:LEU:HD21 | 1:B:225:ILE:O | 2.03 | 0.59 |
| 1:B:530:THR:HG21 | 2:P:145:MET:CE | 2.33 | 0.59 |
| 1:C:115:LYS:HG3 | 1:C:153:ILE:HD13 | 1.85 | 0.59 |
| 1:C:275:GLY:HA2 | 1:C:278:LYS:HD2 | 1.83 | 0.59 |
| 1:C:615:ILE:HD12 | 1:C:645:TRP:CH2 | 2.38 | 0.59 |
| 1:D:105:TYR:HB2 | 1:D:153:ILE:HG12 | 1.85 | 0.59 |
| 1:D:521:ASN:CB | 1:D:524:GLU:HB3 | 2.32 | 0.59 |
| 1:E:156:ILE:HD12 | 1:E:156:ILE:N | 2.18 | 0.59 |
| 1:E:180:ASP:HA | 1:E:183:SER:HB3 | 1.84 | 0.59 |
| 1:E:639:ASN:HD22 | 1:E:639:ASN:N | 1.95 | 0.59 |
| 1:F:480:ASN:HD21 | 1:F:483:GLY:CA | 2.15 | 0.59 |
| 1:A:164:GLU:HG2 | 1:A:166:SER:HB3 | 1.84 | 0.59 |
| 1:B:699:GLY:O | 1:B:703:ASP:N | 2.36 | 0.59 |
| 1:C:141:PHE:HD1 | 1:C:141:PHE:H | 1.50 | 0.59 |
| 1:D:616:GLU:HA | 1:D:620:THR:HB | 1.85 | 0.59 |
| 1:F:141:PHE:HD1 | 1:F:141:PHE:H | 1.49 | 0.59 |
| 1:F:270:LYS:HD3 | 1:F:273:LYS:HD2 | 1.84 | 0.59 |
| 1:F:434:LEU:HD22 | 1:F:445:ARG:HB3 | 1.84 | 0.59 |
| 1:F:478:ALA:HB1 | 1:F:486:LYS:C | 2.23 | 0.59 |
| 1:F:616:GLU:HA | 1:F:620:THR:HB | 1.85 | 0.59 |
| 2:S:44:THR:C | 2:S:46:ALA:H | 2.04 | 0.59 |
| 2:S:124:MET:O | 2:S:125:ILE:C | 2.40 | 0.59 |
| 1:A:335:ALA:O | 1:A:339:ILE:HG13 | 2.02 | 0.59 |
| 1:A:550:SER:H | 1:A:553:GLN:HE21 | 1.50 | 0.59 |
| 1:A:775:LEU:O | 1:A:777:TYR:N | 2.36 | 0.59 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:164:GLU:HG2 | 1:B:166:SER:HB3 | 1.84 | 0.59 |
| 1:B:175:LYS:HB2 | 1:B:175:LYS:NZ | 2.15 | 0.59 |
| 1:B:700:TYR:HD1 | 1:B:728:ALA:HA | 1.66 | 0.59 |
| 1:C:105:TYR:HB2 | 1:C:153:ILE:HG12 | 1.83 | 0.59 |
| 1:D:504:ILE:HG12 | 1:D:625:LEU:HD23 | 1.84 | 0.59 |
| 1:E:478:ALA:HB1 | 1:E:486:LYS:C | 2.23 | 0.59 |
| 1:E:764:LEU:C | 1:E:766:HIS:N | 2.53 | 0.59 |
| 1:F:279:ILE:HG22 | 1:F:283:LEU:CD1 | 2.33 | 0.59 |
| 2:Q:44:THR:C | 2:Q:46:ALA:H | 2.03 | 0.59 |
| 2:R:63:ILE:HG23 | 2:R:67:GLU:CB | 2.33 | 0.59 |
| 2:S:97:ASN:ND2 | 2:S:99:TYR:H | 2.00 | 0.59 |
| 2:T:102:ALA:HB1 | 2:T:121:VAL:HG12 | 1.85 | 0.59 |
| 1:A:513:TRP:CZ2 | 2:O:114:GLU:HB2 | 2.38 | 0.59 |
| 1:B:335:ALA:O | 1:B:339:ILE:HG13 | 2.02 | 0.59 |
| 1:C:688:PHE:C | 1:C:688:PHE:CD2 | 2.75 | 0.59 |
| 1:D:137:PHE:O | 1:D:140:ARG:HB2 | 2.03 | 0.59 |
| 1:D:141:PHE:H | 1:D:141:PHE:HD1 | 1.50 | 0.59 |
| 1:E:480:ASN:HD21 | 1:E:483:GLY:CA | 2.16 | 0.59 |
| 1:E:636:ALA:O | 1:E:640:LYS:HA | 2.01 | 0.59 |
| 1:E:692:GLU:OE1 | 2:S:21:LYS:NZ | 2.31 | 0.59 |
| 1:F:96:ILE:HG22 | 1:F:100:LEU:HD11 | 1.83 | 0.59 |
| 2:P:102:ALA:HB1 | 2:P:121:VAL:HG12 | 1.84 | 0.59 |
| 1:A:472:ARG:HH11 | 1:A:472:ARG:CB | 2.15 | 0.59 |
| 1:D:156:ILE:HD12 | 1:D:156:ILE:N | 2.18 | 0.59 |
| 2:O:5:THR:O | 2:O:9:ILE:HG12 | 2.03 | 0.59 |
| 2:P:48:LEU:HD23 | 2:P:51:MET:HE1 | 1.83 | 0.59 |
| 2:Q:19:PHE:CE2 | 2:Q:34:THR:HG22 | 2.38 | 0.59 |
| 2:R:9:ILE:HD12 | 2:R:69:LEU:CD2 | 2.33 | 0.59 |
| 1:A:184:LYS:O | 1:A:185:ASP:O | 2.21 | 0.58 |
| 1:A:432:TYR:CD2 | 1:A:447:SER:HA | 2.38 | 0.58 |
| 1:A:434:LEU:HD22 | 1:A:445:ARG:HB3 | 1.84 | 0.58 |
| 1:B:184:LYS:O | 1:B:185:ASP:O | 2.21 | 0.58 |
| 1:B:657:ILE:HG13 | 1:B:756:ILE:CD1 | 2.32 | 0.58 |
| 1:D:180:ASP:HA | 1:D:183:SER:HB3 | 1.85 | 0.58 |
| 1:D:513:TRP:CZ2 | 2:R:114:GLU:HB2 | 2.37 | 0.58 |
| 1:E:122:GLU:HG3 | 1:E:147:ARG:HB2 | 1.85 | 0.58 |
| 1:E:137:PHE:O | 1:E:140:ARG:HB2 | 2.03 | 0.58 |
| 1:E:310:GLU:OE2 | 1:E:340:LYS:HD2 | 2.03 | 0.58 |
| 1:F:95:GLU:O | 1:F:99:GLU:HB2 | 2.02 | 0.58 |
| 1:F:504:ILE:HG12 | 1:F:625:LEU:HD23 | 1.85 | 0.58 |
| 1:F:688:PHE:C | 1:F:688:PHE:CD2 | 2.76 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:O:114:GLU:OE2 | 2:O:114:GLU:HA | 2.03 | 0.58 |
| 2:Q:124:MET:O | 2:Q:125:ILE:C | 2.39 | 0.58 |
| 2:T:19:PHE:CE2 | 2:T:34:THR:HG22 | 2.38 | 0.58 |
| 1:A:71:PHE:CD2 | 1:A:73:ASN:HB2 | 2.38 | 0.58 |
| 1:A:141:PHE:HD1 | 1:A:141:PHE:H | 1.49 | 0.58 |
| 1:A:184:LYS:CE | 1:A:191:GLU:HB2 | 2.33 | 0.58 |
| 1:A:602:PHE:C | 1:A:603:ILE:HG13 | 2.24 | 0.58 |
| 1:A:699:GLY:O | 1:A:703:ASP:N | 2.36 | 0.58 |
| 1:B:520:PRO:HG2 | 1:B:521:ASN:H | 1.68 | 0.58 |
| 1:B:688:PHE:C | 1:B:688:PHE:CD2 | 2.77 | 0.58 |
| 1:C:187:SER:C | 1:C:188:LEU:O | 2.41 | 0.58 |
| 1:C:335:ALA:O | 1:C:339:ILE:HG13 | 2.03 | 0.58 |
| 1:C:521:ASN:CB | 1:C:524:GLU:HB3 | 2.32 | 0.58 |
| 1:E:184:LYS:O | 1:E:185:ASP:O | 2.21 | 0.58 |
| 1:E:688:PHE:C | 1:E:688:PHE:CD2 | 2.76 | 0.58 |
| 1:F:615:ILE:HD12 | 1:F:645:TRP:CH2 | 2.37 | 0.58 |
| 2:Q:4:LEU:CA | 2:Q:8:GLN:HE21 | 2.16 | 0.58 |
| 1:A:616:GLU:HA | 1:A:620:THR:HB | 1.84 | 0.58 |
| 1:B:581:GLN:HE21 | 1:B:629:ASN:N | 1.98 | 0.58 |
| 1:C:520:PRO:HG2 | 1:C:521:ASN:H | 1.68 | 0.58 |
| 1:E:95:GLU:O | 1:E:99:GLU:HB2 | 2.03 | 0.58 |
| 1:E:270:LYS:HD3 | 1:E:273:LYS:HD2 | 1.84 | 0.58 |
| 1:E:520:PRO:HG2 | 1:E:521:ASN:H | 1.67 | 0.58 |
| 1:F:567:THR:CG2 | 1:F:568:GLY:H | 2.16 | 0.58 |
| 1:F:700:TYR:HD1 | 1:F:728:ALA:CA | 2.17 | 0.58 |
| 2:O:9:ILE:HD12 | 2:O:69:LEU:CD2 | 2.33 | 0.58 |
| 2:P:5:THR:O | 2:P:9:ILE:HG12 | 2.04 | 0.58 |
| 2:Q:102:ALA:HB1 | 2:Q:121:VAL:HG12 | 1.85 | 0.58 |
| 1:B:97:TYR:CZ | 1:B:150:PRO:HB2 | 2.38 | 0.58 |
| 1:B:205:SER:C | 1:B:207:ASP:H | 2.06 | 0.58 |
| 1:B:288:VAL:O | 1:B:292:ARG:HG2 | 2.02 | 0.58 |
| 1:B:310:GLU:OE2 | 1:B:340:LYS:HD2 | 2.03 | 0.58 |
| 1:C:343:VAL:HG13 | 1:C:487:PRO:HG2 | 1.84 | 0.58 |
| 1:C:692:GLU:OE1 | 2:Q:21:LYS:NZ | 2.33 | 0.58 |
| 1:F:472:ARG:HH11 | 1:F:472:ARG:CB | 2.16 | 0.58 |
| 2:P:5:THR:HG23 | 2:P:8:GLN:CB | 2.34 | 0.58 |
| 2:R:19:PHE:CE2 | 2:R:34:THR:HG22 | 2.38 | 0.58 |
| 2:S:5:THR:O | 2:S:9:ILE:HG12 | 2.04 | 0.58 |
| 2:T:13:LYS:O | 2:T:15:ALA:N | 2.30 | 0.58 |
| 2:T:48:LEU:HA | 2:T:51:MET:CE | 2.13 | 0.58 |
| 1:A:102:GLY:HA3 | 1:A:150:PRO:HG2 | 1.84 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:152:LEU:HD21 | 1:A:171:TYR:CE1 | 2.38 | 0.58 |
| 1:A:225:ILE:HD13 | 1:A:237:PHE:HZ | 1.67 | 0.58 |
| 1:A:688:PHE:C | 1:A:688:PHE:CD2 | 2.77 | 0.58 |
| 1:B:481:VAL:O | 1:B:484:VAL:HG23 | 2.03 | 0.58 |
| 1:B:679:TYR:CD2 | 1:B:691:LYS:HB2 | 2.38 | 0.58 |
| 1:C:504:ILE:HG12 | 1:C:625:LEU:HD23 | 1.84 | 0.58 |
| 1:E:657:ILE:HG13 | 1:E:756:ILE:CD1 | 2.33 | 0.58 |
| 1:F:478:ALA:CB | 1:F:486:LYS:O | 2.52 | 0.58 |
| 2:P:13:LYS:O | 2:P:15:ALA:N | 2.31 | 0.58 |
| 2:P:63:ILE:HG23 | 2:P:67:GLU:CB | 2.34 | 0.58 |
| 2:P:72:MET:O | 2:P:74:ARG:N | 2.33 | 0.58 |
| 2:R:114:GLU:OE2 | 2:R:114:GLU:HA | 2.03 | 0.58 |
| 2:S:87:GLU:O | 2:S:91:VAL:HG23 | 2.03 | 0.58 |
| 1:A:700:TYR:HD1 | 1:A:728:ALA:CA | 2.17 | 0.58 |
| 1:B:639:ASN:HD22 | 1:B:639:ASN:N | 1.94 | 0.58 |
| 1:C:478:ALA:CB | 1:C:486:LYS:O | 2.52 | 0.58 |
| 1:E:225:ILE:HD13 | 1:E:237:PHE:HZ | 1.69 | 0.58 |
| 1:E:480:ASN:HD21 | 1:E:483:GLY:HA2 | 1.69 | 0.58 |
| 1:F:617:LYS:HZ2 | 1:F:618:ASN:ND2 | 1.87 | 0.58 |
| 1:F:720:ILE:HD11 | 1:F:724:ARG:CZ | 2.33 | 0.58 |
| 2:O:63:ILE:HG23 | 2:O:67:GLU:CB | 2.33 | 0.58 |
| 2:R:5:THR:HG23 | 2:R:8:GLN:CB | 2.33 | 0.58 |
| 2:R:133:ASP:N | 2:R:133:ASP:OD1 | 2.37 | 0.58 |
| 2:S:5:THR:HG23 | 2:S:8:GLN:CB | 2.34 | 0.58 |
| 2:T:5:THR:HG23 | 2:T:8:GLN:CB | 2.33 | 0.58 |
| 1:A:97:TYR:CZ | 1:A:150:PRO:HB2 | 2.39 | 0.58 |
| 1:B:102:GLY:HA3 | 1:B:150:PRO:HG2 | 1.86 | 0.58 |
| 1:B:141:PHE:H | 1:B:141:PHE:HD1 | 1.49 | 0.58 |
| 1:B:297:LYS:NZ | 1:B:601:GLU:OE1 | 2.33 | 0.58 |
| 1:B:556:MET:O | 1:B:560:LEU:HD23 | 2.04 | 0.58 |
| 1:B:629:ASN:HD21 | 1:B:631:SER:CB | 2.12 | 0.58 |
| 1:D:184:LYS:O | 1:D:185:ASP:O | 2.21 | 0.58 |
| 1:D:270:LYS:HD3 | 1:D:273:LYS:HD2 | 1.85 | 0.58 |
| 1:D:335:ALA:O | 1:D:339:ILE:HG13 | 2.04 | 0.58 |
| 1:D:480:ASN:HD21 | 1:D:483:GLY:CA | 2.16 | 0.58 |
| 1:E:71:PHE:CD2 | 1:E:73:ASN:HB2 | 2.39 | 0.58 |
| 1:E:243:LEU:HA | 1:E:246:SER:OG | 2.04 | 0.58 |
| 1:F:288:VAL:HG23 | 1:F:289:GLU:N | 2.17 | 0.58 |
| 1:F:521:ASN:CB | 1:F:524:GLU:HB3 | 2.32 | 0.58 |
| 2:O:102:ALA:HB1 | 2:O:121:VAL:HG12 | 1.86 | 0.58 |
| 2:Q:63:ILE:HG23 | 2:Q:67:GLU:CB | 2.34 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:S:102:ALA:HB1 | 2:S:121:VAL:HG12 | 1.85 | 0.58 |
| 1:A:629:ASN:HB3 | 1:A:632:TYR:CD1 | 2.39 | 0.58 |
| 1:A:657:ILE:HG13 | 1:A:756:ILE:CD1 | 2.34 | 0.58 |
| 1:B:95:GLU:O | 1:B:99:GLU:HB2 | 2.03 | 0.58 |
| 1:B:343:VAL:HG13 | 1:B:487:PRO:HG2 | 1.86 | 0.58 |
| 1:D:718:ARG:O | 1:D:722:ILE:HG13 | 2.02 | 0.58 |
| 1:E:699:GLY:O | 1:E:703:ASP:N | 2.36 | 0.58 |
| 1:F:128:MET:HE1 | 1:F:235:THR:HB | 1.85 | 0.58 |
| 1:F:275:GLY:HA2 | 1:F:278:LYS:HD2 | 1.84 | 0.58 |
| 1:F:432:TYR:CD2 | 1:F:447:SER:HA | 2.38 | 0.58 |
| 2:Q:104:GLU:O | 2:Q:108:VAL:HG23 | 2.04 | 0.58 |
| 2:R:5:THR:O | 2:R:9:ILE:HG12 | 2.03 | 0.58 |
| 1:A:478:ALA:CB | 1:A:486:LYS:O | 2.51 | 0.58 |
| 1:A:636:ALA:O | 1:A:640:LYS:HA | 2.02 | 0.58 |
| 1:B:107:THR:CG2 | 1:B:115:LYS:HE2 | 2.30 | 0.58 |
| 1:B:515:LYS:HB3 | 1:B:515:LYS:HZ2 | 1.67 | 0.58 |
| 1:B:609:GLU:OE2 | 1:B:609:GLU:N | 2.35 | 0.58 |
| 1:C:197:LYS:HZ2 | 1:C:197:LYS:CB | 2.15 | 0.58 |
| 1:C:700:TYR:HD1 | 1:C:728:ALA:CA | 2.17 | 0.58 |
| 1:D:643:ILE:HG22 | 1:D:644:GLU:H | 1.68 | 0.58 |
| 1:E:478:ALA:CB | 1:E:486:LYS:O | 2.52 | 0.58 |
| 1:E:616:GLU:HA | 1:E:620:THR:HB | 1.84 | 0.58 |
| 1:F:156:ILE:N | 1:F:156:ILE:HD12 | 2.18 | 0.58 |
| 1:F:728:ALA:O | 1:F:732:ILE:HG12 | 2.03 | 0.58 |
| 2:O:97:ASN:ND2 | 2:O:99:TYR:H | 2.01 | 0.58 |
| 2:R:13:LYS:O | 2:R:15:ALA:N | 2.31 | 0.58 |
| 1:A:128:MET:HE1 | 1:A:235:THR:HB | 1.86 | 0.58 |
| 1:A:288:VAL:HG23 | 1:A:289:GLU:N | 2.17 | 0.58 |
| 1:B:71:PHE:CB | 1:B:108:ASP:HB2 | 2.34 | 0.58 |
| 1:B:700:TYR:HD1 | 1:B:728:ALA:CA | 2.17 | 0.58 |
| 1:C:180:ASP:HA | 1:C:183:SER:HB3 | 1.85 | 0.58 |
| 1:D:179:LEU:HD23 | 1:D:179:LEU:N | 2.19 | 0.58 |
| 1:E:115:LYS:HA | 1:E:115:LYS:HZ3 | 1.69 | 0.58 |
| 1:E:432:TYR:CD1 | 1:E:445:ARG:HD2 | 2.39 | 0.58 |
| 1:E:530:THR:HG21 | 2:S:145:MET:CE | 2.34 | 0.58 |
| 1:F:184:LYS:O | 1:F:185:ASP:O | 2.22 | 0.58 |
| 1:F:199:LEU:HD21 | 1:F:225:ILE:O | 2.04 | 0.58 |
| 1:F:225:ILE:HG12 | 1:F:229:PHE:CD2 | 2.39 | 0.58 |
| 2:O:5:THR:HG23 | 2:O:8:GLN:CB | 2.34 | 0.58 |
| 2:S:19:PHE:CE2 | 2:S:34:THR:HG22 | 2.38 | 0.58 |
| 1:A:156:ILE:N | 1:A:156:ILE:HD12 | 2.19 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:179:LEU:HD23 | 1:A:179:LEU:N | 2.19 | 0.57 |
| 1:B:529:VAL:HG21 | 2:P:109:MET:CE | 2.33 | 0.57 |
| 1:C:97:TYR:CZ | 1:C:150:PRO:HB2 | 2.39 | 0.57 |
| 1:C:154:ILE:HG22 | 1:C:155:ASN:N | 2.18 | 0.57 |
| 1:C:156:ILE:N | 1:C:156:ILE:HD12 | 2.18 | 0.57 |
| 1:C:480:ASN:HD21 | 1:C:483:GLY:CA | 2.16 | 0.57 |
| 1:D:478:ALA:HB1 | 1:D:486:LYS:C | 2.24 | 0.57 |
| 1:D:700:TYR:HD1 | 1:D:728:ALA:CA | 2.17 | 0.57 |
| 1:E:152:LEU:HD21 | 1:E:171:TYR:CE1 | 2.38 | 0.57 |
| 1:E:275:GLY:HA2 | 1:E:278:LYS:CG | 2.32 | 0.57 |
| 1:E:629:ASN:HB3 | 1:E:632:TYR:CD1 | 2.39 | 0.57 |
| 2:O:19:PHE:CE2 | 2:O:34:THR:HG22 | 2.39 | 0.57 |
| 2:Q:5:THR:HG23 | 2:Q:8:GLN:CB | 2.33 | 0.57 |
| 2:T:44:THR:C | 2:T:46:ALA:H | 2.06 | 0.57 |
| 1:A:345:THR:HA | 1:A:489:THR:O | 2.05 | 0.57 |
| 1:A:516:VAL:HG21 | 1:A:532:LEU:HD11 | 1.86 | 0.57 |
| 1:B:187:SER:C | 1:B:188:LEU:O | 2.41 | 0.57 |
| 1:B:432:TYR:CD2 | 1:B:447:SER:HA | 2.38 | 0.57 |
| 1:C:602:PHE:C | 1:C:603:ILE:HG13 | 2.24 | 0.57 |
| 1:D:481:VAL:O | 1:D:484:VAL:HG23 | 2.04 | 0.57 |
| 1:E:115:LYS:NZ | 1:E:115:LYS:HA | 2.19 | 0.57 |
| 2:S:32:LEU:HD22 | 2:S:63:ILE:HD12 | 1.86 | 0.57 |
| 1:A:76:LEU:H | 1:A:76:LEU:CD2 | 2.15 | 0.57 |
| 1:A:747:ASN:O | 1:A:750:GLN:HB2 | 2.03 | 0.57 |
| 1:B:152:LEU:HD21 | 1:B:171:TYR:CE1 | 2.38 | 0.57 |
| 1:B:504:ILE:HG12 | 1:B:625:LEU:HD23 | 1.86 | 0.57 |
| 1:B:747:ASN:O | 1:B:750:GLN:HB2 | 2.04 | 0.57 |
| 1:C:639:ASN:ND2 | 1:C:639:ASN:N | 2.49 | 0.57 |
| 1:C:715:GLU:HG3 | 1:C:718:ARG:NH1 | 2.16 | 0.57 |
| 1:D:480:ASN:HD21 | 1:D:483:GLY:HA2 | 1.69 | 0.57 |
| 1:E:327:LEU:N | 1:E:327:LEU:HD12 | 2.19 | 0.57 |
| 1:E:463:THR:HB | 1:E:467:GLU:O | 2.05 | 0.57 |
| 1:E:700:TYR:HD1 | 1:E:728:ALA:CA | 2.17 | 0.57 |
| 1:F:76:LEU:H | 1:F:76:LEU:CD2 | 2.14 | 0.57 |
| 1:F:90:PRO:HG2 | 1:F:93:VAL:CB | 2.27 | 0.57 |
| 1:F:225:ILE:HD13 | 1:F:237:PHE:HZ | 1.69 | 0.57 |
| 2:O:32:LEU:HD22 | 2:O:63:ILE:HD12 | 1.85 | 0.57 |
| 1:A:197:LYS:HB3 | 1:A:197:LYS:NZ | 2.17 | 0.57 |
| 1:A:309:PRO:O | 1:A:313:ASP:HB2 | 2.04 | 0.57 |
| 1:A:327:LEU:HD12 | 1:A:327:LEU:N | 2.19 | 0.57 |
| 1:A:478:ALA:HB1 | 1:A:486:LYS:C | 2.23 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:76:LEU:H | 1:B:76:LEU:CD2 | 2.15 | 0.57 |
| 1:B:463:THR:HB | 1:B:467:GLU:O | 2.04 | 0.57 |
| 1:B:516:VAL:HG21 | 1:B:532:LEU:HD11 | 1.85 | 0.57 |
| 1:B:635:ILE:H | 1:B:635:ILE:HD12 | 1.70 | 0.57 |
| 1:C:137:PHE:O | 1:C:140:ARG:HB2 | 2.03 | 0.57 |
| 1:C:199:LEU:HD21 | 1:C:225:ILE:O | 2.04 | 0.57 |
| 1:C:481:VAL:O | 1:C:484:VAL:HG23 | 2.05 | 0.57 |
| 1:C:530:THR:HG21 | 2:Q:145:MET:CE | 2.34 | 0.57 |
| 1:D:88:LYS:HZ3 | 1:D:172:GLU:CD | 2.07 | 0.57 |
| 1:D:154:ILE:HG22 | 1:D:155:ASN:N | 2.19 | 0.57 |
| 1:D:472:ARG:HH11 | 1:D:472:ARG:CB | 2.17 | 0.57 |
| 1:D:609:GLU:OE2 | 1:D:609:GLU:N | 2.34 | 0.57 |
| 1:D:699:GLY:O | 1:D:703:ASP:N | 2.37 | 0.57 |
| 1:D:747:ASN:O | 1:D:750:GLN:HB2 | 2.03 | 0.57 |
| 1:E:102:GLY:HA3 | 1:E:150:PRO:HG2 | 1.87 | 0.57 |
| 1:E:141:PHE:HD1 | 1:E:141:PHE:H | 1.50 | 0.57 |
| 1:E:217:LYS:HZ1 | 1:E:233:ASN:HB3 | 1.68 | 0.57 |
| 1:E:326:ILE:CG2 | 1:E:328:PHE:HE1 | 2.16 | 0.57 |
| 1:F:179:LEU:HD23 | 1:F:179:LEU:N | 2.19 | 0.57 |
| 1:F:271:LEU:HD13 | 1:F:276:PHE:CE2 | 2.39 | 0.57 |
| 1:F:275:GLY:HA2 | 1:F:278:LYS:HE3 | 1.85 | 0.57 |
| 1:F:715:GLU:HG3 | 1:F:718:ARG:NH1 | 2.16 | 0.57 |
| 2:P:19:PHE:CE2 | 2:P:34:THR:HG22 | 2.39 | 0.57 |
| 2:P:133:ASP:OD1 | 2:P:133:ASP:N | 2.38 | 0.57 |
| 2:Q:5:THR:O | 2:Q:9:ILE:HG12 | 2.04 | 0.57 |
| 2:T:5:THR:O | 2:T:9:ILE:HG12 | 2.04 | 0.57 |
| 1:A:71:PHE:CB | 1:A:108:ASP:HB2 | 2.35 | 0.57 |
| 1:B:105:TYR:HE1 | 1:B:151:LYS:HZ2 | 1.51 | 0.57 |
| 1:B:692:GLU:OE1 | 2:P:21:LYS:NZ | 2.31 | 0.57 |
| 1:C:478:ALA:HB1 | 1:C:486:LYS:C | 2.25 | 0.57 |
| 1:C:581:GLN:O | 1:C:629:ASN:HA | 2.05 | 0.57 |
| 1:D:345:THR:HA | 1:D:489:THR:O | 2.03 | 0.57 |
| 1:E:76:LEU:H | 1:E:76:LEU:CD2 | 2.14 | 0.57 |
| 1:E:504:ILE:HD12 | 1:E:504:ILE:N | 2.20 | 0.57 |
| 1:F:97:TYR:CZ | 1:F:150:PRO:HB2 | 2.38 | 0.57 |
| 1:F:173:ILE:HG13 | 1:F:242:SER:HB3 | 1.86 | 0.57 |
| 1:F:679:TYR:CD2 | 1:F:691:LYS:HB2 | 2.39 | 0.57 |
| 2:S:63:ILE:HG23 | 2:S:67:GLU:CB | 2.34 | 0.57 |
| 1:A:275:GLY:HA2 | 1:A:278:LYS:HG3 | 1.86 | 0.57 |
| 1:A:504:ILE:N | 1:A:504:ILE:HD12 | 2.19 | 0.57 |
| 1:C:96:ILE:HG22 | 1:C:100:LEU:HD11 | 1.86 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:270:LYS:HD3 | 1:C:273:LYS:HD2 | 1.85 | 0.57 |
| 1:D:225:ILE:HG12 | 1:D:229:PHE:CD2 | 2.39 | 0.57 |
| 1:E:556:MET:O | 1:E:560:LEU:HD23 | 2.05 | 0.57 |
| 1:E:720:ILE:HD11 | 1:E:724:ARG:CZ | 2.34 | 0.57 |
| 1:F:235:THR:HA | 1:F:238:GLN:HG3 | 1.86 | 0.57 |
| 1:F:306:GLY:O | 1:F:336:THR:HG23 | 2.05 | 0.57 |
| 1:F:345:THR:HA | 1:F:489:THR:O | 2.04 | 0.57 |
| 2:P:97:ASN:ND2 | 2:P:99:TYR:H | 2.01 | 0.57 |
| 1:A:306:GLY:O | 1:A:336:THR:HG23 | 2.04 | 0.57 |
| 1:B:616:GLU:HA | 1:B:620:THR:HB | 1.85 | 0.57 |
| 1:B:708:ALA:O | 1:B:711:ILE:HG12 | 2.05 | 0.57 |
| 1:D:208:LEU:HD12 | 1:D:208:LEU:N | 2.20 | 0.57 |
| 1:D:688:PHE:C | 1:D:688:PHE:CD2 | 2.77 | 0.57 |
| 1:F:115:LYS:HG3 | 1:F:153:ILE:HD13 | 1.87 | 0.57 |
| 1:F:122:GLU:HG3 | 1:F:147:ARG:HB2 | 1.87 | 0.57 |
| 1:F:556:MET:O | 1:F:560:LEU:HD23 | 2.05 | 0.57 |
| 2:Q:55:VAL:HG11 | 2:Q:71:MET:HE3 | 1.87 | 0.57 |
| 2:T:117:THR:OG1 | 2:T:119:GLU:HG2 | 2.05 | 0.57 |
| 1:A:225:ILE:HG12 | 1:A:229:PHE:CD2 | 2.40 | 0.57 |
| 1:A:270:LYS:HD3 | 1:A:273:LYS:HD2 | 1.87 | 0.57 |
| 1:A:288:VAL:O | 1:A:292:ARG:HG2 | 2.04 | 0.57 |
| 1:A:310:GLU:OE2 | 1:A:340:LYS:HD2 | 2.05 | 0.57 |
| 1:A:635:ILE:H | 1:A:635:ILE:HD12 | 1.70 | 0.57 |
| 1:B:275:GLY:HA2 | 1:B:278:LYS:HD2 | 1.85 | 0.57 |
| 1:C:225:ILE:HD13 | 1:C:237:PHE:HZ | 1.69 | 0.57 |
| 1:C:225:ILE:HG12 | 1:C:229:PHE:CD2 | 2.39 | 0.57 |
| 1:C:463:THR:HB | 1:C:467:GLU:O | 2.05 | 0.57 |
| 1:C:629:ASN:HD21 | 1:C:631:SER:CB | 2.13 | 0.57 |
| 1:D:78:LYS:O | 1:D:81:GLN:HB3 | 2.05 | 0.57 |
| 1:D:639:ASN:HD22 | 1:D:639:ASN:N | 1.96 | 0.57 |
| 1:F:71:PHE:CD2 | 1:F:73:ASN:HB2 | 2.40 | 0.57 |
| 2:Q:13:LYS:HA | 2:Q:65:PHE:CE1 | 2.39 | 0.57 |
| 1:A:196:ILE:O | 1:A:199:LEU:HB2 | 2.05 | 0.57 |
| 1:A:208:LEU:HD12 | 1:A:208:LEU:N | 2.20 | 0.57 |
| 1:B:692:GLU:CD | 2:P:21:LYS:HZ1 | 2.07 | 0.57 |
| 1:C:310:GLU:OE2 | 1:C:340:LYS:HD2 | 2.04 | 0.57 |
| 1:C:504:ILE:HD12 | 1:C:504:ILE:N | 2.19 | 0.57 |
| 1:C:747:ASN:O | 1:C:750:GLN:HB2 | 2.05 | 0.57 |
| 1:D:463:THR:HB | 1:D:467:GLU:O | 2.05 | 0.57 |
| 1:D:629:ASN:HD21 | 1:D:631:SER:CB | 2.12 | 0.57 |
| 1:E:747:ASN:O | 1:E:750:GLN:HB2 | 2.05 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:Q:117:THR:OG1 | 2:Q:119:GLU:HG2 | 2.05 | 0.57 |
| 2:R:13:LYS:HA | 2:R:65:PHE:CE1 | 2.40 | 0.57 |
| 1:A:154:ILE:HG22 | 1:A:155:ASN:N | 2.20 | 0.57 |
| 1:B:234:LEU:CD2 | 1:B:235:THR:H | 2.18 | 0.57 |
| 1:B:275:GLY:HA2 | 1:B:278:LYS:HG3 | 1.87 | 0.57 |
| 1:B:472:ARG:HH11 | 1:B:472:ARG:CB | 2.17 | 0.57 |
| 1:C:71:PHE:CG | 1:C:73:ASN:HB2 | 2.39 | 0.57 |
| 1:C:185:ASP:O | 1:C:190:PRO:HA | 2.04 | 0.57 |
| 1:D:96:ILE:HG22 | 1:D:100:LEU:HD11 | 1.86 | 0.57 |
| 1:D:102:GLY:HA3 | 1:D:150:PRO:HG2 | 1.87 | 0.57 |
| 1:D:309:PRO:O | 1:D:313:ASP:HB2 | 2.05 | 0.57 |
| 1:E:97:TYR:CZ | 1:E:150:PRO:HB2 | 2.40 | 0.57 |
| 1:E:708:ALA:O | 1:E:711:ILE:HG12 | 2.05 | 0.57 |
| 1:F:71:PHE:CB | 1:F:108:ASP:HB2 | 2.35 | 0.57 |
| 1:F:102:GLY:HA3 | 1:F:150:PRO:HG2 | 1.86 | 0.57 |
| 2:Q:133:ASP:OD1 | 2:Q:133:ASP:N | 2.37 | 0.57 |
| 2:T:63:ILE:HG23 | 2:T:67:GLU:CB | 2.35 | 0.57 |
| 1:B:243:LEU:HA | 1:B:246:SER:OG | 2.04 | 0.56 |
| 1:C:275:GLY:HA2 | 1:C:278:LYS:CG | 2.34 | 0.56 |
| 1:C:556:MET:O | 1:C:560:LEU:HD23 | 2.05 | 0.56 |
| 1:D:184:LYS:HE3 | 1:D:191:GLU:CB | 2.34 | 0.56 |
| 1:E:288:VAL:HG23 | 1:E:289:GLU:N | 2.15 | 0.56 |
| 1:F:243:LEU:HA | 1:F:246:SER:OG | 2.05 | 0.56 |
| 1:F:432:TYR:CD1 | 1:F:445:ARG:HD2 | 2.40 | 0.56 |
| 2:O:133:ASP:N | 2:O:133:ASP:OD1 | 2.37 | 0.56 |
| 2:Q:114:GLU:HA | 2:Q:114:GLU:OE2 | 2.04 | 0.56 |
| 2:T:104:GLU:O | 2:T:108:VAL:HG23 | 2.05 | 0.56 |
| 1:A:122:GLU:HG3 | 1:A:147:ARG:HB2 | 1.86 | 0.56 |
| 1:B:225:ILE:HG12 | 1:B:229:PHE:CD2 | 2.41 | 0.56 |
| 1:B:268:MET:HA | 1:B:271:LEU:HD12 | 1.87 | 0.56 |
| 1:B:720:ILE:HD11 | 1:B:724:ARG:CZ | 2.35 | 0.56 |
| 1:C:184:LYS:O | 1:C:185:ASP:O | 2.21 | 0.56 |
| 1:C:326:ILE:CG2 | 1:C:328:PHE:CE1 | 2.85 | 0.56 |
| 1:C:432:TYR:CD1 | 1:C:445:ARG:HD2 | 2.39 | 0.56 |
| 1:C:472:ARG:HH11 | 1:C:472:ARG:CB | 2.16 | 0.56 |
| 1:C:480:ASN:HD21 | 1:C:483:GLY:HA2 | 1.70 | 0.56 |
| 1:C:699:GLY:O | 1:C:703:ASP:N | 2.37 | 0.56 |
| 1:D:432:TYR:CD1 | 1:D:445:ARG:HD2 | 2.40 | 0.56 |
| 1:D:504:ILE:N | 1:D:504:ILE:HD12 | 2.19 | 0.56 |
| 1:D:520:PRO:HG2 | 1:D:521:ASN:H | 1.69 | 0.56 |
| 1:D:527:LYS:O | 1:D:528:GLY:C | 2.44 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:115:LYS:HB2 | 1:E:118:GLN:CG | 2.35 | 0.56 |
| 1:E:275:GLY:O | 1:E:278:LYS:HB2 | 2.05 | 0.56 |
| 1:E:288:VAL:O | 1:E:292:ARG:HG2 | 2.04 | 0.56 |
| 1:E:615:ILE:HD12 | 1:E:645:TRP:CH2 | 2.38 | 0.56 |
| 1:F:310:GLU:OE2 | 1:F:340:LYS:HD2 | 2.06 | 0.56 |
| 1:F:480:ASN:HD21 | 1:F:483:GLY:HA2 | 1.69 | 0.56 |
| 1:F:747:ASN:O | 1:F:750:GLN:HB2 | 2.05 | 0.56 |
| 2:S:13:LYS:HA | 2:S:65:PHE:CE1 | 2.40 | 0.56 |
| 2:S:133:ASP:OD1 | 2:S:133:ASP:N | 2.37 | 0.56 |
| 1:A:66:LEU:HD12 | 1:A:103:GLU:HA | 1.85 | 0.56 |
| 1:A:432:TYR:CD1 | 1:A:445:ARG:HD2 | 2.40 | 0.56 |
| 1:A:480:ASN:HD21 | 1:A:483:GLY:HA2 | 1.68 | 0.56 |
| 1:A:776:LEU:HD11 | 1:A:793:PHE:HE1 | 1.70 | 0.56 |
| 1:B:154:ILE:HG22 | 1:B:155:ASN:N | 2.20 | 0.56 |
| 1:B:197:LYS:HB3 | 1:B:197:LYS:NZ | 2.18 | 0.56 |
| 1:B:225:ILE:HD13 | 1:B:237:PHE:HZ | 1.70 | 0.56 |
| 1:B:767:GLN:CG | 1:B:768:LYS:HG2 | 2.24 | 0.56 |
| 1:C:102:GLY:HA3 | 1:C:150:PRO:HG2 | 1.87 | 0.56 |
| 1:C:173:ILE:HG13 | 1:C:242:SER:HB3 | 1.87 | 0.56 |
| 1:C:657:ILE:HG13 | 1:C:756:ILE:CD1 | 2.34 | 0.56 |
| 1:D:217:LYS:HZ2 | 1:D:236:GLU:HB2 | 1.68 | 0.56 |
| 1:D:512:GLU:HA | 1:D:515:LYS:HZ2 | 1.70 | 0.56 |
| 1:E:71:PHE:CB | 1:E:108:ASP:HB2 | 2.36 | 0.56 |
| 1:E:234:LEU:HG | 1:E:235:THR:N | 2.21 | 0.56 |
| 1:F:187:SER:C | 1:F:188:LEU:O | 2.41 | 0.56 |
| 1:F:246:SER:O | 1:F:250:ALA:N | 2.38 | 0.56 |
| 1:F:463:THR:HB | 1:F:467:GLU:O | 2.05 | 0.56 |
| 1:F:529:VAL:HG21 | 2:T:109:MET:CE | 2.34 | 0.56 |
| 1:F:629:ASN:HB3 | 1:F:632:TYR:CD1 | 2.39 | 0.56 |
| 1:F:692:GLU:OE1 | 2:T:21:LYS:NZ | 2.34 | 0.56 |
| 2:O:117:THR:OG1 | 2:O:119:GLU:HG2 | 2.05 | 0.56 |
| 2:P:13:LYS:HA | 2:P:65:PHE:CE1 | 2.40 | 0.56 |
| 2:Q:13:LYS:C | 2:Q:15:ALA:H | 2.09 | 0.56 |
| 2:S:117:THR:OG1 | 2:S:119:GLU:HG2 | 2.05 | 0.56 |
| 1:A:692:GLU:OE1 | 2:O:21:LYS:NZ | 2.30 | 0.56 |
| 1:D:679:TYR:CD2 | 1:D:691:LYS:HB2 | 2.39 | 0.56 |
| 1:D:720:ILE:HD11 | 1:D:724:ARG:CZ | 2.34 | 0.56 |
| 1:E:499:PRO:CG | 1:E:504:ILE:HD11 | 2.33 | 0.56 |
| 1:F:326:ILE:CG2 | 1:F:328:PHE:HE1 | 2.18 | 0.56 |
| 1:F:512:GLU:HA | 1:F:515:LYS:HZ2 | 1.70 | 0.56 |
| 1:F:530:THR:HG21 | 2:T:145:MET:CE | 2.35 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:115:LYS:HB2 | 1:A:118:GLN:CG | 2.34 | 0.56 |
| 1:A:609:GLU:OE2 | 1:A:609:GLU:N | 2.34 | 0.56 |
| 1:B:275:GLY:HA2 | 1:B:278:LYS:CG | 2.35 | 0.56 |
| 1:C:708:ALA:O | 1:C:711:ILE:HG12 | 2.05 | 0.56 |
| 1:C:720:ILE:HD11 | 1:C:724:ARG:CZ | 2.35 | 0.56 |
| 1:D:196:ILE:O | 1:D:199:LEU:HB2 | 2.06 | 0.56 |
| 1:D:225:ILE:HD13 | 1:D:237:PHE:HZ | 1.70 | 0.56 |
| 1:D:598:PRO:HG3 | 1:D:624:TYR:OH | 2.06 | 0.56 |
| 1:E:196:ILE:O | 1:E:199:LEU:HB2 | 2.06 | 0.56 |
| 1:E:234:LEU:CD2 | 1:E:235:THR:H | 2.18 | 0.56 |
| 1:F:78:LYS:O | 1:F:81:GLN:HB3 | 2.05 | 0.56 |
| 1:A:271:LEU:HD13 | 1:A:276:PHE:CE2 | 2.41 | 0.56 |
| 1:A:275:GLY:HA2 | 1:A:278:LYS:CG | 2.35 | 0.56 |
| 1:A:431:LYS:O | 1:A:448:ASP:HB2 | 2.06 | 0.56 |
| 1:A:481:VAL:O | 1:A:484:VAL:HG23 | 2.05 | 0.56 |
| 1:B:432:TYR:CD1 | 1:B:445:ARG:HD2 | 2.40 | 0.56 |
| 1:B:666:ASN:O | 1:B:669:SER:HB3 | 2.06 | 0.56 |
| 1:C:66:LEU:HD12 | 1:C:103:GLU:HA | 1.87 | 0.56 |
| 1:C:115:LYS:NZ | 1:C:115:LYS:HA | 2.20 | 0.56 |
| 1:C:115:LYS:HB2 | 1:C:118:GLN:CG | 2.36 | 0.56 |
| 1:C:184:LYS:CE | 1:C:191:GLU:HB2 | 2.34 | 0.56 |
| 1:C:327:LEU:HD12 | 1:C:327:LEU:N | 2.21 | 0.56 |
| 1:F:66:LEU:HD12 | 1:F:103:GLU:HA | 1.86 | 0.56 |
| 1:F:609:GLU:OE2 | 1:F:609:GLU:N | 2.36 | 0.56 |
| 2:O:104:GLU:O | 2:O:108:VAL:HG23 | 2.04 | 0.56 |
| 2:T:13:LYS:C | 2:T:15:ALA:H | 2.09 | 0.56 |
| 1:A:115:LYS:NZ | 1:A:115:LYS:HA | 2.21 | 0.56 |
| 1:B:115:LYS:NZ | 1:B:115:LYS:HA | 2.21 | 0.56 |
| 1:B:196:ILE:O | 1:B:199:LEU:HB2 | 2.06 | 0.56 |
| 1:C:196:ILE:O | 1:C:199:LEU:HB2 | 2.05 | 0.56 |
| 1:D:128:MET:HE1 | 1:D:235:THR:HB | 1.88 | 0.56 |
| 1:D:243:LEU:HA | 1:D:246:SER:OG | 2.06 | 0.56 |
| 1:D:306:GLY:O | 1:D:336:THR:HG23 | 2.06 | 0.56 |
| 1:E:345:THR:HA | 1:E:489:THR:O | 2.05 | 0.56 |
| 1:E:529:VAL:HG21 | 2:S:109:MET:CE | 2.35 | 0.56 |
| 1:F:327:LEU:HG | 1:F:595:ILE:HG23 | 1.88 | 0.56 |
| 2:R:117:THR:OG1 | 2:R:119:GLU:HG2 | 2.05 | 0.56 |
| 1:A:187:SER:C | 1:A:188:LEU:O | 2.41 | 0.56 |
| 1:A:243:LEU:HA | 1:A:246:SER:OG | 2.05 | 0.56 |
| 1:A:692:GLU:CD | 2:O:21:LYS:HZ1 | 2.09 | 0.56 |
| 1:B:128:MET:HE1 | 1:B:235:THR:HB | 1.88 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:309:PRO:O | 1:B:313:ASP:HB2 | 2.06 | 0.56 |
| 1:C:217:LYS:HZ1 | 1:C:236:GLU:HB2 | 1.69 | 0.56 |
| 1:C:217:LYS:HZ1 | 1:C:233:ASN:HB3 | 1.71 | 0.56 |
| 1:C:275:GLY:HA2 | 1:C:278:LYS:HG3 | 1.87 | 0.56 |
| 1:D:131:ARG:HG3 | 1:D:243:LEU:CD1 | 2.36 | 0.56 |
| 1:D:327:LEU:HD12 | 1:D:327:LEU:N | 2.21 | 0.56 |
| 1:E:66:LEU:HD12 | 1:E:103:GLU:HA | 1.87 | 0.56 |
| 1:E:154:ILE:HG22 | 1:E:155:ASN:N | 2.21 | 0.56 |
| 1:E:172:GLU:O | 1:E:175:LYS:HB3 | 2.05 | 0.56 |
| 1:E:297:LYS:NZ | 1:E:601:GLU:OE1 | 2.30 | 0.56 |
| 1:E:666:ASN:O | 1:E:669:SER:HB3 | 2.06 | 0.56 |
| 1:F:275:GLY:HA2 | 1:F:278:LYS:HG3 | 1.87 | 0.56 |
| 1:A:407:HIS:HB2 | 1:A:408:LEU:HD12 | 1.88 | 0.56 |
| 1:B:71:PHE:CD2 | 1:B:73:ASN:HB2 | 2.40 | 0.56 |
| 1:B:208:LEU:HD12 | 1:B:208:LEU:N | 2.20 | 0.56 |
| 1:B:288:VAL:HG23 | 1:B:289:GLU:N | 2.17 | 0.56 |
| 1:B:598:PRO:HG3 | 1:B:624:TYR:OH | 2.06 | 0.56 |
| 1:C:95:GLU:O | 1:C:99:GLU:HB2 | 2.04 | 0.56 |
| 1:D:97:TYR:CZ | 1:D:150:PRO:HB2 | 2.41 | 0.56 |
| 1:D:118:GLN:HA | 1:D:118:GLN:OE1 | 2.06 | 0.56 |
| 1:D:602:PHE:C | 1:D:603:ILE:HG13 | 2.25 | 0.56 |
| 1:D:629:ASN:HB3 | 1:D:632:TYR:CD1 | 2.41 | 0.56 |
| 1:E:96:ILE:HG22 | 1:E:100:LEU:HD11 | 1.88 | 0.56 |
| 1:E:512:GLU:HA | 1:E:515:LYS:HZ2 | 1.71 | 0.56 |
| 1:E:609:GLU:OE2 | 1:E:609:GLU:N | 2.33 | 0.56 |
| 1:E:679:TYR:CD1 | 1:E:679:TYR:C | 2.79 | 0.56 |
| 1:F:127:SER:C | 1:F:133:GLU:OE2 | 2.44 | 0.56 |
| 2:O:13:LYS:HA | 2:O:65:PHE:CE1 | 2.40 | 0.56 |
| 2:P:117:THR:OG1 | 2:P:119:GLU:HG2 | 2.06 | 0.56 |
| 1:A:368:GLN:HG3 | 1:A:383:GLY:C | 2.27 | 0.56 |
| 1:A:530:THR:HG21 | 2:O:145:MET:CE | 2.36 | 0.56 |
| 1:B:122:GLU:HG3 | 1:B:147:ARG:HB2 | 1.88 | 0.56 |
| 1:B:327:LEU:N | 1:B:327:LEU:HD12 | 2.21 | 0.56 |
| 1:B:504:ILE:HD12 | 1:B:504:ILE:N | 2.20 | 0.56 |
| 1:C:112:VAL:HG12 | 1:C:113:GLU:HG3 | 1.87 | 0.56 |
| 1:C:407:HIS:HB2 | 1:C:408:LEU:HD12 | 1.88 | 0.56 |
| 1:C:679:TYR:CD2 | 1:C:691:LYS:HB2 | 2.40 | 0.56 |
| 1:D:271:LEU:HD13 | 1:D:276:PHE:CE2 | 2.41 | 0.56 |
| 1:E:246:SER:O | 1:E:250:ALA:N | 2.39 | 0.56 |
| 1:F:115:LYS:HB2 | 1:F:118:GLN:CG | 2.36 | 0.56 |
| 1:F:208:LEU:N | 1:F:208:LEU:HD12 | 2.20 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:R:32:LEU:HD22 | 2:R:63:ILE:HD12 | 1.85 | 0.56 |
| 2:R:63:ILE:HG23 | 2:R:67:GLU:HB3 | 1.88 | 0.56 |
| 2:S:13:LYS:C | 2:S:15:ALA:H | 2.09 | 0.56 |
| 1:B:499:PRO:CG | 1:B:504:ILE:HD11 | 2.34 | 0.55 |
| 1:B:629:ASN:HB3 | 1:B:632:TYR:CD1 | 2.41 | 0.55 |
| 1:B:794:GLN:O | 1:B:797:ILE:HG12 | 2.06 | 0.55 |
| 1:C:208:LEU:N | 1:C:208:LEU:HD12 | 2.20 | 0.55 |
| 1:C:306:GLY:O | 1:C:336:THR:HG23 | 2.05 | 0.55 |
| 1:D:76:LEU:H | 1:D:76:LEU:CD2 | 2.17 | 0.55 |
| 1:D:187:SER:C | 1:D:188:LEU:O | 2.41 | 0.55 |
| 1:E:127:SER:C | 1:E:133:GLU:OE2 | 2.44 | 0.55 |
| 1:E:179:LEU:HD23 | 1:E:179:LEU:N | 2.21 | 0.55 |
| 1:E:208:LEU:HD12 | 1:E:208:LEU:N | 2.20 | 0.55 |
| 1:E:235:THR:HA | 1:E:238:GLN:HG3 | 1.88 | 0.55 |
| 1:F:154:ILE:HG22 | 1:F:155:ASN:N | 2.20 | 0.55 |
| 1:F:327:LEU:HD12 | 1:F:327:LEU:N | 2.21 | 0.55 |
| 1:F:776:LEU:HD11 | 1:F:793:PHE:HE1 | 1.71 | 0.55 |
| 1:A:112:VAL:HG12 | 1:A:113:GLU:HG3 | 1.87 | 0.55 |
| 1:A:326:ILE:CG2 | 1:A:328:PHE:HE1 | 2.17 | 0.55 |
| 1:A:463:THR:HB | 1:A:467:GLU:O | 2.06 | 0.55 |
| 1:B:112:VAL:C | 1:B:114:HIS:H | 2.09 | 0.55 |
| 1:B:225:ILE:HG23 | 1:B:229:PHE:CD2 | 2.41 | 0.55 |
| 1:C:225:ILE:HG23 | 1:C:229:PHE:CD2 | 2.40 | 0.55 |
| 1:D:115:LYS:HB2 | 1:D:118:GLN:CG | 2.36 | 0.55 |
| 1:D:115:LYS:HZ3 | 1:D:115:LYS:HA | 1.71 | 0.55 |
| 1:D:434:LEU:HD22 | 1:D:445:ARG:HB3 | 1.87 | 0.55 |
| 1:F:309:PRO:O | 1:F:313:ASP:HB2 | 2.05 | 0.55 |
| 2:R:13:LYS:C | 2:R:15:ALA:H | 2.10 | 0.55 |
| 2:T:13:LYS:HA | 2:T:65:PHE:CE1 | 2.40 | 0.55 |
| 1:C:78:LYS:O | 1:C:81:GLN:HB3 | 2.06 | 0.55 |
| 1:C:179:LEU:HD23 | 1:C:179:LEU:N | 2.21 | 0.55 |
| 1:C:434:LEU:HD22 | 1:C:445:ARG:HB3 | 1.87 | 0.55 |
| 1:D:234:LEU:HG | 1:D:235:THR:N | 2.21 | 0.55 |
| 1:D:275:GLY:HA2 | 1:D:278:LYS:CG | 2.36 | 0.55 |
| 1:E:115:LYS:HE3 | 1:E:116:GLU:HG2 | 1.88 | 0.55 |
| 1:E:173:ILE:HG13 | 1:E:242:SER:HB3 | 1.88 | 0.55 |
| 1:E:268:MET:HA | 1:E:271:LEU:HD12 | 1.88 | 0.55 |
| 1:E:431:LYS:O | 1:E:448:ASP:HB2 | 2.07 | 0.55 |
| 1:F:234:LEU:CD2 | 1:F:235:THR:H | 2.18 | 0.55 |
| 1:F:288:VAL:O | 1:F:292:ARG:HG2 | 2.05 | 0.55 |
| 2:P:13:LYS:C | 2:P:15:ALA:H | 2.08 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:S:104:GLU:O | 2:S:108:VAL:HG23 | 2.06 | 0.55 |
| 1:A:529:VAL:HG21 | 2:O:109:MET:CE | 2.37 | 0.55 |
| 1:A:643:ILE:HG22 | 1:A:644:GLU:H | 1.71 | 0.55 |
| 1:B:602:PHE:C | 1:B:603:ILE:HG13 | 2.26 | 0.55 |
| 1:C:297:LYS:NZ | 1:C:601:GLU:OE1 | 2.31 | 0.55 |
| 1:D:326:ILE:CG2 | 1:D:328:PHE:HE1 | 2.19 | 0.55 |
| 1:D:368:GLN:HG3 | 1:D:383:GLY:C | 2.27 | 0.55 |
| 1:E:776:LEU:HD11 | 1:E:793:PHE:HE1 | 1.70 | 0.55 |
| 1:F:112:VAL:HG12 | 1:F:113:GLU:HG3 | 1.88 | 0.55 |
| 1:F:196:ILE:O | 1:F:199:LEU:HB2 | 2.06 | 0.55 |
| 1:F:234:LEU:HG | 1:F:235:THR:N | 2.22 | 0.55 |
| 1:F:275:GLY:HA2 | 1:F:278:LYS:CG | 2.36 | 0.55 |
| 1:F:602:PHE:C | 1:F:603:ILE:HG13 | 2.25 | 0.55 |
| 2:O:55:VAL:HG11 | 2:O:71:MET:HE3 | 1.88 | 0.55 |
| 2:P:63:ILE:HG23 | 2:P:67:GLU:HB3 | 1.89 | 0.55 |
| 1:A:275:GLY:HA2 | 1:A:278:LYS:HD2 | 1.85 | 0.55 |
| 1:A:450:ASN:ND2 | 1:A:452:GLU:CG | 2.69 | 0.55 |
| 1:B:179:LEU:HD23 | 1:B:179:LEU:N | 2.20 | 0.55 |
| 1:B:246:SER:O | 1:B:250:ALA:N | 2.39 | 0.55 |
| 1:B:431:LYS:O | 1:B:448:ASP:HB2 | 2.07 | 0.55 |
| 1:C:115:LYS:HE3 | 1:C:116:GLU:HG2 | 1.89 | 0.55 |
| 1:C:127:SER:C | 1:C:133:GLU:OE2 | 2.44 | 0.55 |
| 1:C:234:LEU:HG | 1:C:235:THR:N | 2.22 | 0.55 |
| 1:C:305:SER:HB2 | 1:C:594:PHE:CD1 | 2.42 | 0.55 |
| 1:C:794:GLN:O | 1:C:797:ILE:HG12 | 2.06 | 0.55 |
| 1:D:310:GLU:OE2 | 1:D:340:LYS:HD2 | 2.06 | 0.55 |
| 1:E:567:THR:HG23 | 1:E:568:GLY:H | 1.65 | 0.55 |
| 1:E:633:ASN:O | 1:E:642:TYR:HE1 | 1.89 | 0.55 |
| 1:F:118:GLN:OE1 | 1:F:118:GLN:HA | 2.07 | 0.55 |
| 1:F:225:ILE:HG23 | 1:F:229:PHE:CD2 | 2.42 | 0.55 |
| 1:F:794:GLN:O | 1:F:797:ILE:HG12 | 2.07 | 0.55 |
| 2:P:32:LEU:HD22 | 2:P:63:ILE:HD12 | 1.87 | 0.55 |
| 1:A:234:LEU:HG | 1:A:235:THR:N | 2.22 | 0.55 |
| 1:A:777:TYR:HA | 1:A:780:LEU:HD22 | 1.88 | 0.55 |
| 1:B:76:LEU:HD22 | 1:B:76:LEU:N | 2.18 | 0.55 |
| 1:B:172:GLU:O | 1:B:175:LYS:HB3 | 2.06 | 0.55 |
| 1:B:639:ASN:ND2 | 1:B:639:ASN:N | 2.49 | 0.55 |
| 1:B:679:TYR:CD1 | 1:B:679:TYR:C | 2.80 | 0.55 |
| 1:D:234:LEU:CD2 | 1:D:235:THR:H | 2.18 | 0.55 |
| 1:D:305:SER:HB2 | 1:D:594:PHE:CD1 | 2.42 | 0.55 |
| 1:D:629:ASN:HB3 | 1:D:632:TYR:CE1 | 2.42 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:407:HIS:HB2 | 1:E:408:LEU:HD12 | 1.88 | 0.55 |
| 1:E:715:GLU:HG3 | 1:E:718:ARG:NH1 | 2.16 | 0.55 |
| 1:F:431:LYS:O | 1:F:448:ASP:HB2 | 2.07 | 0.55 |
| 1:F:598:PRO:HG3 | 1:F:624:TYR:OH | 2.07 | 0.55 |
| 2:R:104:GLU:O | 2:R:108:VAL:HG23 | 2.06 | 0.55 |
| 1:A:118:GLN:OE1 | 1:A:118:GLN:HA | 2.06 | 0.55 |
| 1:A:412:GLU:HA | 1:A:415:GLU:OE2 | 2.07 | 0.55 |
| 1:A:629:ASN:HB3 | 1:A:632:TYR:CE1 | 2.42 | 0.55 |
| 1:A:679:TYR:C | 1:A:679:TYR:CD1 | 2.80 | 0.55 |
| 1:B:173:ILE:HG13 | 1:B:242:SER:HB3 | 1.89 | 0.55 |
| 1:B:581:GLN:O | 1:B:629:ASN:HA | 2.07 | 0.55 |
| 1:B:777:TYR:HA | 1:B:780:LEU:HD22 | 1.89 | 0.55 |
| 1:C:706:ASN:O | 2:Q:130:ILE:HG23 | 2.06 | 0.55 |
| 1:C:776:LEU:HD11 | 1:C:793:PHE:HE1 | 1.71 | 0.55 |
| 1:D:71:PHE:HB2 | 1:D:108:ASP:HB2 | 1.89 | 0.55 |
| 1:E:78:LYS:O | 1:E:81:GLN:HB3 | 2.06 | 0.55 |
| 1:E:368:GLN:HG3 | 1:E:383:GLY:C | 2.27 | 0.55 |
| 1:E:706:ASN:O | 2:S:130:ILE:HG23 | 2.07 | 0.55 |
| 1:F:504:ILE:HD12 | 1:F:504:ILE:N | 2.22 | 0.55 |
| 1:F:527:LYS:O | 1:F:528:GLY:C | 2.45 | 0.55 |
| 1:F:679:TYR:CD1 | 1:F:679:TYR:C | 2.80 | 0.55 |
| 1:A:234:LEU:CD2 | 1:A:235:THR:H | 2.19 | 0.55 |
| 1:B:78:LYS:O | 1:B:81:GLN:HB3 | 2.07 | 0.55 |
| 1:B:236:GLU:HA | 1:B:239:HIS:HD2 | 1.72 | 0.55 |
| 1:B:326:ILE:CG2 | 1:B:328:PHE:HE1 | 2.17 | 0.55 |
| 1:B:724:ARG:C | 1:B:727:GLN:HB2 | 2.27 | 0.55 |
| 1:C:172:GLU:HB3 | 1:C:246:SER:HA | 1.89 | 0.55 |
| 1:C:268:MET:HA | 1:C:271:LEU:HD12 | 1.87 | 0.55 |
| 1:C:412:GLU:HA | 1:C:415:GLU:OE2 | 2.07 | 0.55 |
| 1:D:172:GLU:O | 1:D:176:GLY:N | 2.38 | 0.55 |
| 1:D:556:MET:O | 1:D:560:LEU:HD23 | 2.06 | 0.55 |
| 1:E:697:ILE:C | 1:E:699:GLY:H | 2.10 | 0.55 |
| 1:F:445:ARG:HD3 | 1:F:471:TRP:CE2 | 2.42 | 0.55 |
| 1:F:596:ILE:HG22 | 1:F:596:ILE:O | 2.07 | 0.55 |
| 1:F:629:ASN:HD21 | 1:F:631:SER:CB | 2.12 | 0.55 |
| 1:F:639:ASN:ND2 | 1:F:639:ASN:N | 2.50 | 0.55 |
| 1:F:694:VAL:HG23 | 2:T:18:LEU:HD21 | 1.89 | 0.55 |
| 2:T:57:ALA:C | 2:T:59:GLY:H | 2.10 | 0.55 |
| 1:A:268:MET:HA | 1:A:271:LEU:HD12 | 1.89 | 0.55 |
| 1:B:115:LYS:HE3 | 1:B:116:GLU:HG2 | 1.87 | 0.55 |
| 1:B:473:ASN:OD1 | 1:B:473:ASN:N | 2.38 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:708:ALA:O | 1:D:711:ILE:HG12 | 2.06 | 0.55 |
| 1:E:602:PHE:C | 1:E:603:ILE:HG13 | 2.28 | 0.55 |
| 1:F:88:LYS:HZ3 | 1:F:172:GLU:CD | 2.09 | 0.55 |
| 1:F:407:HIS:HB2 | 1:F:408:LEU:HD12 | 1.88 | 0.55 |
| 2:T:32:LEU:HD22 | 2:T:63:ILE:HD12 | 1.87 | 0.55 |
| 1:A:445:ARG:HD3 | 1:A:471:TRP:CE2 | 2.42 | 0.55 |
| 1:B:445:ARG:HD3 | 1:B:471:TRP:CE2 | 2.42 | 0.55 |
| 1:C:76:LEU:H | 1:C:76:LEU:CD2 | 2.18 | 0.55 |
| 1:C:131:ARG:HG3 | 1:C:243:LEU:CD1 | 2.36 | 0.55 |
| 1:C:499:PRO:CG | 1:C:504:ILE:HD11 | 2.35 | 0.55 |
| 1:C:629:ASN:HB3 | 1:C:632:TYR:CD1 | 2.41 | 0.55 |
| 1:D:79:ILE:O | 1:D:81:GLN:N | 2.40 | 0.55 |
| 1:D:235:THR:HA | 1:D:238:GLN:HG3 | 1.87 | 0.55 |
| 1:D:275:GLY:HA2 | 1:D:278:LYS:HG3 | 1.88 | 0.55 |
| 1:D:450:ASN:ND2 | 1:D:452:GLU:CG | 2.69 | 0.55 |
| 1:E:112:VAL:C | 1:E:114:HIS:H | 2.10 | 0.55 |
| 1:E:473:ASN:OD1 | 1:E:473:ASN:N | 2.40 | 0.55 |
| 1:F:115:LYS:HE3 | 1:F:116:GLU:HG2 | 1.89 | 0.55 |
| 1:F:293:ILE:CD1 | 1:F:617:LYS:HD3 | 2.37 | 0.55 |
| 2:S:13:LYS:O | 2:S:15:ALA:N | 2.31 | 0.55 |
| 2:T:55:VAL:HG11 | 2:T:71:MET:HE3 | 1.89 | 0.55 |
| 2:T:107:HIS:CG | 2:T:107:HIS:O | 2.59 | 0.55 |
| 1:A:556:MET:O | 1:A:560:LEU:HD23 | 2.07 | 0.54 |
| 1:B:271:LEU:HD13 | 1:B:276:PHE:CE2 | 2.42 | 0.54 |
| 1:B:368:GLN:HG3 | 1:B:383:GLY:C | 2.28 | 0.54 |
| 1:B:407:HIS:HB2 | 1:B:408:LEU:HD12 | 1.89 | 0.54 |
| 1:B:633:ASN:O | 1:B:642:TYR:HE1 | 1.89 | 0.54 |
| 1:C:217:LYS:HB3 | 1:C:236:GLU:OE1 | 2.07 | 0.54 |
| 1:C:326:ILE:CG2 | 1:C:328:PHE:HE1 | 2.19 | 0.54 |
| 1:C:697:ILE:CD1 | 1:C:732:ILE:HD13 | 2.36 | 0.54 |
| 1:D:85:LEU:HD12 | 1:D:168:GLU:OE1 | 2.07 | 0.54 |
| 1:D:112:VAL:C | 1:D:114:HIS:H | 2.10 | 0.54 |
| 1:D:499:PRO:CG | 1:D:504:ILE:HD11 | 2.34 | 0.54 |
| 1:F:197:LYS:HZ2 | 1:F:197:LYS:CB | 2.17 | 0.54 |
| 1:F:450:ASN:ND2 | 1:F:452:GLU:CG | 2.70 | 0.54 |
| 1:A:246:SER:O | 1:A:250:ALA:N | 2.38 | 0.54 |
| 1:B:706:ASN:O | 2:P:130:ILE:HG23 | 2.07 | 0.54 |
| 1:C:112:VAL:C | 1:C:114:HIS:H | 2.10 | 0.54 |
| 1:C:309:PRO:O | 1:C:313:ASP:HB2 | 2.08 | 0.54 |
| 1:D:351:HIS:HB2 | 1:D:386:GLU:CG | 2.38 | 0.54 |
| 1:D:596:ILE:O | 1:D:596:ILE:HG22 | 2.06 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:695:LYS:HE3 | 2:R:19:PHE:CD1 | 2.42 | 0.54 |
| 1:D:776:LEU:HD11 | 1:D:793:PHE:HE1 | 1.72 | 0.54 |
| 1:E:172:GLU:O | 1:E:176:GLY:N | 2.36 | 0.54 |
| 1:E:175:LYS:HZ2 | 1:E:175:LYS:CB | 2.19 | 0.54 |
| 1:F:115:LYS:NZ | 1:F:115:LYS:HA | 2.22 | 0.54 |
| 1:F:268:MET:HA | 1:F:271:LEU:HD12 | 1.89 | 0.54 |
| 1:F:444:PHE:CD2 | 1:F:455:TYR:HB3 | 2.43 | 0.54 |
| 1:F:629:ASN:HB3 | 1:F:632:TYR:CE1 | 2.42 | 0.54 |
| 1:F:633:ASN:O | 1:F:642:TYR:HE1 | 1.89 | 0.54 |
| 1:B:234:LEU:HG | 1:B:235:THR:N | 2.23 | 0.54 |
| 1:B:351:HIS:HB2 | 1:B:386:GLU:CG | 2.38 | 0.54 |
| 1:B:700:TYR:CD1 | 1:B:727:GLN:HB3 | 2.42 | 0.54 |
| 1:D:407:HIS:HB2 | 1:D:408:LEU:HD12 | 1.89 | 0.54 |
| 1:E:79:ILE:O | 1:E:81:GLN:N | 2.41 | 0.54 |
| 1:E:445:ARG:HD3 | 1:E:471:TRP:CE2 | 2.43 | 0.54 |
| 1:F:310:GLU:O | 1:F:314:ALA:HB2 | 2.07 | 0.54 |
| 1:F:368:GLN:HG3 | 1:F:383:GLY:C | 2.27 | 0.54 |
| 1:F:666:ASN:O | 1:F:669:SER:HB3 | 2.06 | 0.54 |
| 2:S:57:ALA:C | 2:S:59:GLY:H | 2.11 | 0.54 |
| 1:A:172:GLU:O | 1:A:176:GLY:N | 2.36 | 0.54 |
| 1:A:308:VAL:O | 1:A:311:HIS:HB2 | 2.08 | 0.54 |
| 1:A:464:VAL:HG23 | 1:A:465:LEU:CD1 | 2.38 | 0.54 |
| 1:A:598:PRO:HG3 | 1:A:624:TYR:OH | 2.08 | 0.54 |
| 1:B:127:SER:C | 1:B:133:GLU:OE2 | 2.44 | 0.54 |
| 1:B:293:ILE:CD1 | 1:B:617:LYS:HD3 | 2.36 | 0.54 |
| 1:B:308:VAL:O | 1:B:311:HIS:HB2 | 2.08 | 0.54 |
| 1:C:777:TYR:HA | 1:C:780:LEU:HD22 | 1.89 | 0.54 |
| 1:D:81:GLN:OE1 | 1:D:156:ILE:HG21 | 2.08 | 0.54 |
| 1:D:171:TYR:O | 1:D:175:LYS:NZ | 2.40 | 0.54 |
| 1:D:697:ILE:CD1 | 1:D:732:ILE:HD13 | 2.37 | 0.54 |
| 1:D:794:GLN:O | 1:D:797:ILE:HG12 | 2.08 | 0.54 |
| 1:E:629:ASN:HB3 | 1:E:632:TYR:CE1 | 2.42 | 0.54 |
| 1:F:305:SER:HB2 | 1:F:594:PHE:CD1 | 2.42 | 0.54 |
| 1:A:172:GLU:O | 1:A:175:LYS:HB3 | 2.08 | 0.54 |
| 1:A:408:LEU:H | 1:A:408:LEU:CD1 | 2.02 | 0.54 |
| 1:A:527:LYS:O | 1:A:528:GLY:C | 2.46 | 0.54 |
| 1:A:708:ALA:O | 1:A:711:ILE:HG12 | 2.08 | 0.54 |
| 1:B:118:GLN:OE1 | 1:B:118:GLN:HA | 2.07 | 0.54 |
| 1:B:512:GLU:HA | 1:B:515:LYS:HZ2 | 1.72 | 0.54 |
| 1:B:527:LYS:O | 1:B:529:VAL:N | 2.40 | 0.54 |
| 1:C:431:LYS:O | 1:C:448:ASP:HB2 | 2.07 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:529:VAL:HG21 | 2:Q:109:MET:CE | 2.37 | 0.54 |
| 1:D:127:SER:C | 1:D:133:GLU:OE2 | 2.44 | 0.54 |
| 1:D:179:LEU:H | 1:D:179:LEU:CD2 | 2.21 | 0.54 |
| 1:D:197:LYS:HB3 | 1:D:197:LYS:NZ | 2.19 | 0.54 |
| 1:D:217:LYS:HB3 | 1:D:236:GLU:OE1 | 2.06 | 0.54 |
| 1:D:288:VAL:O | 1:D:292:ARG:HG2 | 2.08 | 0.54 |
| 1:E:217:LYS:HZ1 | 1:E:236:GLU:HB2 | 1.72 | 0.54 |
| 1:E:728:ALA:O | 1:E:729:TYR:C | 2.45 | 0.54 |
| 1:F:527:LYS:O | 1:F:529:VAL:N | 2.41 | 0.54 |
| 1:F:567:THR:HG23 | 1:F:568:GLY:H | 1.67 | 0.54 |
| 1:F:706:ASN:O | 2:T:130:ILE:HG23 | 2.08 | 0.54 |
| 2:O:16:PHE:CZ | 2:O:27:ILE:HG12 | 2.43 | 0.54 |
| 1:A:78:LYS:O | 1:A:81:GLN:HB3 | 2.08 | 0.54 |
| 1:B:172:GLU:O | 1:B:176:GLY:N | 2.36 | 0.54 |
| 1:B:420:LEU:HD12 | 1:B:436:GLU:HB3 | 1.90 | 0.54 |
| 1:C:76:LEU:O | 1:C:78:LYS:N | 2.40 | 0.54 |
| 1:C:172:GLU:O | 1:C:175:LYS:HB3 | 2.07 | 0.54 |
| 1:C:175:LYS:HZ2 | 1:C:175:LYS:CB | 2.20 | 0.54 |
| 1:C:293:ILE:CD1 | 1:C:617:LYS:HD3 | 2.36 | 0.54 |
| 1:C:633:ASN:O | 1:C:642:TYR:HE1 | 1.90 | 0.54 |
| 1:D:308:VAL:O | 1:D:311:HIS:HB2 | 2.08 | 0.54 |
| 1:D:431:LYS:O | 1:D:448:ASP:HB2 | 2.07 | 0.54 |
| 1:D:464:VAL:HG23 | 1:D:465:LEU:CD1 | 2.37 | 0.54 |
| 1:E:695:LYS:HE3 | 2:S:19:PHE:CD1 | 2.41 | 0.54 |
| 1:E:794:GLN:O | 1:E:797:ILE:HG12 | 2.08 | 0.54 |
| 1:F:595:ILE:HG22 | 1:F:596:ILE:N | 2.23 | 0.54 |
| 2:P:104:GLU:O | 2:P:108:VAL:HG23 | 2.06 | 0.54 |
| 1:A:217:LYS:HZ2 | 1:A:236:GLU:HB2 | 1.72 | 0.54 |
| 1:A:235:THR:HA | 1:A:238:GLN:HG3 | 1.89 | 0.54 |
| 1:A:595:ILE:HG22 | 1:A:596:ILE:N | 2.22 | 0.54 |
| 1:B:112:VAL:HG12 | 1:B:113:GLU:HG3 | 1.90 | 0.54 |
| 1:B:175:LYS:HZ2 | 1:B:175:LYS:CB | 2.18 | 0.54 |
| 1:B:217:LYS:HB3 | 1:B:236:GLU:OE1 | 2.07 | 0.54 |
| 1:B:275:GLY:O | 1:B:278:LYS:HB2 | 2.08 | 0.54 |
| 1:B:306:GLY:O | 1:B:336:THR:HG23 | 2.06 | 0.54 |
| 1:B:776:LEU:HD11 | 1:B:793:PHE:HE1 | 1.71 | 0.54 |
| 1:C:288:VAL:O | 1:C:292:ARG:HG2 | 2.07 | 0.54 |
| 1:C:368:GLN:HG3 | 1:C:383:GLY:C | 2.28 | 0.54 |
| 1:D:666:ASN:O | 1:D:669:SER:HB3 | 2.07 | 0.54 |
| 1:D:679:TYR:C | 1:D:679:TYR:CD1 | 2.80 | 0.54 |
| 1:E:118:GLN:OE1 | 1:E:118:GLN:HA | 2.07 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:128:MET:HE1 | 1:E:235:THR:HB | 1.90 | 0.54 |
| 1:E:515:LYS:HB3 | 1:E:515:LYS:HZ2 | 1.69 | 0.54 |
| 1:F:165:GLN:HG2 | 1:F:251:PRO:CG | 2.36 | 0.54 |
| 1:F:464:VAL:HG23 | 1:F:465:LEU:CD1 | 2.38 | 0.54 |
| 1:F:724:ARG:C | 1:F:727:GLN:HB2 | 2.28 | 0.54 |
| 1:A:88:LYS:HZ3 | 1:A:172:GLU:CD | 2.09 | 0.54 |
| 1:A:175:LYS:HZ2 | 1:A:175:LYS:CB | 2.16 | 0.54 |
| 1:A:189:ASP:O | 1:A:190:PRO:C | 2.46 | 0.54 |
| 1:A:327:LEU:HG | 1:A:595:ILE:HG23 | 1.90 | 0.54 |
| 1:A:412:GLU:C | 1:A:414:LYS:H | 2.11 | 0.54 |
| 1:A:527:LYS:O | 1:A:529:VAL:N | 2.40 | 0.54 |
| 1:A:581:GLN:O | 1:A:629:ASN:HA | 2.08 | 0.54 |
| 1:C:236:GLU:HA | 1:C:239:HIS:HD2 | 1.71 | 0.54 |
| 1:C:351:HIS:HB2 | 1:C:386:GLU:CG | 2.38 | 0.54 |
| 1:C:598:PRO:HG3 | 1:C:624:TYR:OH | 2.07 | 0.54 |
| 1:C:617:LYS:HZ2 | 1:C:618:ASN:ND2 | 1.88 | 0.54 |
| 1:C:679:TYR:CD1 | 1:C:679:TYR:C | 2.81 | 0.54 |
| 1:D:115:LYS:HG3 | 1:D:153:ILE:HD13 | 1.88 | 0.54 |
| 1:D:172:GLU:HB3 | 1:D:246:SER:HA | 1.90 | 0.54 |
| 1:D:225:ILE:HG23 | 1:D:229:PHE:CD2 | 2.42 | 0.54 |
| 1:D:527:LYS:O | 1:D:529:VAL:N | 2.40 | 0.54 |
| 1:D:529:VAL:HG21 | 2:R:109:MET:CE | 2.38 | 0.54 |
| 1:D:595:ILE:HG22 | 1:D:596:ILE:N | 2.22 | 0.54 |
| 1:D:700:TYR:CD1 | 1:D:727:GLN:HB3 | 2.43 | 0.54 |
| 1:E:112:VAL:HG12 | 1:E:113:GLU:HG3 | 1.88 | 0.54 |
| 1:E:697:ILE:CD1 | 1:E:732:ILE:HD13 | 2.37 | 0.54 |
| 1:F:112:VAL:C | 1:F:114:HIS:H | 2.11 | 0.54 |
| 1:F:172:GLU:O | 1:F:176:GLY:N | 2.35 | 0.54 |
| 1:A:127:SER:C | 1:A:133:GLU:OE2 | 2.44 | 0.54 |
| 1:A:173:ILE:HG13 | 1:A:242:SER:HB3 | 1.89 | 0.54 |
| 1:A:225:ILE:HG23 | 1:A:229:PHE:CD2 | 2.42 | 0.54 |
| 1:A:666:ASN:O | 1:A:669:SER:HB3 | 2.08 | 0.54 |
| 1:A:781:ASN:O | 1:A:789:ASN:ND2 | 2.41 | 0.54 |
| 1:A:794:GLN:O | 1:A:797:ILE:HG12 | 2.07 | 0.54 |
| 1:C:666:ASN:O | 1:C:669:SER:HB3 | 2.08 | 0.54 |
| 1:D:172:GLU:O | 1:D:175:LYS:HB3 | 2.08 | 0.54 |
| 1:D:173:ILE:HG13 | 1:D:242:SER:HB3 | 1.88 | 0.54 |
| 1:D:255:THR:O | 1:D:259:LEU:N | 2.27 | 0.54 |
| 1:D:268:MET:HA | 1:D:271:LEU:HD12 | 1.88 | 0.54 |
| 1:D:530:THR:HG21 | 2:R:145:MET:CE | 2.37 | 0.54 |
| 1:D:557:LEU:HG | 1:D:575:VAL:CG1 | 2.37 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:225:ILE:HG23 | 1:E:229:PHE:CD2 | 2.43 | 0.54 |
| 1:E:450:ASN:ND2 | 1:E:452:GLU:CG | 2.70 | 0.54 |
| 1:E:777:TYR:HA | 1:E:780:LEU:HD22 | 1.88 | 0.54 |
| 1:F:217:LYS:HZ1 | 1:F:236:GLU:HB2 | 1.73 | 0.54 |
| 1:F:635:ILE:H | 1:F:635:ILE:HD12 | 1.72 | 0.54 |
| 1:F:700:TYR:CD1 | 1:F:727:GLN:HB3 | 2.43 | 0.54 |
| 2:Q:79:THR:C | 2:Q:81:SER:N | 2.60 | 0.54 |
| 2:S:63:ILE:HG23 | 2:S:67:GLU:HB3 | 1.90 | 0.54 |
| 1:A:246:SER:O | 1:A:250:ALA:HB2 | 2.08 | 0.54 |
| 1:A:351:HIS:HB2 | 1:A:386:GLU:CG | 2.38 | 0.54 |
| 1:A:596:ILE:O | 1:A:596:ILE:HG22 | 2.07 | 0.54 |
| 1:B:109:ILE:O | 1:B:109:ILE:HG22 | 2.08 | 0.54 |
| 1:B:189:ASP:HB3 | 1:B:190:PRO:HD2 | 1.90 | 0.54 |
| 1:B:450:ASN:ND2 | 1:B:452:GLU:CG | 2.69 | 0.54 |
| 1:B:504:ILE:HD12 | 1:B:504:ILE:H | 1.73 | 0.54 |
| 1:B:695:LYS:HE3 | 2:P:19:PHE:CD1 | 2.42 | 0.54 |
| 1:C:443:GLU:O | 1:C:455:TYR:HA | 2.08 | 0.54 |
| 1:D:112:VAL:HG12 | 1:D:113:GLU:HG3 | 1.89 | 0.54 |
| 1:D:706:ASN:O | 2:R:130:ILE:HG23 | 2.07 | 0.54 |
| 1:D:715:GLU:HG3 | 1:D:718:ARG:NH1 | 2.17 | 0.54 |
| 1:E:306:GLY:O | 1:E:336:THR:HG23 | 2.07 | 0.54 |
| 1:E:412:GLU:HA | 1:E:415:GLU:OE2 | 2.08 | 0.54 |
| 1:E:444:PHE:CD2 | 1:E:455:TYR:HB3 | 2.43 | 0.54 |
| 1:E:595:ILE:HG22 | 1:E:596:ILE:N | 2.23 | 0.54 |
| 1:F:85:LEU:HD12 | 1:F:168:GLU:OE1 | 2.08 | 0.54 |
| 1:F:557:LEU:HG | 1:F:575:VAL:CG1 | 2.37 | 0.54 |
| 1:F:695:LYS:HE3 | 2:T:19:PHE:CD1 | 2.43 | 0.54 |
| 1:F:777:TYR:HA | 1:F:780:LEU:HD22 | 1.89 | 0.54 |
| 2:Q:63:ILE:HG23 | 2:Q:67:GLU:HB3 | 1.90 | 0.54 |
| 2:Q:107:HIS:O | 2:Q:107:HIS:CG | 2.60 | 0.54 |
| 1:A:172:GLU:HB3 | 1:A:246:SER:HA | 1.90 | 0.53 |
| 1:A:305:SER:HB2 | 1:A:594:PHE:CD1 | 2.43 | 0.53 |
| 1:A:512:GLU:HA | 1:A:515:LYS:HZ2 | 1.73 | 0.53 |
| 1:B:115:LYS:HB2 | 1:B:118:GLN:CG | 2.38 | 0.53 |
| 1:B:464:VAL:HG23 | 1:B:465:LEU:CD1 | 2.38 | 0.53 |
| 1:C:81:GLN:OE1 | 1:C:156:ILE:HG21 | 2.07 | 0.53 |
| 1:C:444:PHE:CD2 | 1:C:455:TYR:HB3 | 2.43 | 0.53 |
| 1:C:450:ASN:ND2 | 1:C:452:GLU:CG | 2.70 | 0.53 |
| 1:D:109:ILE:HG22 | 1:D:109:ILE:O | 2.08 | 0.53 |
| 1:D:246:SER:O | 1:D:250:ALA:N | 2.37 | 0.53 |
| 1:D:420:LEU:HD12 | 1:D:436:GLU:HB3 | 1.90 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:271:LEU:HD13 | 1:E:276:PHE:CE2 | 2.43 | 0.53 |
| 1:E:472:ARG:HH11 | 1:E:472:ARG:CB | 2.17 | 0.53 |
| 1:E:529:VAL:HG21 | 2:S:109:MET:HE1 | 1.89 | 0.53 |
| 1:E:628:PHE:CD1 | 1:E:645:TRP:CD1 | 2.96 | 0.53 |
| 1:F:657:ILE:HG13 | 1:F:756:ILE:CD1 | 2.34 | 0.53 |
| 1:F:728:ALA:O | 1:F:729:TYR:C | 2.46 | 0.53 |
| 2:Q:12:PHE:HB3 | 2:Q:68:PHE:HE2 | 1.73 | 0.53 |
| 2:Q:57:ALA:C | 2:Q:59:GLY:H | 2.11 | 0.53 |
| 1:A:112:VAL:C | 1:A:114:HIS:H | 2.11 | 0.53 |
| 1:A:217:LYS:HB3 | 1:A:236:GLU:OE1 | 2.09 | 0.53 |
| 1:A:236:GLU:HA | 1:A:239:HIS:HD2 | 1.73 | 0.53 |
| 1:A:305:SER:OG | 1:A:307:LEU:HD13 | 2.09 | 0.53 |
| 1:A:345:THR:HB | 1:A:491:ASP:CB | 2.36 | 0.53 |
| 1:A:694:VAL:HG23 | 2:O:18:LEU:HD21 | 1.87 | 0.53 |
| 1:C:234:LEU:CD2 | 1:C:235:THR:H | 2.20 | 0.53 |
| 1:C:310:GLU:O | 1:C:314:ALA:HB2 | 2.08 | 0.53 |
| 1:C:527:LYS:O | 1:C:529:VAL:N | 2.41 | 0.53 |
| 1:C:595:ILE:HG22 | 1:C:596:ILE:N | 2.23 | 0.53 |
| 1:C:635:ILE:H | 1:C:635:ILE:HD12 | 1.73 | 0.53 |
| 1:D:412:GLU:C | 1:D:414:LYS:H | 2.12 | 0.53 |
| 1:D:777:TYR:HA | 1:D:780:LEU:HD22 | 1.89 | 0.53 |
| 1:E:305:SER:HB2 | 1:E:594:PHE:CD1 | 2.43 | 0.53 |
| 1:E:700:TYR:CD1 | 1:E:727:GLN:HB3 | 2.43 | 0.53 |
| 1:F:90:PRO:HD3 | 1:F:249:PHE:CE2 | 2.43 | 0.53 |
| 2:O:63:ILE:HG23 | 2:O:67:GLU:HB3 | 1.89 | 0.53 |
| 2:Q:32:LEU:HD22 | 2:Q:63:ILE:HD12 | 1.87 | 0.53 |
| 2:Q:44:THR:C | 2:Q:46:ALA:N | 2.62 | 0.53 |
| 1:A:387:ASN:HD22 | 1:A:387:ASN:N | 2.05 | 0.53 |
| 1:A:456:LYS:HA | 1:A:469:PHE:CE1 | 2.43 | 0.53 |
| 1:A:533:LEU:O | 1:A:533:LEU:HD22 | 2.08 | 0.53 |
| 1:A:715:GLU:HG3 | 1:A:767:GLN:HE21 | 1.73 | 0.53 |
| 1:A:728:ALA:O | 1:A:729:TYR:C | 2.47 | 0.53 |
| 1:B:353:LYS:H | 1:B:368:GLN:NE2 | 2.05 | 0.53 |
| 1:B:443:GLU:O | 1:B:455:TYR:HA | 2.09 | 0.53 |
| 1:B:615:ILE:HD12 | 1:B:645:TRP:CH2 | 2.38 | 0.53 |
| 1:B:628:PHE:CD1 | 1:B:645:TRP:CD1 | 2.96 | 0.53 |
| 1:B:629:ASN:HB3 | 1:B:632:TYR:CE1 | 2.43 | 0.53 |
| 1:C:109:ILE:O | 1:C:109:ILE:HG22 | 2.08 | 0.53 |
| 1:C:504:ILE:HD12 | 1:C:504:ILE:H | 1.72 | 0.53 |
| 1:C:527:LYS:O | 1:C:528:GLY:C | 2.46 | 0.53 |
| 1:C:700:TYR:CD1 | 1:C:727:GLN:HB3 | 2.43 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:O:13:LYS:C | 2:O:15:ALA:H | 2.09 | 0.53 |
| 2:O:36:MET:O | 2:O:40:GLY:N | 2.41 | 0.53 |
| 2:O:51:MET:CB | 2:O:71:MET:HE2 | 2.29 | 0.53 |
| 2:T:36:MET:O | 2:T:40:GLY:N | 2.42 | 0.53 |
| 1:A:171:TYR:O | 1:A:175:LYS:NZ | 2.41 | 0.53 |
| 1:A:310:GLU:O | 1:A:314:ALA:HB2 | 2.08 | 0.53 |
| 1:A:420:LEU:HD12 | 1:A:436:GLU:HB3 | 1.91 | 0.53 |
| 1:A:611:THR:HG22 | 1:A:615:ILE:HD11 | 1.90 | 0.53 |
| 1:A:628:PHE:CD1 | 1:A:645:TRP:CD1 | 2.96 | 0.53 |
| 1:B:310:GLU:O | 1:B:314:ALA:HB2 | 2.08 | 0.53 |
| 1:C:454:GLN:HG2 | 1:C:473:ASN:HA | 1.90 | 0.53 |
| 1:D:454:GLN:HG2 | 1:D:473:ASN:HA | 1.90 | 0.53 |
| 1:E:187:SER:C | 1:E:188:LEU:O | 2.41 | 0.53 |
| 1:E:305:SER:OG | 1:E:307:LEU:HD13 | 2.08 | 0.53 |
| 1:E:789:ASN:O | 1:E:792:VAL:HB | 2.08 | 0.53 |
| 1:F:76:LEU:HD22 | 1:F:76:LEU:N | 2.17 | 0.53 |
| 1:F:76:LEU:O | 1:F:78:LYS:N | 2.42 | 0.53 |
| 1:F:171:TYR:O | 1:F:175:LYS:NZ | 2.41 | 0.53 |
| 1:F:597:ASN:HB2 | 1:F:598:PRO:HD2 | 1.90 | 0.53 |
| 2:R:12:PHE:HB3 | 2:R:68:PHE:HE2 | 1.72 | 0.53 |
| 2:T:12:PHE:HB3 | 2:T:68:PHE:HE2 | 1.73 | 0.53 |
| 2:T:15:ALA:HB1 | 2:T:35:VAL:CG1 | 2.39 | 0.53 |
| 1:A:217:LYS:CB | 1:A:236:GLU:HG3 | 2.39 | 0.53 |
| 1:B:118:GLN:HE22 | 1:B:143:PHE:HD2 | 1.55 | 0.53 |
| 1:B:339:ILE:O | 1:B:342:GLY:N | 2.35 | 0.53 |
| 1:B:527:LYS:O | 1:B:528:GLY:C | 2.46 | 0.53 |
| 1:C:275:GLY:O | 1:C:278:LYS:HB2 | 2.09 | 0.53 |
| 1:C:629:ASN:HB3 | 1:C:632:TYR:CE1 | 2.44 | 0.53 |
| 1:D:327:LEU:HG | 1:D:595:ILE:HG23 | 1.90 | 0.53 |
| 1:E:387:ASN:HD22 | 1:E:387:ASN:N | 2.05 | 0.53 |
| 1:E:443:GLU:O | 1:E:455:TYR:HA | 2.08 | 0.53 |
| 1:E:454:GLN:HG2 | 1:E:473:ASN:HA | 1.90 | 0.53 |
| 1:E:533:LEU:O | 1:E:533:LEU:HD22 | 2.08 | 0.53 |
| 1:F:109:ILE:HG22 | 1:F:109:ILE:O | 2.08 | 0.53 |
| 1:F:781:ASN:O | 1:F:789:ASN:ND2 | 2.41 | 0.53 |
| 2:P:78:ASP:C | 2:P:80:ASP:H | 2.12 | 0.53 |
| 1:A:444:PHE:CD2 | 1:A:455:TYR:HB3 | 2.43 | 0.53 |
| 1:B:454:GLN:HG2 | 1:B:473:ASN:HA | 1.89 | 0.53 |
| 1:B:697:ILE:C | 1:B:699:GLY:H | 2.12 | 0.53 |
| 1:B:789:ASN:O | 1:B:792:VAL:HB | 2.09 | 0.53 |
| 1:C:235:THR:HA | 1:C:238:GLN:HG3 | 1.89 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:115:LYS:HE3 | 1:D:116:GLU:HG2 | 1.91 | 0.53 |
| 1:D:297:LYS:NZ | 1:D:601:GLU:OE1 | 2.33 | 0.53 |
| 1:D:501:LEU:HD22 | 2:R:112:LEU:HG | 1.91 | 0.53 |
| 1:E:217:LYS:CB | 1:E:236:GLU:HG3 | 2.39 | 0.53 |
| 1:E:327:LEU:HG | 1:E:595:ILE:HG23 | 1.91 | 0.53 |
| 1:E:694:VAL:HG23 | 2:S:18:LEU:HD21 | 1.91 | 0.53 |
| 1:E:724:ARG:C | 1:E:727:GLN:HB2 | 2.29 | 0.53 |
| 1:F:217:LYS:HB3 | 1:F:236:GLU:OE1 | 2.08 | 0.53 |
| 1:F:236:GLU:HA | 1:F:239:HIS:HD2 | 1.72 | 0.53 |
| 2:O:57:ALA:C | 2:O:59:GLY:H | 2.11 | 0.53 |
| 1:A:115:LYS:HE3 | 1:A:116:GLU:HG2 | 1.90 | 0.53 |
| 1:A:275:GLY:O | 1:A:278:LYS:HB2 | 2.09 | 0.53 |
| 1:A:473:ASN:OD1 | 1:A:473:ASN:N | 2.39 | 0.53 |
| 1:B:597:ASN:HB2 | 1:B:598:PRO:HD2 | 1.91 | 0.53 |
| 1:C:180:ASP:O | 1:C:183:SER:N | 2.39 | 0.53 |
| 1:C:628:PHE:CD1 | 1:C:645:TRP:CD1 | 2.96 | 0.53 |
| 1:D:275:GLY:O | 1:D:278:LYS:HB2 | 2.07 | 0.53 |
| 1:D:456:LYS:HA | 1:D:469:PHE:CE1 | 2.44 | 0.53 |
| 1:D:515:LYS:HB3 | 1:D:515:LYS:HZ2 | 1.72 | 0.53 |
| 1:E:71:PHE:CG | 1:E:73:ASN:HB2 | 2.44 | 0.53 |
| 1:E:412:GLU:C | 1:E:414:LYS:H | 2.12 | 0.53 |
| 1:E:456:LYS:HA | 1:E:469:PHE:CE1 | 2.44 | 0.53 |
| 1:F:412:GLU:C | 1:F:414:LYS:H | 2.12 | 0.53 |
| 1:F:520:PRO:HG2 | 1:F:521:ASN:N | 2.24 | 0.53 |
| 2:P:57:ALA:C | 2:P:59:GLY:H | 2.10 | 0.53 |
| 2:R:57:ALA:C | 2:R:59:GLY:H | 2.11 | 0.53 |
| 1:A:697:ILE:C | 1:A:699:GLY:H | 2.11 | 0.53 |
| 1:A:700:TYR:CD1 | 1:A:727:GLN:HB3 | 2.44 | 0.53 |
| 1:B:235:THR:HA | 1:B:238:GLN:HG3 | 1.90 | 0.53 |
| 1:B:412:GLU:C | 1:B:414:LYS:H | 2.12 | 0.53 |
| 1:B:728:ALA:O | 1:B:729:TYR:C | 2.47 | 0.53 |
| 1:C:118:GLN:OE1 | 1:C:118:GLN:HA | 2.08 | 0.53 |
| 1:C:509:PRO:HG2 | 1:C:512:GLU:HG3 | 1.91 | 0.53 |
| 1:C:611:THR:HG22 | 1:C:615:ILE:HD11 | 1.91 | 0.53 |
| 1:C:694:VAL:HG23 | 2:Q:18:LEU:HD21 | 1.90 | 0.53 |
| 1:D:419:ILE:HD12 | 1:D:435:LEU:HD13 | 1.91 | 0.53 |
| 1:D:581:GLN:O | 1:D:629:ASN:HA | 2.08 | 0.53 |
| 1:D:694:VAL:HG23 | 2:R:18:LEU:HD21 | 1.90 | 0.53 |
| 1:E:110:ASP:O | 1:E:111:LEU:C | 2.47 | 0.53 |
| 1:E:217:LYS:HB3 | 1:E:236:GLU:OE1 | 2.07 | 0.53 |
| 1:E:335:ALA:CB | 1:E:489:THR:OG1 | 2.57 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:520:PRO:HG2 | 1:E:521:ASN:N | 2.24 | 0.53 |
| 1:F:131:ARG:HG3 | 1:F:243:LEU:CD1 | 2.39 | 0.53 |
| 1:F:351:HIS:HB2 | 1:F:386:GLU:CG | 2.39 | 0.53 |
| 1:F:387:ASN:HD22 | 1:F:387:ASN:N | 2.06 | 0.53 |
| 1:F:412:GLU:HA | 1:F:415:GLU:OE2 | 2.09 | 0.53 |
| 2:O:107:HIS:CG | 2:O:107:HIS:O | 2.62 | 0.53 |
| 2:T:79:THR:C | 2:T:81:SER:N | 2.61 | 0.53 |
| 1:A:443:GLU:O | 1:A:455:TYR:HA | 2.09 | 0.53 |
| 1:A:517:VAL:HB | 1:A:525:LYS:HZ1 | 1.74 | 0.53 |
| 1:B:172:GLU:HB3 | 1:B:246:SER:HA | 1.90 | 0.53 |
| 1:B:335:ALA:CB | 1:B:489:THR:OG1 | 2.57 | 0.53 |
| 1:B:628:PHE:CE2 | 2:P:90:ARG:CZ | 2.92 | 0.53 |
| 1:B:694:VAL:HG23 | 2:P:18:LEU:HD21 | 1.89 | 0.53 |
| 1:D:443:GLU:O | 1:D:455:TYR:HA | 2.08 | 0.53 |
| 1:D:445:ARG:HD3 | 1:D:471:TRP:CE2 | 2.43 | 0.53 |
| 1:D:504:ILE:HD12 | 1:D:504:ILE:H | 1.73 | 0.53 |
| 1:D:635:ILE:H | 1:D:635:ILE:HD12 | 1.74 | 0.53 |
| 1:D:697:ILE:CD1 | 1:D:732:ILE:CD1 | 2.87 | 0.53 |
| 1:F:172:GLU:O | 1:F:175:LYS:HB3 | 2.08 | 0.53 |
| 1:F:628:PHE:CD1 | 1:F:645:TRP:CD1 | 2.97 | 0.53 |
| 1:F:739:LYS:HG2 | 1:F:740:GLN:H | 1.74 | 0.53 |
| 2:P:107:HIS:CG | 2:P:107:HIS:O | 2.60 | 0.53 |
| 2:P:109:MET:O | 2:P:114:GLU:HB3 | 2.09 | 0.53 |
| 2:Q:36:MET:O | 2:Q:40:GLY:N | 2.42 | 0.53 |
| 2:Q:55:VAL:HG22 | 2:Q:55:VAL:O | 2.08 | 0.53 |
| 2:R:97:ASN:C | 2:R:97:ASN:HD22 | 2.12 | 0.53 |
| 2:R:109:MET:O | 2:R:114:GLU:HB3 | 2.09 | 0.53 |
| 2:S:36:MET:O | 2:S:40:GLY:N | 2.41 | 0.53 |
| 1:A:131:ARG:HG3 | 1:A:243:LEU:CD1 | 2.40 | 0.53 |
| 1:A:633:ASN:O | 1:A:642:TYR:HE1 | 1.91 | 0.53 |
| 1:B:595:ILE:HG22 | 1:B:596:ILE:N | 2.24 | 0.53 |
| 1:B:643:ILE:HG22 | 1:B:644:GLU:H | 1.74 | 0.53 |
| 1:B:710:HIS:C | 1:B:712:PHE:H | 2.13 | 0.53 |
| 1:C:456:LYS:HA | 1:C:469:PHE:CE1 | 2.44 | 0.53 |
| 1:C:533:LEU:HD22 | 1:C:533:LEU:O | 2.08 | 0.53 |
| 1:C:739:LYS:HG2 | 1:C:740:GLN:H | 1.74 | 0.53 |
| 1:C:776:LEU:HD23 | 1:C:776:LEU:C | 2.29 | 0.53 |
| 1:D:387:ASN:N | 1:D:387:ASN:HD22 | 2.07 | 0.53 |
| 1:D:444:PHE:CD2 | 1:D:455:TYR:HB3 | 2.44 | 0.53 |
| 1:D:517:VAL:HG23 | 1:D:518:ASN:ND2 | 2.24 | 0.53 |
| 1:E:76:LEU:O | 1:E:78:LYS:N | 2.42 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:310:GLU:O | 1:E:314:ALA:HB2 | 2.09 | 0.53 |
| 1:E:351:HIS:HB2 | 1:E:386:GLU:CG | 2.38 | 0.53 |
| 1:E:464:VAL:HG23 | 1:E:465:LEU:CD1 | 2.38 | 0.53 |
| 1:E:611:THR:HG22 | 1:E:615:ILE:HD11 | 1.91 | 0.53 |
| 1:F:308:VAL:O | 1:F:311:HIS:HB2 | 2.09 | 0.53 |
| 2:P:12:PHE:HB3 | 2:P:68:PHE:HE2 | 1.73 | 0.53 |
| 2:P:55:VAL:O | 2:P:55:VAL:HG22 | 2.09 | 0.53 |
| 2:Q:78:ASP:C | 2:Q:80:ASP:H | 2.12 | 0.53 |
| 1:A:697:ILE:CD1 | 1:A:732:ILE:HD13 | 2.39 | 0.52 |
| 1:A:724:ARG:C | 1:A:727:GLN:HB2 | 2.28 | 0.52 |
| 1:A:765:THR:HA | 1:A:769:SER:CB | 2.20 | 0.52 |
| 1:B:148:GLU:HG3 | 1:B:149:THR:N | 2.24 | 0.52 |
| 1:C:445:ARG:HD3 | 1:C:471:TRP:CE2 | 2.43 | 0.52 |
| 1:C:789:ASN:O | 1:C:792:VAL:HB | 2.08 | 0.52 |
| 1:D:611:THR:HG22 | 1:D:615:ILE:HD11 | 1.92 | 0.52 |
| 1:D:711:ILE:C | 1:D:712:PHE:HD2 | 2.12 | 0.52 |
| 1:E:309:PRO:O | 1:E:313:ASP:HB2 | 2.07 | 0.52 |
| 1:E:420:LEU:HD12 | 1:E:436:GLU:HB3 | 1.90 | 0.52 |
| 1:E:697:ILE:CD1 | 1:E:732:ILE:CD1 | 2.87 | 0.52 |
| 1:E:781:ASN:O | 1:E:789:ASN:ND2 | 2.42 | 0.52 |
| 1:F:71:PHE:CG | 1:F:73:ASN:HB2 | 2.44 | 0.52 |
| 1:F:305:SER:OG | 1:F:307:LEU:HD13 | 2.09 | 0.52 |
| 1:F:443:GLU:O | 1:F:455:TYR:HA | 2.08 | 0.52 |
| 1:F:697:ILE:CD1 | 1:F:732:ILE:CD1 | 2.87 | 0.52 |
| 1:F:708:ALA:O | 1:F:711:ILE:HG12 | 2.07 | 0.52 |
| 2:O:51:MET:O | 2:O:55:VAL:HG12 | 2.09 | 0.52 |
| 2:R:44:THR:C | 2:R:46:ALA:N | 2.62 | 0.52 |
| 2:S:15:ALA:HB1 | 2:S:35:VAL:CG1 | 2.39 | 0.52 |
| 2:S:55:VAL:HG22 | 2:S:55:VAL:O | 2.09 | 0.52 |
| 1:A:109:ILE:HG22 | 1:A:109:ILE:O | 2.08 | 0.52 |
| 1:A:148:GLU:HG3 | 1:A:149:THR:N | 2.24 | 0.52 |
| 1:B:234:LEU:CD2 | 1:B:235:THR:HG23 | 2.39 | 0.52 |
| 1:B:412:GLU:HA | 1:B:415:GLU:OE2 | 2.09 | 0.52 |
| 1:B:781:ASN:O | 1:B:789:ASN:ND2 | 2.42 | 0.52 |
| 1:C:246:SER:O | 1:C:250:ALA:N | 2.41 | 0.52 |
| 1:C:271:LEU:HD13 | 1:C:276:PHE:CE2 | 2.44 | 0.52 |
| 1:C:697:ILE:C | 1:C:699:GLY:H | 2.11 | 0.52 |
| 1:C:724:ARG:C | 1:C:727:GLN:HB2 | 2.29 | 0.52 |
| 1:C:728:ALA:O | 1:C:729:TYR:C | 2.47 | 0.52 |
| 1:D:339:ILE:O | 1:D:342:GLY:N | 2.35 | 0.52 |
| 1:D:658:PRO:HG3 | 1:D:752:LEU:CD2 | 2.37 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:109:ILE:O | 1:E:109:ILE:HG22 | 2.09 | 0.52 |
| 1:E:715:GLU:HG3 | 1:E:767:GLN:HE21 | 1.74 | 0.52 |
| 1:F:611:THR:HG22 | 1:F:615:ILE:HD11 | 1.91 | 0.52 |
| 2:O:55:VAL:O | 2:O:55:VAL:HG22 | 2.09 | 0.52 |
| 2:P:37:ARG:HA | 2:P:41:GLN:O | 2.10 | 0.52 |
| 2:S:109:MET:HG3 | 2:S:116:LEU:CD1 | 2.39 | 0.52 |
| 1:A:71:PHE:CG | 1:A:73:ASN:HB2 | 2.44 | 0.52 |
| 1:A:504:ILE:HD12 | 1:A:504:ILE:H | 1.73 | 0.52 |
| 1:B:501:LEU:HD22 | 2:P:112:LEU:HG | 1.91 | 0.52 |
| 1:C:79:ILE:O | 1:C:81:GLN:N | 2.43 | 0.52 |
| 1:C:165:GLN:HG2 | 1:C:251:PRO:CG | 2.38 | 0.52 |
| 1:C:464:VAL:HG23 | 1:C:465:LEU:CD1 | 2.37 | 0.52 |
| 1:D:412:GLU:HA | 1:D:415:GLU:OE2 | 2.08 | 0.52 |
| 1:D:633:ASN:O | 1:D:642:TYR:HE1 | 1.91 | 0.52 |
| 1:D:781:ASN:O | 1:D:789:ASN:ND2 | 2.41 | 0.52 |
| 1:D:789:ASN:O | 1:D:792:VAL:HB | 2.09 | 0.52 |
| 1:E:345:THR:HB | 1:E:491:ASP:CB | 2.35 | 0.52 |
| 1:F:172:GLU:HB3 | 1:F:246:SER:HA | 1.90 | 0.52 |
| 2:O:109:MET:O | 2:O:114:GLU:HB3 | 2.09 | 0.52 |
| 2:R:36:MET:O | 2:R:40:GLY:N | 2.43 | 0.52 |
| 1:A:71:PHE:O | 1:A:78:LYS:NZ | 2.43 | 0.52 |
| 1:A:76:LEU:HD22 | 1:A:76:LEU:N | 2.18 | 0.52 |
| 1:A:706:ASN:O | 2:O:130:ILE:HG23 | 2.08 | 0.52 |
| 1:A:739:LYS:HG2 | 1:A:740:GLN:H | 1.74 | 0.52 |
| 1:B:184:LYS:CE | 1:B:191:GLU:HB2 | 2.40 | 0.52 |
| 1:B:305:SER:HB2 | 1:B:594:PHE:CD1 | 2.44 | 0.52 |
| 1:B:327:LEU:HG | 1:B:595:ILE:HG23 | 1.92 | 0.52 |
| 1:B:715:GLU:HG3 | 1:B:767:GLN:HE21 | 1.75 | 0.52 |
| 1:C:71:PHE:HB2 | 1:C:108:ASP:HB2 | 1.91 | 0.52 |
| 1:C:473:ASN:OD1 | 1:C:473:ASN:N | 2.40 | 0.52 |
| 1:C:609:GLU:OE2 | 1:C:609:GLU:N | 2.35 | 0.52 |
| 1:D:118:GLN:HE22 | 1:D:143:PHE:HD2 | 1.56 | 0.52 |
| 1:D:171:TYR:O | 1:D:171:TYR:CD1 | 2.62 | 0.52 |
| 1:D:353:LYS:H | 1:D:368:GLN:NE2 | 2.06 | 0.52 |
| 1:D:371:SER:O | 1:D:372:LYS:C | 2.48 | 0.52 |
| 1:E:148:GLU:HG3 | 1:E:149:THR:N | 2.24 | 0.52 |
| 1:E:171:TYR:O | 1:E:175:LYS:NZ | 2.42 | 0.52 |
| 1:E:180:ASP:CG | 1:E:181:ILE:N | 2.62 | 0.52 |
| 1:F:217:LYS:CB | 1:F:236:GLU:HG3 | 2.40 | 0.52 |
| 1:F:234:LEU:CD2 | 1:F:235:THR:HG23 | 2.40 | 0.52 |
| 1:F:345:THR:HB | 1:F:491:ASP:CB | 2.35 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:515:LYS:HB3 | 1:F:515:LYS:HZ2 | 1.73 | 0.52 |
| 1:F:533:LEU:O | 1:F:533:LEU:HD22 | 2.09 | 0.52 |
| 1:F:789:ASN:O | 1:F:792:VAL:HB | 2.09 | 0.52 |
| 2:O:44:THR:C | 2:O:46:ALA:N | 2.62 | 0.52 |
| 2:P:16:PHE:CZ | 2:P:27:ILE:HG12 | 2.44 | 0.52 |
| 2:Q:16:PHE:CZ | 2:Q:27:ILE:HG12 | 2.44 | 0.52 |
| 2:Q:49:GLN:O | 2:Q:53:ASN:CB | 2.58 | 0.52 |
| 2:R:16:PHE:CZ | 2:R:27:ILE:HG12 | 2.45 | 0.52 |
| 2:R:49:GLN:O | 2:R:53:ASN:CB | 2.58 | 0.52 |
| 2:R:78:ASP:C | 2:R:80:ASP:H | 2.12 | 0.52 |
| 2:R:107:HIS:CG | 2:R:107:HIS:O | 2.63 | 0.52 |
| 2:T:16:PHE:CZ | 2:T:27:ILE:HG12 | 2.45 | 0.52 |
| 2:T:100:ILE:HB | 2:T:136:VAL:HG22 | 1.90 | 0.52 |
| 1:B:79:ILE:O | 1:B:81:GLN:N | 2.42 | 0.52 |
| 1:B:456:LYS:HA | 1:B:469:PHE:CE1 | 2.44 | 0.52 |
| 1:B:653:LYS:O | 1:B:655:ASN:N | 2.42 | 0.52 |
| 1:B:739:LYS:HG2 | 1:B:740:GLN:H | 1.74 | 0.52 |
| 1:C:308:VAL:O | 1:C:311:HIS:HB2 | 2.09 | 0.52 |
| 1:C:412:GLU:C | 1:C:414:LYS:H | 2.12 | 0.52 |
| 1:C:596:ILE:HG22 | 1:C:596:ILE:O | 2.09 | 0.52 |
| 1:D:217:LYS:CB | 1:D:236:GLU:HG3 | 2.39 | 0.52 |
| 1:D:246:SER:O | 1:D:250:ALA:HB2 | 2.10 | 0.52 |
| 1:D:305:SER:OG | 1:D:307:LEU:HD13 | 2.10 | 0.52 |
| 1:D:628:PHE:CD1 | 1:D:645:TRP:CD1 | 2.98 | 0.52 |
| 1:D:697:ILE:C | 1:D:699:GLY:H | 2.12 | 0.52 |
| 1:D:710:HIS:C | 1:D:712:PHE:H | 2.13 | 0.52 |
| 1:E:118:GLN:HE22 | 1:E:143:PHE:HD2 | 1.57 | 0.52 |
| 1:E:401:ILE:HD11 | 1:E:487:PRO:HD3 | 1.92 | 0.52 |
| 1:E:419:ILE:HD12 | 1:E:435:LEU:HD13 | 1.90 | 0.52 |
| 1:E:513:TRP:CZ3 | 1:E:517:VAL:HG11 | 2.45 | 0.52 |
| 1:F:454:GLN:HG2 | 1:F:473:ASN:HA | 1.91 | 0.52 |
| 1:F:456:LYS:HA | 1:F:469:PHE:CE1 | 2.44 | 0.52 |
| 1:F:679:TYR:CD1 | 1:F:679:TYR:O | 2.63 | 0.52 |
| 2:O:109:MET:HG3 | 2:O:116:LEU:CD1 | 2.40 | 0.52 |
| 2:P:36:MET:O | 2:P:40:GLY:N | 2.42 | 0.52 |
| 2:R:15:ALA:HB1 | 2:R:35:VAL:CG1 | 2.40 | 0.52 |
| 2:R:55:VAL:O | 2:R:55:VAL:HG22 | 2.09 | 0.52 |
| 2:S:79:THR:C | 2:S:81:SER:N | 2.61 | 0.52 |
| 2:T:37:ARG:HA | 2:T:41:GLN:O | 2.10 | 0.52 |
| 1:A:293:ILE:CD1 | 1:A:617:LYS:HD3 | 2.37 | 0.52 |
| 1:B:199:LEU:C | 1:B:201:ASP:N | 2.63 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:217:LYS:CB | 1:B:236:GLU:HG3 | 2.40 | 0.52 |
| 1:B:596:ILE:O | 1:B:596:ILE:HG22 | 2.08 | 0.52 |
| 1:B:697:ILE:CD1 | 1:B:732:ILE:HD13 | 2.40 | 0.52 |
| 1:C:122:GLU:HG3 | 1:C:147:ARG:HB2 | 1.92 | 0.52 |
| 1:C:557:LEU:HG | 1:C:575:VAL:CG1 | 2.39 | 0.52 |
| 1:D:76:LEU:O | 1:D:78:LYS:N | 2.43 | 0.52 |
| 1:D:739:LYS:HG2 | 1:D:740:GLN:H | 1.74 | 0.52 |
| 1:E:172:GLU:HB3 | 1:E:246:SER:HA | 1.90 | 0.52 |
| 1:F:419:ILE:HD12 | 1:F:435:LEU:HD13 | 1.91 | 0.52 |
| 1:F:480:ASN:ND2 | 1:F:483:GLY:HA2 | 2.24 | 0.52 |
| 2:O:15:ALA:HB1 | 2:O:35:VAL:CG1 | 2.39 | 0.52 |
| 2:R:79:THR:C | 2:R:81:SER:N | 2.61 | 0.52 |
| 2:S:109:MET:O | 2:S:114:GLU:HB3 | 2.10 | 0.52 |
| 2:T:75:LYS:NZ | 2:T:75:LYS:HB3 | 2.25 | 0.52 |
| 1:B:171:TYR:O | 1:B:171:TYR:CD1 | 2.62 | 0.52 |
| 1:B:520:PRO:HG2 | 1:B:521:ASN:N | 2.25 | 0.52 |
| 1:C:179:LEU:H | 1:C:179:LEU:CD2 | 2.22 | 0.52 |
| 1:C:339:ILE:O | 1:C:342:GLY:N | 2.34 | 0.52 |
| 1:E:171:TYR:O | 1:E:171:TYR:CD1 | 2.61 | 0.52 |
| 1:F:697:ILE:CD1 | 1:F:732:ILE:HD13 | 2.39 | 0.52 |
| 2:P:97:ASN:HD22 | 2:P:97:ASN:C | 2.13 | 0.52 |
| 2:R:51:MET:O | 2:R:55:VAL:HG12 | 2.10 | 0.52 |
| 2:S:16:PHE:CZ | 2:S:27:ILE:HG12 | 2.44 | 0.52 |
| 1:A:776:LEU:HD23 | 1:A:776:LEU:C | 2.30 | 0.52 |
| 1:B:180:ASP:CG | 1:B:181:ILE:N | 2.63 | 0.52 |
| 1:B:444:PHE:CD2 | 1:B:455:TYR:HB3 | 2.44 | 0.52 |
| 1:C:85:LEU:HD12 | 1:C:168:GLU:OE1 | 2.09 | 0.52 |
| 1:C:88:LYS:HZ3 | 1:C:172:GLU:CD | 2.12 | 0.52 |
| 1:C:184:LYS:HE3 | 1:C:191:GLU:CB | 2.39 | 0.52 |
| 1:C:517:VAL:HG23 | 1:C:518:ASN:ND2 | 2.25 | 0.52 |
| 1:D:115:LYS:HA | 1:D:115:LYS:NZ | 2.23 | 0.52 |
| 1:E:308:VAL:O | 1:E:311:HIS:HB2 | 2.10 | 0.52 |
| 1:E:501:LEU:HD22 | 2:S:112:LEU:HG | 1.92 | 0.52 |
| 1:E:557:LEU:HG | 1:E:575:VAL:CG1 | 2.38 | 0.52 |
| 1:E:581:GLN:O | 1:E:629:ASN:HA | 2.09 | 0.52 |
| 1:E:635:ILE:HD12 | 1:E:635:ILE:H | 1.75 | 0.52 |
| 1:E:710:HIS:C | 1:E:712:PHE:H | 2.13 | 0.52 |
| 1:F:420:LEU:HD12 | 1:F:436:GLU:HB3 | 1.91 | 0.52 |
| 1:F:529:VAL:HG21 | 2:T:109:MET:HE1 | 1.90 | 0.52 |
| 1:F:581:GLN:O | 1:F:629:ASN:HA | 2.09 | 0.52 |
| 1:F:628:PHE:CE2 | 2:T:90:ARG:CZ | 2.93 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:O:12:PHE:HB3 | 2:O:68:PHE:HE2 | 1.73 | 0.52 |
| 2:S:78:ASP:C | 2:S:80:ASP:H | 2.12 | 0.52 |
| 2:S:97:ASN:HD22 | 2:S:97:ASN:C | 2.13 | 0.52 |
| 1:A:184:LYS:HE3 | 1:A:191:GLU:CB | 2.38 | 0.52 |
| 1:A:335:ALA:CB | 1:A:489:THR:OG1 | 2.58 | 0.52 |
| 1:A:401:ILE:HD11 | 1:A:487:PRO:HD3 | 1.92 | 0.52 |
| 1:A:505:LYS:C | 1:A:507:GLN:H | 2.14 | 0.52 |
| 1:A:557:LEU:HG | 1:A:575:VAL:CG1 | 2.39 | 0.52 |
| 1:A:637:PRO:O | 1:A:640:LYS:HG3 | 2.10 | 0.52 |
| 1:A:695:LYS:HE3 | 2:O:19:PHE:CD1 | 2.45 | 0.52 |
| 1:A:715:GLU:HG3 | 1:A:718:ARG:NH1 | 2.16 | 0.52 |
| 1:B:711:ILE:C | 1:B:712:PHE:HD2 | 2.13 | 0.52 |
| 1:B:715:GLU:HG3 | 1:B:718:ARG:NH1 | 2.16 | 0.52 |
| 1:C:172:GLU:O | 1:C:176:GLY:N | 2.37 | 0.52 |
| 1:C:420:LEU:HD12 | 1:C:436:GLU:HB3 | 1.92 | 0.52 |
| 1:D:148:GLU:HG3 | 1:D:149:THR:N | 2.24 | 0.52 |
| 1:D:199:LEU:C | 1:D:201:ASP:N | 2.63 | 0.52 |
| 1:E:81:GLN:OE1 | 1:E:156:ILE:HG21 | 2.10 | 0.52 |
| 2:O:19:PHE:CD1 | 2:O:19:PHE:N | 2.75 | 0.52 |
| 2:O:78:ASP:C | 2:O:80:ASP:H | 2.12 | 0.52 |
| 2:S:88:ALA:O | 2:S:91:VAL:HB | 2.10 | 0.52 |
| 1:A:180:ASP:O | 1:A:183:SER:N | 2.39 | 0.52 |
| 1:A:454:GLN:HG2 | 1:A:473:ASN:HA | 1.91 | 0.52 |
| 1:A:480:ASN:ND2 | 1:A:483:GLY:HA2 | 2.24 | 0.52 |
| 1:A:520:PRO:HG2 | 1:A:521:ASN:N | 2.25 | 0.52 |
| 1:A:789:ASN:O | 1:A:792:VAL:HB | 2.10 | 0.52 |
| 1:B:131:ARG:HG3 | 1:B:243:LEU:CD1 | 2.39 | 0.52 |
| 1:B:184:LYS:HD2 | 1:B:191:GLU:HB2 | 1.92 | 0.52 |
| 1:B:480:ASN:ND2 | 1:B:483:GLY:HA2 | 2.24 | 0.52 |
| 1:B:611:THR:HG22 | 1:B:615:ILE:HD11 | 1.91 | 0.52 |
| 1:B:637:PRO:O | 1:B:640:LYS:HG3 | 2.10 | 0.52 |
| 1:C:501:LEU:HD22 | 2:Q:112:LEU:HG | 1.92 | 0.52 |
| 1:C:628:PHE:CE2 | 2:Q:90:ARG:CZ | 2.93 | 0.52 |
| 1:C:697:ILE:CD1 | 1:C:732:ILE:CD1 | 2.86 | 0.52 |
| 1:D:310:GLU:O | 1:D:314:ALA:HB2 | 2.10 | 0.52 |
| 1:D:637:PRO:O | 1:D:640:LYS:HG3 | 2.10 | 0.52 |
| 1:D:724:ARG:C | 1:D:727:GLN:HB2 | 2.29 | 0.52 |
| 1:E:505:LYS:HD3 | 2:S:112:LEU:O | 2.10 | 0.52 |
| 1:F:776:LEU:HD23 | 1:F:776:LEU:C | 2.30 | 0.52 |
| 1:A:197:LYS:HZ2 | 1:A:197:LYS:CB | 2.16 | 0.51 |
| 1:A:499:PRO:CG | 1:A:504:ILE:HD11 | 2.34 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:513:TRP:CZ3 | 1:A:517:VAL:HG11 | 2.45 | 0.51 |
| 1:B:191:GLU:O | 1:B:193:LEU:N | 2.42 | 0.51 |
| 1:B:305:SER:OG | 1:B:307:LEU:HD13 | 2.10 | 0.51 |
| 1:B:371:SER:O | 1:B:372:LYS:C | 2.48 | 0.51 |
| 1:B:732:ILE:HG23 | 1:B:749:PHE:HD1 | 1.75 | 0.51 |
| 1:C:512:GLU:HA | 1:C:515:LYS:HZ2 | 1.75 | 0.51 |
| 1:C:643:ILE:CG2 | 1:C:644:GLU:H | 2.20 | 0.51 |
| 1:C:666:ASN:HB2 | 1:C:748:TYR:OH | 2.10 | 0.51 |
| 1:C:781:ASN:O | 1:C:789:ASN:ND2 | 2.43 | 0.51 |
| 1:D:122:GLU:HG3 | 1:D:147:ARG:HB2 | 1.92 | 0.51 |
| 1:E:191:GLU:O | 1:E:194:ASN:N | 2.43 | 0.51 |
| 1:E:234:LEU:CD2 | 1:E:235:THR:HG23 | 2.40 | 0.51 |
| 1:E:364:ILE:O | 1:E:477:MET:HG2 | 2.10 | 0.51 |
| 1:E:527:LYS:O | 1:E:528:GLY:C | 2.48 | 0.51 |
| 1:E:596:ILE:O | 1:E:596:ILE:HG22 | 2.10 | 0.51 |
| 1:E:598:PRO:HG3 | 1:E:624:TYR:OH | 2.10 | 0.51 |
| 1:F:110:ASP:O | 1:F:111:LEU:C | 2.48 | 0.51 |
| 1:F:335:ALA:CB | 1:F:489:THR:OG1 | 2.58 | 0.51 |
| 1:F:444:PHE:HA | 1:F:454:GLN:O | 2.10 | 0.51 |
| 2:T:49:GLN:O | 2:T:53:ASN:CB | 2.58 | 0.51 |
| 2:T:78:ASP:C | 2:T:80:ASP:H | 2.13 | 0.51 |
| 1:A:118:GLN:HE22 | 1:A:143:PHE:HD2 | 1.57 | 0.51 |
| 1:A:192:PHE:O | 1:A:196:ILE:HG13 | 2.10 | 0.51 |
| 1:B:171:TYR:O | 1:B:175:LYS:NZ | 2.43 | 0.51 |
| 1:B:246:SER:O | 1:B:250:ALA:HB2 | 2.11 | 0.51 |
| 1:B:263:ASP:O | 1:B:266:GLU:N | 2.44 | 0.51 |
| 1:C:710:HIS:C | 1:C:712:PHE:H | 2.14 | 0.51 |
| 1:D:180:ASP:O | 1:D:183:SER:N | 2.41 | 0.51 |
| 1:D:252:ASP:CG | 1:D:253:HIS:H | 2.14 | 0.51 |
| 1:E:165:GLN:C | 1:E:167:LYS:H | 2.14 | 0.51 |
| 1:E:305:SER:C | 1:E:307:LEU:H | 2.14 | 0.51 |
| 1:F:246:SER:O | 1:F:250:ALA:HB2 | 2.09 | 0.51 |
| 1:F:353:LYS:H | 1:F:368:GLN:NE2 | 2.06 | 0.51 |
| 1:F:401:ILE:HD11 | 1:F:487:PRO:HD3 | 1.92 | 0.51 |
| 2:P:41:GLN:O | 2:P:43:PRO:HD2 | 2.09 | 0.51 |
| 2:P:75:LYS:NZ | 2:P:75:LYS:HB3 | 2.25 | 0.51 |
| 2:Q:19:PHE:CD2 | 2:Q:34:THR:HG22 | 2.45 | 0.51 |
| 2:T:63:ILE:HG23 | 2:T:67:GLU:HB3 | 1.90 | 0.51 |
| 1:A:102:GLY:CA | 1:A:150:PRO:HG2 | 2.40 | 0.51 |
| 1:A:197:LYS:C | 1:A:197:LYS:HZ3 | 2.13 | 0.51 |
| 1:A:364:ILE:O | 1:A:477:MET:HG2 | 2.11 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:732:ILE:HG23 | 1:A:749:PHE:HD1 | 1.75 | 0.51 |
| 1:B:76:LEU:O | 1:B:78:LYS:N | 2.43 | 0.51 |
| 1:B:364:ILE:O | 1:B:477:MET:HG2 | 2.10 | 0.51 |
| 1:C:148:GLU:HG3 | 1:C:149:THR:N | 2.24 | 0.51 |
| 1:C:217:LYS:CB | 1:C:236:GLU:HG3 | 2.39 | 0.51 |
| 1:D:76:LEU:HD22 | 1:D:76:LEU:N | 2.19 | 0.51 |
| 1:D:131:ARG:HB2 | 1:D:243:LEU:HD21 | 1.92 | 0.51 |
| 1:D:559:ARG:O | 1:D:563:ALA:HB2 | 2.10 | 0.51 |
| 1:E:197:LYS:HZ3 | 1:E:197:LYS:C | 2.14 | 0.51 |
| 1:E:199:LEU:C | 1:E:201:ASP:N | 2.64 | 0.51 |
| 1:F:79:ILE:O | 1:F:81:GLN:N | 2.44 | 0.51 |
| 1:F:81:GLN:OE1 | 1:F:156:ILE:HG21 | 2.09 | 0.51 |
| 1:F:559:ARG:O | 1:F:563:ALA:HB2 | 2.10 | 0.51 |
| 2:Q:15:ALA:HB1 | 2:Q:35:VAL:CG1 | 2.40 | 0.51 |
| 2:Q:97:ASN:C | 2:Q:97:ASN:HD22 | 2.13 | 0.51 |
| 2:S:37:ARG:HA | 2:S:41:GLN:O | 2.10 | 0.51 |
| 2:S:49:GLN:O | 2:S:53:ASN:CB | 2.58 | 0.51 |
| 1:A:165:GLN:C | 1:A:167:LYS:H | 2.12 | 0.51 |
| 1:A:419:ILE:HD12 | 1:A:435:LEU:HD13 | 1.92 | 0.51 |
| 1:B:540:ARG:HH22 | 1:B:630:ARG:HE | 1.59 | 0.51 |
| 1:B:557:LEU:HG | 1:B:575:VAL:CG1 | 2.39 | 0.51 |
| 1:C:345:THR:HB | 1:C:491:ASP:CB | 2.36 | 0.51 |
| 1:C:371:SER:O | 1:C:372:LYS:C | 2.49 | 0.51 |
| 1:C:700:TYR:CD1 | 1:C:728:ALA:N | 2.78 | 0.51 |
| 1:D:176:GLY:C | 1:D:178:SER:N | 2.62 | 0.51 |
| 1:D:401:ILE:HD11 | 1:D:487:PRO:HD3 | 1.92 | 0.51 |
| 1:D:513:TRP:CZ3 | 1:D:517:VAL:HG11 | 2.45 | 0.51 |
| 1:E:180:ASP:O | 1:E:183:SER:N | 2.37 | 0.51 |
| 1:E:293:ILE:CD1 | 1:E:617:LYS:HD3 | 2.38 | 0.51 |
| 1:E:739:LYS:HG2 | 1:E:740:GLN:H | 1.74 | 0.51 |
| 1:F:118:GLN:HE22 | 1:F:143:PHE:HD2 | 1.58 | 0.51 |
| 1:F:165:GLN:C | 1:F:167:LYS:H | 2.14 | 0.51 |
| 2:Q:109:MET:HG3 | 2:Q:116:LEU:CD1 | 2.41 | 0.51 |
| 2:R:37:ARG:HA | 2:R:41:GLN:O | 2.10 | 0.51 |
| 1:A:165:GLN:HG2 | 1:A:251:PRO:CG | 2.38 | 0.51 |
| 1:B:509:PRO:HG2 | 1:B:512:GLU:HG3 | 1.92 | 0.51 |
| 1:B:533:LEU:O | 1:B:533:LEU:HD22 | 2.09 | 0.51 |
| 1:C:387:ASN:O | 1:C:390:SER:HB2 | 2.11 | 0.51 |
| 1:D:189:ASP:HB3 | 1:D:190:PRO:HD2 | 1.93 | 0.51 |
| 1:D:345:THR:HB | 1:D:491:ASP:CB | 2.36 | 0.51 |
| 1:D:505:LYS:C | 1:D:507:GLN:H | 2.13 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:711:ILE:O | 1:D:712:PHE:HD2 | 1.93 | 0.51 |
| 1:E:509:PRO:HG2 | 1:E:512:GLU:HG3 | 1.92 | 0.51 |
| 2:P:19:PHE:CD1 | 2:P:19:PHE:N | 2.75 | 0.51 |
| 2:Q:66:PRO:O | 2:Q:68:PHE:N | 2.44 | 0.51 |
| 2:S:19:PHE:CD1 | 2:S:19:PHE:N | 2.74 | 0.51 |
| 2:S:44:THR:C | 2:S:46:ALA:N | 2.63 | 0.51 |
| 2:S:75:LYS:NZ | 2:S:75:LYS:HB3 | 2.25 | 0.51 |
| 1:A:387:ASN:O | 1:A:390:SER:HB2 | 2.11 | 0.51 |
| 1:A:517:VAL:HG23 | 1:A:518:ASN:ND2 | 2.25 | 0.51 |
| 1:B:387:ASN:HD22 | 1:B:387:ASN:N | 2.07 | 0.51 |
| 1:C:246:SER:O | 1:C:250:ALA:HB2 | 2.10 | 0.51 |
| 1:C:279:ILE:HG22 | 1:C:283:LEU:HD13 | 1.93 | 0.51 |
| 1:C:387:ASN:HD22 | 1:C:387:ASN:N | 2.09 | 0.51 |
| 1:C:520:PRO:HG2 | 1:C:521:ASN:N | 2.25 | 0.51 |
| 1:D:173:ILE:C | 1:D:175:LYS:N | 2.64 | 0.51 |
| 1:D:509:PRO:HG2 | 1:D:512:GLU:HG3 | 1.91 | 0.51 |
| 1:D:724:ARG:HA | 1:D:727:GLN:HG3 | 1.93 | 0.51 |
| 1:E:165:GLN:HG2 | 1:E:251:PRO:CG | 2.39 | 0.51 |
| 1:E:371:SER:O | 1:E:372:LYS:C | 2.48 | 0.51 |
| 1:E:711:ILE:C | 1:E:712:PHE:HD2 | 2.14 | 0.51 |
| 1:E:776:LEU:HD23 | 1:E:776:LEU:C | 2.30 | 0.51 |
| 1:F:622:LYS:HG3 | 1:F:623:ASP:H | 1.75 | 0.51 |
| 2:P:15:ALA:HB1 | 2:P:35:VAL:CG1 | 2.40 | 0.51 |
| 2:Q:109:MET:O | 2:Q:114:GLU:HB3 | 2.11 | 0.51 |
| 2:R:19:PHE:CD2 | 2:R:34:THR:HG22 | 2.45 | 0.51 |
| 2:T:19:PHE:CD2 | 2:T:34:THR:HG22 | 2.46 | 0.51 |
| 1:A:371:SER:O | 1:A:372:LYS:C | 2.49 | 0.51 |
| 1:A:597:ASN:HB2 | 1:A:598:PRO:HD2 | 1.93 | 0.51 |
| 1:A:697:ILE:CD1 | 1:A:732:ILE:CD1 | 2.89 | 0.51 |
| 1:B:279:ILE:HG22 | 1:B:283:LEU:HD13 | 1.91 | 0.51 |
| 1:B:658:PRO:HB3 | 1:B:755:ARG:NH1 | 2.26 | 0.51 |
| 1:C:355:SER:HG | 1:C:371:SER:HA | 1.73 | 0.51 |
| 1:C:401:ILE:HD11 | 1:C:487:PRO:HD3 | 1.92 | 0.51 |
| 1:D:234:LEU:CG | 1:D:235:THR:N | 2.74 | 0.51 |
| 1:D:305:SER:C | 1:D:307:LEU:H | 2.14 | 0.51 |
| 1:D:520:PRO:HG2 | 1:D:521:ASN:N | 2.25 | 0.51 |
| 1:D:728:ALA:O | 1:D:729:TYR:C | 2.46 | 0.51 |
| 1:E:122:GLU:HG3 | 1:E:147:ARG:H | 1.76 | 0.51 |
| 1:E:444:PHE:HA | 1:E:454:GLN:O | 2.10 | 0.51 |
| 1:E:622:LYS:HG3 | 1:E:623:ASP:H | 1.75 | 0.51 |
| 1:F:148:GLU:HG3 | 1:F:149:THR:N | 2.24 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:275:GLY:O | 1:F:278:LYS:HB2 | 2.11 | 0.51 |
| 1:F:501:LEU:HD22 | 2:T:112:LEU:HG | 1.93 | 0.51 |
| 1:F:711:ILE:C | 1:F:712:PHE:HD2 | 2.14 | 0.51 |
| 2:P:44:THR:C | 2:P:46:ALA:N | 2.63 | 0.51 |
| 2:P:49:GLN:O | 2:P:53:ASN:CB | 2.58 | 0.51 |
| 2:Q:37:ARG:HA | 2:Q:41:GLN:O | 2.11 | 0.51 |
| 2:S:12:PHE:HB3 | 2:S:68:PHE:HE2 | 1.75 | 0.51 |
| 2:S:28:THR:OG1 | 2:S:29:THR:N | 2.43 | 0.51 |
| 2:T:109:MET:HG3 | 2:T:116:LEU:CD1 | 2.41 | 0.51 |
| 1:A:171:TYR:O | 1:A:171:TYR:CD1 | 2.62 | 0.51 |
| 1:A:180:ASP:CG | 1:A:181:ILE:N | 2.64 | 0.51 |
| 1:A:305:SER:C | 1:A:307:LEU:H | 2.13 | 0.51 |
| 1:A:501:LEU:HD22 | 2:O:112:LEU:HG | 1.93 | 0.51 |
| 1:A:658:PRO:HG3 | 1:A:752:LEU:CD2 | 2.40 | 0.51 |
| 1:A:697:ILE:HG23 | 1:A:732:ILE:HD11 | 1.92 | 0.51 |
| 1:B:110:ASP:O | 1:B:111:LEU:C | 2.49 | 0.51 |
| 1:B:252:ASP:CG | 1:B:253:HIS:H | 2.15 | 0.51 |
| 1:B:279:ILE:HG22 | 1:B:283:LEU:HD11 | 1.93 | 0.51 |
| 1:B:517:VAL:HB | 1:B:525:LYS:HZ1 | 1.76 | 0.51 |
| 1:B:579:THR:C | 1:B:581:GLN:H | 2.14 | 0.51 |
| 1:C:118:GLN:HE22 | 1:C:143:PHE:HD2 | 1.58 | 0.51 |
| 1:C:180:ASP:CG | 1:C:181:ILE:N | 2.64 | 0.51 |
| 1:C:559:ARG:O | 1:C:563:ALA:HB2 | 2.11 | 0.51 |
| 1:D:364:ILE:O | 1:D:477:MET:HG2 | 2.10 | 0.51 |
| 1:D:776:LEU:HD23 | 1:D:776:LEU:C | 2.31 | 0.51 |
| 1:E:234:LEU:CG | 1:E:235:THR:N | 2.74 | 0.51 |
| 1:E:457:THR:HG23 | 1:E:469:PHE:H | 1.76 | 0.51 |
| 1:F:371:SER:O | 1:F:372:LYS:C | 2.49 | 0.51 |
| 1:F:653:LYS:O | 1:F:655:ASN:N | 2.44 | 0.51 |
| 1:F:697:ILE:C | 1:F:699:GLY:H | 2.13 | 0.51 |
| 2:O:88:ALA:O | 2:O:91:VAL:HB | 2.11 | 0.51 |
| 2:P:51:MET:O | 2:P:55:VAL:HG12 | 2.11 | 0.51 |
| 2:Q:51:MET:O | 2:Q:55:VAL:HG12 | 2.11 | 0.51 |
| 2:S:51:MET:O | 2:S:55:VAL:HG12 | 2.11 | 0.51 |
| 2:S:52:ILE:HD13 | 2:S:63:ILE:HD11 | 1.92 | 0.51 |
| 2:S:107:HIS:CG | 2:S:107:HIS:O | 2.63 | 0.51 |
| 2:T:109:MET:O | 2:T:114:GLU:HB3 | 2.10 | 0.51 |
| 1:A:76:LEU:O | 1:A:78:LYS:N | 2.44 | 0.51 |
| 1:A:110:ASP:O | 1:A:111:LEU:C | 2.49 | 0.51 |
| 1:A:173:ILE:C | 1:A:175:LYS:N | 2.63 | 0.51 |
| 1:A:234:LEU:CD2 | 1:A:235:THR:HG23 | 2.41 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:622:LYS:HG3 | 1:A:623:ASP:H | 1.75 | 0.51 |
| 1:A:628:PHE:CE2 | 2:O:90:ARG:CZ | 2.94 | 0.51 |
| 1:B:171:TYR:HD1 | 1:B:175:LYS:NZ | 2.08 | 0.51 |
| 1:B:444:PHE:HA | 1:B:454:GLN:O | 2.11 | 0.51 |
| 1:B:559:ARG:O | 1:B:563:ALA:HB2 | 2.11 | 0.51 |
| 1:C:173:ILE:C | 1:C:175:LYS:N | 2.64 | 0.51 |
| 1:C:176:GLY:C | 1:C:178:SER:N | 2.63 | 0.51 |
| 1:C:597:ASN:HB2 | 1:C:598:PRO:HD2 | 1.93 | 0.51 |
| 1:C:711:ILE:C | 1:C:712:PHE:HD2 | 2.14 | 0.51 |
| 1:D:170:TYR:O | 1:D:174:GLY:N | 2.44 | 0.51 |
| 1:D:180:ASP:CG | 1:D:181:ILE:N | 2.65 | 0.51 |
| 1:D:236:GLU:HA | 1:D:239:HIS:HD2 | 1.73 | 0.51 |
| 1:E:179:LEU:H | 1:E:179:LEU:CD2 | 2.22 | 0.51 |
| 1:F:318:ILE:HD12 | 1:F:318:ILE:N | 2.25 | 0.51 |
| 1:F:700:TYR:CD1 | 1:F:728:ALA:N | 2.77 | 0.51 |
| 2:O:129:ASP:OD1 | 2:O:134:GLY:N | 2.38 | 0.51 |
| 1:A:79:ILE:O | 1:A:81:GLN:N | 2.44 | 0.51 |
| 1:A:102:GLY:C | 1:A:103:GLU:HG3 | 2.32 | 0.51 |
| 1:A:192:PHE:HD1 | 1:A:192:PHE:H | 1.59 | 0.51 |
| 1:B:102:GLY:CA | 1:B:150:PRO:HG2 | 2.41 | 0.51 |
| 1:B:345:THR:HB | 1:B:491:ASP:CB | 2.35 | 0.51 |
| 1:B:493:ASP:OD2 | 1:B:577:HIS:CE1 | 2.63 | 0.51 |
| 1:B:513:TRP:CZ3 | 1:B:517:VAL:HG11 | 2.46 | 0.51 |
| 1:C:76:LEU:HD22 | 1:C:76:LEU:N | 2.19 | 0.51 |
| 1:C:110:ASP:O | 1:C:111:LEU:C | 2.48 | 0.51 |
| 1:C:263:ASP:O | 1:C:266:GLU:N | 2.44 | 0.51 |
| 1:C:305:SER:OG | 1:C:307:LEU:HD13 | 2.10 | 0.51 |
| 1:C:505:LYS:C | 1:C:507:GLN:H | 2.14 | 0.51 |
| 1:D:410:ILE:HD11 | 1:D:435:LEU:HD11 | 1.93 | 0.51 |
| 1:D:658:PRO:HB3 | 1:D:755:ARG:NH1 | 2.25 | 0.51 |
| 1:E:171:TYR:HD1 | 1:E:175:LYS:NZ | 2.09 | 0.51 |
| 1:E:254:ARG:HB3 | 1:E:254:ARG:NH1 | 2.23 | 0.51 |
| 1:E:339:ILE:O | 1:E:342:GLY:N | 2.36 | 0.51 |
| 1:E:410:ILE:HD11 | 1:E:435:LEU:HD11 | 1.92 | 0.51 |
| 1:F:173:ILE:C | 1:F:175:LYS:N | 2.63 | 0.51 |
| 1:F:180:ASP:O | 1:F:183:SER:N | 2.39 | 0.51 |
| 1:F:311:HIS:HE1 | 1:F:339:ILE:HG22 | 1.75 | 0.51 |
| 1:F:364:ILE:O | 1:F:477:MET:HG2 | 2.11 | 0.51 |
| 1:F:457:THR:HG23 | 1:F:469:PHE:H | 1.76 | 0.51 |
| 1:F:513:TRP:CZ3 | 1:F:517:VAL:HG11 | 2.46 | 0.51 |
| 2:P:19:PHE:CD2 | 2:P:34:THR:HG22 | 2.46 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:R:75:LYS:HB3 | 2:R:75:LYS:NZ | 2.26 | 0.51 |
| 2:R:88:ALA:O | 2:R:91:VAL:HB | 2.11 | 0.51 |
| 2:S:66:PRO:O | 2:S:68:PHE:N | 2.44 | 0.51 |
| 1:A:679:TYR:CD1 | 1:A:679:TYR:O | 2.64 | 0.50 |
| 1:B:173:ILE:C | 1:B:175:LYS:N | 2.63 | 0.50 |
| 1:B:679:TYR:CD1 | 1:B:679:TYR:O | 2.65 | 0.50 |
| 1:C:171:TYR:O | 1:C:175:LYS:NZ | 2.44 | 0.50 |
| 1:D:165:GLN:C | 1:D:167:LYS:H | 2.13 | 0.50 |
| 1:D:529:VAL:O | 1:D:532:LEU:HB2 | 2.11 | 0.50 |
| 1:D:533:LEU:O | 1:D:533:LEU:HD22 | 2.11 | 0.50 |
| 1:D:622:LYS:HG3 | 1:D:623:ASP:H | 1.75 | 0.50 |
| 1:E:679:TYR:CD1 | 1:E:679:TYR:O | 2.64 | 0.50 |
| 1:E:724:ARG:HA | 1:E:727:GLN:HG3 | 1.92 | 0.50 |
| 1:F:171:TYR:HD1 | 1:F:175:LYS:NZ | 2.09 | 0.50 |
| 1:F:180:ASP:CG | 1:F:181:ILE:N | 2.63 | 0.50 |
| 2:O:37:ARG:HA | 2:O:41:GLN:O | 2.11 | 0.50 |
| 2:P:109:MET:HG3 | 2:P:116:LEU:CD1 | 2.41 | 0.50 |
| 2:T:97:ASN:C | 2:T:97:ASN:HD22 | 2.13 | 0.50 |
| 1:A:179:LEU:H | 1:A:179:LEU:CD2 | 2.21 | 0.50 |
| 1:A:318:ILE:HD12 | 1:A:318:ILE:N | 2.25 | 0.50 |
| 1:A:444:PHE:HA | 1:A:454:GLN:O | 2.11 | 0.50 |
| 1:A:711:ILE:C | 1:A:712:PHE:HD2 | 2.14 | 0.50 |
| 1:B:71:PHE:CG | 1:B:73:ASN:HB2 | 2.46 | 0.50 |
| 1:B:345:THR:HG22 | 1:B:490:ALA:O | 2.10 | 0.50 |
| 1:B:764:LEU:C | 1:B:766:HIS:N | 2.52 | 0.50 |
| 1:C:197:LYS:HD3 | 1:C:263:ASP:HB3 | 1.93 | 0.50 |
| 1:C:697:ILE:HG23 | 1:C:732:ILE:HD11 | 1.93 | 0.50 |
| 1:D:480:ASN:ND2 | 1:D:483:GLY:HA2 | 2.25 | 0.50 |
| 1:D:715:GLU:HG3 | 1:D:767:GLN:HE21 | 1.75 | 0.50 |
| 1:E:192:PHE:O | 1:E:196:ILE:HG13 | 2.12 | 0.50 |
| 1:E:559:ARG:O | 1:E:563:ALA:HB2 | 2.10 | 0.50 |
| 1:E:597:ASN:HB2 | 1:E:598:PRO:HD2 | 1.93 | 0.50 |
| 1:E:710:HIS:O | 1:E:712:PHE:N | 2.44 | 0.50 |
| 1:F:179:LEU:H | 1:F:179:LEU:CD2 | 2.22 | 0.50 |
| 1:F:710:HIS:C | 1:F:712:PHE:H | 2.15 | 0.50 |
| 2:O:75:LYS:HB3 | 2:O:75:LYS:NZ | 2.26 | 0.50 |
| 2:O:97:ASN:C | 2:O:97:ASN:HD22 | 2.13 | 0.50 |
| 2:T:44:THR:C | 2:T:46:ALA:N | 2.64 | 0.50 |
| 2:T:66:PRO:O | 2:T:68:PHE:N | 2.44 | 0.50 |
| 1:A:559:ARG:O | 1:A:563:ALA:HB2 | 2.11 | 0.50 |
| 1:A:653:LYS:O | 1:A:655:ASN:N | 2.45 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:234:LEU:CG | 1:B:235:THR:N | 2.75 | 0.50 |
| 1:C:165:GLN:C | 1:C:167:LYS:H | 2.14 | 0.50 |
| 1:C:327:LEU:HG | 1:C:595:ILE:HG23 | 1.93 | 0.50 |
| 1:C:364:ILE:O | 1:C:477:MET:HG2 | 2.11 | 0.50 |
| 1:C:513:TRP:CZ3 | 1:C:517:VAL:HG11 | 2.47 | 0.50 |
| 1:D:322:LEU:HA | 1:D:503:GLU:OE2 | 2.11 | 0.50 |
| 1:D:444:PHE:HA | 1:D:454:GLN:O | 2.11 | 0.50 |
| 1:E:76:LEU:HD22 | 1:E:76:LEU:N | 2.17 | 0.50 |
| 1:E:189:ASP:HB3 | 1:E:190:PRO:CD | 2.38 | 0.50 |
| 1:E:234:LEU:HD23 | 1:E:234:LEU:N | 2.27 | 0.50 |
| 1:F:102:GLY:CA | 1:F:150:PRO:HG2 | 2.41 | 0.50 |
| 1:F:102:GLY:C | 1:F:103:GLU:HG3 | 2.30 | 0.50 |
| 2:Q:75:LYS:NZ | 2:Q:75:LYS:HB3 | 2.26 | 0.50 |
| 2:R:106:ARG:HG3 | 2:R:106:ARG:HH21 | 1.76 | 0.50 |
| 2:S:19:PHE:CD2 | 2:S:34:THR:HG22 | 2.46 | 0.50 |
| 2:S:56:ASP:C | 2:S:58:ASP:H | 2.15 | 0.50 |
| 1:A:85:LEU:HD12 | 1:A:168:GLU:OE1 | 2.11 | 0.50 |
| 1:A:234:LEU:CG | 1:A:235:THR:N | 2.75 | 0.50 |
| 1:B:179:LEU:H | 1:B:179:LEU:CD2 | 2.22 | 0.50 |
| 1:B:297:LYS:HG2 | 1:B:603:ILE:HG12 | 1.94 | 0.50 |
| 1:B:387:ASN:O | 1:B:390:SER:HB2 | 2.11 | 0.50 |
| 1:C:199:LEU:C | 1:C:201:ASP:N | 2.64 | 0.50 |
| 1:D:185:ASP:O | 1:D:190:PRO:HA | 2.12 | 0.50 |
| 1:D:473:ASN:OD1 | 1:D:473:ASN:N | 2.41 | 0.50 |
| 1:D:597:ASN:HB2 | 1:D:598:PRO:HD2 | 1.94 | 0.50 |
| 1:D:628:PHE:CE2 | 2:R:90:ARG:CZ | 2.94 | 0.50 |
| 1:E:353:LYS:N | 1:E:368:GLN:HE22 | 2.06 | 0.50 |
| 1:E:518:ASN:N | 1:E:518:ASN:ND2 | 2.60 | 0.50 |
| 1:E:626:TYR:CD2 | 1:E:627:TYR:N | 2.80 | 0.50 |
| 1:F:279:ILE:HG22 | 1:F:283:LEU:HD13 | 1.93 | 0.50 |
| 1:F:504:ILE:HD12 | 1:F:504:ILE:H | 1.75 | 0.50 |
| 1:F:736:LEU:HD11 | 1:F:750:GLN:NE2 | 2.27 | 0.50 |
| 2:Q:63:ILE:CG2 | 2:Q:67:GLU:HB2 | 2.41 | 0.50 |
| 2:T:104:GLU:HA | 2:T:107:HIS:HB3 | 1.93 | 0.50 |
| 1:A:279:ILE:HG22 | 1:A:283:LEU:HD13 | 1.93 | 0.50 |
| 1:A:457:THR:HG23 | 1:A:469:PHE:H | 1.76 | 0.50 |
| 1:A:629:ASN:ND2 | 1:A:631:SER:CB | 2.73 | 0.50 |
| 1:B:81:GLN:OE1 | 1:B:156:ILE:HG21 | 2.11 | 0.50 |
| 1:B:419:ILE:HD12 | 1:B:435:LEU:HD13 | 1.93 | 0.50 |
| 1:C:444:PHE:HA | 1:C:454:GLN:O | 2.11 | 0.50 |
| 1:C:505:LYS:HD3 | 2:Q:112:LEU:O | 2.12 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:110:ASP:O | 1:D:111:LEU:C | 2.49 | 0.50 |
| 1:D:197:LYS:HZ2 | 1:D:197:LYS:CB | 2.16 | 0.50 |
| 1:D:293:ILE:CD1 | 1:D:617:LYS:HD3 | 2.37 | 0.50 |
| 1:D:679:TYR:CD1 | 1:D:679:TYR:O | 2.65 | 0.50 |
| 1:E:197:LYS:HD3 | 1:E:263:ASP:HB3 | 1.93 | 0.50 |
| 1:E:236:GLU:HA | 1:E:239:HIS:HD2 | 1.73 | 0.50 |
| 1:E:263:ASP:O | 1:E:266:GLU:N | 2.45 | 0.50 |
| 1:E:732:ILE:HG23 | 1:E:749:PHE:HD1 | 1.76 | 0.50 |
| 1:F:104:ILE:HG23 | 1:F:152:LEU:CD2 | 2.41 | 0.50 |
| 1:F:234:LEU:CG | 1:F:235:THR:N | 2.74 | 0.50 |
| 1:F:305:SER:C | 1:F:307:LEU:H | 2.14 | 0.50 |
| 1:F:499:PRO:CG | 1:F:504:ILE:HD11 | 2.33 | 0.50 |
| 2:P:66:PRO:O | 2:P:68:PHE:N | 2.44 | 0.50 |
| 2:S:68:PHE:O | 2:S:70:THR:N | 2.45 | 0.50 |
| 1:A:401:ILE:HG21 | 1:A:485:LEU:HB3 | 1.94 | 0.50 |
| 1:B:85:LEU:HD12 | 1:B:168:GLU:OE1 | 2.11 | 0.50 |
| 1:B:457:THR:HG23 | 1:B:469:PHE:H | 1.77 | 0.50 |
| 1:B:711:ILE:O | 1:B:712:PHE:HD2 | 1.94 | 0.50 |
| 1:C:234:LEU:HD23 | 1:C:234:LEU:N | 2.27 | 0.50 |
| 1:C:234:LEU:CD2 | 1:C:235:THR:HG23 | 2.41 | 0.50 |
| 1:C:311:HIS:HE1 | 1:C:339:ILE:HG22 | 1.76 | 0.50 |
| 1:E:311:HIS:HE1 | 1:E:339:ILE:HG22 | 1.77 | 0.50 |
| 1:E:505:LYS:C | 1:E:507:GLN:H | 2.15 | 0.50 |
| 1:E:523:LEU:HD11 | 2:S:144:MET:CG | 2.42 | 0.50 |
| 1:F:197:LYS:HB3 | 1:F:197:LYS:NZ | 2.19 | 0.50 |
| 1:F:197:LYS:HD3 | 1:F:263:ASP:HB3 | 1.94 | 0.50 |
| 1:F:252:ASP:CG | 1:F:253:HIS:H | 2.14 | 0.50 |
| 1:F:517:VAL:HG23 | 1:F:518:ASN:ND2 | 2.26 | 0.50 |
| 1:A:252:ASP:CG | 1:A:253:HIS:H | 2.15 | 0.50 |
| 1:A:710:HIS:C | 1:A:712:PHE:H | 2.14 | 0.50 |
| 1:A:724:ARG:HA | 1:A:727:GLN:HG3 | 1.94 | 0.50 |
| 1:B:305:SER:C | 1:B:307:LEU:H | 2.13 | 0.50 |
| 1:B:622:LYS:HG3 | 1:B:623:ASP:H | 1.75 | 0.50 |
| 1:B:629:ASN:ND2 | 1:B:631:SER:CB | 2.74 | 0.50 |
| 1:C:715:GLU:HG3 | 1:C:767:GLN:HE21 | 1.75 | 0.50 |
| 1:E:173:ILE:C | 1:E:175:LYS:N | 2.62 | 0.50 |
| 1:E:527:LYS:O | 1:E:529:VAL:N | 2.45 | 0.50 |
| 1:F:234:LEU:HD23 | 1:F:234:LEU:N | 2.27 | 0.50 |
| 1:F:715:GLU:HG3 | 1:F:767:GLN:HE21 | 1.76 | 0.50 |
| 2:P:12:PHE:O | 2:P:15:ALA:HB3 | 2.12 | 0.50 |
| 2:Q:104:GLU:HA | 2:Q:107:HIS:HB3 | 1.94 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:R:63:ILE:CG2 | 2:R:67:GLU:HB2 | 2.42 | 0.50 |
| 1:A:199:LEU:C | 1:A:201:ASP:N | 2.63 | 0.50 |
| 1:A:660:SER:O | 1:A:663:PHE:HB3 | 2.12 | 0.50 |
| 1:B:122:GLU:HG3 | 1:B:147:ARG:H | 1.77 | 0.50 |
| 1:B:505:LYS:C | 1:B:507:GLN:H | 2.15 | 0.50 |
| 1:C:102:GLY:C | 1:C:103:GLU:HG3 | 2.32 | 0.50 |
| 1:C:234:LEU:CG | 1:C:235:THR:N | 2.75 | 0.50 |
| 1:C:353:LYS:N | 1:C:368:GLN:HE22 | 2.08 | 0.50 |
| 1:D:131:ARG:HG3 | 1:D:243:LEU:HD13 | 1.94 | 0.50 |
| 1:D:234:LEU:CD2 | 1:D:235:THR:HG23 | 2.41 | 0.50 |
| 1:D:505:LYS:HD3 | 2:R:112:LEU:O | 2.12 | 0.50 |
| 1:E:432:TYR:HE1 | 1:E:445:ARG:CZ | 2.25 | 0.50 |
| 1:E:493:ASP:OD2 | 1:E:577:HIS:CE1 | 2.65 | 0.50 |
| 1:E:579:THR:C | 1:E:581:GLN:H | 2.15 | 0.50 |
| 1:E:637:PRO:O | 1:E:640:LYS:HG3 | 2.11 | 0.50 |
| 1:F:401:ILE:HG21 | 1:F:485:LEU:HB3 | 1.94 | 0.50 |
| 2:P:88:ALA:O | 2:P:91:VAL:HB | 2.11 | 0.50 |
| 2:S:106:ARG:HG3 | 2:S:106:ARG:HH21 | 1.77 | 0.50 |
| 1:A:122:GLU:HG3 | 1:A:147:ARG:H | 1.76 | 0.50 |
| 1:A:495:PHE:CD1 | 1:A:495:PHE:C | 2.84 | 0.50 |
| 1:B:165:GLN:C | 1:B:167:LYS:H | 2.14 | 0.50 |
| 1:B:170:TYR:O | 1:B:174:GLY:N | 2.44 | 0.50 |
| 1:B:401:ILE:HD11 | 1:B:487:PRO:HD3 | 1.94 | 0.50 |
| 1:B:517:VAL:HG23 | 1:B:518:ASN:ND2 | 2.26 | 0.50 |
| 1:C:305:SER:C | 1:C:307:LEU:H | 2.14 | 0.50 |
| 1:C:622:LYS:HG3 | 1:C:623:ASP:H | 1.75 | 0.50 |
| 1:D:71:PHE:O | 1:D:78:LYS:NZ | 2.45 | 0.50 |
| 1:D:700:TYR:CD1 | 1:D:728:ALA:N | 2.78 | 0.50 |
| 1:E:252:ASP:CG | 1:E:253:HIS:H | 2.15 | 0.50 |
| 1:F:185:ASP:O | 1:F:190:PRO:HA | 2.12 | 0.50 |
| 1:F:509:PRO:HG2 | 1:F:512:GLU:HG3 | 1.94 | 0.50 |
| 2:O:56:ASP:C | 2:O:58:ASP:H | 2.14 | 0.50 |
| 2:O:63:ILE:CG2 | 2:O:67:GLU:HB2 | 2.41 | 0.50 |
| 2:P:104:GLU:HA | 2:P:107:HIS:HB3 | 1.94 | 0.50 |
| 2:Q:41:GLN:O | 2:Q:43:PRO:HD2 | 2.10 | 0.50 |
| 1:A:353:LYS:N | 1:A:368:GLN:HE22 | 2.07 | 0.49 |
| 1:B:176:GLY:C | 1:B:178:SER:N | 2.64 | 0.49 |
| 1:B:493:ASP:OD2 | 1:B:577:HIS:HE1 | 1.95 | 0.49 |
| 1:C:131:ARG:HB2 | 1:C:243:LEU:HD21 | 1.93 | 0.49 |
| 1:C:171:TYR:O | 1:C:171:TYR:CD1 | 2.62 | 0.49 |
| 1:C:660:SER:O | 1:C:663:PHE:HB3 | 2.12 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:90:PRO:HD3 | 1:E:249:PHE:CE2 | 2.47 | 0.49 |
| 1:E:142:VAL:CG2 | 1:E:154:ILE:HD12 | 2.38 | 0.49 |
| 1:E:246:SER:O | 1:E:250:ALA:HB2 | 2.12 | 0.49 |
| 1:E:249:PHE:O | 1:E:250:ALA:C | 2.51 | 0.49 |
| 1:E:517:VAL:HG23 | 1:E:518:ASN:ND2 | 2.25 | 0.49 |
| 1:F:410:ILE:HD11 | 1:F:435:LEU:HD11 | 1.93 | 0.49 |
| 1:F:495:PHE:CD1 | 1:F:495:PHE:C | 2.86 | 0.49 |
| 1:F:731:GLU:HA | 1:F:734:ASN:HB2 | 1.94 | 0.49 |
| 1:F:732:ILE:HG23 | 1:F:749:PHE:HD1 | 1.76 | 0.49 |
| 2:O:84:GLU:N | 2:O:84:GLU:OE2 | 2.45 | 0.49 |
| 2:O:104:GLU:HA | 2:O:107:HIS:HB3 | 1.94 | 0.49 |
| 2:P:79:THR:C | 2:P:81:SER:N | 2.61 | 0.49 |
| 2:P:129:ASP:OD2 | 2:P:140:GLU:OE2 | 2.29 | 0.49 |
| 2:R:66:PRO:C | 2:R:68:PHE:H | 2.16 | 0.49 |
| 2:R:66:PRO:O | 2:R:68:PHE:N | 2.45 | 0.49 |
| 2:S:66:PRO:C | 2:S:68:PHE:H | 2.15 | 0.49 |
| 1:A:171:TYR:HD1 | 1:A:175:LYS:NZ | 2.09 | 0.49 |
| 1:A:182:ILE:HA | 1:A:187:SER:HA | 1.94 | 0.49 |
| 1:A:254:ARG:HB3 | 1:A:254:ARG:NH1 | 2.20 | 0.49 |
| 1:A:724:ARG:HG3 | 1:A:724:ARG:HH11 | 1.77 | 0.49 |
| 1:A:767:GLN:HG2 | 1:A:768:LYS:N | 2.27 | 0.49 |
| 1:B:180:ASP:O | 1:B:183:SER:N | 2.39 | 0.49 |
| 1:B:192:PHE:HD1 | 1:B:192:PHE:H | 1.60 | 0.49 |
| 1:B:731:GLU:HA | 1:B:734:ASN:HB2 | 1.94 | 0.49 |
| 1:C:529:VAL:HG21 | 2:Q:109:MET:HE1 | 1.92 | 0.49 |
| 1:C:719:LYS:HE3 | 1:C:797:ILE:HD11 | 1.93 | 0.49 |
| 1:C:755:ARG:O | 1:C:756:ILE:C | 2.50 | 0.49 |
| 1:D:165:GLN:HG2 | 1:D:251:PRO:CG | 2.39 | 0.49 |
| 1:D:387:ASN:O | 1:D:390:SER:HB2 | 2.12 | 0.49 |
| 1:F:658:PRO:HB3 | 1:F:755:ARG:NH1 | 2.26 | 0.49 |
| 1:F:671:ARG:HH11 | 1:F:671:ARG:HG3 | 1.77 | 0.49 |
| 2:P:63:ILE:CG2 | 2:P:67:GLU:HB2 | 2.42 | 0.49 |
| 2:R:72:MET:C | 2:R:74:ARG:N | 2.66 | 0.49 |
| 2:T:117:THR:C | 2:T:119:GLU:N | 2.66 | 0.49 |
| 1:A:279:ILE:HG22 | 1:A:283:LEU:HD11 | 1.93 | 0.49 |
| 1:A:297:LYS:HG2 | 1:A:603:ILE:HG12 | 1.94 | 0.49 |
| 1:B:234:LEU:HD23 | 1:B:234:LEU:N | 2.27 | 0.49 |
| 1:C:170:TYR:O | 1:C:174:GLY:N | 2.44 | 0.49 |
| 1:C:279:ILE:HG22 | 1:C:283:LEU:HD11 | 1.93 | 0.49 |
| 1:C:318:ILE:HD12 | 1:C:318:ILE:N | 2.27 | 0.49 |
| 1:C:653:LYS:O | 1:C:655:ASN:N | 2.44 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:724:ARG:HA | 1:C:727:GLN:HG3 | 1.94 | 0.49 |
| 1:D:102:GLY:C | 1:D:103:GLU:HG3 | 2.33 | 0.49 |
| 1:D:279:ILE:HG22 | 1:D:283:LEU:HD13 | 1.94 | 0.49 |
| 1:D:457:THR:HG23 | 1:D:469:PHE:H | 1.76 | 0.49 |
| 1:D:523:LEU:HD11 | 2:R:144:MET:CG | 2.42 | 0.49 |
| 1:E:131:ARG:HG3 | 1:E:243:LEU:CD1 | 2.43 | 0.49 |
| 1:E:633:ASN:O | 1:E:642:TYR:CE1 | 2.66 | 0.49 |
| 1:F:100:LEU:HD22 | 1:F:182:ILE:HG21 | 1.93 | 0.49 |
| 2:R:104:GLU:HA | 2:R:107:HIS:HB3 | 1.94 | 0.49 |
| 2:R:109:MET:HG3 | 2:R:116:LEU:CD1 | 2.41 | 0.49 |
| 2:S:117:THR:C | 2:S:119:GLU:N | 2.65 | 0.49 |
| 1:B:401:ILE:HG21 | 1:B:485:LEU:HB3 | 1.94 | 0.49 |
| 1:B:432:TYR:HE1 | 1:B:445:ARG:CZ | 2.25 | 0.49 |
| 1:C:102:GLY:CA | 1:C:150:PRO:HG2 | 2.42 | 0.49 |
| 1:C:289:GLU:HA | 1:C:292:ARG:HG3 | 1.94 | 0.49 |
| 1:C:658:PRO:HB3 | 1:C:755:ARG:NH1 | 2.27 | 0.49 |
| 1:D:517:VAL:HB | 1:D:525:LYS:HZ1 | 1.78 | 0.49 |
| 1:E:170:TYR:O | 1:E:174:GLY:N | 2.45 | 0.49 |
| 1:E:176:GLY:C | 1:E:178:SER:N | 2.64 | 0.49 |
| 1:F:263:ASP:O | 1:F:266:GLU:N | 2.45 | 0.49 |
| 1:F:339:ILE:O | 1:F:342:GLY:N | 2.37 | 0.49 |
| 1:F:432:TYR:HE1 | 1:F:445:ARG:CZ | 2.25 | 0.49 |
| 1:F:505:LYS:C | 1:F:507:GLN:H | 2.15 | 0.49 |
| 2:Q:56:ASP:C | 2:Q:58:ASP:H | 2.14 | 0.49 |
| 2:T:63:ILE:CG2 | 2:T:67:GLU:HB2 | 2.43 | 0.49 |
| 2:T:66:PRO:C | 2:T:68:PHE:H | 2.16 | 0.49 |
| 2:T:68:PHE:O | 2:T:70:THR:N | 2.45 | 0.49 |
| 1:A:185:ASP:O | 1:A:190:PRO:HA | 2.13 | 0.49 |
| 1:A:311:HIS:HE1 | 1:A:339:ILE:HG22 | 1.77 | 0.49 |
| 1:A:523:LEU:HD11 | 2:O:144:MET:CG | 2.43 | 0.49 |
| 1:A:731:GLU:HA | 1:A:734:ASN:HB2 | 1.94 | 0.49 |
| 1:B:131:ARG:HB2 | 1:B:243:LEU:HD21 | 1.94 | 0.49 |
| 1:B:172:GLU:HG3 | 1:B:245:PHE:HE1 | 1.78 | 0.49 |
| 1:B:617:LYS:HZ3 | 1:B:618:ASN:HD21 | 1.58 | 0.49 |
| 1:B:633:ASN:O | 1:B:642:TYR:CE1 | 2.65 | 0.49 |
| 1:C:192:PHE:H | 1:C:192:PHE:HD1 | 1.61 | 0.49 |
| 1:C:379:ALA:O | 1:C:383:GLY:N | 2.45 | 0.49 |
| 1:C:480:ASN:HD22 | 1:C:481:VAL:N | 2.10 | 0.49 |
| 1:C:695:LYS:HE3 | 2:Q:19:PHE:CD1 | 2.47 | 0.49 |
| 1:D:518:ASN:N | 1:D:518:ASN:ND2 | 2.60 | 0.49 |
| 1:D:653:LYS:O | 1:D:655:ASN:N | 2.45 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:710:HIS:O | 1:D:712:PHE:N | 2.46 | 0.49 |
| 1:E:297:LYS:HB3 | 1:E:297:LYS:HZ3 | 1.77 | 0.49 |
| 1:E:387:ASN:O | 1:E:390:SER:HB2 | 2.12 | 0.49 |
| 1:E:480:ASN:ND2 | 1:E:483:GLY:HA2 | 2.26 | 0.49 |
| 1:F:192:PHE:O | 1:F:196:ILE:HG13 | 2.12 | 0.49 |
| 1:F:405:LEU:HD13 | 1:F:453:VAL:CG2 | 2.40 | 0.49 |
| 2:O:19:PHE:CD2 | 2:O:34:THR:HG22 | 2.48 | 0.49 |
| 2:O:49:GLN:O | 2:O:53:ASN:CB | 2.59 | 0.49 |
| 2:O:52:ILE:HD13 | 2:O:63:ILE:HD11 | 1.93 | 0.49 |
| 2:P:56:ASP:C | 2:P:58:ASP:H | 2.15 | 0.49 |
| 2:R:68:PHE:O | 2:R:70:THR:N | 2.45 | 0.49 |
| 1:A:518:ASN:N | 1:A:518:ASN:ND2 | 2.60 | 0.49 |
| 1:B:104:ILE:HG23 | 1:B:152:LEU:CD2 | 2.43 | 0.49 |
| 1:B:724:ARG:HA | 1:B:727:GLN:HG3 | 1.93 | 0.49 |
| 1:C:410:ILE:HD11 | 1:C:435:LEU:HD11 | 1.95 | 0.49 |
| 1:C:419:ILE:HD12 | 1:C:435:LEU:HD13 | 1.93 | 0.49 |
| 1:C:457:THR:HG23 | 1:C:469:PHE:H | 1.77 | 0.49 |
| 1:C:480:ASN:ND2 | 1:C:483:GLY:HA2 | 2.26 | 0.49 |
| 1:C:637:PRO:O | 1:C:640:LYS:HG3 | 2.12 | 0.49 |
| 1:D:192:PHE:O | 1:D:196:ILE:HG13 | 2.13 | 0.49 |
| 1:D:234:LEU:HD23 | 1:D:234:LEU:N | 2.27 | 0.49 |
| 1:E:191:GLU:O | 1:E:193:LEU:N | 2.45 | 0.49 |
| 1:E:225:ILE:HG12 | 1:E:229:PHE:HD2 | 1.77 | 0.49 |
| 1:E:504:ILE:HD12 | 1:E:504:ILE:H | 1.76 | 0.49 |
| 1:E:690:LYS:O | 1:E:691:LYS:C | 2.51 | 0.49 |
| 1:E:711:ILE:O | 1:E:712:PHE:HD2 | 1.95 | 0.49 |
| 1:F:249:PHE:O | 1:F:250:ALA:C | 2.51 | 0.49 |
| 1:F:379:ALA:O | 1:F:383:GLY:N | 2.44 | 0.49 |
| 1:F:523:LEU:HD11 | 2:T:144:MET:CG | 2.42 | 0.49 |
| 1:F:579:THR:C | 1:F:581:GLN:H | 2.15 | 0.49 |
| 1:F:767:GLN:HG2 | 1:F:768:LYS:N | 2.28 | 0.49 |
| 2:Q:129:ASP:OD2 | 2:Q:140:GLU:OE2 | 2.31 | 0.49 |
| 1:A:172:GLU:HG3 | 1:A:245:PHE:HE1 | 1.78 | 0.49 |
| 1:A:176:GLY:C | 1:A:178:SER:N | 2.64 | 0.49 |
| 1:A:234:LEU:HD23 | 1:A:234:LEU:N | 2.27 | 0.49 |
| 1:A:579:THR:C | 1:A:581:GLN:H | 2.16 | 0.49 |
| 1:B:155:ASN:C | 1:B:156:ILE:HD12 | 2.33 | 0.49 |
| 1:B:697:ILE:CD1 | 1:B:732:ILE:CD1 | 2.90 | 0.49 |
| 1:C:432:TYR:HE1 | 1:C:445:ARG:CZ | 2.25 | 0.49 |
| 1:D:89:ILE:HG22 | 1:D:90:PRO:HD2 | 1.94 | 0.49 |
| 1:D:197:LYS:HZ3 | 1:D:197:LYS:C | 2.15 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:755:ARG:O | 1:D:756:ILE:C | 2.50 | 0.49 |
| 1:E:188:LEU:HD12 | 1:E:191:GLU:HG3 | 1.94 | 0.49 |
| 1:E:279:ILE:HG22 | 1:E:283:LEU:HD11 | 1.93 | 0.49 |
| 1:F:197:LYS:C | 1:F:197:LYS:HZ3 | 2.16 | 0.49 |
| 1:F:387:ASN:O | 1:F:390:SER:HB2 | 2.12 | 0.49 |
| 2:O:117:THR:C | 2:O:119:GLU:N | 2.66 | 0.49 |
| 2:Q:88:ALA:O | 2:Q:91:VAL:HB | 2.13 | 0.49 |
| 2:S:100:ILE:HB | 2:S:136:VAL:HG22 | 1.93 | 0.49 |
| 2:S:104:GLU:HA | 2:S:107:HIS:HB3 | 1.94 | 0.49 |
| 2:T:28:THR:OG1 | 2:T:29:THR:N | 2.44 | 0.49 |
| 1:B:379:ALA:O | 1:B:383:GLY:N | 2.45 | 0.49 |
| 1:C:518:ASN:N | 1:C:518:ASN:ND2 | 2.61 | 0.49 |
| 1:C:671:ARG:HH11 | 1:C:671:ARG:HG3 | 1.78 | 0.49 |
| 1:D:192:PHE:HD1 | 1:D:192:PHE:H | 1.61 | 0.49 |
| 1:D:263:ASP:O | 1:D:266:GLU:N | 2.45 | 0.49 |
| 1:D:432:TYR:HE1 | 1:D:445:ARG:CZ | 2.26 | 0.49 |
| 1:D:692:GLU:CD | 2:R:21:LYS:HZ1 | 2.15 | 0.49 |
| 1:D:767:GLN:HG2 | 1:D:768:LYS:N | 2.28 | 0.49 |
| 1:E:254:ARG:H | 1:E:254:ARG:CD | 2.19 | 0.49 |
| 1:E:381:GLU:O | 1:E:385:LEU:HD23 | 2.13 | 0.49 |
| 1:E:405:LEU:HD13 | 1:E:453:VAL:CG2 | 2.41 | 0.49 |
| 1:E:692:GLU:HA | 1:E:692:GLU:OE2 | 2.13 | 0.49 |
| 1:E:731:GLU:HA | 1:E:734:ASN:HB2 | 1.95 | 0.49 |
| 1:E:767:GLN:HG2 | 1:E:768:LYS:N | 2.27 | 0.49 |
| 1:F:122:GLU:HG3 | 1:F:147:ARG:H | 1.77 | 0.49 |
| 1:F:633:ASN:O | 1:F:642:TYR:CE1 | 2.65 | 0.49 |
| 1:F:697:ILE:HG23 | 1:F:732:ILE:HD11 | 1.94 | 0.49 |
| 1:F:724:ARG:HA | 1:F:727:GLN:HG3 | 1.93 | 0.49 |
| 2:O:41:GLN:O | 2:O:43:PRO:HD2 | 2.11 | 0.49 |
| 2:O:79:THR:C | 2:O:81:SER:N | 2.60 | 0.49 |
| 2:P:66:PRO:C | 2:P:68:PHE:H | 2.15 | 0.49 |
| 2:S:117:THR:O | 2:S:119:GLU:N | 2.46 | 0.49 |
| 1:A:180:ASP:HA | 1:A:183:SER:CB | 2.43 | 0.49 |
| 1:A:700:TYR:CD1 | 1:A:728:ALA:N | 2.77 | 0.49 |
| 1:B:182:ILE:HA | 1:B:187:SER:HA | 1.94 | 0.49 |
| 1:B:776:LEU:HD23 | 1:B:776:LEU:C | 2.31 | 0.49 |
| 1:C:76:LEU:O | 1:C:77:ASP:C | 2.51 | 0.49 |
| 1:C:217:LYS:HB3 | 1:C:217:LYS:HZ2 | 1.77 | 0.49 |
| 1:C:353:LYS:H | 1:C:368:GLN:NE2 | 2.06 | 0.49 |
| 1:D:311:HIS:HE1 | 1:D:339:ILE:HG22 | 1.78 | 0.49 |
| 1:D:666:ASN:HB2 | 1:D:748:TYR:OH | 2.12 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:99:GLU:C | 1:E:101:GLY:N | 2.66 | 0.49 |
| 1:E:192:PHE:HD1 | 1:E:192:PHE:H | 1.61 | 0.49 |
| 1:E:495:PHE:C | 1:E:495:PHE:CD1 | 2.86 | 0.49 |
| 1:E:666:ASN:HB2 | 1:E:748:TYR:OH | 2.12 | 0.49 |
| 1:E:755:ARG:O | 1:E:756:ILE:C | 2.51 | 0.49 |
| 1:F:172:GLU:HG3 | 1:F:245:PHE:HE1 | 1.78 | 0.49 |
| 1:F:217:LYS:HZ2 | 1:F:236:GLU:HB2 | 1.78 | 0.49 |
| 1:F:626:TYR:CD2 | 1:F:627:TYR:N | 2.81 | 0.49 |
| 1:F:629:ASN:ND2 | 1:F:631:SER:CB | 2.73 | 0.49 |
| 2:Q:66:PRO:C | 2:Q:68:PHE:H | 2.15 | 0.49 |
| 2:R:92:PHE:H | 2:R:92:PHE:HD1 | 1.61 | 0.49 |
| 2:S:63:ILE:CG2 | 2:S:67:GLU:HB2 | 2.42 | 0.49 |
| 1:A:197:LYS:HD3 | 1:A:263:ASP:HB3 | 1.94 | 0.49 |
| 1:A:410:ILE:HD11 | 1:A:435:LEU:HD11 | 1.94 | 0.49 |
| 1:A:505:LYS:HD3 | 2:O:112:LEU:O | 2.13 | 0.49 |
| 1:B:505:LYS:HD3 | 2:P:112:LEU:O | 2.13 | 0.49 |
| 1:B:710:HIS:O | 1:B:712:PHE:N | 2.46 | 0.49 |
| 1:C:90:PRO:HD3 | 1:C:249:PHE:CE2 | 2.48 | 0.49 |
| 1:C:252:ASP:CG | 1:C:253:HIS:H | 2.15 | 0.49 |
| 1:C:493:ASP:OD2 | 1:C:577:HIS:CE1 | 2.66 | 0.49 |
| 1:C:731:GLU:HA | 1:C:734:ASN:HB2 | 1.95 | 0.49 |
| 1:D:104:ILE:HG23 | 1:D:152:LEU:CD2 | 2.43 | 0.49 |
| 1:D:155:ASN:C | 1:D:156:ILE:HD12 | 2.33 | 0.49 |
| 1:D:270:LYS:HA | 1:D:273:LYS:HG3 | 1.95 | 0.49 |
| 1:D:456:LYS:HB2 | 1:D:469:PHE:O | 2.13 | 0.49 |
| 1:E:353:LYS:H | 1:E:368:GLN:NE2 | 2.04 | 0.49 |
| 1:E:379:ALA:O | 1:E:383:GLY:N | 2.44 | 0.49 |
| 1:E:446:ILE:HG13 | 1:E:451:ASN:O | 2.13 | 0.49 |
| 1:E:513:TRP:CH2 | 2:S:114:GLU:HB2 | 2.48 | 0.49 |
| 1:E:700:TYR:CD1 | 1:E:728:ALA:N | 2.78 | 0.49 |
| 1:F:131:ARG:HB2 | 1:F:243:LEU:HD21 | 1.94 | 0.49 |
| 1:F:381:GLU:O | 1:F:385:LEU:HD23 | 2.13 | 0.49 |
| 1:F:530:THR:O | 1:F:534:ILE:HG13 | 2.13 | 0.49 |
| 1:F:755:ARG:O | 1:F:756:ILE:C | 2.52 | 0.49 |
| 2:O:28:THR:OG1 | 2:O:29:THR:N | 2.44 | 0.49 |
| 2:O:50:ASP:CA | 2:O:53:ASN:HB3 | 2.31 | 0.49 |
| 2:O:68:PHE:O | 2:O:70:THR:N | 2.46 | 0.49 |
| 2:Q:106:ARG:HH21 | 2:Q:106:ARG:HG3 | 1.78 | 0.49 |
| 1:A:493:ASP:OD2 | 1:A:577:HIS:CE1 | 2.65 | 0.48 |
| 1:B:518:ASN:N | 1:B:518:ASN:ND2 | 2.61 | 0.48 |
| 1:B:700:TYR:CD1 | 1:B:728:ALA:N | 2.77 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:100:LEU:HD22 | 1:C:182:ILE:HG21 | 1.95 | 0.48 |
| 1:C:401:ILE:HG21 | 1:C:485:LEU:HB3 | 1.95 | 0.48 |
| 1:C:554:LYS:O | 1:C:557:LEU:N | 2.46 | 0.48 |
| 1:C:629:ASN:ND2 | 1:C:631:SER:CB | 2.74 | 0.48 |
| 1:D:122:GLU:HG3 | 1:D:147:ARG:H | 1.77 | 0.48 |
| 1:D:279:ILE:HG22 | 1:D:283:LEU:HD11 | 1.93 | 0.48 |
| 1:D:493:ASP:OD2 | 1:D:577:HIS:CE1 | 2.66 | 0.48 |
| 1:D:639:ASN:ND2 | 1:D:639:ASN:N | 2.50 | 0.48 |
| 1:D:731:GLU:HA | 1:D:734:ASN:HB2 | 1.95 | 0.48 |
| 1:E:100:LEU:HD22 | 1:E:182:ILE:HG21 | 1.94 | 0.48 |
| 1:E:318:ILE:N | 1:E:318:ILE:HD12 | 2.27 | 0.48 |
| 1:E:432:TYR:CE1 | 1:E:445:ARG:CZ | 2.96 | 0.48 |
| 1:E:671:ARG:HH11 | 1:E:671:ARG:HG3 | 1.78 | 0.48 |
| 1:F:182:ILE:HA | 1:F:187:SER:HA | 1.95 | 0.48 |
| 1:F:597:ASN:HD22 | 1:F:603:ILE:HD11 | 1.78 | 0.48 |
| 2:P:52:ILE:HD13 | 2:P:63:ILE:HD11 | 1.94 | 0.48 |
| 2:Q:52:ILE:HD13 | 2:Q:63:ILE:HD11 | 1.94 | 0.48 |
| 2:R:52:ILE:HD13 | 2:R:63:ILE:HD11 | 1.94 | 0.48 |
| 2:R:117:THR:C | 2:R:119:GLU:N | 2.65 | 0.48 |
| 2:T:52:ILE:HD13 | 2:T:63:ILE:HD11 | 1.93 | 0.48 |
| 2:T:88:ALA:O | 2:T:91:VAL:HB | 2.13 | 0.48 |
| 2:T:129:ASP:OD2 | 2:T:140:GLU:OE2 | 2.31 | 0.48 |
| 1:A:172:GLU:CB | 1:A:246:SER:HA | 2.44 | 0.48 |
| 1:A:322:LEU:HA | 1:A:503:GLU:OE2 | 2.14 | 0.48 |
| 1:B:171:TYR:CD1 | 1:B:175:LYS:NZ | 2.81 | 0.48 |
| 1:B:311:HIS:HE1 | 1:B:339:ILE:HG22 | 1.78 | 0.48 |
| 1:B:318:ILE:N | 1:B:318:ILE:HD12 | 2.27 | 0.48 |
| 1:B:410:ILE:HD11 | 1:B:435:LEU:HD11 | 1.94 | 0.48 |
| 1:B:432:TYR:CE1 | 1:B:445:ARG:CZ | 2.96 | 0.48 |
| 1:B:523:LEU:HD11 | 2:P:144:MET:CG | 2.43 | 0.48 |
| 1:C:99:GLU:C | 1:C:101:GLY:N | 2.66 | 0.48 |
| 1:C:767:GLN:HG2 | 1:C:768:LYS:N | 2.28 | 0.48 |
| 1:D:142:VAL:CG2 | 1:D:154:ILE:HD12 | 2.36 | 0.48 |
| 1:D:171:TYR:HD1 | 1:D:175:LYS:NZ | 2.10 | 0.48 |
| 1:D:197:LYS:HD3 | 1:D:263:ASP:HB3 | 1.94 | 0.48 |
| 1:D:318:ILE:HD12 | 1:D:318:ILE:N | 2.27 | 0.48 |
| 1:D:692:GLU:OE2 | 1:D:692:GLU:HA | 2.13 | 0.48 |
| 1:E:279:ILE:HG22 | 1:E:283:LEU:HD13 | 1.94 | 0.48 |
| 2:O:66:PRO:C | 2:O:68:PHE:H | 2.16 | 0.48 |
| 2:O:129:ASP:OD2 | 2:O:140:GLU:OE2 | 2.31 | 0.48 |
| 2:P:28:THR:OG1 | 2:P:29:THR:N | 2.44 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:P:106:ARG:HH21 | 2:P:106:ARG:HG3 | 1.77 | 0.48 |
| 2:Q:72:MET:C | 2:Q:74:ARG:N | 2.66 | 0.48 |
| 2:R:84:GLU:N | 2:R:84:GLU:OE2 | 2.46 | 0.48 |
| 1:A:270:LYS:HA | 1:A:273:LYS:HG3 | 1.95 | 0.48 |
| 1:A:405:LEU:HD13 | 1:A:453:VAL:CG2 | 2.43 | 0.48 |
| 1:A:432:TYR:HE1 | 1:A:445:ARG:CZ | 2.26 | 0.48 |
| 1:B:100:LEU:HD22 | 1:B:182:ILE:HG21 | 1.94 | 0.48 |
| 1:B:142:VAL:CG2 | 1:B:154:ILE:HD12 | 2.37 | 0.48 |
| 1:B:767:GLN:HG2 | 1:B:768:LYS:N | 2.28 | 0.48 |
| 1:C:633:ASN:O | 1:C:642:TYR:CE1 | 2.66 | 0.48 |
| 1:C:732:ILE:HG23 | 1:C:749:PHE:HD1 | 1.77 | 0.48 |
| 1:D:90:PRO:HD3 | 1:D:249:PHE:CE2 | 2.47 | 0.48 |
| 1:D:102:GLY:CA | 1:D:150:PRO:HG2 | 2.42 | 0.48 |
| 1:D:182:ILE:C | 1:D:183:SER:O | 2.52 | 0.48 |
| 1:D:732:ILE:HG23 | 1:D:749:PHE:HD1 | 1.77 | 0.48 |
| 1:E:102:GLY:CA | 1:E:150:PRO:HG2 | 2.42 | 0.48 |
| 1:F:176:GLY:C | 1:F:178:SER:N | 2.65 | 0.48 |
| 1:F:182:ILE:C | 1:F:183:SER:O | 2.50 | 0.48 |
| 1:F:527:LYS:HG2 | 2:T:145:MET:SD | 2.54 | 0.48 |
| 1:F:632:TYR:CE2 | 1:F:643:ILE:HG21 | 2.47 | 0.48 |
| 2:P:68:PHE:O | 2:P:70:THR:N | 2.45 | 0.48 |
| 2:Q:12:PHE:O | 2:Q:15:ALA:HB3 | 2.13 | 0.48 |
| 2:S:72:MET:C | 2:S:74:ARG:N | 2.66 | 0.48 |
| 2:T:41:GLN:O | 2:T:43:PRO:HD2 | 2.11 | 0.48 |
| 2:T:51:MET:O | 2:T:55:VAL:HG12 | 2.12 | 0.48 |
| 1:A:81:GLN:OE1 | 1:A:156:ILE:HG21 | 2.13 | 0.48 |
| 1:A:131:ARG:HB2 | 1:A:243:LEU:HD21 | 1.95 | 0.48 |
| 1:A:155:ASN:C | 1:A:156:ILE:HD12 | 2.34 | 0.48 |
| 1:B:351:HIS:HB2 | 1:B:386:GLU:HG3 | 1.95 | 0.48 |
| 1:B:660:SER:O | 1:B:663:PHE:HB3 | 2.13 | 0.48 |
| 1:B:736:LEU:HD11 | 1:B:750:GLN:NE2 | 2.27 | 0.48 |
| 1:C:188:LEU:HD12 | 1:C:191:GLU:HG3 | 1.95 | 0.48 |
| 1:C:359:PRO:HG2 | 1:C:360:VAL:H | 1.78 | 0.48 |
| 1:C:432:TYR:CE1 | 1:C:445:ARG:CZ | 2.96 | 0.48 |
| 1:C:629:ASN:ND2 | 1:C:631:SER:N | 2.62 | 0.48 |
| 1:C:665:LYS:HE2 | 2:Q:11:GLU:OE1 | 2.13 | 0.48 |
| 1:D:77:ASP:OD1 | 1:D:159:TYR:HE2 | 1.96 | 0.48 |
| 1:D:235:THR:O | 1:D:238:GLN:HB2 | 2.14 | 0.48 |
| 1:D:432:TYR:CE1 | 1:D:445:ARG:CZ | 2.96 | 0.48 |
| 1:D:597:ASN:HD22 | 1:D:603:ILE:HD11 | 1.77 | 0.48 |
| 1:E:235:THR:O | 1:E:238:GLN:HB2 | 2.14 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:289:GLU:HA | 1:E:292:ARG:HG3 | 1.93 | 0.48 |
| 1:E:653:LYS:O | 1:E:655:ASN:N | 2.46 | 0.48 |
| 1:F:131:ARG:HG2 | 1:F:131:ARG:HH11 | 1.78 | 0.48 |
| 2:O:17:SER:OG | 2:O:18:LEU:N | 2.46 | 0.48 |
| 2:P:111:ASN:C | 2:P:113:GLY:H | 2.17 | 0.48 |
| 2:T:117:THR:O | 2:T:119:GLU:N | 2.47 | 0.48 |
| 1:A:377:GLN:O | 1:A:381:GLU:HB2 | 2.14 | 0.48 |
| 1:A:633:ASN:O | 1:A:642:TYR:CE1 | 2.67 | 0.48 |
| 1:A:639:ASN:ND2 | 1:A:639:ASN:N | 2.49 | 0.48 |
| 1:B:97:TYR:OH | 1:B:150:PRO:HB2 | 2.13 | 0.48 |
| 1:B:102:GLY:C | 1:B:103:GLU:HG3 | 2.32 | 0.48 |
| 1:B:165:GLN:HG2 | 1:B:251:PRO:CG | 2.40 | 0.48 |
| 1:B:443:GLU:HG3 | 1:B:458:LYS:HG2 | 1.96 | 0.48 |
| 1:B:480:ASN:ND2 | 1:B:481:VAL:N | 2.62 | 0.48 |
| 1:B:617:LYS:HZ3 | 1:B:618:ASN:ND2 | 2.09 | 0.48 |
| 1:B:719:LYS:HE3 | 1:B:797:ILE:HD11 | 1.95 | 0.48 |
| 1:C:171:TYR:HD1 | 1:C:175:LYS:NZ | 2.11 | 0.48 |
| 1:C:249:PHE:O | 1:C:250:ALA:C | 2.52 | 0.48 |
| 1:C:351:HIS:HB2 | 1:C:386:GLU:HG3 | 1.95 | 0.48 |
| 1:C:480:ASN:ND2 | 1:C:481:VAL:N | 2.60 | 0.48 |
| 1:E:102:GLY:C | 1:E:103:GLU:HG3 | 2.33 | 0.48 |
| 1:E:660:SER:O | 1:E:663:PHE:HB3 | 2.14 | 0.48 |
| 1:F:76:LEU:O | 1:F:77:ASP:C | 2.52 | 0.48 |
| 1:F:432:TYR:CE1 | 1:F:445:ARG:CZ | 2.96 | 0.48 |
| 1:F:513:TRP:CH2 | 2:T:114:GLU:HB2 | 2.48 | 0.48 |
| 2:O:66:PRO:O | 2:O:68:PHE:N | 2.45 | 0.48 |
| 2:P:117:THR:O | 2:P:119:GLU:N | 2.46 | 0.48 |
| 2:P:117:THR:O | 2:P:120:GLU:N | 2.47 | 0.48 |
| 2:Q:28:THR:OG1 | 2:Q:29:THR:N | 2.44 | 0.48 |
| 2:R:100:ILE:HB | 2:R:136:VAL:HG22 | 1.93 | 0.48 |
| 2:S:32:LEU:O | 2:S:32:LEU:HD12 | 2.13 | 0.48 |
| 1:A:100:LEU:HD22 | 1:A:182:ILE:HG21 | 1.95 | 0.48 |
| 1:A:387:ASN:N | 1:A:387:ASN:ND2 | 2.61 | 0.48 |
| 1:A:456:LYS:HB2 | 1:A:469:PHE:O | 2.14 | 0.48 |
| 1:A:456:LYS:HB3 | 1:A:471:TRP:N | 2.29 | 0.48 |
| 1:B:480:ASN:HD22 | 1:B:481:VAL:N | 2.11 | 0.48 |
| 1:C:235:THR:O | 1:C:238:GLN:HB2 | 2.13 | 0.48 |
| 1:E:76:LEU:O | 1:E:77:ASP:C | 2.52 | 0.48 |
| 1:E:456:LYS:HB3 | 1:E:471:TRP:N | 2.29 | 0.48 |
| 2:P:84:GLU:OE2 | 2:P:84:GLU:N | 2.46 | 0.48 |
| 2:Q:19:PHE:CD1 | 2:Q:19:PHE:N | 2.75 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:Q:68:PHE:O | 2:Q:70:THR:N | 2.46 | 0.48 |
| 2:Q:84:GLU:OE2 | 2:Q:84:GLU:N | 2.44 | 0.48 |
| 2:R:19:PHE:CD1 | 2:R:19:PHE:N | 2.75 | 0.48 |
| 2:R:56:ASP:C | 2:R:58:ASP:H | 2.15 | 0.48 |
| 2:S:17:SER:OG | 2:S:18:LEU:N | 2.45 | 0.48 |
| 1:A:90:PRO:HD3 | 1:A:249:PHE:CE2 | 2.48 | 0.48 |
| 1:A:597:ASN:HD22 | 1:A:603:ILE:HD11 | 1.79 | 0.48 |
| 1:B:99:GLU:C | 1:B:101:GLY:N | 2.67 | 0.48 |
| 1:B:697:ILE:HG23 | 1:B:732:ILE:HD11 | 1.94 | 0.48 |
| 1:C:131:ARG:HG3 | 1:C:243:LEU:HD13 | 1.95 | 0.48 |
| 1:C:523:LEU:HD11 | 2:Q:144:MET:CG | 2.44 | 0.48 |
| 1:C:711:ILE:O | 1:C:712:PHE:HD2 | 1.96 | 0.48 |
| 1:D:456:LYS:HB3 | 1:D:471:TRP:N | 2.28 | 0.48 |
| 1:E:116:GLU:HG3 | 1:E:117:LEU:CD2 | 2.44 | 0.48 |
| 1:E:164:GLU:O | 1:E:167:LYS:HG2 | 2.13 | 0.48 |
| 1:E:401:ILE:HG21 | 1:E:485:LEU:HB3 | 1.96 | 0.48 |
| 1:F:155:ASN:C | 1:F:156:ILE:HD12 | 2.34 | 0.48 |
| 1:F:270:LYS:HA | 1:F:273:LYS:HG3 | 1.96 | 0.48 |
| 1:F:322:LEU:HA | 1:F:503:GLU:OE2 | 2.14 | 0.48 |
| 1:F:493:ASP:OD2 | 1:F:577:HIS:CE1 | 2.67 | 0.48 |
| 1:F:517:VAL:HB | 1:F:525:LYS:NZ | 2.29 | 0.48 |
| 1:F:665:LYS:HE2 | 2:T:11:GLU:OE1 | 2.13 | 0.48 |
| 2:P:126:ARG:HH21 | 2:P:126:ARG:HG3 | 1.79 | 0.48 |
| 1:A:71:PHE:HB2 | 1:A:108:ASP:HB2 | 1.96 | 0.48 |
| 1:A:249:PHE:O | 1:A:250:ALA:C | 2.51 | 0.48 |
| 1:A:252:ASP:OD2 | 1:A:253:HIS:CD2 | 2.67 | 0.48 |
| 1:A:263:ASP:O | 1:A:266:GLU:N | 2.46 | 0.48 |
| 1:A:381:GLU:O | 1:A:385:LEU:HD23 | 2.13 | 0.48 |
| 1:A:432:TYR:CE1 | 1:A:445:ARG:CZ | 2.97 | 0.48 |
| 1:A:658:PRO:HB3 | 1:A:755:ARG:NH1 | 2.28 | 0.48 |
| 1:B:116:GLU:HG3 | 1:B:117:LEU:CD2 | 2.44 | 0.48 |
| 1:B:173:ILE:O | 1:B:175:LYS:N | 2.47 | 0.48 |
| 1:C:97:TYR:OH | 1:C:150:PRO:HB2 | 2.14 | 0.48 |
| 1:C:298:GLY:O | 1:C:300:LYS:N | 2.47 | 0.48 |
| 1:C:381:GLU:O | 1:C:385:LEU:HD23 | 2.14 | 0.48 |
| 1:C:517:VAL:HB | 1:C:525:LYS:HZ1 | 1.79 | 0.48 |
| 1:C:597:ASN:HD22 | 1:C:603:ILE:HD11 | 1.78 | 0.48 |
| 1:D:249:PHE:O | 1:D:250:ALA:C | 2.51 | 0.48 |
| 1:D:335:ALA:CB | 1:D:489:THR:OG1 | 2.61 | 0.48 |
| 1:D:697:ILE:HG23 | 1:D:732:ILE:HD11 | 1.96 | 0.48 |
| 1:E:131:ARG:HG2 | 1:E:131:ARG:HH11 | 1.79 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:345:THR:HG22 | 1:E:490:ALA:O | 2.14 | 0.48 |
| 1:E:736:LEU:HD11 | 1:E:750:GLN:NE2 | 2.29 | 0.48 |
| 1:F:254:ARG:H | 1:F:254:ARG:CD | 2.20 | 0.48 |
| 1:F:456:LYS:HB3 | 1:F:471:TRP:N | 2.28 | 0.48 |
| 1:F:637:PRO:O | 1:F:640:LYS:HG3 | 2.12 | 0.48 |
| 2:Q:117:THR:O | 2:Q:119:GLU:N | 2.47 | 0.48 |
| 2:R:12:PHE:O | 2:R:15:ALA:HB3 | 2.14 | 0.48 |
| 1:A:302:LEU:HD13 | 1:A:602:PHE:CE1 | 2.49 | 0.48 |
| 1:A:353:LYS:H | 1:A:368:GLN:NE2 | 2.06 | 0.48 |
| 1:A:509:PRO:HG2 | 1:A:512:GLU:HG3 | 1.95 | 0.48 |
| 1:A:561:ASN:C | 1:A:563:ALA:N | 2.67 | 0.48 |
| 1:A:626:TYR:CD2 | 1:A:627:TYR:N | 2.82 | 0.48 |
| 1:B:71:PHE:O | 1:B:78:LYS:NZ | 2.47 | 0.48 |
| 1:B:180:ASP:HA | 1:B:183:SER:CB | 2.44 | 0.48 |
| 1:B:182:ILE:C | 1:B:183:SER:O | 2.50 | 0.48 |
| 1:B:381:GLU:O | 1:B:385:LEU:HD23 | 2.14 | 0.48 |
| 1:C:254:ARG:HB3 | 1:C:254:ARG:NH1 | 2.23 | 0.48 |
| 1:C:529:VAL:O | 1:C:532:LEU:HB2 | 2.13 | 0.48 |
| 1:C:561:ASN:C | 1:C:563:ALA:N | 2.67 | 0.48 |
| 1:C:648:PRO:HD2 | 2:Q:90:ARG:HD3 | 1.95 | 0.48 |
| 1:C:658:PRO:HG3 | 1:C:752:LEU:CD2 | 2.40 | 0.48 |
| 1:C:736:LEU:HD11 | 1:C:750:GLN:NE2 | 2.29 | 0.48 |
| 1:D:252:ASP:OD2 | 1:D:253:HIS:CD2 | 2.67 | 0.48 |
| 1:D:401:ILE:HG21 | 1:D:485:LEU:HB3 | 1.96 | 0.48 |
| 1:D:719:LYS:HE3 | 1:D:797:ILE:HD11 | 1.95 | 0.48 |
| 1:E:579:THR:C | 1:E:581:GLN:N | 2.67 | 0.48 |
| 1:F:192:PHE:H | 1:F:192:PHE:HD1 | 1.62 | 0.48 |
| 1:F:351:HIS:HB2 | 1:F:386:GLU:HG3 | 1.96 | 0.48 |
| 1:F:505:LYS:HD3 | 2:T:112:LEU:O | 2.13 | 0.48 |
| 1:F:660:SER:O | 1:F:663:PHE:HB3 | 2.14 | 0.48 |
| 1:F:690:LYS:O | 1:F:691:LYS:C | 2.52 | 0.48 |
| 1:F:711:ILE:O | 1:F:712:PHE:HD2 | 1.96 | 0.48 |
| 2:P:72:MET:C | 2:P:74:ARG:N | 2.66 | 0.48 |
| 2:T:19:PHE:CD1 | 2:T:19:PHE:N | 2.74 | 0.48 |
| 2:T:111:ASN:C | 2:T:113:GLY:H | 2.17 | 0.48 |
| 1:B:192:PHE:O | 1:B:196:ILE:HG13 | 2.14 | 0.48 |
| 1:B:446:ILE:HG13 | 1:B:451:ASN:O | 2.13 | 0.48 |
| 1:B:456:LYS:HB3 | 1:B:471:TRP:N | 2.28 | 0.48 |
| 1:C:172:GLU:CB | 1:C:246:SER:HA | 2.44 | 0.48 |
| 1:C:357:TRP:HZ3 | 1:C:439:ASN:CB | 2.24 | 0.48 |
| 1:C:513:TRP:CH2 | 2:Q:114:GLU:HB2 | 2.49 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:692:GLU:HA | 1:C:692:GLU:OE2 | 2.14 | 0.48 |
| 1:D:446:ILE:HG13 | 1:D:451:ASN:O | 2.14 | 0.48 |
| 1:D:456:LYS:HD3 | 1:D:471:TRP:CG | 2.49 | 0.48 |
| 1:D:565:LYS:C | 1:D:567:THR:H | 2.17 | 0.48 |
| 1:D:629:ASN:ND2 | 1:D:631:SER:CB | 2.73 | 0.48 |
| 1:D:736:LEU:HD11 | 1:D:750:GLN:NE2 | 2.28 | 0.48 |
| 1:E:529:VAL:O | 1:E:532:LEU:HB2 | 2.14 | 0.48 |
| 1:E:629:ASN:ND2 | 1:E:631:SER:CB | 2.71 | 0.48 |
| 1:F:99:GLU:C | 1:F:101:GLY:N | 2.67 | 0.48 |
| 1:F:517:VAL:HB | 1:F:525:LYS:HZ1 | 1.78 | 0.48 |
| 2:O:111:ASN:C | 2:O:113:GLY:H | 2.17 | 0.48 |
| 2:O:117:THR:O | 2:O:120:GLU:N | 2.47 | 0.48 |
| 2:P:117:THR:C | 2:P:119:GLU:N | 2.65 | 0.48 |
| 2:S:129:ASP:OD2 | 2:S:140:GLU:OE2 | 2.32 | 0.48 |
| 2:T:106:ARG:HG3 | 2:T:106:ARG:HH21 | 1.79 | 0.48 |
| 1:A:666:ASN:HB2 | 1:A:748:TYR:OH | 2.13 | 0.47 |
| 1:A:736:LEU:HD11 | 1:A:750:GLN:NE2 | 2.28 | 0.47 |
| 1:A:755:ARG:O | 1:A:756:ILE:C | 2.51 | 0.47 |
| 1:B:529:VAL:HG21 | 2:P:109:MET:HE1 | 1.94 | 0.47 |
| 1:C:192:PHE:O | 1:C:196:ILE:HG13 | 2.14 | 0.47 |
| 1:C:297:LYS:HG2 | 1:C:603:ILE:HG12 | 1.95 | 0.47 |
| 1:C:405:LEU:HD13 | 1:C:453:VAL:CG2 | 2.43 | 0.47 |
| 1:D:105:TYR:HE1 | 1:D:151:LYS:NZ | 2.12 | 0.47 |
| 1:D:405:LEU:HD13 | 1:D:453:VAL:CG2 | 2.43 | 0.47 |
| 1:E:155:ASN:C | 1:E:156:ILE:HD12 | 2.34 | 0.47 |
| 1:E:718:ARG:HH12 | 1:E:767:GLN:HE21 | 1.62 | 0.47 |
| 1:F:164:GLU:O | 1:F:167:LYS:HG2 | 2.14 | 0.47 |
| 1:F:180:ASP:HA | 1:F:183:SER:CB | 2.44 | 0.47 |
| 1:F:252:ASP:OD2 | 1:F:253:HIS:CD2 | 2.67 | 0.47 |
| 1:F:456:LYS:HB2 | 1:F:469:PHE:O | 2.14 | 0.47 |
| 1:F:480:ASN:ND2 | 1:F:481:VAL:N | 2.62 | 0.47 |
| 1:F:518:ASN:N | 1:F:518:ASN:ND2 | 2.61 | 0.47 |
| 2:P:17:SER:OG | 2:P:18:LEU:N | 2.46 | 0.47 |
| 1:A:345:THR:HG22 | 1:A:490:ALA:O | 2.14 | 0.47 |
| 1:A:711:ILE:O | 1:A:712:PHE:HD2 | 1.96 | 0.47 |
| 1:B:90:PRO:HD3 | 1:B:249:PHE:CE2 | 2.50 | 0.47 |
| 1:B:301:ALA:O | 1:B:304:ALA:N | 2.43 | 0.47 |
| 1:B:322:LEU:HA | 1:B:503:GLU:OE2 | 2.14 | 0.47 |
| 1:B:387:ASN:N | 1:B:387:ASN:ND2 | 2.62 | 0.47 |
| 1:B:513:TRP:CH2 | 2:P:114:GLU:HB2 | 2.49 | 0.47 |
| 1:B:561:ASN:C | 1:B:563:ALA:N | 2.67 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:579:THR:C | 1:C:581:GLN:H | 2.16 | 0.47 |
| 1:D:76:LEU:O | 1:D:77:ASP:C | 2.52 | 0.47 |
| 1:D:254:ARG:HB3 | 1:D:254:ARG:NH1 | 2.22 | 0.47 |
| 1:D:297:LYS:HG2 | 1:D:603:ILE:HG12 | 1.95 | 0.47 |
| 1:D:633:ASN:O | 1:D:642:TYR:CE1 | 2.67 | 0.47 |
| 1:D:671:ARG:HH11 | 1:D:671:ARG:HG3 | 1.79 | 0.47 |
| 1:E:351:HIS:HB2 | 1:E:386:GLU:HG3 | 1.95 | 0.47 |
| 1:F:170:TYR:O | 1:F:174:GLY:N | 2.47 | 0.47 |
| 1:F:172:GLU:CB | 1:F:246:SER:HA | 2.44 | 0.47 |
| 1:F:297:LYS:HG2 | 1:F:603:ILE:HG12 | 1.95 | 0.47 |
| 1:F:298:GLY:O | 1:F:300:LYS:N | 2.47 | 0.47 |
| 1:F:443:GLU:HG3 | 1:F:458:LYS:HG2 | 1.96 | 0.47 |
| 1:F:719:LYS:HE3 | 1:F:797:ILE:HD11 | 1.95 | 0.47 |
| 2:O:117:THR:O | 2:O:119:GLU:N | 2.47 | 0.47 |
| 2:T:72:MET:C | 2:T:74:ARG:N | 2.67 | 0.47 |
| 1:A:351:HIS:HB2 | 1:A:386:GLU:HG3 | 1.95 | 0.47 |
| 1:A:700:TYR:CD1 | 1:A:728:ALA:HA | 2.48 | 0.47 |
| 1:B:405:LEU:HD13 | 1:B:453:VAL:CG2 | 2.43 | 0.47 |
| 1:C:302:LEU:HD13 | 1:C:602:PHE:CE1 | 2.49 | 0.47 |
| 1:D:116:GLU:HG3 | 1:D:117:LEU:CD2 | 2.44 | 0.47 |
| 1:D:172:GLU:CB | 1:D:246:SER:HA | 2.45 | 0.47 |
| 1:D:357:TRP:HZ3 | 1:D:439:ASN:CB | 2.23 | 0.47 |
| 1:D:480:ASN:HD22 | 1:D:481:VAL:N | 2.12 | 0.47 |
| 1:D:579:THR:C | 1:D:581:GLN:H | 2.17 | 0.47 |
| 1:E:628:PHE:CE2 | 2:S:90:ARG:CZ | 2.96 | 0.47 |
| 1:F:658:PRO:HG3 | 1:F:752:LEU:CD2 | 2.40 | 0.47 |
| 1:F:687:GLU:O | 1:F:690:LYS:HB2 | 2.15 | 0.47 |
| 2:O:28:THR:HG23 | 2:O:31:GLU:CD | 2.34 | 0.47 |
| 2:R:41:GLN:O | 2:R:43:PRO:HD2 | 2.13 | 0.47 |
| 2:S:28:THR:HG23 | 2:S:31:GLU:CD | 2.34 | 0.47 |
| 2:S:41:GLN:O | 2:S:43:PRO:HD2 | 2.12 | 0.47 |
| 1:A:171:TYR:CD1 | 1:A:175:LYS:NZ | 2.83 | 0.47 |
| 1:A:379:ALA:O | 1:A:383:GLY:N | 2.45 | 0.47 |
| 1:A:643:ILE:HG22 | 1:A:644:GLU:N | 2.29 | 0.47 |
| 1:B:185:ASP:O | 1:B:190:PRO:HA | 2.14 | 0.47 |
| 1:B:197:LYS:HD3 | 1:B:263:ASP:HB3 | 1.95 | 0.47 |
| 1:B:357:TRP:CZ3 | 1:B:439:ASN:ND2 | 2.83 | 0.47 |
| 1:B:495:PHE:C | 1:B:495:PHE:CD1 | 2.87 | 0.47 |
| 1:C:335:ALA:CB | 1:C:489:THR:OG1 | 2.61 | 0.47 |
| 1:D:665:LYS:HE2 | 2:R:11:GLU:OE1 | 2.14 | 0.47 |
| 1:E:79:ILE:C | 1:E:81:GLN:N | 2.68 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:308:VAL:CG2 | 1:E:336:THR:O | 2.62 | 0.47 |
| 1:E:432:TYR:HD1 | 1:E:445:ARG:HD2 | 1.78 | 0.47 |
| 1:E:456:LYS:HB2 | 1:E:469:PHE:O | 2.14 | 0.47 |
| 1:E:597:ASN:HD22 | 1:E:603:ILE:HD11 | 1.80 | 0.47 |
| 1:E:658:PRO:HG3 | 1:E:752:LEU:CD2 | 2.39 | 0.47 |
| 1:E:697:ILE:HG23 | 1:E:732:ILE:HD11 | 1.94 | 0.47 |
| 1:F:254:ARG:HB3 | 1:F:254:ARG:NH1 | 2.20 | 0.47 |
| 1:F:279:ILE:HG22 | 1:F:283:LEU:HD11 | 1.96 | 0.47 |
| 1:F:357:TRP:HZ3 | 1:F:439:ASN:CB | 2.23 | 0.47 |
| 1:F:432:TYR:HD1 | 1:F:445:ARG:HD2 | 1.79 | 0.47 |
| 1:F:542:PRO:HA | 1:F:548:THR:HG23 | 1.97 | 0.47 |
| 2:P:12:PHE:HB3 | 2:P:68:PHE:CE2 | 2.50 | 0.47 |
| 2:Q:100:ILE:HB | 2:Q:136:VAL:HG22 | 1.95 | 0.47 |
| 2:S:117:THR:HG23 | 2:S:120:GLU:CB | 2.44 | 0.47 |
| 1:A:173:ILE:O | 1:A:175:LYS:N | 2.47 | 0.47 |
| 1:A:625:LEU:HD12 | 1:A:625:LEU:C | 2.35 | 0.47 |
| 1:B:220:LEU:HG | 1:B:220:LEU:O | 2.15 | 0.47 |
| 1:B:456:LYS:HB2 | 1:B:469:PHE:O | 2.14 | 0.47 |
| 1:B:666:ASN:HB2 | 1:B:748:TYR:OH | 2.13 | 0.47 |
| 1:B:671:ARG:HG3 | 1:B:671:ARG:HH11 | 1.79 | 0.47 |
| 1:C:116:GLU:HG3 | 1:C:117:LEU:CD2 | 2.45 | 0.47 |
| 1:C:131:ARG:HH11 | 1:C:131:ARG:HG2 | 1.79 | 0.47 |
| 1:C:456:LYS:HB3 | 1:C:471:TRP:N | 2.29 | 0.47 |
| 1:D:351:HIS:HB2 | 1:D:386:GLU:HG3 | 1.95 | 0.47 |
| 1:D:540:ARG:HD3 | 1:D:627:TYR:HH | 1.79 | 0.47 |
| 1:E:180:ASP:HA | 1:E:183:SER:CB | 2.45 | 0.47 |
| 1:E:214:PHE:CB | 1:E:218:LEU:HB3 | 2.39 | 0.47 |
| 1:E:322:LEU:HA | 1:E:503:GLU:OE2 | 2.14 | 0.47 |
| 1:E:387:ASN:N | 1:E:387:ASN:ND2 | 2.62 | 0.47 |
| 1:F:115:LYS:C | 1:F:117:LEU:N | 2.68 | 0.47 |
| 1:F:235:THR:O | 1:F:238:GLN:HB2 | 2.14 | 0.47 |
| 1:F:456:LYS:HD3 | 1:F:471:TRP:CG | 2.49 | 0.47 |
| 1:F:554:LYS:O | 1:F:557:LEU:N | 2.47 | 0.47 |
| 1:F:561:ASN:C | 1:F:563:ALA:N | 2.68 | 0.47 |
| 1:F:710:HIS:O | 1:F:712:PHE:N | 2.47 | 0.47 |
| 2:O:92:PHE:H | 2:O:92:PHE:HD1 | 1.61 | 0.47 |
| 2:P:16:PHE:O | 2:P:17:SER:C | 2.52 | 0.47 |
| 2:Q:63:ILE:HG23 | 2:Q:67:GLU:HB2 | 1.96 | 0.47 |
| 2:Q:117:THR:C | 2:Q:119:GLU:N | 2.66 | 0.47 |
| 2:R:28:THR:OG1 | 2:R:29:THR:N | 2.46 | 0.47 |
| 2:T:16:PHE:O | 2:T:17:SER:C | 2.53 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:164:GLU:O | 1:A:167:LYS:HG2 | 2.14 | 0.47 |
| 1:A:504:ILE:O | 1:A:507:GLN:CB | 2.63 | 0.47 |
| 1:A:665:LYS:HE2 | 2:O:11:GLU:OE1 | 2.14 | 0.47 |
| 1:A:741:ILE:O | 1:A:742:ALA:C | 2.53 | 0.47 |
| 1:B:115:LYS:C | 1:B:117:LEU:N | 2.66 | 0.47 |
| 1:B:173:ILE:HA | 1:B:242:SER:HB3 | 1.96 | 0.47 |
| 1:B:308:VAL:CG2 | 1:B:336:THR:O | 2.62 | 0.47 |
| 1:B:529:VAL:O | 1:B:532:LEU:HB2 | 2.14 | 0.47 |
| 1:B:579:THR:C | 1:B:581:GLN:N | 2.68 | 0.47 |
| 1:B:692:GLU:HA | 1:B:692:GLU:OE2 | 2.15 | 0.47 |
| 1:C:164:GLU:O | 1:C:167:LYS:HG2 | 2.14 | 0.47 |
| 1:C:254:ARG:H | 1:C:254:ARG:CD | 2.19 | 0.47 |
| 1:C:263:ASP:O | 1:C:265:PHE:N | 2.48 | 0.47 |
| 1:D:201:ASP:CA | 1:D:210:PHE:HE2 | 2.27 | 0.47 |
| 1:D:305:SER:HB2 | 1:D:594:PHE:CE1 | 2.50 | 0.47 |
| 1:D:332:ASN:OD1 | 1:D:334:LEU:N | 2.45 | 0.47 |
| 1:D:495:PHE:CD1 | 1:D:495:PHE:C | 2.87 | 0.47 |
| 1:D:513:TRP:CH2 | 2:R:114:GLU:HB2 | 2.49 | 0.47 |
| 1:E:182:ILE:HA | 1:E:187:SER:HA | 1.96 | 0.47 |
| 1:E:665:LYS:HE2 | 2:S:11:GLU:OE1 | 2.14 | 0.47 |
| 1:F:359:PRO:HG2 | 1:F:360:VAL:H | 1.79 | 0.47 |
| 1:F:387:ASN:N | 1:F:387:ASN:ND2 | 2.62 | 0.47 |
| 1:F:629:ASN:ND2 | 1:F:631:SER:N | 2.63 | 0.47 |
| 2:O:126:ARG:HH21 | 2:O:126:ARG:HG3 | 1.79 | 0.47 |
| 2:Q:16:PHE:O | 2:Q:17:SER:C | 2.52 | 0.47 |
| 2:Q:66:PRO:C | 2:Q:68:PHE:N | 2.68 | 0.47 |
| 1:A:115:LYS:C | 1:A:117:LEU:N | 2.67 | 0.47 |
| 1:A:540:ARG:NH1 | 1:A:627:TYR:CE1 | 2.82 | 0.47 |
| 1:A:671:ARG:HH11 | 1:A:671:ARG:HG3 | 1.80 | 0.47 |
| 1:A:692:GLU:OE2 | 1:A:692:GLU:HA | 2.14 | 0.47 |
| 1:A:710:HIS:O | 1:A:712:PHE:N | 2.47 | 0.47 |
| 1:B:115:LYS:CE | 1:B:116:GLU:HG2 | 2.45 | 0.47 |
| 1:B:131:ARG:HG2 | 1:B:131:ARG:HH11 | 1.78 | 0.47 |
| 1:B:172:GLU:CB | 1:B:246:SER:HA | 2.44 | 0.47 |
| 1:B:201:ASP:CA | 1:B:210:PHE:HE2 | 2.26 | 0.47 |
| 1:B:319:ALA:O | 1:B:323:ASN:HA | 2.15 | 0.47 |
| 1:B:343:VAL:HG12 | 1:B:344:ALA:O | 2.14 | 0.47 |
| 1:B:626:TYR:CD2 | 1:B:627:TYR:N | 2.83 | 0.47 |
| 1:B:700:TYR:CD1 | 1:B:728:ALA:HA | 2.48 | 0.47 |
| 1:B:718:ARG:HH12 | 1:B:767:GLN:HE21 | 1.62 | 0.47 |
| 1:B:755:ARG:O | 1:B:756:ILE:C | 2.52 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:155:ASN:C | 1:C:156:ILE:HD12 | 2.34 | 0.47 |
| 1:C:201:ASP:CA | 1:C:210:PHE:HE2 | 2.27 | 0.47 |
| 1:C:344:ALA:HA | 1:C:569:TYR:OH | 2.14 | 0.47 |
| 1:C:443:GLU:HG3 | 1:C:458:LYS:HG2 | 1.96 | 0.47 |
| 1:C:710:HIS:O | 1:C:712:PHE:N | 2.47 | 0.47 |
| 1:D:297:LYS:HZ3 | 1:D:297:LYS:HB3 | 1.78 | 0.47 |
| 1:D:700:TYR:CD1 | 1:D:728:ALA:HA | 2.48 | 0.47 |
| 1:D:741:ILE:O | 1:D:742:ALA:C | 2.53 | 0.47 |
| 1:E:85:LEU:HD12 | 1:E:168:GLU:OE1 | 2.15 | 0.47 |
| 1:E:173:ILE:O | 1:E:175:LYS:N | 2.48 | 0.47 |
| 1:E:218:LEU:C | 1:E:220:LEU:H | 2.14 | 0.47 |
| 1:E:302:LEU:HD13 | 1:E:602:PHE:CE1 | 2.50 | 0.47 |
| 1:E:400:LYS:HE3 | 1:E:475:GLU:CD | 2.35 | 0.47 |
| 1:E:658:PRO:HB3 | 1:E:755:ARG:NH1 | 2.30 | 0.47 |
| 1:E:700:TYR:CD1 | 1:E:728:ALA:HA | 2.48 | 0.47 |
| 1:E:724:ARG:HH11 | 1:E:724:ARG:HG3 | 1.78 | 0.47 |
| 1:F:115:LYS:CB | 1:F:118:GLN:CG | 2.92 | 0.47 |
| 1:F:171:TYR:O | 1:F:171:TYR:CD1 | 2.62 | 0.47 |
| 1:F:446:ILE:HG13 | 1:F:451:ASN:O | 2.15 | 0.47 |
| 1:F:724:ARG:HH11 | 1:F:724:ARG:HG3 | 1.79 | 0.47 |
| 2:O:12:PHE:O | 2:O:15:ALA:HB3 | 2.15 | 0.47 |
| 2:O:69:LEU:HD23 | 2:O:69:LEU:HA | 1.75 | 0.47 |
| 2:O:100:ILE:HB | 2:O:136:VAL:HG22 | 1.91 | 0.47 |
| 2:O:106:ARG:HH21 | 2:O:106:ARG:HG3 | 1.79 | 0.47 |
| 2:P:100:ILE:HB | 2:P:136:VAL:HG22 | 1.92 | 0.47 |
| 2:Q:117:THR:HG23 | 2:Q:120:GLU:CB | 2.44 | 0.47 |
| 2:Q:146:THR:O | 2:Q:147:ALA:C | 2.53 | 0.47 |
| 2:R:32:LEU:HD12 | 2:R:32:LEU:O | 2.14 | 0.47 |
| 2:R:117:THR:O | 2:R:119:GLU:N | 2.47 | 0.47 |
| 2:S:109:MET:HG3 | 2:S:116:LEU:HD11 | 1.97 | 0.47 |
| 2:T:66:PRO:C | 2:T:68:PHE:N | 2.68 | 0.47 |
| 1:A:90:PRO:O | 1:A:93:VAL:N | 2.48 | 0.47 |
| 1:A:357:TRP:CZ3 | 1:A:439:ASN:ND2 | 2.83 | 0.47 |
| 1:A:513:TRP:CH2 | 2:O:114:GLU:HB2 | 2.50 | 0.47 |
| 1:B:263:ASP:O | 1:B:265:PHE:N | 2.48 | 0.47 |
| 1:B:391:ILE:CD1 | 1:B:399:GLY:HA2 | 2.44 | 0.47 |
| 1:C:66:LEU:HD11 | 1:C:97:TYR:HD2 | 1.80 | 0.47 |
| 1:C:322:LEU:HA | 1:C:503:GLU:OE2 | 2.14 | 0.47 |
| 1:C:527:LYS:HG2 | 2:Q:145:MET:SD | 2.55 | 0.47 |
| 1:C:679:TYR:CD1 | 1:C:679:TYR:O | 2.67 | 0.47 |
| 1:D:464:VAL:HG23 | 1:D:465:LEU:N | 2.30 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:648:PRO:HD2 | 2:R:90:ARG:HD3 | 1.97 | 0.47 |
| 1:E:561:ASN:C | 1:E:563:ALA:N | 2.66 | 0.47 |
| 1:F:66:LEU:HD11 | 1:F:97:TYR:HD2 | 1.80 | 0.47 |
| 1:F:97:TYR:OH | 1:F:150:PRO:HB2 | 2.15 | 0.47 |
| 1:F:327:LEU:CG | 1:F:595:ILE:HG12 | 2.43 | 0.47 |
| 1:F:368:GLN:CB | 1:F:380:VAL:HG13 | 2.45 | 0.47 |
| 1:F:529:VAL:O | 1:F:532:LEU:HB2 | 2.13 | 0.47 |
| 1:F:692:GLU:HA | 1:F:692:GLU:OE2 | 2.14 | 0.47 |
| 2:P:92:PHE:HD1 | 2:P:92:PHE:H | 1.62 | 0.47 |
| 2:Q:28:THR:HG23 | 2:Q:31:GLU:CD | 2.35 | 0.47 |
| 2:Q:92:PHE:HD1 | 2:Q:92:PHE:H | 1.62 | 0.47 |
| 2:R:17:SER:OG | 2:R:18:LEU:N | 2.47 | 0.47 |
| 2:S:18:LEU:HB3 | 2:S:19:PHE:CD1 | 2.50 | 0.47 |
| 2:S:24:ASP:HB2 | 2:S:26:THR:CG2 | 2.35 | 0.47 |
| 2:S:92:PHE:HD1 | 2:S:92:PHE:H | 1.62 | 0.47 |
| 1:A:116:GLU:HG3 | 1:A:117:LEU:CD2 | 2.45 | 0.47 |
| 1:A:135:VAL:N | 1:A:136:PRO:CD | 2.78 | 0.47 |
| 1:A:235:THR:O | 1:A:238:GLN:HB2 | 2.14 | 0.47 |
| 1:A:529:VAL:O | 1:A:532:LEU:HB2 | 2.15 | 0.47 |
| 1:A:595:ILE:HG22 | 1:A:596:ILE:H | 1.80 | 0.47 |
| 1:B:66:LEU:HD11 | 1:B:97:TYR:HD2 | 1.80 | 0.47 |
| 1:B:76:LEU:O | 1:B:77:ASP:C | 2.53 | 0.47 |
| 1:B:164:GLU:O | 1:B:167:LYS:HG2 | 2.15 | 0.47 |
| 1:B:456:LYS:HD3 | 1:B:471:TRP:CG | 2.50 | 0.47 |
| 1:C:220:LEU:O | 1:C:220:LEU:HG | 2.15 | 0.47 |
| 1:C:517:VAL:HB | 1:C:525:LYS:NZ | 2.30 | 0.47 |
| 1:D:180:ASP:HA | 1:D:183:SER:CB | 2.45 | 0.47 |
| 1:D:504:ILE:O | 1:D:507:GLN:CB | 2.63 | 0.47 |
| 1:D:656:THR:HG22 | 1:D:657:ILE:O | 2.15 | 0.47 |
| 1:E:116:GLU:HG3 | 1:E:117:LEU:HD23 | 1.96 | 0.47 |
| 1:E:172:GLU:HG3 | 1:E:245:PHE:HE1 | 1.79 | 0.47 |
| 1:E:298:GLY:O | 1:E:300:LYS:N | 2.48 | 0.47 |
| 1:E:450:ASN:HD22 | 1:E:452:GLU:HG3 | 1.78 | 0.47 |
| 1:F:391:ILE:CD1 | 1:F:399:GLY:HA2 | 2.45 | 0.47 |
| 2:R:111:ASN:C | 2:R:113:GLY:H | 2.16 | 0.47 |
| 2:R:117:THR:O | 2:R:120:GLU:N | 2.48 | 0.47 |
| 2:S:16:PHE:O | 2:S:17:SER:C | 2.53 | 0.47 |
| 2:S:111:ASN:C | 2:S:113:GLY:H | 2.17 | 0.47 |
| 2:T:12:PHE:HB3 | 2:T:68:PHE:CE2 | 2.50 | 0.47 |
| 2:T:18:LEU:HD23 | 2:T:18:LEU:HA | 1.75 | 0.47 |
| 2:T:84:GLU:OE2 | 2:T:84:GLU:N | 2.44 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:104:ILE:HG23 | 1:A:152:LEU:CD2 | 2.45 | 0.47 |
| 1:A:170:TYR:O | 1:A:174:GLY:N | 2.48 | 0.47 |
| 1:B:115:LYS:C | 1:B:117:LEU:H | 2.18 | 0.47 |
| 1:B:249:PHE:O | 1:B:250:ALA:C | 2.52 | 0.47 |
| 1:C:197:LYS:HD3 | 1:C:263:ASP:OD1 | 2.15 | 0.47 |
| 1:C:456:LYS:HD3 | 1:C:471:TRP:CG | 2.50 | 0.47 |
| 1:D:115:LYS:NZ | 1:D:116:GLU:H | 1.88 | 0.47 |
| 1:D:225:ILE:HG12 | 1:D:229:PHE:HD2 | 1.80 | 0.47 |
| 1:D:289:GLU:HA | 1:D:292:ARG:HG3 | 1.96 | 0.47 |
| 1:D:302:LEU:HD13 | 1:D:602:PHE:CE1 | 2.49 | 0.47 |
| 1:D:308:VAL:O | 1:D:311:HIS:N | 2.46 | 0.47 |
| 1:D:595:ILE:HG22 | 1:D:596:ILE:H | 1.79 | 0.47 |
| 1:D:687:GLU:O | 1:D:690:LYS:HB2 | 2.15 | 0.47 |
| 1:E:377:GLN:O | 1:E:381:GLU:HB2 | 2.15 | 0.47 |
| 1:E:493:ASP:OD2 | 1:E:577:HIS:HE1 | 1.98 | 0.47 |
| 1:F:171:TYR:HD1 | 1:F:175:LYS:HZ1 | 1.59 | 0.47 |
| 1:F:565:LYS:C | 1:F:567:THR:H | 2.18 | 0.47 |
| 2:Q:32:LEU:HD12 | 2:Q:32:LEU:O | 2.14 | 0.47 |
| 2:R:28:THR:HG23 | 2:R:31:GLU:CD | 2.34 | 0.47 |
| 2:S:12:PHE:O | 2:S:15:ALA:HB3 | 2.15 | 0.47 |
| 2:S:66:PRO:C | 2:S:68:PHE:N | 2.68 | 0.47 |
| 1:A:191:GLU:O | 1:A:194:ASN:N | 2.47 | 0.46 |
| 1:A:197:LYS:HD3 | 1:A:263:ASP:OD1 | 2.15 | 0.46 |
| 1:A:565:LYS:C | 1:A:567:THR:H | 2.17 | 0.46 |
| 1:C:115:LYS:C | 1:C:117:LEU:N | 2.66 | 0.46 |
| 1:C:225:ILE:HG23 | 1:C:229:PHE:HD2 | 1.80 | 0.46 |
| 1:D:131:ARG:HG2 | 1:D:131:ARG:HH11 | 1.79 | 0.46 |
| 1:D:135:VAL:N | 1:D:136:PRO:CD | 2.78 | 0.46 |
| 1:D:164:GLU:O | 1:D:167:LYS:HG2 | 2.15 | 0.46 |
| 1:D:636:ALA:O | 1:D:640:LYS:CA | 2.63 | 0.46 |
| 1:D:660:SER:O | 1:D:663:PHE:HB3 | 2.15 | 0.46 |
| 1:E:625:LEU:HD12 | 1:E:625:LEU:C | 2.35 | 0.46 |
| 1:F:453:VAL:HG12 | 1:F:454:GLN:N | 2.30 | 0.46 |
| 1:F:700:TYR:CD1 | 1:F:728:ALA:HA | 2.47 | 0.46 |
| 2:P:28:THR:HG23 | 2:P:31:GLU:CD | 2.36 | 0.46 |
| 2:R:12:PHE:HB3 | 2:R:68:PHE:CE2 | 2.49 | 0.46 |
| 2:R:129:ASP:OD2 | 2:R:140:GLU:OE2 | 2.33 | 0.46 |
| 2:S:89:PHE:HB2 | 2:S:141:PHE:CD2 | 2.50 | 0.46 |
| 1:A:165:GLN:C | 1:A:167:LYS:N | 2.68 | 0.46 |
| 1:A:220:LEU:HG | 1:A:220:LEU:O | 2.15 | 0.46 |
| 1:A:446:ILE:HG13 | 1:A:451:ASN:O | 2.15 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:480:ASN:ND2 | 1:A:481:VAL:N | 2.63 | 0.46 |
| 1:A:493:ASP:OD2 | 1:A:577:HIS:HE1 | 1.98 | 0.46 |
| 1:A:656:THR:HG22 | 1:A:657:ILE:O | 2.15 | 0.46 |
| 1:B:252:ASP:OD2 | 1:B:253:HIS:CD2 | 2.69 | 0.46 |
| 1:B:289:GLU:HA | 1:B:292:ARG:HG3 | 1.96 | 0.46 |
| 1:B:656:THR:HG22 | 1:B:657:ILE:O | 2.15 | 0.46 |
| 1:B:749:PHE:O | 1:B:753:LYS:HG3 | 2.16 | 0.46 |
| 1:C:122:GLU:HG3 | 1:C:147:ARG:H | 1.78 | 0.46 |
| 1:C:135:VAL:N | 1:C:136:PRO:CD | 2.78 | 0.46 |
| 1:C:197:LYS:HB3 | 1:C:197:LYS:NZ | 2.19 | 0.46 |
| 1:C:450:ASN:HD22 | 1:C:452:GLU:HG3 | 1.80 | 0.46 |
| 1:D:165:GLN:C | 1:D:167:LYS:N | 2.69 | 0.46 |
| 1:D:188:LEU:HD12 | 1:D:191:GLU:HG3 | 1.96 | 0.46 |
| 1:D:197:LYS:HD3 | 1:D:263:ASP:OD1 | 2.15 | 0.46 |
| 1:D:298:GLY:O | 1:D:300:LYS:N | 2.48 | 0.46 |
| 1:E:66:LEU:HD11 | 1:E:97:TYR:HD2 | 1.81 | 0.46 |
| 1:E:171:TYR:HD1 | 1:E:175:LYS:HZ1 | 1.58 | 0.46 |
| 1:E:297:LYS:HG2 | 1:E:603:ILE:HG12 | 1.97 | 0.46 |
| 1:F:560:LEU:O | 1:F:563:ALA:HB3 | 2.15 | 0.46 |
| 1:F:579:THR:C | 1:F:581:GLN:N | 2.69 | 0.46 |
| 1:F:697:ILE:HG12 | 1:F:732:ILE:HD13 | 1.98 | 0.46 |
| 2:P:48:LEU:HD23 | 2:P:51:MET:HE2 | 1.95 | 0.46 |
| 2:T:17:SER:OG | 2:T:18:LEU:N | 2.47 | 0.46 |
| 1:A:131:ARG:HG2 | 1:A:131:ARG:HH11 | 1.78 | 0.46 |
| 1:A:305:SER:HB2 | 1:A:594:PHE:CE1 | 2.50 | 0.46 |
| 1:A:456:LYS:HA | 1:A:469:PHE:CD1 | 2.50 | 0.46 |
| 1:A:719:LYS:HE3 | 1:A:797:ILE:HD11 | 1.97 | 0.46 |
| 1:B:71:PHE:HB2 | 1:B:108:ASP:HB2 | 1.97 | 0.46 |
| 1:B:112:VAL:O | 1:B:114:HIS:N | 2.47 | 0.46 |
| 1:B:377:GLN:O | 1:B:381:GLU:HB2 | 2.15 | 0.46 |
| 1:B:648:PRO:HD2 | 2:P:90:ARG:HD3 | 1.96 | 0.46 |
| 1:C:456:LYS:HB2 | 1:C:469:PHE:O | 2.15 | 0.46 |
| 1:C:565:LYS:C | 1:C:567:THR:H | 2.18 | 0.46 |
| 1:D:182:ILE:HA | 1:D:187:SER:HA | 1.97 | 0.46 |
| 1:D:381:GLU:O | 1:D:385:LEU:HD23 | 2.15 | 0.46 |
| 1:D:455:TYR:CZ | 1:D:469:PHE:CZ | 3.04 | 0.46 |
| 1:E:172:GLU:CB | 1:E:246:SER:HA | 2.45 | 0.46 |
| 1:E:191:GLU:O | 1:E:192:PHE:C | 2.54 | 0.46 |
| 1:E:308:VAL:O | 1:E:311:HIS:N | 2.47 | 0.46 |
| 1:E:565:LYS:C | 1:E:567:THR:H | 2.17 | 0.46 |
| 1:E:629:ASN:ND2 | 1:E:631:SER:N | 2.63 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:719:LYS:HE3 | 1:E:797:ILE:HD11 | 1.97 | 0.46 |
| 1:E:741:ILE:O | 1:E:742:ALA:C | 2.53 | 0.46 |
| 1:F:135:VAL:N | 1:F:136:PRO:CD | 2.78 | 0.46 |
| 1:F:344:ALA:HA | 1:F:569:TYR:OH | 2.15 | 0.46 |
| 1:F:345:THR:HG22 | 1:F:490:ALA:O | 2.16 | 0.46 |
| 1:F:619:ILE:O | 1:F:620:THR:C | 2.53 | 0.46 |
| 1:F:666:ASN:HB2 | 1:F:748:TYR:OH | 2.16 | 0.46 |
| 2:O:63:ILE:HG23 | 2:O:67:GLU:HB2 | 1.96 | 0.46 |
| 2:P:63:ILE:HG23 | 2:P:67:GLU:HB2 | 1.97 | 0.46 |
| 2:T:92:PHE:HD1 | 2:T:92:PHE:H | 1.62 | 0.46 |
| 1:A:344:ALA:HA | 1:A:569:TYR:OH | 2.16 | 0.46 |
| 1:A:445:ARG:HD3 | 1:A:471:TRP:CZ2 | 2.50 | 0.46 |
| 1:A:453:VAL:HG12 | 1:A:454:GLN:N | 2.30 | 0.46 |
| 1:A:636:ALA:O | 1:A:640:LYS:CA | 2.64 | 0.46 |
| 1:B:391:ILE:HG12 | 1:B:399:GLY:HA2 | 1.98 | 0.46 |
| 1:B:597:ASN:HD22 | 1:B:603:ILE:HD11 | 1.81 | 0.46 |
| 1:C:104:ILE:HG23 | 1:C:152:LEU:CD2 | 2.45 | 0.46 |
| 1:C:700:TYR:CD1 | 1:C:728:ALA:HA | 2.48 | 0.46 |
| 1:D:100:LEU:HD22 | 1:D:182:ILE:HG21 | 1.95 | 0.46 |
| 1:D:214:PHE:CB | 1:D:218:LEU:HB3 | 2.38 | 0.46 |
| 1:D:254:ARG:H | 1:D:254:ARG:CD | 2.19 | 0.46 |
| 1:D:456:LYS:HA | 1:D:469:PHE:CD1 | 2.50 | 0.46 |
| 1:D:493:ASP:OD2 | 1:D:577:HIS:HE1 | 1.99 | 0.46 |
| 1:E:182:ILE:C | 1:E:183:SER:O | 2.53 | 0.46 |
| 1:E:197:LYS:HB3 | 1:E:197:LYS:NZ | 2.20 | 0.46 |
| 1:E:643:ILE:HG22 | 1:E:644:GLU:N | 2.27 | 0.46 |
| 1:E:722:ILE:HD13 | 1:E:764:LEU:CD2 | 2.45 | 0.46 |
| 1:F:173:ILE:O | 1:F:175:LYS:N | 2.49 | 0.46 |
| 2:O:117:THR:HG23 | 2:O:120:GLU:CB | 2.42 | 0.46 |
| 2:P:13:LYS:C | 2:P:15:ALA:N | 2.69 | 0.46 |
| 2:P:18:LEU:HB3 | 2:P:19:PHE:CD1 | 2.51 | 0.46 |
| 2:P:68:PHE:O | 2:P:69:LEU:C | 2.54 | 0.46 |
| 2:Q:111:ASN:C | 2:Q:113:GLY:H | 2.17 | 0.46 |
| 2:Q:126:ARG:HH21 | 2:Q:126:ARG:HG3 | 1.79 | 0.46 |
| 2:R:66:PRO:C | 2:R:68:PHE:N | 2.69 | 0.46 |
| 2:S:126:ARG:HG3 | 2:S:126:ARG:HH21 | 1.80 | 0.46 |
| 1:A:76:LEU:O | 1:A:77:ASP:C | 2.54 | 0.46 |
| 1:A:173:ILE:HA | 1:A:242:SER:HB3 | 1.97 | 0.46 |
| 1:A:201:ASP:CA | 1:A:210:PHE:HE2 | 2.28 | 0.46 |
| 1:A:298:GLY:O | 1:A:300:LYS:N | 2.49 | 0.46 |
| 1:A:443:GLU:HG3 | 1:A:458:LYS:HG2 | 1.97 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:554:LYS:O | 1:A:557:LEU:N | 2.49 | 0.46 |
| 1:A:687:GLU:O | 1:A:690:LYS:HB2 | 2.15 | 0.46 |
| 1:B:445:ARG:HD3 | 1:B:471:TRP:CZ2 | 2.50 | 0.46 |
| 1:B:722:ILE:HD13 | 1:B:764:LEU:CD2 | 2.45 | 0.46 |
| 1:C:93:VAL:CG1 | 1:C:94:LEU:N | 2.79 | 0.46 |
| 1:C:173:ILE:O | 1:C:175:LYS:N | 2.48 | 0.46 |
| 1:C:446:ILE:HG13 | 1:C:451:ASN:O | 2.16 | 0.46 |
| 1:C:626:TYR:CD2 | 1:C:627:TYR:N | 2.84 | 0.46 |
| 1:C:724:ARG:HH11 | 1:C:724:ARG:HG3 | 1.79 | 0.46 |
| 1:C:762:LEU:O | 1:C:766:HIS:HB2 | 2.16 | 0.46 |
| 1:D:115:LYS:C | 1:D:117:LEU:N | 2.67 | 0.46 |
| 1:D:171:TYR:CD1 | 1:D:175:LYS:NZ | 2.84 | 0.46 |
| 1:D:191:GLU:O | 1:D:194:ASN:N | 2.48 | 0.46 |
| 1:D:357:TRP:CZ3 | 1:D:439:ASN:ND2 | 2.83 | 0.46 |
| 1:D:480:ASN:ND2 | 1:D:481:VAL:N | 2.62 | 0.46 |
| 1:D:724:ARG:HG3 | 1:D:724:ARG:HH11 | 1.80 | 0.46 |
| 1:E:135:VAL:N | 1:E:136:PRO:CD | 2.78 | 0.46 |
| 1:E:480:ASN:ND2 | 1:E:481:VAL:N | 2.64 | 0.46 |
| 1:F:199:LEU:C | 1:F:201:ASP:N | 2.63 | 0.46 |
| 1:F:480:ASN:ND2 | 1:F:483:GLY:CA | 2.79 | 0.46 |
| 1:F:480:ASN:HD22 | 1:F:481:VAL:N | 2.13 | 0.46 |
| 2:Q:12:PHE:HB3 | 2:Q:68:PHE:CE2 | 2.50 | 0.46 |
| 2:Q:51:MET:CB | 2:Q:71:MET:HE2 | 2.29 | 0.46 |
| 2:R:9:ILE:CD1 | 2:R:69:LEU:HD22 | 2.46 | 0.46 |
| 2:S:45:GLU:N | 2:S:45:GLU:CD | 2.68 | 0.46 |
| 1:A:99:GLU:C | 1:A:101:GLY:N | 2.67 | 0.46 |
| 1:A:400:LYS:HE3 | 1:A:475:GLU:CD | 2.36 | 0.46 |
| 1:B:302:LEU:HD13 | 1:B:602:PHE:CE1 | 2.51 | 0.46 |
| 1:B:400:LYS:HE3 | 1:B:475:GLU:CD | 2.36 | 0.46 |
| 1:B:456:LYS:HA | 1:B:469:PHE:CD1 | 2.51 | 0.46 |
| 1:B:527:LYS:HG2 | 2:P:145:MET:SD | 2.56 | 0.46 |
| 1:B:708:ALA:C | 1:B:710:HIS:N | 2.69 | 0.46 |
| 1:C:495:PHE:CD1 | 1:C:495:PHE:C | 2.87 | 0.46 |
| 1:D:71:PHE:CD1 | 1:D:108:ASP:OD1 | 2.68 | 0.46 |
| 1:D:172:GLU:HG3 | 1:D:245:PHE:HE1 | 1.80 | 0.46 |
| 1:D:308:VAL:CG2 | 1:D:336:THR:O | 2.64 | 0.46 |
| 1:D:353:LYS:N | 1:D:368:GLN:HE22 | 2.08 | 0.46 |
| 1:E:288:VAL:CG2 | 1:E:289:GLU:H | 2.22 | 0.46 |
| 1:E:443:GLU:HG3 | 1:E:458:LYS:HG2 | 1.96 | 0.46 |
| 1:E:464:VAL:HG23 | 1:E:465:LEU:N | 2.31 | 0.46 |
| 1:E:687:GLU:O | 1:E:690:LYS:HB2 | 2.15 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:71:PHE:HB2 | 1:F:108:ASP:HB2 | 1.97 | 0.46 |
| 1:F:201:ASP:CA | 1:F:210:PHE:HE2 | 2.27 | 0.46 |
| 1:F:305:SER:HB2 | 1:F:594:PHE:CE1 | 2.51 | 0.46 |
| 2:O:115:LYS:NZ | 2:O:115:LYS:CA | 2.78 | 0.46 |
| 2:P:50:ASP:CA | 2:P:53:ASN:HB3 | 2.31 | 0.46 |
| 2:P:117:THR:C | 2:P:119:GLU:H | 2.19 | 0.46 |
| 2:Q:18:LEU:HB3 | 2:Q:19:PHE:CD1 | 2.51 | 0.46 |
| 2:R:108:VAL:O | 2:R:112:LEU:HD12 | 2.16 | 0.46 |
| 2:S:117:THR:O | 2:S:120:GLU:N | 2.49 | 0.46 |
| 2:T:126:ARG:HG3 | 2:T:126:ARG:HH21 | 1.79 | 0.46 |
| 1:A:648:PRO:HD2 | 2:O:90:ARG:HD3 | 1.97 | 0.46 |
| 1:B:116:GLU:HG3 | 1:B:117:LEU:HD23 | 1.97 | 0.46 |
| 1:B:636:ALA:O | 1:B:640:LYS:CA | 2.64 | 0.46 |
| 1:C:128:MET:HE1 | 1:C:235:THR:CB | 2.45 | 0.46 |
| 1:D:359:PRO:HG2 | 1:D:360:VAL:H | 1.80 | 0.46 |
| 1:D:443:GLU:HG3 | 1:D:458:LYS:HG2 | 1.96 | 0.46 |
| 1:D:619:ILE:O | 1:D:620:THR:C | 2.54 | 0.46 |
| 1:E:217:LYS:HZ2 | 1:E:236:GLU:HB2 | 1.81 | 0.46 |
| 1:E:305:SER:HB2 | 1:E:594:PHE:CE1 | 2.51 | 0.46 |
| 1:E:456:LYS:HA | 1:E:469:PHE:CD1 | 2.51 | 0.46 |
| 1:E:530:THR:HG23 | 2:S:88:ALA:HB1 | 1.97 | 0.46 |
| 1:F:76:LEU:O | 1:F:80:GLN:N | 2.47 | 0.46 |
| 1:F:289:GLU:HA | 1:F:292:ARG:HG3 | 1.97 | 0.46 |
| 1:F:445:ARG:HD3 | 1:F:471:TRP:CZ2 | 2.50 | 0.46 |
| 1:F:456:LYS:HA | 1:F:469:PHE:CD1 | 2.51 | 0.46 |
| 1:F:648:PRO:HD2 | 2:T:90:ARG:HD3 | 1.96 | 0.46 |
| 1:F:708:ALA:C | 1:F:710:HIS:H | 2.18 | 0.46 |
| 2:T:28:THR:HG23 | 2:T:31:GLU:CD | 2.35 | 0.46 |
| 1:A:131:ARG:HG3 | 1:A:243:LEU:HD13 | 1.98 | 0.46 |
| 1:A:142:VAL:CG2 | 1:A:154:ILE:HD12 | 2.38 | 0.46 |
| 1:A:214:PHE:CB | 1:A:218:LEU:HB3 | 2.38 | 0.46 |
| 1:A:225:ILE:HG12 | 1:A:229:PHE:HD2 | 1.80 | 0.46 |
| 1:A:368:GLN:CB | 1:A:380:VAL:HG13 | 2.46 | 0.46 |
| 1:A:455:TYR:CZ | 1:A:469:PHE:CZ | 3.04 | 0.46 |
| 1:A:456:LYS:HD3 | 1:A:471:TRP:CG | 2.51 | 0.46 |
| 1:A:530:THR:O | 1:A:534:ILE:HG13 | 2.14 | 0.46 |
| 1:A:697:ILE:HG12 | 1:A:732:ILE:HD13 | 1.98 | 0.46 |
| 1:A:722:ILE:HD13 | 1:A:764:LEU:CD2 | 2.45 | 0.46 |
| 1:B:79:ILE:C | 1:B:81:GLN:N | 2.69 | 0.46 |
| 1:B:235:THR:O | 1:B:238:GLN:HB2 | 2.15 | 0.46 |
| 1:B:629:ASN:ND2 | 1:B:631:SER:N | 2.63 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:792:VAL:O | 1:B:796:ILE:HG12 | 2.16 | 0.46 |
| 1:C:71:PHE:O | 1:C:78:LYS:NZ | 2.49 | 0.46 |
| 1:C:270:LYS:HA | 1:C:273:LYS:HG3 | 1.97 | 0.46 |
| 1:C:305:SER:HB2 | 1:C:594:PHE:CE1 | 2.51 | 0.46 |
| 1:C:332:ASN:OD1 | 1:C:334:LEU:HB2 | 2.16 | 0.46 |
| 1:C:636:ALA:O | 1:C:640:LYS:CA | 2.64 | 0.46 |
| 1:C:687:GLU:O | 1:C:690:LYS:HB2 | 2.16 | 0.46 |
| 1:C:690:LYS:O | 1:C:691:LYS:C | 2.54 | 0.46 |
| 1:D:66:LEU:HD11 | 1:D:97:TYR:HD2 | 1.80 | 0.46 |
| 1:D:220:LEU:HG | 1:D:220:LEU:O | 2.15 | 0.46 |
| 1:D:360:VAL:CG1 | 1:D:370:LEU:HD22 | 2.43 | 0.46 |
| 1:D:377:GLN:O | 1:D:381:GLU:HB2 | 2.15 | 0.46 |
| 1:D:432:TYR:HD1 | 1:D:445:ARG:HD2 | 1.79 | 0.46 |
| 1:E:93:VAL:CG1 | 1:E:94:LEU:N | 2.79 | 0.46 |
| 1:E:115:LYS:C | 1:E:117:LEU:N | 2.67 | 0.46 |
| 1:E:201:ASP:CA | 1:E:210:PHE:HE2 | 2.27 | 0.46 |
| 1:F:71:PHE:O | 1:F:78:LYS:NZ | 2.49 | 0.46 |
| 1:F:131:ARG:HG3 | 1:F:243:LEU:HD13 | 1.97 | 0.46 |
| 1:F:350:VAL:HG21 | 1:F:488:LEU:HD12 | 1.98 | 0.46 |
| 1:F:400:LYS:HE3 | 1:F:475:GLU:CD | 2.36 | 0.46 |
| 1:F:450:ASN:HD22 | 1:F:452:GLU:HG3 | 1.80 | 0.46 |
| 1:F:530:THR:HG23 | 2:T:88:ALA:HB1 | 1.98 | 0.46 |
| 1:F:540:ARG:NH1 | 1:F:627:TYR:CE1 | 2.83 | 0.46 |
| 1:F:636:ALA:O | 1:F:640:LYS:CA | 2.64 | 0.46 |
| 2:Q:17:SER:OG | 2:Q:18:LEU:N | 2.46 | 0.46 |
| 2:Q:18:LEU:HA | 2:Q:18:LEU:HD23 | 1.75 | 0.46 |
| 2:Q:50:ASP:CA | 2:Q:53:ASN:HB3 | 2.31 | 0.46 |
| 2:R:63:ILE:HG23 | 2:R:67:GLU:HB2 | 1.96 | 0.46 |
| 2:R:146:THR:O | 2:R:147:ALA:C | 2.54 | 0.46 |
| 2:T:117:THR:HG23 | 2:T:120:GLU:CB | 2.43 | 0.46 |
| 1:A:630:ARG:NH1 | 2:O:83:GLU:HG2 | 2.30 | 0.46 |
| 1:A:718:ARG:HH12 | 1:A:767:GLN:HE21 | 1.62 | 0.46 |
| 1:A:794:GLN:HE21 | 1:A:794:GLN:HB3 | 1.60 | 0.46 |
| 1:B:344:ALA:HA | 1:B:569:TYR:OH | 2.16 | 0.46 |
| 1:B:453:VAL:HG12 | 1:B:454:GLN:N | 2.30 | 0.46 |
| 1:C:112:VAL:O | 1:C:114:HIS:N | 2.49 | 0.46 |
| 1:C:115:LYS:C | 1:C:117:LEU:H | 2.19 | 0.46 |
| 1:C:165:GLN:C | 1:C:167:LYS:N | 2.69 | 0.46 |
| 1:C:327:LEU:CG | 1:C:595:ILE:HG12 | 2.45 | 0.46 |
| 1:C:445:ARG:HD3 | 1:C:471:TRP:CZ2 | 2.51 | 0.46 |
| 1:C:504:ILE:H | 1:C:504:ILE:CD1 | 2.29 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:741:ILE:O | 1:C:742:ALA:C | 2.54 | 0.46 |
| 1:F:79:ILE:C | 1:F:81:GLN:N | 2.69 | 0.46 |
| 1:F:165:GLN:C | 1:F:167:LYS:N | 2.69 | 0.46 |
| 1:F:189:ASP:HB3 | 1:F:190:PRO:HD2 | 1.98 | 0.46 |
| 1:F:225:ILE:HG23 | 1:F:229:PHE:HD2 | 1.81 | 0.46 |
| 1:F:293:ILE:H | 1:F:293:ILE:HG12 | 1.45 | 0.46 |
| 1:F:357:TRP:CZ3 | 1:F:439:ASN:ND2 | 2.84 | 0.46 |
| 2:O:16:PHE:O | 2:O:17:SER:C | 2.53 | 0.46 |
| 2:P:32:LEU:O | 2:P:32:LEU:HD12 | 2.16 | 0.46 |
| 2:R:102:ALA:CB | 2:R:125:ILE:HG13 | 2.44 | 0.46 |
| 2:T:9:ILE:CD1 | 2:T:69:LEU:HD22 | 2.46 | 0.46 |
| 2:T:50:ASP:CA | 2:T:53:ASN:HB3 | 2.31 | 0.46 |
| 2:T:63:ILE:HG23 | 2:T:67:GLU:HB2 | 1.97 | 0.46 |
| 2:T:146:THR:O | 2:T:147:ALA:C | 2.53 | 0.46 |
| 1:A:424:LYS:O | 1:A:425:GLU:OE1 | 2.34 | 0.46 |
| 1:B:359:PRO:HG2 | 1:B:360:VAL:H | 1.80 | 0.46 |
| 1:B:424:LYS:O | 1:B:425:GLU:OE1 | 2.34 | 0.46 |
| 1:B:432:TYR:HD1 | 1:B:445:ARG:HD2 | 1.79 | 0.46 |
| 1:B:741:ILE:O | 1:B:742:ALA:C | 2.54 | 0.46 |
| 1:C:214:PHE:CB | 1:C:218:LEU:HB3 | 2.38 | 0.46 |
| 1:C:493:ASP:OD2 | 1:C:577:HIS:HE1 | 1.99 | 0.46 |
| 1:C:530:THR:HG23 | 2:Q:88:ALA:HB1 | 1.98 | 0.46 |
| 1:D:722:ILE:HD13 | 1:D:764:LEU:CD2 | 2.46 | 0.46 |
| 1:E:131:ARG:HB2 | 1:E:243:LEU:HD21 | 1.97 | 0.46 |
| 1:E:252:ASP:OD2 | 1:E:253:HIS:CD2 | 2.69 | 0.46 |
| 1:E:692:GLU:CD | 2:S:21:LYS:HZ1 | 2.15 | 0.46 |
| 1:F:493:ASP:OD2 | 1:F:577:HIS:HE1 | 1.99 | 0.46 |
| 1:F:540:ARG:HH22 | 1:F:630:ARG:HE | 1.64 | 0.46 |
| 1:F:692:GLU:CD | 2:T:21:LYS:HZ1 | 2.18 | 0.46 |
| 2:P:66:PRO:C | 2:P:68:PHE:N | 2.68 | 0.46 |
| 2:R:16:PHE:O | 2:R:17:SER:C | 2.54 | 0.46 |
| 1:A:225:ILE:HG23 | 1:A:229:PHE:HD2 | 1.81 | 0.45 |
| 1:A:391:ILE:CD1 | 1:A:399:GLY:HA2 | 2.46 | 0.45 |
| 1:A:530:THR:HG23 | 2:O:88:ALA:HB1 | 1.98 | 0.45 |
| 1:B:135:VAL:N | 1:B:136:PRO:CD | 2.78 | 0.45 |
| 1:B:298:GLY:O | 1:B:300:LYS:N | 2.49 | 0.45 |
| 1:B:304:ALA:HB3 | 1:B:604:LEU:HD22 | 1.98 | 0.45 |
| 1:C:456:LYS:HA | 1:C:469:PHE:CD1 | 2.51 | 0.45 |
| 1:C:497:LEU:HD13 | 1:C:556:MET:HG2 | 1.99 | 0.45 |
| 1:D:332:ASN:OD1 | 1:D:334:LEU:HB2 | 2.16 | 0.45 |
| 1:D:445:ARG:HD3 | 1:D:471:TRP:CZ2 | 2.51 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:530:THR:HG23 | 2:R:88:ALA:HB1 | 1.98 | 0.45 |
| 1:E:71:PHE:HB2 | 1:E:108:ASP:HB2 | 1.97 | 0.45 |
| 1:E:104:ILE:HG23 | 1:E:152:LEU:CD2 | 2.43 | 0.45 |
| 1:E:217:LYS:HB3 | 1:E:217:LYS:HZ2 | 1.81 | 0.45 |
| 1:E:319:ALA:O | 1:E:323:ASN:HA | 2.16 | 0.45 |
| 1:E:629:ASN:O | 1:E:631:SER:N | 2.49 | 0.45 |
| 1:E:765:THR:HA | 1:E:769:SER:CB | 2.21 | 0.45 |
| 1:F:116:GLU:HG3 | 1:F:117:LEU:CD2 | 2.46 | 0.45 |
| 1:F:302:LEU:HD13 | 1:F:602:PHE:CE1 | 2.51 | 0.45 |
| 1:F:377:GLN:O | 1:F:381:GLU:HB2 | 2.15 | 0.45 |
| 2:O:12:PHE:HB3 | 2:O:68:PHE:CE2 | 2.50 | 0.45 |
| 2:O:66:PRO:C | 2:O:68:PHE:N | 2.69 | 0.45 |
| 2:S:12:PHE:HB3 | 2:S:68:PHE:CE2 | 2.51 | 0.45 |
| 1:A:359:PRO:HG2 | 1:A:360:VAL:H | 1.81 | 0.45 |
| 1:B:542:PRO:HA | 1:B:548:THR:HG23 | 1.98 | 0.45 |
| 1:B:629:ASN:O | 1:B:631:SER:N | 2.49 | 0.45 |
| 1:B:665:LYS:HE2 | 2:P:11:GLU:OE1 | 2.16 | 0.45 |
| 1:C:182:ILE:C | 1:C:183:SER:O | 2.53 | 0.45 |
| 1:C:464:VAL:HG23 | 1:C:465:LEU:N | 2.30 | 0.45 |
| 1:D:76:LEU:O | 1:D:80:GLN:N | 2.47 | 0.45 |
| 1:D:170:TYR:O | 1:D:174:GLY:HA3 | 2.17 | 0.45 |
| 1:D:285:LYS:O | 1:D:288:VAL:HG22 | 2.16 | 0.45 |
| 1:D:504:ILE:H | 1:D:504:ILE:CD1 | 2.29 | 0.45 |
| 1:D:540:ARG:NH1 | 1:D:627:TYR:CE1 | 2.84 | 0.45 |
| 1:D:656:THR:O | 1:D:755:ARG:HD2 | 2.16 | 0.45 |
| 1:D:690:LYS:O | 1:D:691:LYS:C | 2.52 | 0.45 |
| 1:E:217:LYS:HB2 | 1:E:236:GLU:HG3 | 1.99 | 0.45 |
| 1:E:480:ASN:HD22 | 1:E:481:VAL:N | 2.14 | 0.45 |
| 1:E:508:ILE:HG21 | 1:E:513:TRP:HB2 | 1.98 | 0.45 |
| 1:F:93:VAL:CG1 | 1:F:94:LEU:N | 2.80 | 0.45 |
| 1:F:171:TYR:CD1 | 1:F:175:LYS:NZ | 2.83 | 0.45 |
| 1:F:225:ILE:HG12 | 1:F:229:PHE:HD2 | 1.80 | 0.45 |
| 1:F:327:LEU:CD2 | 1:F:595:ILE:HG12 | 2.47 | 0.45 |
| 1:F:360:VAL:CG1 | 1:F:370:LEU:HD22 | 2.43 | 0.45 |
| 1:F:455:TYR:CZ | 1:F:469:PHE:CZ | 3.05 | 0.45 |
| 1:F:718:ARG:HH12 | 1:F:767:GLN:HE21 | 1.64 | 0.45 |
| 2:O:109:MET:HG3 | 2:O:116:LEU:HD11 | 1.98 | 0.45 |
| 2:P:117:THR:HG23 | 2:P:120:GLU:CB | 2.44 | 0.45 |
| 2:Q:117:THR:O | 2:Q:120:GLU:N | 2.48 | 0.45 |
| 2:T:117:THR:C | 2:T:119:GLU:H | 2.19 | 0.45 |
| 1:A:295:VAL:C | 1:A:296:LEU:CD2 | 2.80 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:170:TYR:O | 1:B:174:GLY:HA3 | 2.16 | 0.45 |
| 1:B:197:LYS:HD3 | 1:B:263:ASP:OD1 | 2.16 | 0.45 |
| 1:C:97:TYR:HA | 1:C:100:LEU:HD12 | 1.99 | 0.45 |
| 1:C:179:LEU:CG | 1:C:180:ASP:N | 2.79 | 0.45 |
| 1:C:180:ASP:HA | 1:C:183:SER:CB | 2.46 | 0.45 |
| 1:C:504:ILE:O | 1:C:507:GLN:CB | 2.63 | 0.45 |
| 1:C:656:THR:O | 1:C:755:ARG:HD2 | 2.16 | 0.45 |
| 1:C:706:ASN:OD1 | 1:C:707:SER:N | 2.49 | 0.45 |
| 1:D:387:ASN:N | 1:D:387:ASN:ND2 | 2.63 | 0.45 |
| 1:D:625:LEU:HD12 | 1:D:625:LEU:C | 2.37 | 0.45 |
| 1:D:730:ASN:O | 1:D:733:GLU:N | 2.49 | 0.45 |
| 1:E:115:LYS:C | 1:E:117:LEU:H | 2.20 | 0.45 |
| 1:E:220:LEU:HG | 1:E:220:LEU:O | 2.16 | 0.45 |
| 1:E:327:LEU:CD2 | 1:E:595:ILE:HG12 | 2.47 | 0.45 |
| 1:E:504:ILE:O | 1:E:507:GLN:CB | 2.64 | 0.45 |
| 1:E:517:VAL:HB | 1:E:525:LYS:NZ | 2.31 | 0.45 |
| 1:E:654:ILE:O | 1:E:654:ILE:HG22 | 2.16 | 0.45 |
| 1:E:656:THR:HG22 | 1:E:657:ILE:O | 2.17 | 0.45 |
| 1:E:708:ALA:C | 1:E:710:HIS:N | 2.70 | 0.45 |
| 1:F:197:LYS:HD3 | 1:F:263:ASP:OD1 | 2.16 | 0.45 |
| 1:F:656:THR:O | 1:F:755:ARG:HD2 | 2.16 | 0.45 |
| 2:O:13:LYS:C | 2:O:15:ALA:N | 2.70 | 0.45 |
| 2:O:18:LEU:HB3 | 2:O:19:PHE:CD1 | 2.51 | 0.45 |
| 2:O:72:MET:C | 2:O:74:ARG:N | 2.66 | 0.45 |
| 2:P:89:PHE:HB2 | 2:P:141:PHE:CD2 | 2.52 | 0.45 |
| 2:P:115:LYS:NZ | 2:P:115:LYS:CA | 2.78 | 0.45 |
| 2:P:146:THR:O | 2:P:147:ALA:C | 2.54 | 0.45 |
| 2:R:50:ASP:CA | 2:R:53:ASN:HB3 | 2.31 | 0.45 |
| 2:S:63:ILE:HG23 | 2:S:67:GLU:HB2 | 1.97 | 0.45 |
| 2:T:117:THR:O | 2:T:120:GLU:N | 2.48 | 0.45 |
| 1:A:480:ASN:HD22 | 1:A:481:VAL:N | 2.14 | 0.45 |
| 1:B:218:LEU:C | 1:B:220:LEU:H | 2.15 | 0.45 |
| 1:B:254:ARG:H | 1:B:254:ARG:CD | 2.21 | 0.45 |
| 1:B:625:LEU:HD12 | 1:B:625:LEU:C | 2.36 | 0.45 |
| 1:B:658:PRO:HG3 | 1:B:752:LEU:CD2 | 2.39 | 0.45 |
| 1:B:765:THR:HA | 1:B:769:SER:CB | 2.21 | 0.45 |
| 1:C:377:GLN:O | 1:C:381:GLU:HB2 | 2.16 | 0.45 |
| 1:C:453:VAL:HG12 | 1:C:454:GLN:N | 2.32 | 0.45 |
| 1:C:630:ARG:NH1 | 2:Q:83:GLU:HG2 | 2.32 | 0.45 |
| 1:C:697:ILE:HG12 | 1:C:732:ILE:HD13 | 1.98 | 0.45 |
| 1:D:79:ILE:C | 1:D:81:GLN:N | 2.68 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:97:TYR:HA | 1:D:100:LEU:HD12 | 1.98 | 0.45 |
| 1:D:112:VAL:O | 1:D:114:HIS:N | 2.49 | 0.45 |
| 1:D:173:ILE:O | 1:D:175:LYS:N | 2.49 | 0.45 |
| 1:D:356:ASP:OD2 | 1:D:356:ASP:N | 2.50 | 0.45 |
| 1:D:579:THR:C | 1:D:581:GLN:N | 2.69 | 0.45 |
| 1:D:626:TYR:CD2 | 1:D:627:TYR:N | 2.84 | 0.45 |
| 1:D:697:ILE:HG12 | 1:D:732:ILE:HD13 | 1.98 | 0.45 |
| 1:E:112:VAL:O | 1:E:114:HIS:N | 2.49 | 0.45 |
| 1:E:223:LYS:NZ | 1:E:228:ASN:HB2 | 2.31 | 0.45 |
| 1:E:344:ALA:HA | 1:E:569:TYR:OH | 2.16 | 0.45 |
| 1:E:530:THR:O | 1:E:534:ILE:HG13 | 2.17 | 0.45 |
| 1:E:554:LYS:O | 1:E:557:LEU:N | 2.49 | 0.45 |
| 1:F:97:TYR:HA | 1:F:100:LEU:HD12 | 1.99 | 0.45 |
| 1:F:636:ALA:HA | 1:F:637:PRO:HD3 | 1.82 | 0.45 |
| 1:F:792:VAL:O | 1:F:796:ILE:HG12 | 2.15 | 0.45 |
| 2:Q:117:THR:C | 2:Q:119:GLU:H | 2.20 | 0.45 |
| 2:T:18:LEU:HB3 | 2:T:19:PHE:CD1 | 2.51 | 0.45 |
| 1:A:116:GLU:HG3 | 1:A:117:LEU:HD23 | 1.98 | 0.45 |
| 1:A:252:ASP:O | 1:A:254:ARG:HD2 | 2.17 | 0.45 |
| 1:A:619:ILE:O | 1:A:620:THR:C | 2.53 | 0.45 |
| 1:B:657:ILE:CD1 | 1:B:701:LEU:HD23 | 2.47 | 0.45 |
| 1:C:74:GLU:HB2 | 1:C:78:LYS:HB3 | 1.98 | 0.45 |
| 1:C:285:LYS:O | 1:C:288:VAL:HG22 | 2.16 | 0.45 |
| 1:D:400:LYS:HE3 | 1:D:475:GLU:CD | 2.36 | 0.45 |
| 1:D:560:LEU:O | 1:D:563:ALA:HB3 | 2.16 | 0.45 |
| 1:E:335:ALA:HA | 1:E:338:LEU:HG | 1.98 | 0.45 |
| 1:E:455:TYR:CZ | 1:E:469:PHE:CZ | 3.05 | 0.45 |
| 1:E:595:ILE:HG22 | 1:E:596:ILE:H | 1.81 | 0.45 |
| 1:F:482:GLU:HA | 1:F:482:GLU:OE2 | 2.17 | 0.45 |
| 1:F:625:LEU:HD12 | 1:F:625:LEU:C | 2.37 | 0.45 |
| 1:F:729:TYR:O | 1:F:730:ASN:C | 2.55 | 0.45 |
| 2:Q:68:PHE:O | 2:Q:69:LEU:C | 2.55 | 0.45 |
| 2:Q:89:PHE:HB2 | 2:Q:141:PHE:CD2 | 2.52 | 0.45 |
| 2:R:18:LEU:HA | 2:R:18:LEU:HD23 | 1.74 | 0.45 |
| 1:A:332:ASN:OD1 | 1:A:334:LEU:N | 2.46 | 0.45 |
| 1:A:339:ILE:O | 1:A:342:GLY:N | 2.37 | 0.45 |
| 1:A:351:HIS:HB2 | 1:A:386:GLU:HG2 | 1.99 | 0.45 |
| 1:B:89:ILE:HG21 | 1:B:175:LYS:HE2 | 1.99 | 0.45 |
| 1:B:191:GLU:O | 1:B:192:PHE:C | 2.54 | 0.45 |
| 1:B:464:VAL:HG23 | 1:B:465:LEU:N | 2.32 | 0.45 |
| 1:B:656:THR:O | 1:B:755:ARG:HD2 | 2.16 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:170:TYR:O | 1:C:174:GLY:HA3 | 2.17 | 0.45 |
| 1:C:172:GLU:HG3 | 1:C:245:PHE:HE1 | 1.81 | 0.45 |
| 1:C:252:ASP:O | 1:C:254:ARG:HD2 | 2.17 | 0.45 |
| 1:C:308:VAL:CG2 | 1:C:336:THR:O | 2.65 | 0.45 |
| 1:C:343:VAL:HG12 | 1:C:344:ALA:O | 2.16 | 0.45 |
| 1:C:391:ILE:CD1 | 1:C:399:GLY:HA2 | 2.47 | 0.45 |
| 1:C:708:ALA:C | 1:C:710:HIS:H | 2.20 | 0.45 |
| 1:D:344:ALA:HA | 1:D:569:TYR:OH | 2.17 | 0.45 |
| 1:D:391:ILE:CD1 | 1:D:399:GLY:HA2 | 2.47 | 0.45 |
| 1:D:708:ALA:C | 1:D:710:HIS:H | 2.19 | 0.45 |
| 1:D:792:VAL:O | 1:D:796:ILE:HG12 | 2.16 | 0.45 |
| 1:E:88:LYS:HZ3 | 1:E:172:GLU:CD | 2.19 | 0.45 |
| 1:E:184:LYS:HD2 | 1:E:191:GLU:HB2 | 1.98 | 0.45 |
| 1:E:252:ASP:O | 1:E:254:ARG:HD2 | 2.17 | 0.45 |
| 1:E:332:ASN:OD1 | 1:E:334:LEU:N | 2.44 | 0.45 |
| 1:E:445:ARG:HD3 | 1:E:471:TRP:CZ2 | 2.51 | 0.45 |
| 1:E:542:PRO:HA | 1:E:548:THR:HG23 | 1.99 | 0.45 |
| 1:E:706:ASN:OD1 | 1:E:707:SER:N | 2.50 | 0.45 |
| 1:E:729:TYR:O | 1:E:730:ASN:C | 2.55 | 0.45 |
| 1:F:308:VAL:O | 1:F:311:HIS:N | 2.46 | 0.45 |
| 2:O:32:LEU:HD12 | 2:O:32:LEU:O | 2.17 | 0.45 |
| 1:A:308:VAL:O | 1:A:311:HIS:N | 2.46 | 0.45 |
| 1:A:319:ALA:O | 1:A:323:ASN:HA | 2.17 | 0.45 |
| 1:A:654:ILE:HG22 | 1:A:654:ILE:O | 2.17 | 0.45 |
| 1:A:729:TYR:O | 1:A:730:ASN:C | 2.55 | 0.45 |
| 1:B:504:ILE:O | 1:B:507:GLN:CB | 2.65 | 0.45 |
| 1:C:455:TYR:CZ | 1:C:469:PHE:CZ | 3.05 | 0.45 |
| 1:C:542:PRO:HA | 1:C:548:THR:HG23 | 1.98 | 0.45 |
| 1:D:189:ASP:HB3 | 1:D:190:PRO:CD | 2.46 | 0.45 |
| 1:D:263:ASP:O | 1:D:265:PHE:N | 2.50 | 0.45 |
| 1:D:293:ILE:H | 1:D:293:ILE:HG12 | 1.44 | 0.45 |
| 1:D:379:ALA:O | 1:D:383:GLY:N | 2.45 | 0.45 |
| 1:D:561:ASN:C | 1:D:563:ALA:N | 2.68 | 0.45 |
| 1:F:90:PRO:HG3 | 1:F:249:PHE:CZ | 2.51 | 0.45 |
| 1:F:97:TYR:CE1 | 1:F:178:SER:CB | 2.91 | 0.45 |
| 1:F:115:LYS:C | 1:F:117:LEU:H | 2.20 | 0.45 |
| 1:F:128:MET:HE1 | 1:F:235:THR:CB | 2.46 | 0.45 |
| 1:F:335:ALA:HA | 1:F:338:LEU:HG | 1.99 | 0.45 |
| 1:F:447:SER:OG | 1:F:448:ASP:N | 2.50 | 0.45 |
| 1:F:595:ILE:HG22 | 1:F:596:ILE:H | 1.81 | 0.45 |
| 1:F:708:ALA:C | 1:F:710:HIS:N | 2.68 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:714:GLN:O | 1:F:715:GLU:C | 2.55 | 0.45 |
| 2:O:108:VAL:O | 2:O:112:LEU:HD12 | 2.17 | 0.45 |
| 2:P:108:VAL:O | 2:P:112:LEU:HD12 | 2.17 | 0.45 |
| 2:R:45:GLU:CD | 2:R:45:GLU:N | 2.68 | 0.45 |
| 2:S:13:LYS:C | 2:S:15:ALA:N | 2.70 | 0.45 |
| 1:A:66:LEU:HD11 | 1:A:97:TYR:HD2 | 1.81 | 0.45 |
| 1:A:96:ILE:O | 1:A:100:LEU:HD12 | 2.17 | 0.45 |
| 1:A:140:ARG:NH1 | 1:A:141:PHE:HE1 | 2.15 | 0.45 |
| 1:A:432:TYR:HD1 | 1:A:445:ARG:HD2 | 1.80 | 0.45 |
| 1:A:464:VAL:HG23 | 1:A:465:LEU:N | 2.31 | 0.45 |
| 1:A:504:ILE:H | 1:A:504:ILE:CD1 | 2.30 | 0.45 |
| 1:A:560:LEU:O | 1:A:563:ALA:HB3 | 2.16 | 0.45 |
| 1:A:629:ASN:O | 1:A:631:SER:N | 2.49 | 0.45 |
| 1:B:165:GLN:C | 1:B:167:LYS:N | 2.69 | 0.45 |
| 1:B:351:HIS:HB2 | 1:B:386:GLU:HG2 | 1.99 | 0.45 |
| 1:B:353:LYS:N | 1:B:368:GLN:HE22 | 2.06 | 0.45 |
| 1:B:530:THR:O | 1:B:534:ILE:HG13 | 2.16 | 0.45 |
| 1:B:565:LYS:C | 1:B:567:THR:H | 2.19 | 0.45 |
| 1:B:627:TYR:C | 1:B:627:TYR:CD1 | 2.90 | 0.45 |
| 1:B:724:ARG:HH11 | 1:B:724:ARG:HG3 | 1.81 | 0.45 |
| 1:C:89:ILE:HG22 | 1:C:90:PRO:HD2 | 1.99 | 0.45 |
| 1:C:482:GLU:HA | 1:C:482:GLU:OE2 | 2.17 | 0.45 |
| 1:C:744:GLU:CD | 1:C:744:GLU:H | 2.20 | 0.45 |
| 1:D:77:ASP:OD1 | 1:D:159:TYR:CE2 | 2.70 | 0.45 |
| 1:D:179:LEU:CG | 1:D:180:ASP:H | 2.30 | 0.45 |
| 1:D:351:HIS:HB2 | 1:D:386:GLU:HG2 | 1.99 | 0.45 |
| 1:D:554:LYS:O | 1:D:557:LEU:N | 2.49 | 0.45 |
| 1:E:97:TYR:OH | 1:E:150:PRO:HB2 | 2.16 | 0.45 |
| 1:E:332:ASN:OD1 | 1:E:334:LEU:HB2 | 2.17 | 0.45 |
| 1:E:357:TRP:HZ3 | 1:E:439:ASN:CB | 2.23 | 0.45 |
| 1:F:115:LYS:CE | 1:F:116:GLU:HG2 | 2.46 | 0.45 |
| 2:P:9:ILE:CD1 | 2:P:69:LEU:HD22 | 2.45 | 0.45 |
| 1:A:79:ILE:C | 1:A:81:GLN:N | 2.69 | 0.45 |
| 1:A:297:LYS:HZ3 | 1:A:297:LYS:HB3 | 1.82 | 0.45 |
| 1:B:70:GLU:HB2 | 1:B:107:THR:HG22 | 1.99 | 0.45 |
| 1:B:184:LYS:CE | 1:B:191:GLU:CB | 2.95 | 0.45 |
| 1:B:225:ILE:HG23 | 1:B:229:PHE:HD2 | 1.80 | 0.45 |
| 1:B:254:ARG:HB3 | 1:B:254:ARG:NH1 | 2.25 | 0.45 |
| 1:B:401:ILE:CG2 | 1:B:485:LEU:HB3 | 2.47 | 0.45 |
| 1:C:197:LYS:C | 1:C:197:LYS:HZ3 | 2.20 | 0.45 |
| 1:C:357:TRP:CZ3 | 1:C:439:ASN:ND2 | 2.84 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:360:VAL:CG1 | 1:C:370:LEU:HD22 | 2.43 | 0.45 |
| 1:C:368:GLN:CB | 1:C:380:VAL:HG13 | 2.47 | 0.45 |
| 1:C:627:TYR:CD1 | 1:C:627:TYR:C | 2.91 | 0.45 |
| 1:D:453:VAL:HG12 | 1:D:454:GLN:N | 2.32 | 0.45 |
| 1:D:527:LYS:HG2 | 2:R:145:MET:SD | 2.57 | 0.45 |
| 1:E:115:LYS:CE | 1:E:116:GLU:HG2 | 2.46 | 0.45 |
| 1:E:180:ASP:O | 1:E:182:ILE:N | 2.50 | 0.45 |
| 1:E:357:TRP:CZ3 | 1:E:439:ASN:ND2 | 2.83 | 0.45 |
| 1:F:220:LEU:O | 1:F:220:LEU:HG | 2.16 | 0.45 |
| 1:F:343:VAL:HG12 | 1:F:344:ALA:O | 2.17 | 0.45 |
| 1:F:424:LYS:O | 1:F:425:GLU:OE1 | 2.35 | 0.45 |
| 1:F:765:THR:CA | 1:F:769:SER:HB2 | 2.22 | 0.45 |
| 2:Q:9:ILE:CD1 | 2:Q:69:LEU:HD22 | 2.45 | 0.45 |
| 2:Q:108:VAL:O | 2:Q:112:LEU:HD12 | 2.17 | 0.45 |
| 2:S:18:LEU:HA | 2:S:18:LEU:HD23 | 1.76 | 0.45 |
| 2:S:117:THR:C | 2:S:119:GLU:H | 2.19 | 0.45 |
| 2:T:68:PHE:O | 2:T:69:LEU:C | 2.55 | 0.45 |
| 1:A:289:GLU:HA | 1:A:292:ARG:HG3 | 1.98 | 0.45 |
| 1:A:357:TRP:HZ3 | 1:A:439:ASN:CB | 2.24 | 0.45 |
| 1:A:508:ILE:HG21 | 1:A:513:TRP:HB2 | 1.99 | 0.45 |
| 1:A:517:VAL:HB | 1:A:525:LYS:NZ | 2.30 | 0.45 |
| 1:B:561:ASN:C | 1:B:563:ALA:H | 2.21 | 0.45 |
| 1:B:595:ILE:HG22 | 1:B:596:ILE:H | 1.82 | 0.45 |
| 1:B:697:ILE:HG12 | 1:B:732:ILE:HD13 | 1.99 | 0.45 |
| 1:C:173:ILE:HA | 1:C:242:SER:HB3 | 1.98 | 0.45 |
| 1:C:180:ASP:O | 1:C:182:ILE:N | 2.51 | 0.45 |
| 1:C:387:ASN:N | 1:C:387:ASN:ND2 | 2.65 | 0.45 |
| 1:C:540:ARG:NH1 | 1:C:627:TYR:CE1 | 2.85 | 0.45 |
| 1:D:97:TYR:OH | 1:D:150:PRO:HB2 | 2.16 | 0.45 |
| 1:D:128:MET:CE | 1:D:235:THR:HB | 2.47 | 0.45 |
| 1:D:193:LEU:O | 1:D:197:LYS:HB2 | 2.17 | 0.45 |
| 1:D:345:THR:HG22 | 1:D:490:ALA:O | 2.17 | 0.45 |
| 1:D:368:GLN:CB | 1:D:380:VAL:HG13 | 2.47 | 0.45 |
| 1:D:527:LYS:HB3 | 1:D:527:LYS:HE2 | 1.84 | 0.45 |
| 1:E:170:TYR:O | 1:E:174:GLY:HA3 | 2.17 | 0.45 |
| 1:E:270:LYS:HA | 1:E:273:LYS:HG3 | 1.99 | 0.45 |
| 1:E:359:PRO:HG2 | 1:E:360:VAL:H | 1.81 | 0.45 |
| 1:E:424:LYS:O | 1:E:425:GLU:OE1 | 2.35 | 0.45 |
| 1:E:648:PRO:HD2 | 2:S:90:ARG:HD3 | 1.98 | 0.45 |
| 1:F:193:LEU:O | 1:F:197:LYS:HB2 | 2.17 | 0.45 |
| 1:F:288:VAL:CG2 | 1:F:289:GLU:H | 2.23 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:630:ARG:HH11 | 1:F:630:ARG:CG | 2.26 | 0.45 |
| 2:O:9:ILE:CD1 | 2:O:69:LEU:HD22 | 2.46 | 0.45 |
| 2:O:18:LEU:HD23 | 2:O:18:LEU:HA | 1.75 | 0.45 |
| 2:O:117:THR:C | 2:O:119:GLU:H | 2.20 | 0.45 |
| 2:R:18:LEU:HB3 | 2:R:19:PHE:CD1 | 2.52 | 0.45 |
| 2:R:126:ARG:HH21 | 2:R:126:ARG:HG3 | 1.81 | 0.45 |
| 2:T:48:LEU:HD23 | 2:T:51:MET:HE2 | 2.00 | 0.45 |
| 1:A:360:VAL:CG1 | 1:A:370:LEU:HD22 | 2.44 | 0.44 |
| 1:A:450:ASN:HD22 | 1:A:452:GLU:HG3 | 1.78 | 0.44 |
| 1:A:706:ASN:OD1 | 1:A:707:SER:N | 2.50 | 0.44 |
| 1:B:217:LYS:HB2 | 1:B:236:GLU:HG3 | 1.99 | 0.44 |
| 1:B:690:LYS:O | 1:B:691:LYS:C | 2.56 | 0.44 |
| 1:B:729:TYR:O | 1:B:730:ASN:C | 2.55 | 0.44 |
| 1:C:115:LYS:CB | 1:C:118:GLN:CG | 2.91 | 0.44 |
| 1:C:193:LEU:O | 1:C:197:LYS:HB2 | 2.17 | 0.44 |
| 1:C:332:ASN:OD1 | 1:C:334:LEU:N | 2.45 | 0.44 |
| 1:C:345:THR:HG22 | 1:C:490:ALA:O | 2.17 | 0.44 |
| 1:C:480:ASN:HD22 | 1:C:481:VAL:H | 1.65 | 0.44 |
| 1:C:480:ASN:ND2 | 1:C:483:GLY:CA | 2.80 | 0.44 |
| 1:D:176:GLY:O | 1:D:178:SER:N | 2.50 | 0.44 |
| 1:D:329:ARG:CD | 1:D:590:ASP:OD2 | 2.63 | 0.44 |
| 1:D:629:ASN:O | 1:D:631:SER:N | 2.50 | 0.44 |
| 1:E:115:LYS:CB | 1:E:118:GLN:CG | 2.92 | 0.44 |
| 1:E:173:ILE:HA | 1:E:242:SER:HB3 | 1.98 | 0.44 |
| 1:E:453:VAL:HG12 | 1:E:454:GLN:N | 2.31 | 0.44 |
| 1:E:513:TRP:CH2 | 1:E:517:VAL:HG11 | 2.52 | 0.44 |
| 1:E:697:ILE:HG12 | 1:E:732:ILE:HD13 | 1.99 | 0.44 |
| 1:E:730:ASN:O | 1:E:733:GLU:N | 2.51 | 0.44 |
| 1:E:792:VAL:O | 1:E:796:ILE:HG12 | 2.16 | 0.44 |
| 1:F:308:VAL:CG2 | 1:F:336:THR:O | 2.65 | 0.44 |
| 2:O:68:PHE:O | 2:O:69:LEU:C | 2.56 | 0.44 |
| 2:P:109:MET:HG3 | 2:P:116:LEU:HD11 | 1.99 | 0.44 |
| 2:S:50:ASP:CA | 2:S:53:ASN:HB3 | 2.31 | 0.44 |
| 2:T:12:PHE:O | 2:T:15:ALA:HB3 | 2.16 | 0.44 |
| 2:T:32:LEU:HD12 | 2:T:32:LEU:O | 2.17 | 0.44 |
| 1:A:399:GLY:O | 1:A:477:MET:HE3 | 2.18 | 0.44 |
| 1:A:497:LEU:HD13 | 1:A:556:MET:HG2 | 1.99 | 0.44 |
| 1:A:532:LEU:HD23 | 1:A:532:LEU:HA | 1.87 | 0.44 |
| 1:B:89:ILE:HG22 | 1:B:90:PRO:HD2 | 1.99 | 0.44 |
| 1:B:90:PRO:O | 1:B:93:VAL:N | 2.50 | 0.44 |
| 1:B:230:ILE:HG13 | 1:B:237:PHE:CD2 | 2.52 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:335:ALA:HA | 1:B:338:LEU:HG | 1.98 | 0.44 |
| 1:C:432:TYR:HD1 | 1:C:445:ARG:HD2 | 1.78 | 0.44 |
| 1:C:579:THR:C | 1:C:581:GLN:N | 2.69 | 0.44 |
| 1:D:179:LEU:CG | 1:D:180:ASP:N | 2.80 | 0.44 |
| 1:D:230:ILE:HG13 | 1:D:237:PHE:CD2 | 2.52 | 0.44 |
| 1:D:424:LYS:O | 1:D:425:GLU:OE1 | 2.35 | 0.44 |
| 1:D:497:LEU:HD13 | 1:D:556:MET:HG2 | 1.99 | 0.44 |
| 1:D:706:ASN:OD1 | 1:D:707:SER:N | 2.50 | 0.44 |
| 1:D:729:TYR:O | 1:D:730:ASN:C | 2.56 | 0.44 |
| 1:E:304:ALA:HB3 | 1:E:604:LEU:HD22 | 1.98 | 0.44 |
| 1:F:191:GLU:O | 1:F:194:ASN:N | 2.50 | 0.44 |
| 1:F:473:ASN:OD1 | 1:F:473:ASN:N | 2.41 | 0.44 |
| 1:F:519:THR:HG21 | 1:F:525:LYS:HA | 2.00 | 0.44 |
| 2:T:129:ASP:OD1 | 2:T:134:GLY:N | 2.39 | 0.44 |
| 1:A:97:TYR:OH | 1:A:150:PRO:HB2 | 2.16 | 0.44 |
| 1:A:193:LEU:O | 1:A:197:LYS:HB2 | 2.17 | 0.44 |
| 1:A:217:LYS:HB2 | 1:A:236:GLU:HG3 | 1.99 | 0.44 |
| 1:A:582:ASP:O | 1:A:584:GLU:N | 2.42 | 0.44 |
| 1:B:175:LYS:O | 1:B:176:GLY:C | 2.55 | 0.44 |
| 1:B:186:LYS:CE | 1:B:234:LEU:HD12 | 2.35 | 0.44 |
| 1:B:218:LEU:O | 1:B:218:LEU:HG | 2.18 | 0.44 |
| 1:B:288:VAL:CG2 | 1:B:289:GLU:H | 2.23 | 0.44 |
| 1:B:295:VAL:C | 1:B:296:LEU:CD2 | 2.81 | 0.44 |
| 1:B:368:GLN:CB | 1:B:380:VAL:HG13 | 2.47 | 0.44 |
| 1:B:450:ASN:HD22 | 1:B:452:GLU:HG3 | 1.79 | 0.44 |
| 1:C:71:PHE:CD1 | 1:C:108:ASP:OD1 | 2.70 | 0.44 |
| 1:C:79:ILE:C | 1:C:81:GLN:N | 2.69 | 0.44 |
| 1:C:90:PRO:O | 1:C:93:VAL:N | 2.49 | 0.44 |
| 1:C:176:GLY:O | 1:C:178:SER:N | 2.51 | 0.44 |
| 1:C:182:ILE:HA | 1:C:187:SER:HA | 1.98 | 0.44 |
| 1:C:331:VAL:O | 1:C:332:ASN:C | 2.56 | 0.44 |
| 1:C:351:HIS:HB2 | 1:C:386:GLU:HG2 | 1.99 | 0.44 |
| 1:C:424:LYS:O | 1:C:425:GLU:OE1 | 2.35 | 0.44 |
| 1:C:625:LEU:HD12 | 1:C:625:LEU:C | 2.37 | 0.44 |
| 1:D:753:LYS:O | 1:D:754:GLU:C | 2.55 | 0.44 |
| 1:E:142:VAL:HG13 | 1:E:154:ILE:HD12 | 1.99 | 0.44 |
| 1:E:193:LEU:O | 1:E:197:LYS:HB2 | 2.17 | 0.44 |
| 1:E:285:LYS:O | 1:E:288:VAL:HG22 | 2.17 | 0.44 |
| 1:E:441:VAL:HG11 | 1:E:462:ILE:O | 2.18 | 0.44 |
| 1:E:630:ARG:HH11 | 1:E:630:ARG:CG | 2.23 | 0.44 |
| 1:F:329:ARG:CD | 1:F:590:ASP:OD2 | 2.63 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:654:ILE:O | 1:F:654:ILE:HG22 | 2.17 | 0.44 |
| 2:O:92:PHE:N | 2:O:92:PHE:CD1 | 2.86 | 0.44 |
| 2:P:117:THR:HG23 | 2:P:120:GLU:CG | 2.48 | 0.44 |
| 2:R:129:ASP:OD1 | 2:R:134:GLY:N | 2.37 | 0.44 |
| 1:A:308:VAL:CG2 | 1:A:336:THR:O | 2.65 | 0.44 |
| 1:A:335:ALA:HA | 1:A:338:LEU:HG | 1.99 | 0.44 |
| 1:A:730:ASN:O | 1:A:733:GLU:N | 2.51 | 0.44 |
| 1:A:732:ILE:O | 1:A:733:GLU:C | 2.56 | 0.44 |
| 1:A:792:VAL:O | 1:A:796:ILE:HG12 | 2.18 | 0.44 |
| 1:C:629:ASN:O | 1:C:631:SER:N | 2.50 | 0.44 |
| 1:D:74:GLU:HB2 | 1:D:78:LYS:HB3 | 1.99 | 0.44 |
| 1:D:288:VAL:CG2 | 1:D:289:GLU:H | 2.22 | 0.44 |
| 1:D:629:ASN:ND2 | 1:D:631:SER:N | 2.66 | 0.44 |
| 1:E:560:LEU:O | 1:E:563:ALA:HB3 | 2.18 | 0.44 |
| 1:F:90:PRO:O | 1:F:93:VAL:N | 2.50 | 0.44 |
| 1:F:175:LYS:O | 1:F:176:GLY:C | 2.55 | 0.44 |
| 1:F:179:LEU:CG | 1:F:180:ASP:N | 2.79 | 0.44 |
| 1:F:217:LYS:HB3 | 1:F:217:LYS:HZ2 | 1.83 | 0.44 |
| 1:F:319:ALA:O | 1:F:323:ASN:HA | 2.17 | 0.44 |
| 1:F:331:VAL:O | 1:F:332:ASN:C | 2.56 | 0.44 |
| 1:F:332:ASN:OD1 | 1:F:334:LEU:HB2 | 2.18 | 0.44 |
| 1:F:504:ILE:O | 1:F:507:GLN:CB | 2.64 | 0.44 |
| 1:F:744:GLU:CD | 1:F:744:GLU:H | 2.20 | 0.44 |
| 2:P:65:PHE:O | 2:P:68:PHE:HB3 | 2.17 | 0.44 |
| 2:Q:65:PHE:HB3 | 2:Q:66:PRO:HD3 | 2.00 | 0.44 |
| 2:S:108:VAL:O | 2:S:112:LEU:HD12 | 2.16 | 0.44 |
| 2:T:108:VAL:O | 2:T:112:LEU:HD12 | 2.17 | 0.44 |
| 1:A:179:LEU:CG | 1:A:180:ASP:H | 2.28 | 0.44 |
| 1:A:179:LEU:CG | 1:A:180:ASP:N | 2.78 | 0.44 |
| 1:A:527:LYS:HG2 | 2:O:145:MET:SD | 2.58 | 0.44 |
| 1:A:542:PRO:HA | 1:A:548:THR:HG23 | 1.98 | 0.44 |
| 1:B:142:VAL:HG13 | 1:B:154:ILE:HD12 | 2.00 | 0.44 |
| 1:B:332:ASN:OD1 | 1:B:334:LEU:HB2 | 2.18 | 0.44 |
| 1:B:455:TYR:CZ | 1:B:469:PHE:CZ | 3.05 | 0.44 |
| 1:B:480:ASN:HD22 | 1:B:481:VAL:H | 1.65 | 0.44 |
| 1:B:523:LEU:HD11 | 2:P:144:MET:HG3 | 2.00 | 0.44 |
| 1:B:687:GLU:O | 1:B:690:LYS:HB2 | 2.16 | 0.44 |
| 1:B:746:LYS:HD2 | 1:B:747:ASN:HD22 | 1.82 | 0.44 |
| 1:B:752:LEU:HA | 1:B:752:LEU:HD23 | 1.79 | 0.44 |
| 1:C:400:LYS:HE3 | 1:C:475:GLU:CD | 2.37 | 0.44 |
| 1:D:668:SER:N | 2:R:14:GLU:OE1 | 2.51 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:718:ARG:HH12 | 1:D:767:GLN:HE21 | 1.64 | 0.44 |
| 1:E:197:LYS:HZ2 | 1:E:197:LYS:CB | 2.19 | 0.44 |
| 1:E:435:LEU:HG | 1:E:446:ILE:CG2 | 2.47 | 0.44 |
| 1:E:456:LYS:HD3 | 1:E:471:TRP:CG | 2.52 | 0.44 |
| 1:E:718:ARG:NH1 | 1:E:767:GLN:HE21 | 2.15 | 0.44 |
| 1:E:748:TYR:O | 1:E:751:TYR:N | 2.51 | 0.44 |
| 1:F:180:ASP:O | 1:F:182:ILE:N | 2.51 | 0.44 |
| 1:F:741:ILE:O | 1:F:742:ALA:C | 2.54 | 0.44 |
| 2:R:89:PHE:HB2 | 2:R:141:PHE:CD2 | 2.51 | 0.44 |
| 2:R:92:PHE:CD1 | 2:R:92:PHE:N | 2.86 | 0.44 |
| 2:R:117:THR:C | 2:R:119:GLU:H | 2.20 | 0.44 |
| 2:S:129:ASP:OD1 | 2:S:134:GLY:N | 2.37 | 0.44 |
| 2:T:65:PHE:HB3 | 2:T:66:PRO:HD3 | 2.00 | 0.44 |
| 1:A:90:PRO:HG3 | 1:A:249:PHE:CZ | 2.52 | 0.44 |
| 1:A:186:LYS:CE | 1:A:234:LEU:HD12 | 2.35 | 0.44 |
| 1:A:230:ILE:HG13 | 1:A:237:PHE:CD2 | 2.53 | 0.44 |
| 1:A:748:TYR:O | 1:A:751:TYR:N | 2.51 | 0.44 |
| 1:B:76:LEU:O | 1:B:80:GLN:N | 2.45 | 0.44 |
| 1:B:179:LEU:CG | 1:B:180:ASP:H | 2.28 | 0.44 |
| 1:B:180:ASP:O | 1:B:182:ILE:N | 2.51 | 0.44 |
| 1:B:305:SER:HB2 | 1:B:594:PHE:CE1 | 2.52 | 0.44 |
| 1:B:480:ASN:ND2 | 1:B:483:GLY:CA | 2.79 | 0.44 |
| 1:B:619:ILE:O | 1:B:620:THR:C | 2.55 | 0.44 |
| 1:B:708:ALA:C | 1:B:710:HIS:H | 2.20 | 0.44 |
| 1:B:762:LEU:O | 1:B:766:HIS:HB2 | 2.16 | 0.44 |
| 1:C:115:LYS:CE | 1:C:116:GLU:HG2 | 2.47 | 0.44 |
| 1:C:319:ALA:O | 1:C:323:ASN:HA | 2.17 | 0.44 |
| 1:D:99:GLU:C | 1:D:101:GLY:N | 2.69 | 0.44 |
| 1:D:217:LYS:HB2 | 1:D:236:GLU:HG3 | 1.99 | 0.44 |
| 1:D:281:GLU:O | 1:D:285:LYS:HG2 | 2.17 | 0.44 |
| 1:E:92:ASP:O | 1:E:93:VAL:C | 2.56 | 0.44 |
| 1:E:97:TYR:HA | 1:E:100:LEU:HD12 | 2.00 | 0.44 |
| 1:E:175:LYS:O | 1:E:176:GLY:C | 2.56 | 0.44 |
| 1:E:218:LEU:O | 1:E:218:LEU:HG | 2.18 | 0.44 |
| 1:E:368:GLN:CB | 1:E:380:VAL:HG13 | 2.47 | 0.44 |
| 1:E:636:ALA:O | 1:E:640:LYS:CA | 2.64 | 0.44 |
| 1:E:684:ASP:C | 1:E:686:ASP:H | 2.21 | 0.44 |
| 1:F:217:LYS:HB2 | 1:F:236:GLU:HG3 | 2.00 | 0.44 |
| 1:F:281:GLU:O | 1:F:285:LYS:HG2 | 2.17 | 0.44 |
| 1:F:464:VAL:HG23 | 1:F:465:LEU:N | 2.32 | 0.44 |
| 1:F:480:ASN:HD22 | 1:F:481:VAL:H | 1.66 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:R:5:THR:OG1 | 2:R:6:GLU:N | 2.51 | 0.44 |
| 2:R:68:PHE:O | 2:R:69:LEU:C | 2.55 | 0.44 |
| 2:S:84:GLU:OE2 | 2:S:84:GLU:N | 2.46 | 0.44 |
| 2:S:101:SER:OG | 2:S:104:GLU:HG2 | 2.17 | 0.44 |
| 1:A:182:ILE:C | 1:A:183:SER:O | 2.50 | 0.44 |
| 1:A:357:TRP:CZ2 | 1:A:370:LEU:HD23 | 2.53 | 0.44 |
| 1:A:549:LEU:HB2 | 1:A:553:GLN:HE21 | 1.82 | 0.44 |
| 1:A:708:ALA:C | 1:A:710:HIS:N | 2.71 | 0.44 |
| 1:A:752:LEU:HA | 1:A:752:LEU:HD23 | 1.77 | 0.44 |
| 1:A:762:LEU:O | 1:A:766:HIS:HB2 | 2.18 | 0.44 |
| 1:B:193:LEU:O | 1:B:197:LYS:HB2 | 2.17 | 0.44 |
| 1:B:297:LYS:HZ3 | 1:B:601:GLU:HB3 | 1.83 | 0.44 |
| 1:B:517:VAL:HB | 1:B:525:LYS:NZ | 2.31 | 0.44 |
| 1:B:743:PRO:O | 1:B:746:LYS:HB3 | 2.18 | 0.44 |
| 1:C:688:PHE:C | 1:C:688:PHE:HD2 | 2.20 | 0.44 |
| 1:D:116:GLU:HG3 | 1:D:117:LEU:HD23 | 1.98 | 0.44 |
| 1:D:234:LEU:CG | 1:D:235:THR:H | 2.31 | 0.44 |
| 1:D:395:GLU:C | 1:D:397:GLU:H | 2.21 | 0.44 |
| 1:D:435:LEU:HD23 | 1:D:435:LEU:HA | 1.80 | 0.44 |
| 1:D:517:VAL:HB | 1:D:525:LYS:NZ | 2.32 | 0.44 |
| 1:E:93:VAL:HG13 | 1:E:94:LEU:N | 2.33 | 0.44 |
| 1:E:230:ILE:HG13 | 1:E:237:PHE:CD2 | 2.53 | 0.44 |
| 1:E:327:LEU:CG | 1:E:595:ILE:HG12 | 2.47 | 0.44 |
| 1:E:391:ILE:CD1 | 1:E:399:GLY:HA2 | 2.47 | 0.44 |
| 1:E:540:ARG:NH1 | 1:E:627:TYR:CE1 | 2.86 | 0.44 |
| 1:E:561:ASN:C | 1:E:563:ALA:H | 2.20 | 0.44 |
| 1:E:582:ASP:O | 1:E:584:GLU:N | 2.46 | 0.44 |
| 1:E:762:LEU:O | 1:E:766:HIS:HB2 | 2.17 | 0.44 |
| 1:F:353:LYS:N | 1:F:368:GLN:HE22 | 2.07 | 0.44 |
| 1:F:706:ASN:OD1 | 1:F:707:SER:N | 2.51 | 0.44 |
| 1:F:722:ILE:HD13 | 1:F:764:LEU:CD2 | 2.47 | 0.44 |
| 1:F:762:LEU:O | 1:F:766:HIS:HB2 | 2.17 | 0.44 |
| 1:F:794:GLN:HE21 | 1:F:794:GLN:HB3 | 1.61 | 0.44 |
| 2:S:68:PHE:O | 2:S:69:LEU:C | 2.55 | 0.44 |
| 1:A:285:LYS:O | 1:A:288:VAL:HG22 | 2.17 | 0.44 |
| 1:A:288:VAL:CG2 | 1:A:289:GLU:H | 2.23 | 0.44 |
| 1:A:304:ALA:HB3 | 1:A:604:LEU:HD22 | 2.00 | 0.44 |
| 1:A:540:ARG:HH22 | 1:A:630:ARG:HE | 1.65 | 0.44 |
| 1:A:687:GLU:O | 1:A:690:LYS:N | 2.51 | 0.44 |
| 1:B:74:GLU:HB2 | 1:B:78:LYS:HB3 | 2.00 | 0.44 |
| 1:B:350:VAL:HG21 | 1:B:488:LEU:HD12 | 1.99 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:435:LEU:HG | 1:B:446:ILE:CG2 | 2.46 | 0.44 |
| 1:B:530:THR:HG23 | 2:P:88:ALA:HB1 | 2.00 | 0.44 |
| 1:C:622:LYS:HA | 1:C:622:LYS:HD3 | 1.85 | 0.44 |
| 1:C:746:LYS:HD2 | 1:C:747:ASN:HD22 | 1.83 | 0.44 |
| 1:C:792:VAL:O | 1:C:796:ILE:HG12 | 2.17 | 0.44 |
| 1:D:96:ILE:O | 1:D:100:LEU:HD12 | 2.18 | 0.44 |
| 1:D:115:LYS:C | 1:D:117:LEU:H | 2.19 | 0.44 |
| 1:D:450:ASN:HD22 | 1:D:452:GLU:HG3 | 1.78 | 0.44 |
| 1:D:762:LEU:O | 1:D:766:HIS:HB2 | 2.17 | 0.44 |
| 1:E:165:GLN:C | 1:E:167:LYS:N | 2.70 | 0.44 |
| 1:E:184:LYS:CE | 1:E:191:GLU:CB | 2.94 | 0.44 |
| 1:E:263:ASP:O | 1:E:265:PHE:N | 2.51 | 0.44 |
| 1:E:356:ASP:OD2 | 1:E:356:ASP:N | 2.50 | 0.44 |
| 1:E:395:GLU:C | 1:E:397:GLU:H | 2.21 | 0.44 |
| 1:E:527:LYS:HG2 | 2:S:145:MET:SD | 2.58 | 0.44 |
| 1:E:619:ILE:O | 1:E:620:THR:C | 2.56 | 0.44 |
| 1:F:218:LEU:HG | 1:F:218:LEU:O | 2.17 | 0.44 |
| 1:F:263:ASP:O | 1:F:265:PHE:N | 2.50 | 0.44 |
| 1:F:582:ASP:O | 1:F:584:GLU:N | 2.43 | 0.44 |
| 1:F:643:ILE:HG22 | 1:F:644:GLU:H | 1.82 | 0.44 |
| 1:F:743:PRO:O | 1:F:746:LYS:HB3 | 2.17 | 0.44 |
| 1:F:753:LYS:O | 1:F:754:GLU:C | 2.56 | 0.44 |
| 2:P:45:GLU:CD | 2:P:45:GLU:N | 2.70 | 0.44 |
| 2:R:117:THR:HG23 | 2:R:120:GLU:CB | 2.46 | 0.44 |
| 2:S:65:PHE:O | 2:S:68:PHE:HB3 | 2.18 | 0.44 |
| 2:T:75:LYS:HB3 | 2:T:75:LYS:HZ2 | 1.83 | 0.44 |
| 2:T:117:THR:HG23 | 2:T:120:GLU:CG | 2.47 | 0.44 |
| 1:A:324:THR:CG2 | 1:A:499:PRO:HA | 2.48 | 0.44 |
| 1:A:482:GLU:HA | 1:A:482:GLU:OE2 | 2.17 | 0.44 |
| 1:A:636:ALA:HA | 1:A:637:PRO:HD3 | 1.82 | 0.44 |
| 1:B:356:ASP:N | 1:B:356:ASP:OD2 | 2.50 | 0.44 |
| 1:C:71:PHE:C | 1:C:73:ASN:H | 2.21 | 0.44 |
| 1:C:179:LEU:CG | 1:C:180:ASP:H | 2.29 | 0.44 |
| 1:C:217:LYS:HB2 | 1:C:236:GLU:HG3 | 1.99 | 0.44 |
| 1:C:447:SER:OG | 1:C:448:ASP:N | 2.51 | 0.44 |
| 1:C:619:ILE:O | 1:C:620:THR:C | 2.56 | 0.44 |
| 1:C:708:ALA:C | 1:C:710:HIS:N | 2.70 | 0.44 |
| 1:D:106:PHE:CZ | 1:D:171:TYR:OH | 2.67 | 0.44 |
| 1:D:301:ALA:O | 1:D:304:ALA:N | 2.43 | 0.44 |
| 1:D:331:VAL:O | 1:D:332:ASN:C | 2.56 | 0.44 |
| 1:D:508:ILE:HG21 | 1:D:513:TRP:HB2 | 1.99 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:519:THR:HG21 | 1:D:525:LYS:HA | 2.00 | 0.44 |
| 1:D:529:VAL:HG21 | 2:R:109:MET:HE1 | 1.99 | 0.44 |
| 1:D:684:ASP:C | 1:D:686:ASP:H | 2.21 | 0.44 |
| 1:D:713:SER:O | 1:D:714:GLN:C | 2.56 | 0.44 |
| 1:D:741:ILE:O | 1:D:741:ILE:HG13 | 2.18 | 0.44 |
| 1:D:746:LYS:HD2 | 1:D:747:ASN:HD22 | 1.83 | 0.44 |
| 1:E:234:LEU:CG | 1:E:235:THR:H | 2.31 | 0.44 |
| 1:E:360:VAL:HA | 1:E:403:LEU:HD21 | 2.00 | 0.44 |
| 1:E:679:TYR:CG | 1:E:691:LYS:HB2 | 2.53 | 0.44 |
| 1:E:714:GLN:O | 1:E:715:GLU:C | 2.57 | 0.44 |
| 1:F:332:ASN:OD1 | 1:F:334:LEU:N | 2.44 | 0.44 |
| 1:F:391:ILE:HG12 | 1:F:399:GLY:HA2 | 1.99 | 0.44 |
| 1:F:540:ARG:HD3 | 1:F:627:TYR:HH | 1.81 | 0.44 |
| 1:F:684:ASP:C | 1:F:686:ASP:H | 2.21 | 0.44 |
| 2:O:117:THR:HG23 | 2:O:120:GLU:CG | 2.48 | 0.44 |
| 2:P:24:ASP:HB2 | 2:P:26:THR:CG2 | 2.35 | 0.44 |
| 2:Q:92:PHE:N | 2:Q:92:PHE:CD1 | 2.86 | 0.44 |
| 2:T:89:PHE:HB2 | 2:T:141:PHE:CD2 | 2.52 | 0.44 |
| 1:A:255:THR:HA | 1:A:258:GLU:HB3 | 1.99 | 0.43 |
| 1:A:343:VAL:HG12 | 1:A:344:ALA:O | 2.18 | 0.43 |
| 1:A:356:ASP:OD2 | 1:A:356:ASP:N | 2.51 | 0.43 |
| 1:A:480:ASN:ND2 | 1:A:483:GLY:CA | 2.79 | 0.43 |
| 1:A:561:ASN:C | 1:A:563:ALA:H | 2.21 | 0.43 |
| 1:A:753:LYS:O | 1:A:754:GLU:C | 2.55 | 0.43 |
| 1:C:395:GLU:C | 1:C:397:GLU:H | 2.21 | 0.43 |
| 1:C:435:LEU:HG | 1:C:446:ILE:CG2 | 2.46 | 0.43 |
| 1:C:513:TRP:CH2 | 1:C:517:VAL:HG11 | 2.53 | 0.43 |
| 1:C:540:ARG:HH22 | 1:C:630:ARG:HE | 1.65 | 0.43 |
| 1:C:656:THR:HG22 | 1:C:657:ILE:O | 2.18 | 0.43 |
| 1:C:722:ILE:HD13 | 1:C:764:LEU:CD2 | 2.47 | 0.43 |
| 1:D:165:GLN:CD | 1:D:252:ASP:HB3 | 2.39 | 0.43 |
| 1:D:173:ILE:HA | 1:D:242:SER:HB3 | 1.99 | 0.43 |
| 1:D:191:GLU:O | 1:D:193:LEU:N | 2.51 | 0.43 |
| 1:D:218:LEU:HG | 1:D:218:LEU:O | 2.18 | 0.43 |
| 1:D:391:ILE:HG12 | 1:D:399:GLY:HA2 | 2.01 | 0.43 |
| 1:D:480:ASN:ND2 | 1:D:483:GLY:CA | 2.80 | 0.43 |
| 1:D:743:PRO:O | 1:D:746:LYS:HB3 | 2.18 | 0.43 |
| 1:E:71:PHE:O | 1:E:78:LYS:NZ | 2.50 | 0.43 |
| 1:F:285:LYS:O | 1:F:288:VAL:HG22 | 2.18 | 0.43 |
| 2:O:146:THR:O | 2:O:147:ALA:C | 2.54 | 0.43 |
| 2:P:102:ALA:CB | 2:P:125:ILE:HG13 | 2.46 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:Q:136:VAL:HG23 | 2:Q:136:VAL:O | 2.17 | 0.43 |
| 2:R:109:MET:HG3 | 2:R:116:LEU:HD11 | 2.00 | 0.43 |
| 2:S:9:ILE:CD1 | 2:S:69:LEU:HD22 | 2.45 | 0.43 |
| 1:A:115:LYS:CE | 1:A:116:GLU:HG2 | 2.47 | 0.43 |
| 1:A:128:MET:HE1 | 1:A:235:THR:CB | 2.47 | 0.43 |
| 1:A:690:LYS:O | 1:A:691:LYS:C | 2.54 | 0.43 |
| 1:B:93:VAL:HG13 | 1:B:94:LEU:N | 2.34 | 0.43 |
| 1:B:96:ILE:O | 1:B:100:LEU:HD12 | 2.17 | 0.43 |
| 1:B:331:VAL:O | 1:B:332:ASN:C | 2.57 | 0.43 |
| 1:B:335:ALA:HB1 | 1:B:489:THR:OG1 | 2.19 | 0.43 |
| 1:B:513:TRP:CH2 | 1:B:517:VAL:HG11 | 2.53 | 0.43 |
| 1:C:93:VAL:HG13 | 1:C:94:LEU:N | 2.33 | 0.43 |
| 1:C:230:ILE:HG13 | 1:C:237:PHE:CD2 | 2.53 | 0.43 |
| 1:C:329:ARG:CD | 1:C:590:ASP:OD2 | 2.61 | 0.43 |
| 1:C:668:SER:N | 2:Q:14:GLU:OE1 | 2.51 | 0.43 |
| 1:C:718:ARG:HH12 | 1:C:767:GLN:HE21 | 1.64 | 0.43 |
| 1:C:753:LYS:O | 1:C:754:GLU:C | 2.57 | 0.43 |
| 1:D:90:PRO:O | 1:D:93:VAL:N | 2.51 | 0.43 |
| 1:D:653:LYS:C | 1:D:655:ASN:N | 2.72 | 0.43 |
| 1:D:708:ALA:C | 1:D:710:HIS:N | 2.70 | 0.43 |
| 1:D:765:THR:HA | 1:D:769:SER:CB | 2.21 | 0.43 |
| 1:D:792:VAL:O | 1:D:793:PHE:C | 2.56 | 0.43 |
| 1:E:281:GLU:O | 1:E:285:LYS:HG2 | 2.17 | 0.43 |
| 1:E:622:LYS:HD3 | 1:E:622:LYS:HA | 1.85 | 0.43 |
| 1:E:708:ALA:C | 1:E:710:HIS:H | 2.21 | 0.43 |
| 1:F:184:LYS:CE | 1:F:191:GLU:CB | 2.95 | 0.43 |
| 1:F:230:ILE:HG13 | 1:F:237:PHE:CD2 | 2.53 | 0.43 |
| 1:F:255:THR:HA | 1:F:258:GLU:HB3 | 2.00 | 0.43 |
| 1:F:349:ASN:HB2 | 1:F:398:ILE:HG13 | 2.00 | 0.43 |
| 1:F:395:GLU:C | 1:F:397:GLU:H | 2.21 | 0.43 |
| 1:F:643:ILE:HG22 | 1:F:644:GLU:N | 2.33 | 0.43 |
| 2:O:5:THR:OG1 | 2:O:6:GLU:N | 2.50 | 0.43 |
| 2:O:101:SER:OG | 2:O:104:GLU:HG2 | 2.17 | 0.43 |
| 2:R:97:ASN:HD22 | 2:R:99:TYR:H | 1.64 | 0.43 |
| 2:T:97:ASN:HD22 | 2:T:99:TYR:H | 1.64 | 0.43 |
| 1:A:115:LYS:C | 1:A:117:LEU:H | 2.20 | 0.43 |
| 1:A:513:TRP:CH2 | 1:A:517:VAL:HG11 | 2.53 | 0.43 |
| 1:A:629:ASN:ND2 | 1:A:631:SER:N | 2.63 | 0.43 |
| 1:A:743:PRO:O | 1:A:746:LYS:HB3 | 2.19 | 0.43 |
| 1:B:197:LYS:NZ | 1:B:197:LYS:CB | 2.81 | 0.43 |
| 1:B:519:THR:HG21 | 1:B:525:LYS:HA | 2.00 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:560:LEU:O | 1:B:563:ALA:HB3 | 2.18 | 0.43 |
| 1:C:225:ILE:HG12 | 1:C:229:PHE:HD2 | 1.80 | 0.43 |
| 1:C:304:ALA:HB3 | 1:C:604:LEU:HD22 | 1.99 | 0.43 |
| 1:C:384:ASN:O | 1:C:386:GLU:N | 2.51 | 0.43 |
| 1:C:671:ARG:NH1 | 1:C:671:ARG:HG3 | 2.34 | 0.43 |
| 1:C:687:GLU:O | 1:C:690:LYS:N | 2.51 | 0.43 |
| 1:D:218:LEU:C | 1:D:220:LEU:H | 2.14 | 0.43 |
| 1:D:304:ALA:HB3 | 1:D:604:LEU:HD22 | 2.00 | 0.43 |
| 1:D:420:LEU:HD13 | 1:D:420:LEU:O | 2.18 | 0.43 |
| 1:E:350:VAL:HG21 | 1:E:488:LEU:HD12 | 2.00 | 0.43 |
| 1:E:732:ILE:O | 1:E:733:GLU:C | 2.57 | 0.43 |
| 1:F:92:ASP:O | 1:F:93:VAL:C | 2.56 | 0.43 |
| 1:F:668:SER:N | 2:T:14:GLU:OE1 | 2.51 | 0.43 |
| 2:O:41:GLN:C | 2:O:43:PRO:CD | 2.80 | 0.43 |
| 2:O:65:PHE:O | 2:O:68:PHE:HB3 | 2.18 | 0.43 |
| 2:S:92:PHE:N | 2:S:92:PHE:CD1 | 2.87 | 0.43 |
| 1:A:218:LEU:HG | 1:A:218:LEU:O | 2.18 | 0.43 |
| 1:A:653:LYS:C | 1:A:655:ASN:N | 2.72 | 0.43 |
| 1:A:706:ASN:O | 2:O:130:ILE:HD13 | 2.18 | 0.43 |
| 1:B:93:VAL:CG1 | 1:B:94:LEU:N | 2.81 | 0.43 |
| 1:B:97:TYR:HA | 1:B:100:LEU:HD12 | 2.00 | 0.43 |
| 1:B:357:TRP:HZ3 | 1:B:439:ASN:CB | 2.23 | 0.43 |
| 1:B:504:ILE:H | 1:B:504:ILE:CD1 | 2.31 | 0.43 |
| 1:B:533:LEU:HD23 | 2:P:112:LEU:HD21 | 2.01 | 0.43 |
| 1:C:70:GLU:HB2 | 1:C:107:THR:HG22 | 2.00 | 0.43 |
| 1:C:128:MET:CE | 1:C:235:THR:HB | 2.46 | 0.43 |
| 1:C:349:ASN:HB2 | 1:C:398:ILE:HG13 | 2.00 | 0.43 |
| 1:C:360:VAL:HA | 1:C:403:LEU:HD21 | 2.01 | 0.43 |
| 1:C:391:ILE:HG12 | 1:C:399:GLY:HA2 | 2.00 | 0.43 |
| 1:D:360:VAL:HA | 1:D:403:LEU:HD21 | 2.01 | 0.43 |
| 1:D:714:GLN:O | 1:D:715:GLU:C | 2.54 | 0.43 |
| 1:E:76:LEU:O | 1:E:80:GLN:N | 2.48 | 0.43 |
| 1:E:255:THR:HA | 1:E:258:GLU:HB3 | 2.00 | 0.43 |
| 1:E:391:ILE:HG12 | 1:E:399:GLY:HA2 | 2.00 | 0.43 |
| 1:E:513:TRP:HZ2 | 2:S:114:GLU:HB2 | 1.82 | 0.43 |
| 1:E:523:LEU:HD11 | 2:S:144:MET:HG3 | 2.00 | 0.43 |
| 1:E:753:LYS:O | 1:E:754:GLU:C | 2.56 | 0.43 |
| 1:F:170:TYR:O | 1:F:174:GLY:HA3 | 2.17 | 0.43 |
| 1:F:279:ILE:O | 1:F:283:LEU:HB2 | 2.18 | 0.43 |
| 1:F:508:ILE:HG12 | 1:F:536:TYR:CD2 | 2.53 | 0.43 |
| 1:F:687:GLU:O | 1:F:690:LYS:N | 2.52 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:730:ASN:O | 1:F:733:GLU:N | 2.51 | 0.43 |
| 1:F:732:ILE:O | 1:F:733:GLU:C | 2.56 | 0.43 |
| 1:F:792:VAL:O | 1:F:793:PHE:C | 2.56 | 0.43 |
| 2:P:115:LYS:CA | 2:P:115:LYS:HZ2 | 2.32 | 0.43 |
| 2:Q:5:THR:OG1 | 2:Q:6:GLU:N | 2.51 | 0.43 |
| 2:S:65:PHE:HB3 | 2:S:66:PRO:HD3 | 2.00 | 0.43 |
| 1:A:89:ILE:HG22 | 1:A:90:PRO:HD2 | 1.99 | 0.43 |
| 1:A:170:TYR:O | 1:A:174:GLY:HA3 | 2.18 | 0.43 |
| 1:A:205:SER:C | 1:A:207:ASP:N | 2.72 | 0.43 |
| 1:A:343:VAL:HG13 | 1:A:487:PRO:O | 2.19 | 0.43 |
| 1:A:519:THR:HG21 | 1:A:525:LYS:HA | 2.01 | 0.43 |
| 1:B:285:LYS:O | 1:B:288:VAL:HG22 | 2.17 | 0.43 |
| 1:B:523:LEU:HD22 | 2:P:127:GLU:HG2 | 2.01 | 0.43 |
| 1:C:519:THR:HG21 | 1:C:525:LYS:HA | 2.00 | 0.43 |
| 1:D:513:TRP:CH2 | 1:D:517:VAL:HG11 | 2.53 | 0.43 |
| 1:D:632:TYR:CE2 | 1:D:643:ILE:HG21 | 2.54 | 0.43 |
| 1:E:197:LYS:HD3 | 1:E:263:ASP:OD1 | 2.17 | 0.43 |
| 1:E:376:GLN:HB3 | 1:E:379:ALA:HB3 | 2.00 | 0.43 |
| 1:F:70:GLU:HB2 | 1:F:107:THR:HG22 | 2.00 | 0.43 |
| 1:F:376:GLN:HB3 | 1:F:379:ALA:HB3 | 2.01 | 0.43 |
| 1:F:653:LYS:C | 1:F:655:ASN:N | 2.72 | 0.43 |
| 2:P:69:LEU:HA | 2:P:69:LEU:HD23 | 1.75 | 0.43 |
| 2:R:51:MET:HE3 | 2:R:51:MET:HB2 | 1.90 | 0.43 |
| 2:S:39:LEU:HD12 | 2:S:39:LEU:HA | 1.83 | 0.43 |
| 2:S:117:THR:HG23 | 2:S:120:GLU:CG | 2.48 | 0.43 |
| 2:T:143:GLN:HE21 | 2:T:143:GLN:HB3 | 1.64 | 0.43 |
| 1:A:218:LEU:C | 1:A:220:LEU:H | 2.16 | 0.43 |
| 1:A:350:VAL:HG21 | 1:A:488:LEU:HD12 | 2.00 | 0.43 |
| 1:A:384:ASN:O | 1:A:386:GLU:N | 2.52 | 0.43 |
| 1:A:714:GLN:O | 1:A:715:GLU:C | 2.55 | 0.43 |
| 1:A:775:LEU:O | 1:A:778:LYS:N | 2.52 | 0.43 |
| 1:B:131:ARG:HG3 | 1:B:243:LEU:HD13 | 1.99 | 0.43 |
| 1:B:184:LYS:HE3 | 1:B:191:GLU:HB3 | 1.99 | 0.43 |
| 1:B:384:ASN:O | 1:B:386:GLU:N | 2.52 | 0.43 |
| 1:B:420:LEU:O | 1:B:420:LEU:HD13 | 2.18 | 0.43 |
| 1:B:597:ASN:C | 1:B:599:GLU:H | 2.22 | 0.43 |
| 1:C:252:ASP:OD2 | 1:C:253:HIS:CD2 | 2.70 | 0.43 |
| 1:C:533:LEU:HD23 | 2:Q:112:LEU:HD21 | 2.00 | 0.43 |
| 1:C:729:TYR:O | 1:C:730:ASN:C | 2.56 | 0.43 |
| 1:C:775:LEU:O | 1:C:778:LYS:N | 2.52 | 0.43 |
| 1:C:792:VAL:O | 1:C:793:PHE:C | 2.57 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:173:ILE:CG2 | 1:D:174:GLY:N | 2.81 | 0.43 |
| 1:D:175:LYS:O | 1:D:176:GLY:C | 2.57 | 0.43 |
| 1:D:263:ASP:O | 1:D:264:MET:C | 2.57 | 0.43 |
| 1:D:542:PRO:HA | 1:D:548:THR:HG23 | 1.99 | 0.43 |
| 1:D:622:LYS:HD3 | 1:D:622:LYS:HA | 1.85 | 0.43 |
| 1:D:775:LEU:O | 1:D:778:LYS:N | 2.52 | 0.43 |
| 1:E:176:GLY:O | 1:E:178:SER:N | 2.51 | 0.43 |
| 1:E:351:HIS:HB2 | 1:E:386:GLU:HG2 | 2.01 | 0.43 |
| 1:E:512:GLU:O | 1:E:515:LYS:NZ | 2.51 | 0.43 |
| 1:E:683:GLY:O | 1:E:684:ASP:C | 2.55 | 0.43 |
| 1:E:792:VAL:O | 1:E:793:PHE:C | 2.57 | 0.43 |
| 1:F:116:GLU:HG3 | 1:F:117:LEU:HD23 | 2.00 | 0.43 |
| 1:F:513:TRP:CH2 | 1:F:517:VAL:HG11 | 2.53 | 0.43 |
| 1:F:627:TYR:CD1 | 1:F:627:TYR:C | 2.92 | 0.43 |
| 1:F:629:ASN:O | 1:F:631:SER:N | 2.51 | 0.43 |
| 2:Q:109:MET:HG3 | 2:Q:116:LEU:HD11 | 2.00 | 0.43 |
| 2:Q:129:ASP:OD1 | 2:Q:134:GLY:N | 2.39 | 0.43 |
| 2:R:101:SER:OG | 2:R:104:GLU:HG2 | 2.18 | 0.43 |
| 2:S:29:THR:O | 2:S:30:LYS:C | 2.57 | 0.43 |
| 2:S:97:ASN:HD22 | 2:S:99:TYR:H | 1.64 | 0.43 |
| 2:T:68:PHE:C | 2:T:70:THR:N | 2.72 | 0.43 |
| 2:T:109:MET:HG3 | 2:T:116:LEU:HD11 | 2.00 | 0.43 |
| 1:A:70:GLU:HB2 | 1:A:107:THR:HG22 | 2.00 | 0.43 |
| 1:A:254:ARG:H | 1:A:254:ARG:CD | 2.19 | 0.43 |
| 1:A:435:LEU:HD23 | 1:A:435:LEU:HA | 1.80 | 0.43 |
| 1:A:630:ARG:HH11 | 1:A:630:ARG:CG | 2.24 | 0.43 |
| 1:B:90:PRO:HG2 | 1:B:93:VAL:CG1 | 2.48 | 0.43 |
| 1:B:105:TYR:HE1 | 1:B:151:LYS:NZ | 2.15 | 0.43 |
| 1:B:255:THR:HA | 1:B:258:GLU:HB3 | 1.99 | 0.43 |
| 1:B:279:ILE:O | 1:B:283:LEU:HB2 | 2.18 | 0.43 |
| 1:B:389:LYS:HA | 1:B:392:THR:HB | 2.01 | 0.43 |
| 1:B:508:ILE:HG21 | 1:B:513:TRP:HB2 | 2.00 | 0.43 |
| 1:B:684:ASP:C | 1:B:686:ASP:H | 2.21 | 0.43 |
| 1:B:792:VAL:O | 1:B:793:PHE:C | 2.56 | 0.43 |
| 1:C:191:GLU:O | 1:C:194:ASN:N | 2.50 | 0.43 |
| 1:C:218:LEU:HG | 1:C:218:LEU:O | 2.19 | 0.43 |
| 1:C:255:THR:HA | 1:C:258:GLU:HB3 | 1.99 | 0.43 |
| 1:C:355:SER:HB2 | 1:C:371:SER:CA | 2.41 | 0.43 |
| 1:C:549:LEU:HB2 | 1:C:553:GLN:HE21 | 1.82 | 0.43 |
| 1:C:560:LEU:O | 1:C:563:ALA:HB3 | 2.19 | 0.43 |
| 1:C:657:ILE:CD1 | 1:C:701:LEU:HD23 | 2.48 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:357:TRP:CZ2 | 1:D:370:LEU:HD23 | 2.54 | 0.43 |
| 1:D:627:TYR:CD1 | 1:D:627:TYR:C | 2.92 | 0.43 |
| 1:D:630:ARG:HH11 | 1:D:630:ARG:CG | 2.24 | 0.43 |
| 1:E:131:ARG:HG3 | 1:E:243:LEU:HD13 | 2.00 | 0.43 |
| 1:E:746:LYS:HD2 | 1:E:747:ASN:HD22 | 1.83 | 0.43 |
| 1:E:765:THR:CA | 1:E:769:SER:HB2 | 2.20 | 0.43 |
| 2:Q:68:PHE:C | 2:Q:70:THR:N | 2.72 | 0.43 |
| 2:T:29:THR:O | 2:T:30:LYS:C | 2.57 | 0.43 |
| 1:A:220:LEU:HG | 1:A:223:LYS:HB3 | 2.01 | 0.43 |
| 1:A:234:LEU:CG | 1:A:235:THR:H | 2.32 | 0.43 |
| 1:A:331:VAL:O | 1:A:332:ASN:C | 2.56 | 0.43 |
| 1:A:395:GLU:C | 1:A:397:GLU:H | 2.20 | 0.43 |
| 1:A:648:PRO:O | 1:A:649:ILE:C | 2.57 | 0.43 |
| 1:B:144:GLU:O | 1:B:144:GLU:HG3 | 2.18 | 0.43 |
| 1:B:189:ASP:HB3 | 1:B:190:PRO:CD | 2.49 | 0.43 |
| 1:B:270:LYS:HA | 1:B:273:LYS:HG3 | 1.99 | 0.43 |
| 1:B:305:SER:O | 1:B:307:LEU:N | 2.51 | 0.43 |
| 1:B:349:ASN:HB2 | 1:B:398:ILE:HG13 | 2.00 | 0.43 |
| 1:C:116:GLU:HG3 | 1:C:117:LEU:HD23 | 2.00 | 0.43 |
| 1:C:327:LEU:CD2 | 1:C:595:ILE:HG12 | 2.48 | 0.43 |
| 1:C:376:GLN:HB3 | 1:C:379:ALA:HB3 | 2.00 | 0.43 |
| 1:C:401:ILE:CG2 | 1:C:485:LEU:HB3 | 2.49 | 0.43 |
| 1:C:561:ASN:C | 1:C:563:ALA:H | 2.21 | 0.43 |
| 1:C:714:GLN:O | 1:C:715:GLU:C | 2.56 | 0.43 |
| 1:C:743:PRO:O | 1:C:746:LYS:HB3 | 2.18 | 0.43 |
| 1:D:115:LYS:CE | 1:D:116:GLU:HG2 | 2.48 | 0.43 |
| 1:D:188:LEU:H | 1:D:188:LEU:HG | 1.73 | 0.43 |
| 1:D:255:THR:HA | 1:D:258:GLU:HB3 | 2.01 | 0.43 |
| 1:D:748:TYR:O | 1:D:751:TYR:N | 2.52 | 0.43 |
| 1:E:331:VAL:O | 1:E:332:ASN:C | 2.56 | 0.43 |
| 1:E:627:TYR:C | 1:E:627:TYR:CD1 | 2.92 | 0.43 |
| 1:E:743:PRO:O | 1:E:746:LYS:HB3 | 2.18 | 0.43 |
| 1:F:351:HIS:HB2 | 1:F:386:GLU:HG2 | 2.00 | 0.43 |
| 1:F:550:SER:H | 1:F:553:GLN:NE2 | 2.13 | 0.43 |
| 1:F:656:THR:HG22 | 1:F:657:ILE:O | 2.19 | 0.43 |
| 2:O:102:ALA:CB | 2:O:125:ILE:HG13 | 2.46 | 0.43 |
| 2:R:29:THR:O | 2:R:30:LYS:C | 2.57 | 0.43 |
| 2:R:63:ILE:CG2 | 2:R:67:GLU:CB | 2.97 | 0.43 |
| 2:S:68:PHE:C | 2:S:70:THR:N | 2.71 | 0.43 |
| 2:T:92:PHE:N | 2:T:92:PHE:CD1 | 2.87 | 0.43 |
| 2:T:101:SER:OG | 2:T:104:GLU:HG2 | 2.19 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:112:VAL:O | 1:A:114:HIS:N | 2.51 | 0.43 |
| 1:A:191:GLU:O | 1:A:193:LEU:N | 2.52 | 0.43 |
| 1:A:391:ILE:HG12 | 1:A:399:GLY:HA2 | 2.01 | 0.43 |
| 1:A:741:ILE:O | 1:A:741:ILE:HG13 | 2.18 | 0.43 |
| 1:B:176:GLY:O | 1:B:178:SER:N | 2.51 | 0.43 |
| 1:B:345:THR:CG2 | 1:B:491:ASP:HA | 2.49 | 0.43 |
| 1:B:753:LYS:O | 1:B:754:GLU:C | 2.56 | 0.43 |
| 1:C:140:ARG:NH1 | 1:C:141:PHE:HE1 | 2.16 | 0.43 |
| 1:C:234:LEU:CG | 1:C:235:THR:H | 2.32 | 0.43 |
| 1:D:89:ILE:CG2 | 1:D:90:PRO:HD2 | 2.49 | 0.43 |
| 1:D:180:ASP:O | 1:D:182:ILE:N | 2.52 | 0.43 |
| 1:D:319:ALA:O | 1:D:323:ASN:HA | 2.19 | 0.43 |
| 1:D:349:ASN:HB2 | 1:D:398:ILE:HG13 | 2.00 | 0.43 |
| 1:E:70:GLU:HB2 | 1:E:107:THR:HG22 | 2.01 | 0.43 |
| 1:E:293:ILE:H | 1:E:293:ILE:HG12 | 1.44 | 0.43 |
| 1:F:435:LEU:HG | 1:F:446:ILE:CG2 | 2.47 | 0.43 |
| 1:F:520:PRO:CG | 1:F:521:ASN:H | 2.31 | 0.43 |
| 2:O:105:LEU:HD21 | 2:O:124:MET:SD | 2.59 | 0.43 |
| 2:P:65:PHE:HB3 | 2:P:66:PRO:HD3 | 2.00 | 0.43 |
| 2:Q:45:GLU:CD | 2:Q:45:GLU:N | 2.69 | 0.43 |
| 2:Q:65:PHE:O | 2:Q:68:PHE:HB3 | 2.19 | 0.43 |
| 2:R:41:GLN:C | 2:R:43:PRO:CD | 2.80 | 0.43 |
| 2:T:45:GLU:N | 2:T:45:GLU:CD | 2.70 | 0.43 |
| 1:A:175:LYS:O | 1:A:176:GLY:C | 2.56 | 0.43 |
| 1:A:180:ASP:O | 1:A:182:ILE:N | 2.52 | 0.43 |
| 1:A:679:TYR:CG | 1:A:691:LYS:HB2 | 2.54 | 0.43 |
| 1:A:708:ALA:C | 1:A:710:HIS:H | 2.22 | 0.43 |
| 1:B:441:VAL:HG11 | 1:B:462:ILE:O | 2.19 | 0.43 |
| 1:B:482:GLU:HA | 1:B:482:GLU:OE2 | 2.18 | 0.43 |
| 1:B:688:PHE:C | 1:B:688:PHE:HD2 | 2.22 | 0.43 |
| 1:B:775:LEU:O | 1:B:778:LYS:N | 2.52 | 0.43 |
| 1:C:202:ASP:HB2 | 1:C:208:LEU:CD2 | 2.49 | 0.43 |
| 1:C:357:TRP:CZ2 | 1:C:370:LEU:HD23 | 2.54 | 0.43 |
| 1:C:435:LEU:HD23 | 1:C:435:LEU:HA | 1.81 | 0.43 |
| 1:C:508:ILE:HG12 | 1:C:536:TYR:CD2 | 2.54 | 0.43 |
| 1:D:197:LYS:HD3 | 1:D:263:ASP:CG | 2.40 | 0.43 |
| 1:D:271:LEU:HA | 1:D:275:GLY:HA3 | 2.01 | 0.43 |
| 1:D:679:TYR:CG | 1:D:691:LYS:HB2 | 2.54 | 0.43 |
| 1:E:181:ILE:O | 1:E:181:ILE:HG12 | 2.17 | 0.43 |
| 1:E:668:SER:N | 2:S:14:GLU:OE1 | 2.52 | 0.43 |
| 1:F:205:SER:C | 1:F:207:ASP:N | 2.71 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:368:GLN:HB2 | 1:F:380:VAL:HG13 | 2.00 | 0.43 |
| 2:O:29:THR:O | 2:O:30:LYS:C | 2.57 | 0.43 |
| 2:S:115:LYS:NZ | 2:S:115:LYS:CA | 2.81 | 0.43 |
| 2:T:65:PHE:O | 2:T:68:PHE:HB3 | 2.19 | 0.43 |
| 2:T:117:THR:HG23 | 2:T:120:GLU:HG3 | 2.00 | 0.43 |
| 1:A:93:VAL:CG1 | 1:A:94:LEU:N | 2.82 | 0.42 |
| 1:A:656:THR:O | 1:A:755:ARG:HD2 | 2.17 | 0.42 |
| 1:B:111:LEU:HD23 | 1:B:155:ASN:ND2 | 2.33 | 0.42 |
| 1:B:263:ASP:O | 1:B:264:MET:C | 2.57 | 0.42 |
| 1:B:281:GLU:O | 1:B:285:LYS:HG2 | 2.19 | 0.42 |
| 1:B:308:VAL:O | 1:B:311:HIS:N | 2.46 | 0.42 |
| 1:B:368:GLN:HB2 | 1:B:380:VAL:HG13 | 2.01 | 0.42 |
| 1:B:376:GLN:HB3 | 1:B:379:ALA:HB3 | 2.01 | 0.42 |
| 1:B:554:LYS:O | 1:B:557:LEU:N | 2.51 | 0.42 |
| 1:B:748:TYR:O | 1:B:751:TYR:N | 2.52 | 0.42 |
| 1:C:77:ASP:OD1 | 1:C:159:TYR:HE2 | 2.01 | 0.42 |
| 1:C:335:ALA:HA | 1:C:338:LEU:HG | 2.01 | 0.42 |
| 1:C:595:ILE:HG22 | 1:C:596:ILE:H | 1.83 | 0.42 |
| 1:C:730:ASN:O | 1:C:733:GLU:N | 2.52 | 0.42 |
| 1:D:111:LEU:HD23 | 1:D:155:ASN:ND2 | 2.31 | 0.42 |
| 1:D:663:PHE:CD1 | 1:D:752:LEU:HD11 | 2.54 | 0.42 |
| 1:D:732:ILE:O | 1:D:733:GLU:C | 2.57 | 0.42 |
| 1:D:752:LEU:HA | 1:D:752:LEU:HD23 | 1.78 | 0.42 |
| 1:E:89:ILE:HG22 | 1:E:90:PRO:HD2 | 2.00 | 0.42 |
| 1:E:343:VAL:HG13 | 1:E:487:PRO:O | 2.19 | 0.42 |
| 1:E:349:ASN:HB2 | 1:E:398:ILE:HG13 | 2.00 | 0.42 |
| 1:E:360:VAL:CG1 | 1:E:370:LEU:HD22 | 2.44 | 0.42 |
| 1:E:504:ILE:H | 1:E:504:ILE:CD1 | 2.32 | 0.42 |
| 1:F:718:ARG:NH1 | 1:F:767:GLN:HE21 | 2.17 | 0.42 |
| 2:P:29:THR:O | 2:P:30:LYS:C | 2.57 | 0.42 |
| 2:P:117:THR:HG23 | 2:P:120:GLU:HG3 | 2.00 | 0.42 |
| 2:Q:117:THR:HG23 | 2:Q:120:GLU:CG | 2.49 | 0.42 |
| 2:S:70:THR:O | 2:S:72:MET:N | 2.52 | 0.42 |
| 2:S:146:THR:O | 2:S:147:ALA:C | 2.54 | 0.42 |
| 2:T:81:SER:O | 2:T:82:GLU:C | 2.58 | 0.42 |
| 1:A:376:GLN:HB3 | 1:A:379:ALA:HB3 | 2.01 | 0.42 |
| 1:B:395:GLU:C | 1:B:397:GLU:H | 2.21 | 0.42 |
| 1:B:408:LEU:H | 1:B:408:LEU:CD1 | 2.03 | 0.42 |
| 1:B:630:ARG:NH1 | 2:P:83:GLU:HG2 | 2.34 | 0.42 |
| 1:B:665:LYS:O | 1:B:668:SER:HB3 | 2.19 | 0.42 |
| 1:B:679:TYR:CG | 1:B:691:LYS:HB2 | 2.53 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:181:ILE:O | 1:C:181:ILE:HG12 | 2.18 | 0.42 |
| 1:C:297:LYS:HB3 | 1:C:297:LYS:HZ3 | 1.83 | 0.42 |
| 1:C:732:ILE:O | 1:C:733:GLU:C | 2.58 | 0.42 |
| 1:D:89:ILE:H | 1:D:89:ILE:HG13 | 1.57 | 0.42 |
| 1:D:252:ASP:O | 1:D:254:ARG:HD2 | 2.20 | 0.42 |
| 1:D:687:GLU:O | 1:D:690:LYS:N | 2.52 | 0.42 |
| 1:E:295:VAL:C | 1:E:296:LEU:CD2 | 2.81 | 0.42 |
| 1:E:397:GLU:O | 1:E:398:ILE:HD13 | 2.19 | 0.42 |
| 1:E:401:ILE:CG2 | 1:E:485:LEU:HB3 | 2.49 | 0.42 |
| 1:E:517:VAL:HB | 1:E:525:LYS:HZ1 | 1.84 | 0.42 |
| 1:E:665:LYS:O | 1:E:668:SER:HB3 | 2.18 | 0.42 |
| 1:F:93:VAL:HG13 | 1:F:94:LEU:N | 2.33 | 0.42 |
| 1:F:234:LEU:CG | 1:F:235:THR:H | 2.32 | 0.42 |
| 1:F:271:LEU:HB3 | 1:F:276:PHE:CE2 | 2.54 | 0.42 |
| 1:F:441:VAL:HG11 | 1:F:462:ILE:O | 2.19 | 0.42 |
| 1:F:456:LYS:HD3 | 1:F:471:TRP:H | 1.84 | 0.42 |
| 1:F:508:ILE:HG21 | 1:F:513:TRP:HB2 | 1.99 | 0.42 |
| 2:O:65:PHE:HB3 | 2:O:66:PRO:HD3 | 2.00 | 0.42 |
| 2:Q:29:THR:O | 2:Q:30:LYS:C | 2.57 | 0.42 |
| 2:Q:33:GLY:O | 2:Q:34:THR:C | 2.58 | 0.42 |
| 2:R:68:PHE:C | 2:R:70:THR:N | 2.72 | 0.42 |
| 2:S:86:ARG:O | 2:S:86:ARG:HG2 | 2.18 | 0.42 |
| 1:A:97:TYR:CE1 | 1:A:178:SER:CB | 2.92 | 0.42 |
| 1:A:292:ARG:NE | 1:A:617:LYS:HE3 | 2.35 | 0.42 |
| 1:A:401:ILE:CG2 | 1:A:485:LEU:HB3 | 2.49 | 0.42 |
| 1:A:508:ILE:HG12 | 1:A:536:TYR:CD2 | 2.54 | 0.42 |
| 1:A:529:VAL:HG21 | 2:O:109:MET:HE1 | 2.00 | 0.42 |
| 1:A:657:ILE:CD1 | 1:A:701:LEU:HD23 | 2.50 | 0.42 |
| 1:B:252:ASP:O | 1:B:254:ARG:HD2 | 2.19 | 0.42 |
| 1:B:398:ILE:CD1 | 1:B:479:LYS:HB3 | 2.50 | 0.42 |
| 1:B:540:ARG:NH1 | 1:B:627:TYR:CE1 | 2.87 | 0.42 |
| 1:B:668:SER:N | 2:P:14:GLU:OE1 | 2.52 | 0.42 |
| 1:B:764:LEU:HD23 | 1:B:764:LEU:HA | 1.87 | 0.42 |
| 1:C:175:LYS:O | 1:C:176:GLY:C | 2.56 | 0.42 |
| 1:C:217:LYS:NZ | 1:C:233:ASN:HB3 | 2.33 | 0.42 |
| 1:C:349:ASN:HD22 | 1:C:350:VAL:H | 1.67 | 0.42 |
| 1:E:695:LYS:CB | 2:S:18:LEU:HD22 | 2.39 | 0.42 |
| 1:F:173:ILE:HA | 1:F:242:SER:HB3 | 1.99 | 0.42 |
| 1:F:630:ARG:NH1 | 2:T:83:GLU:HG2 | 2.34 | 0.42 |
| 2:O:63:ILE:CG2 | 2:O:67:GLU:CB | 2.97 | 0.42 |
| 2:P:92:PHE:N | 2:P:92:PHE:CD1 | 2.86 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:R:33:GLY:O | 2:R:34:THR:C | 2.58 | 0.42 |
| 2:R:65:PHE:HB3 | 2:R:66:PRO:HD3 | 2.01 | 0.42 |
| 2:S:81:SER:O | 2:S:82:GLU:C | 2.58 | 0.42 |
| 1:A:288:VAL:O | 1:A:291:ASP:O | 2.36 | 0.42 |
| 1:A:327:LEU:CG | 1:A:595:ILE:HG12 | 2.48 | 0.42 |
| 1:A:332:ASN:OD1 | 1:A:334:LEU:HB2 | 2.18 | 0.42 |
| 1:A:668:SER:N | 2:O:14:GLU:OE1 | 2.52 | 0.42 |
| 1:B:234:LEU:CG | 1:B:235:THR:H | 2.31 | 0.42 |
| 1:B:255:THR:C | 1:B:257:LEU:N | 2.73 | 0.42 |
| 1:B:714:GLN:O | 1:B:715:GLU:C | 2.57 | 0.42 |
| 1:B:730:ASN:O | 1:B:733:GLU:N | 2.52 | 0.42 |
| 1:B:765:THR:CA | 1:B:769:SER:HB2 | 2.21 | 0.42 |
| 1:C:220:LEU:HG | 1:C:223:LYS:HB3 | 2.02 | 0.42 |
| 1:C:301:ALA:O | 1:C:304:ALA:N | 2.46 | 0.42 |
| 1:D:71:PHE:C | 1:D:73:ASN:H | 2.22 | 0.42 |
| 1:D:93:VAL:CG1 | 1:D:94:LEU:N | 2.82 | 0.42 |
| 1:D:161:ILE:CG2 | 1:D:168:GLU:OE2 | 2.68 | 0.42 |
| 1:D:349:ASN:HD22 | 1:D:350:VAL:H | 1.67 | 0.42 |
| 1:D:389:LYS:HA | 1:D:392:THR:HB | 2.00 | 0.42 |
| 1:D:749:PHE:O | 1:D:753:LYS:HG3 | 2.20 | 0.42 |
| 1:E:140:ARG:NH1 | 1:E:141:PHE:HE1 | 2.18 | 0.42 |
| 1:E:179:LEU:CG | 1:E:180:ASP:H | 2.31 | 0.42 |
| 1:E:205:SER:C | 1:E:207:ASP:N | 2.72 | 0.42 |
| 1:E:329:ARG:CD | 1:E:590:ASP:OD2 | 2.63 | 0.42 |
| 1:E:335:ALA:HB1 | 1:E:489:THR:OG1 | 2.19 | 0.42 |
| 1:E:398:ILE:CD1 | 1:E:479:LYS:HB3 | 2.49 | 0.42 |
| 1:E:420:LEU:O | 1:E:420:LEU:HD13 | 2.19 | 0.42 |
| 1:E:447:SER:OG | 1:E:448:ASP:N | 2.51 | 0.42 |
| 1:E:747:ASN:HD22 | 1:E:747:ASN:N | 2.17 | 0.42 |
| 1:F:188:LEU:HD12 | 1:F:191:GLU:HG3 | 2.02 | 0.42 |
| 1:F:217:LYS:NZ | 1:F:233:ASN:HB3 | 2.33 | 0.42 |
| 1:F:324:THR:CG2 | 1:F:499:PRO:HA | 2.49 | 0.42 |
| 1:F:520:PRO:CG | 1:F:521:ASN:N | 2.83 | 0.42 |
| 1:F:561:ASN:C | 1:F:563:ALA:H | 2.22 | 0.42 |
| 1:F:679:TYR:CG | 1:F:691:LYS:HB2 | 2.55 | 0.42 |
| 2:O:89:PHE:HB2 | 2:O:141:PHE:CD2 | 2.54 | 0.42 |
| 2:P:50:ASP:HA | 2:P:53:ASN:CB | 2.33 | 0.42 |
| 2:P:136:VAL:HG23 | 2:P:136:VAL:O | 2.19 | 0.42 |
| 1:A:97:TYR:HA | 1:A:100:LEU:HD12 | 2.00 | 0.42 |
| 1:A:263:ASP:O | 1:A:265:PHE:N | 2.52 | 0.42 |
| 1:A:281:GLU:O | 1:A:285:LYS:HG2 | 2.20 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:305:SER:O | 1:A:307:LEU:N | 2.51 | 0.42 |
| 1:A:329:ARG:CD | 1:A:590:ASP:OD2 | 2.64 | 0.42 |
| 1:A:420:LEU:HD13 | 1:A:420:LEU:O | 2.20 | 0.42 |
| 1:A:441:VAL:HG11 | 1:A:462:ILE:O | 2.19 | 0.42 |
| 1:B:140:ARG:NH1 | 1:B:141:PHE:HE1 | 2.18 | 0.42 |
| 1:B:214:PHE:CB | 1:B:218:LEU:HB3 | 2.40 | 0.42 |
| 1:B:360:VAL:CG1 | 1:B:370:LEU:HD22 | 2.44 | 0.42 |
| 1:C:718:ARG:NH1 | 1:C:767:GLN:HE21 | 2.18 | 0.42 |
| 1:D:142:VAL:HG13 | 1:D:154:ILE:HD11 | 2.01 | 0.42 |
| 1:D:216:GLU:HG3 | 1:D:217:LYS:HG2 | 2.02 | 0.42 |
| 1:D:335:ALA:HA | 1:D:338:LEU:HG | 2.00 | 0.42 |
| 1:D:348:LEU:HD23 | 1:D:348:LEU:HA | 1.93 | 0.42 |
| 1:D:384:ASN:O | 1:D:386:GLU:N | 2.52 | 0.42 |
| 1:D:523:LEU:HD22 | 2:R:127:GLU:HG2 | 2.02 | 0.42 |
| 1:D:532:LEU:HA | 1:D:532:LEU:HD23 | 1.84 | 0.42 |
| 1:E:77:ASP:OD1 | 1:E:159:TYR:HE2 | 2.02 | 0.42 |
| 1:E:671:ARG:NH1 | 1:E:671:ARG:HG3 | 2.34 | 0.42 |
| 1:E:775:LEU:O | 1:E:778:LYS:N | 2.53 | 0.42 |
| 1:E:794:GLN:HE21 | 1:E:794:GLN:HB3 | 1.60 | 0.42 |
| 1:F:265:PHE:C | 1:F:267:TYR:H | 2.22 | 0.42 |
| 1:F:357:TRP:CZ2 | 1:F:370:LEU:HD23 | 2.54 | 0.42 |
| 1:F:408:LEU:H | 1:F:408:LEU:CD1 | 2.00 | 0.42 |
| 1:F:504:ILE:H | 1:F:504:ILE:CD1 | 2.33 | 0.42 |
| 1:F:671:ARG:NH1 | 1:F:671:ARG:HG3 | 2.33 | 0.42 |
| 2:O:45:GLU:CD | 2:O:45:GLU:N | 2.71 | 0.42 |
| 2:P:68:PHE:C | 2:P:70:THR:N | 2.72 | 0.42 |
| 2:R:136:VAL:HG23 | 2:R:136:VAL:O | 2.20 | 0.42 |
| 2:T:5:THR:OG1 | 2:T:6:GLU:N | 2.51 | 0.42 |
| 1:A:115:LYS:CB | 1:A:118:GLN:CG | 2.91 | 0.42 |
| 1:A:349:ASN:HB2 | 1:A:398:ILE:HG13 | 2.01 | 0.42 |
| 1:A:360:VAL:HA | 1:A:403:LEU:HD21 | 2.01 | 0.42 |
| 1:A:389:LYS:HA | 1:A:392:THR:HB | 2.00 | 0.42 |
| 1:A:398:ILE:CD1 | 1:A:479:LYS:HB3 | 2.50 | 0.42 |
| 1:B:324:THR:CG2 | 1:B:499:PRO:HA | 2.48 | 0.42 |
| 1:B:327:LEU:CG | 1:B:595:ILE:HG12 | 2.49 | 0.42 |
| 1:B:332:ASN:OD1 | 1:B:334:LEU:N | 2.45 | 0.42 |
| 1:C:173:ILE:HG13 | 1:C:242:SER:CB | 2.49 | 0.42 |
| 1:C:653:LYS:C | 1:C:655:ASN:N | 2.72 | 0.42 |
| 1:D:480:ASN:HD22 | 1:D:481:VAL:H | 1.66 | 0.42 |
| 1:D:654:ILE:O | 1:D:654:ILE:HG22 | 2.18 | 0.42 |
| 1:E:197:LYS:HD3 | 1:E:263:ASP:CG | 2.40 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:301:ALA:O | 1:E:304:ALA:N | 2.44 | 0.42 |
| 1:E:687:GLU:O | 1:E:690:LYS:N | 2.52 | 0.42 |
| 1:E:719:LYS:O | 1:E:722:ILE:N | 2.53 | 0.42 |
| 1:E:749:PHE:O | 1:E:753:LYS:HG3 | 2.20 | 0.42 |
| 1:F:173:ILE:HG13 | 1:F:242:SER:CB | 2.49 | 0.42 |
| 1:F:305:SER:O | 1:F:307:LEU:N | 2.52 | 0.42 |
| 2:O:117:THR:HG23 | 2:O:120:GLU:HG3 | 2.01 | 0.42 |
| 2:Q:9:ILE:HG23 | 2:Q:69:LEU:HD21 | 2.02 | 0.42 |
| 2:S:5:THR:OG1 | 2:S:6:GLU:N | 2.51 | 0.42 |
| 2:T:106:ARG:CB | 2:T:121:VAL:HG21 | 2.47 | 0.42 |
| 1:A:255:THR:C | 1:A:257:LEU:N | 2.71 | 0.42 |
| 1:A:279:ILE:O | 1:A:283:LEU:HB2 | 2.19 | 0.42 |
| 1:A:520:PRO:CG | 1:A:521:ASN:H | 2.32 | 0.42 |
| 1:A:627:TYR:CD1 | 1:A:627:TYR:C | 2.93 | 0.42 |
| 1:A:683:GLY:O | 1:A:684:ASP:C | 2.55 | 0.42 |
| 1:B:360:VAL:HA | 1:B:403:LEU:HD21 | 2.02 | 0.42 |
| 1:B:671:ARG:NH1 | 1:B:671:ARG:HG3 | 2.35 | 0.42 |
| 1:B:683:GLY:O | 1:B:684:ASP:C | 2.57 | 0.42 |
| 1:B:706:ASN:OD1 | 1:B:707:SER:N | 2.52 | 0.42 |
| 1:C:305:SER:O | 1:C:307:LEU:N | 2.52 | 0.42 |
| 1:C:520:PRO:CG | 1:C:521:ASN:H | 2.32 | 0.42 |
| 1:C:648:PRO:O | 1:C:649:ILE:C | 2.57 | 0.42 |
| 1:D:140:ARG:NH1 | 1:D:141:PHE:HE1 | 2.17 | 0.42 |
| 1:D:179:LEU:O | 1:D:182:ILE:HG22 | 2.20 | 0.42 |
| 1:D:197:LYS:NZ | 1:D:197:LYS:O | 2.46 | 0.42 |
| 1:D:202:ASP:HB2 | 1:D:208:LEU:CD2 | 2.49 | 0.42 |
| 1:D:441:VAL:HG11 | 1:D:462:ILE:O | 2.18 | 0.42 |
| 1:D:512:GLU:O | 1:D:515:LYS:NZ | 2.53 | 0.42 |
| 1:D:523:LEU:HD11 | 2:R:144:MET:HG3 | 2.00 | 0.42 |
| 1:D:543:ASP:OD1 | 1:D:544:SER:N | 2.53 | 0.42 |
| 1:D:765:THR:CA | 1:D:769:SER:HB2 | 2.22 | 0.42 |
| 1:E:144:GLU:O | 1:E:144:GLU:HG3 | 2.18 | 0.42 |
| 1:E:217:LYS:NZ | 1:E:233:ASN:HB3 | 2.33 | 0.42 |
| 1:E:357:TRP:CZ2 | 1:E:370:LEU:HD23 | 2.54 | 0.42 |
| 1:E:389:LYS:HA | 1:E:392:THR:HB | 2.01 | 0.42 |
| 1:E:519:THR:HG21 | 1:E:525:LYS:HA | 2.01 | 0.42 |
| 1:E:520:PRO:CG | 1:E:521:ASN:H | 2.32 | 0.42 |
| 1:E:764:LEU:HD23 | 1:E:764:LEU:HA | 1.87 | 0.42 |
| 1:F:414:LYS:HD3 | 1:F:414:LYS:C | 2.40 | 0.42 |
| 1:F:497:LEU:HD13 | 1:F:556:MET:HG2 | 2.02 | 0.42 |
| 1:F:523:LEU:HD11 | 2:T:144:MET:HG3 | 2.01 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:775:LEU:O | 1:F:778:LYS:N | 2.53 | 0.42 |
| 2:O:57:ALA:O | 2:O:59:GLY:N | 2.53 | 0.42 |
| 2:P:5:THR:OG1 | 2:P:6:GLU:N | 2.52 | 0.42 |
| 2:R:65:PHE:O | 2:R:68:PHE:HB3 | 2.19 | 0.42 |
| 2:R:138:TYR:CE1 | 2:R:142:VAL:HG22 | 2.55 | 0.42 |
| 1:A:181:ILE:O | 1:A:181:ILE:HG12 | 2.20 | 0.42 |
| 1:A:216:GLU:HG3 | 1:A:217:LYS:HG2 | 2.02 | 0.42 |
| 1:A:301:ALA:O | 1:A:304:ALA:N | 2.45 | 0.42 |
| 1:A:335:ALA:HB1 | 1:A:489:THR:OG1 | 2.20 | 0.42 |
| 1:A:622:LYS:HD3 | 1:A:622:LYS:HA | 1.85 | 0.42 |
| 1:A:667:LEU:O | 1:A:668:SER:C | 2.58 | 0.42 |
| 1:A:718:ARG:NH1 | 1:A:767:GLN:HE21 | 2.16 | 0.42 |
| 1:B:191:GLU:C | 1:B:193:LEU:N | 2.73 | 0.42 |
| 1:B:202:ASP:HB2 | 1:B:208:LEU:CD2 | 2.49 | 0.42 |
| 1:B:343:VAL:HG13 | 1:B:487:PRO:O | 2.20 | 0.42 |
| 1:B:551:ASN:O | 1:B:554:LYS:HB3 | 2.20 | 0.42 |
| 1:B:653:LYS:C | 1:B:655:ASN:N | 2.71 | 0.42 |
| 1:B:744:GLU:CD | 1:B:744:GLU:H | 2.22 | 0.42 |
| 1:C:281:GLU:O | 1:C:285:LYS:HG2 | 2.19 | 0.42 |
| 1:C:356:ASP:OD2 | 1:C:356:ASP:N | 2.51 | 0.42 |
| 1:C:368:GLN:HB2 | 1:C:380:VAL:HG13 | 2.01 | 0.42 |
| 1:C:420:LEU:O | 1:C:420:LEU:HD13 | 2.20 | 0.42 |
| 1:C:520:PRO:CG | 1:C:521:ASN:N | 2.83 | 0.42 |
| 1:C:523:LEU:HD11 | 2:Q:144:MET:HG3 | 2.01 | 0.42 |
| 1:D:70:GLU:HB2 | 1:D:107:THR:HG22 | 2.01 | 0.42 |
| 1:D:225:ILE:HG23 | 1:D:229:PHE:HD2 | 1.82 | 0.42 |
| 1:D:350:VAL:HG21 | 1:D:488:LEU:HD12 | 2.01 | 0.42 |
| 1:D:482:GLU:HA | 1:D:482:GLU:OE2 | 2.19 | 0.42 |
| 1:D:515:LYS:HB3 | 1:D:515:LYS:HZ3 | 1.83 | 0.42 |
| 1:D:549:LEU:HB2 | 1:D:553:GLN:HE21 | 1.84 | 0.42 |
| 1:D:657:ILE:CD1 | 1:D:701:LEU:HD23 | 2.50 | 0.42 |
| 1:E:128:MET:CE | 1:E:235:THR:HB | 2.49 | 0.42 |
| 1:E:288:VAL:O | 1:E:291:ASP:O | 2.38 | 0.42 |
| 1:E:520:PRO:CG | 1:E:521:ASN:N | 2.83 | 0.42 |
| 1:E:667:LEU:O | 1:E:668:SER:C | 2.58 | 0.42 |
| 1:E:713:SER:O | 1:E:714:GLN:C | 2.57 | 0.42 |
| 1:F:181:ILE:HG12 | 1:F:181:ILE:O | 2.19 | 0.42 |
| 1:F:288:VAL:O | 1:F:291:ASP:O | 2.38 | 0.42 |
| 1:F:304:ALA:HB3 | 1:F:604:LEU:HD22 | 2.01 | 0.42 |
| 1:F:323:ASN:HD22 | 1:F:598:PRO:CB | 2.33 | 0.42 |
| 1:F:389:LYS:HA | 1:F:392:THR:HB | 2.01 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:401:ILE:CG2 | 1:F:485:LEU:HB3 | 2.48 | 0.42 |
| 1:F:622:LYS:HA | 1:F:622:LYS:HD3 | 1.85 | 0.42 |
| 2:O:48:LEU:HD23 | 2:O:51:MET:HE2 | 2.01 | 0.42 |
| 2:P:18:LEU:HA | 2:P:18:LEU:HD23 | 1.75 | 0.42 |
| 2:P:33:GLY:O | 2:P:34:THR:C | 2.58 | 0.42 |
| 2:R:117:THR:HG23 | 2:R:120:GLU:CG | 2.49 | 0.42 |
| 1:A:172:GLU:HG3 | 1:A:245:PHE:CE1 | 2.55 | 0.42 |
| 1:B:179:LEU:CG | 1:B:180:ASP:N | 2.78 | 0.42 |
| 1:B:181:ILE:O | 1:B:181:ILE:HG12 | 2.20 | 0.42 |
| 1:B:323:ASN:HD22 | 1:B:598:PRO:CB | 2.33 | 0.42 |
| 1:B:357:TRP:CZ2 | 1:B:370:LEU:HD23 | 2.54 | 0.42 |
| 1:B:501:LEU:HD13 | 2:P:108:VAL:HG13 | 2.02 | 0.42 |
| 1:B:513:TRP:HZ2 | 2:P:114:GLU:HB2 | 1.82 | 0.42 |
| 1:B:529:VAL:HG21 | 2:P:109:MET:HE3 | 2.02 | 0.42 |
| 1:B:654:ILE:O | 1:B:654:ILE:HG22 | 2.20 | 0.42 |
| 1:C:350:VAL:HG21 | 1:C:488:LEU:HD12 | 2.01 | 0.42 |
| 1:C:719:LYS:O | 1:C:722:ILE:N | 2.52 | 0.42 |
| 1:C:741:ILE:O | 1:C:741:ILE:HG13 | 2.20 | 0.42 |
| 1:D:88:LYS:NZ | 1:D:172:GLU:CD | 2.72 | 0.42 |
| 1:D:279:ILE:O | 1:D:283:LEU:HB2 | 2.19 | 0.42 |
| 1:D:435:LEU:HG | 1:D:446:ILE:CG2 | 2.48 | 0.42 |
| 1:D:447:SER:OG | 1:D:448:ASP:N | 2.52 | 0.42 |
| 1:D:561:ASN:C | 1:D:563:ALA:H | 2.22 | 0.42 |
| 1:E:173:ILE:CG2 | 1:E:174:GLY:N | 2.82 | 0.42 |
| 1:E:202:ASP:HB2 | 1:E:208:LEU:CD2 | 2.50 | 0.42 |
| 1:E:345:THR:CG2 | 1:E:491:ASP:HA | 2.50 | 0.42 |
| 1:E:368:GLN:C | 1:E:370:LEU:H | 2.23 | 0.42 |
| 1:E:368:GLN:HB2 | 1:E:380:VAL:HG13 | 2.02 | 0.42 |
| 1:E:508:ILE:HG12 | 1:E:536:TYR:CD2 | 2.55 | 0.42 |
| 1:E:653:LYS:C | 1:E:655:ASN:N | 2.72 | 0.42 |
| 1:F:140:ARG:NH1 | 1:F:141:PHE:HE1 | 2.17 | 0.42 |
| 1:F:144:GLU:O | 1:F:144:GLU:HG3 | 2.19 | 0.42 |
| 1:F:335:ALA:HB1 | 1:F:489:THR:OG1 | 2.19 | 0.42 |
| 1:F:339:ILE:O | 1:F:340:LYS:C | 2.59 | 0.42 |
| 1:F:741:ILE:O | 1:F:741:ILE:HG13 | 2.19 | 0.42 |
| 2:P:57:ALA:O | 2:P:59:GLY:N | 2.53 | 0.42 |
| 1:A:77:ASP:OD1 | 1:A:159:TYR:HE2 | 2.03 | 0.42 |
| 1:A:96:ILE:HG22 | 1:A:100:LEU:CD1 | 2.49 | 0.42 |
| 1:A:176:GLY:O | 1:A:178:SER:N | 2.53 | 0.42 |
| 1:A:270:LYS:HA | 1:A:273:LYS:CG | 2.50 | 0.42 |
| 1:A:533:LEU:HD23 | 2:O:112:LEU:HD21 | 2.02 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:684:ASP:C | 1:A:686:ASP:H | 2.22 | 0.42 |
| 1:A:765:THR:CA | 1:A:769:SER:HB2 | 2.21 | 0.42 |
| 1:B:220:LEU:HG | 1:B:223:LYS:HB3 | 2.02 | 0.42 |
| 1:B:719:LYS:O | 1:B:722:ILE:N | 2.53 | 0.42 |
| 1:C:96:ILE:O | 1:C:100:LEU:HD12 | 2.20 | 0.42 |
| 1:C:97:TYR:CE1 | 1:C:178:SER:CB | 2.93 | 0.42 |
| 1:C:324:THR:CG2 | 1:C:499:PRO:HA | 2.49 | 0.42 |
| 1:C:527:LYS:HB3 | 1:C:527:LYS:HE2 | 1.84 | 0.42 |
| 1:D:176:GLY:C | 1:D:178:SER:H | 2.23 | 0.42 |
| 1:D:181:ILE:O | 1:D:181:ILE:HG12 | 2.20 | 0.42 |
| 1:D:636:ALA:HA | 1:D:637:PRO:HD3 | 1.82 | 0.42 |
| 1:E:355:SER:HB2 | 1:E:371:SER:CA | 2.43 | 0.42 |
| 1:E:384:ASN:O | 1:E:386:GLU:N | 2.53 | 0.42 |
| 1:E:480:ASN:ND2 | 1:E:483:GLY:CA | 2.81 | 0.42 |
| 1:E:480:ASN:HD22 | 1:E:481:VAL:H | 1.68 | 0.42 |
| 1:E:540:ARG:HH22 | 1:E:630:ARG:HE | 1.68 | 0.42 |
| 1:E:657:ILE:CD1 | 1:E:701:LEU:HD23 | 2.50 | 0.42 |
| 1:F:184:LYS:HD2 | 1:F:191:GLU:HB2 | 2.02 | 0.42 |
| 1:F:220:LEU:HG | 1:F:223:LYS:HB3 | 2.02 | 0.42 |
| 1:F:665:LYS:O | 1:F:668:SER:HB3 | 2.20 | 0.42 |
| 1:F:688:PHE:C | 1:F:688:PHE:HD2 | 2.21 | 0.42 |
| 2:O:65:PHE:CE2 | 2:O:69:LEU:HG | 2.55 | 0.42 |
| 2:P:86:ARG:O | 2:P:86:ARG:HG2 | 2.19 | 0.42 |
| 2:Q:13:LYS:C | 2:Q:15:ALA:N | 2.70 | 0.42 |
| 2:Q:115:LYS:NZ | 2:Q:115:LYS:CA | 2.79 | 0.42 |
| 2:S:89:PHE:HB2 | 2:S:141:PHE:CE2 | 2.55 | 0.42 |
| 2:T:138:TYR:CE1 | 2:T:142:VAL:HG22 | 2.55 | 0.42 |
| 1:A:127:SER:OG | 1:A:135:VAL:HG21 | 2.20 | 0.41 |
| 1:A:447:SER:OG | 1:A:448:ASP:N | 2.52 | 0.41 |
| 1:A:520:PRO:CG | 1:A:521:ASN:N | 2.83 | 0.41 |
| 1:A:746:LYS:HD2 | 1:A:747:ASN:HD22 | 1.84 | 0.41 |
| 1:B:257:LEU:O | 1:B:261:ALA:O | 2.38 | 0.41 |
| 1:B:271:LEU:HA | 1:B:275:GLY:HA3 | 2.02 | 0.41 |
| 1:B:345:THR:HG21 | 1:B:491:ASP:HA | 2.02 | 0.41 |
| 1:B:549:LEU:HB2 | 1:B:553:GLN:HE21 | 1.85 | 0.41 |
| 1:C:441:VAL:HG11 | 1:C:462:ILE:O | 2.19 | 0.41 |
| 1:C:606:LYS:HB2 | 1:C:610:MET:CE | 2.50 | 0.41 |
| 1:C:679:TYR:CG | 1:C:691:LYS:HB2 | 2.55 | 0.41 |
| 1:D:90:PRO:HG3 | 1:D:249:PHE:CZ | 2.54 | 0.41 |
| 1:D:92:ASP:O | 1:D:93:VAL:C | 2.58 | 0.41 |
| 1:D:376:GLN:HB3 | 1:D:379:ALA:HB3 | 2.01 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:456:LYS:HD3 | 1:D:471:TRP:H | 1.84 | 0.41 |
| 1:D:530:THR:O | 1:D:534:ILE:HG13 | 2.19 | 0.41 |
| 1:D:744:GLU:H | 1:D:744:GLU:CD | 2.22 | 0.41 |
| 1:E:324:THR:CG2 | 1:E:499:PRO:HA | 2.48 | 0.41 |
| 1:E:414:LYS:C | 1:E:414:LYS:HD3 | 2.40 | 0.41 |
| 1:E:656:THR:O | 1:E:755:ARG:HD2 | 2.20 | 0.41 |
| 1:F:96:ILE:O | 1:F:100:LEU:HD12 | 2.19 | 0.41 |
| 1:F:111:LEU:HD23 | 1:F:155:ASN:ND2 | 2.33 | 0.41 |
| 1:F:179:LEU:O | 1:F:182:ILE:HG22 | 2.20 | 0.41 |
| 1:F:252:ASP:O | 1:F:254:ARG:HD2 | 2.19 | 0.41 |
| 1:F:343:VAL:HG13 | 1:F:487:PRO:O | 2.20 | 0.41 |
| 1:F:356:ASP:OD2 | 1:F:356:ASP:N | 2.52 | 0.41 |
| 1:F:368:GLN:C | 1:F:370:LEU:H | 2.24 | 0.41 |
| 2:O:81:SER:O | 2:O:82:GLU:C | 2.58 | 0.41 |
| 2:S:65:PHE:CE2 | 2:S:69:LEU:HG | 2.55 | 0.41 |
| 1:A:409:ARG:O | 1:A:413:LEU:HG | 2.20 | 0.41 |
| 1:A:512:GLU:O | 1:A:515:LYS:NZ | 2.53 | 0.41 |
| 1:A:792:VAL:O | 1:A:793:PHE:C | 2.57 | 0.41 |
| 1:B:205:SER:C | 1:B:207:ASP:N | 2.73 | 0.41 |
| 1:B:229:PHE:O | 1:B:231:LYS:N | 2.54 | 0.41 |
| 1:B:718:ARG:NH1 | 1:B:767:GLN:HE21 | 2.16 | 0.41 |
| 1:C:105:TYR:HE1 | 1:C:151:LYS:NZ | 2.14 | 0.41 |
| 1:C:171:TYR:CD1 | 1:C:175:LYS:NZ | 2.85 | 0.41 |
| 1:C:218:LEU:C | 1:C:220:LEU:H | 2.14 | 0.41 |
| 1:C:265:PHE:C | 1:C:267:TYR:H | 2.23 | 0.41 |
| 1:C:343:VAL:HG13 | 1:C:487:PRO:O | 2.20 | 0.41 |
| 1:C:389:LYS:HA | 1:C:392:THR:HB | 2.01 | 0.41 |
| 1:C:551:ASN:O | 1:C:554:LYS:HB3 | 2.20 | 0.41 |
| 1:D:265:PHE:C | 1:D:267:TYR:H | 2.23 | 0.41 |
| 1:E:279:ILE:O | 1:E:283:LEU:HB2 | 2.20 | 0.41 |
| 1:E:408:LEU:H | 1:E:408:LEU:CD1 | 2.02 | 0.41 |
| 1:E:482:GLU:HA | 1:E:482:GLU:OE2 | 2.20 | 0.41 |
| 1:F:154:ILE:HG21 | 1:F:171:TYR:CD2 | 2.55 | 0.41 |
| 1:F:523:LEU:HD22 | 2:T:127:GLU:HG2 | 2.01 | 0.41 |
| 1:F:725:GLY:O | 1:F:726:ILE:C | 2.58 | 0.41 |
| 2:Q:86:ARG:O | 2:Q:86:ARG:HG2 | 2.20 | 0.41 |
| 2:Q:138:TYR:CE1 | 2:Q:142:VAL:HG22 | 2.55 | 0.41 |
| 2:R:57:ALA:O | 2:R:59:GLY:N | 2.54 | 0.41 |
| 2:S:63:ILE:CG2 | 2:S:67:GLU:CB | 2.98 | 0.41 |
| 1:A:197:LYS:HD3 | 1:A:263:ASP:CG | 2.40 | 0.41 |
| 1:A:349:ASN:HD22 | 1:A:350:VAL:H | 1.68 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:504:ILE:N | 1:A:504:ILE:CD1 | 2.84 | 0.41 |
| 1:B:223:LYS:NZ | 1:B:228:ASN:HB2 | 2.35 | 0.41 |
| 1:B:288:VAL:O | 1:B:291:ASP:O | 2.38 | 0.41 |
| 1:B:350:VAL:HG12 | 1:B:351:HIS:N | 2.34 | 0.41 |
| 1:B:512:GLU:O | 1:B:515:LYS:NZ | 2.53 | 0.41 |
| 1:C:121:SER:HB2 | 1:C:122:GLU:OE2 | 2.19 | 0.41 |
| 1:C:176:GLY:C | 1:C:178:SER:H | 2.23 | 0.41 |
| 1:C:368:GLN:HG3 | 1:C:383:GLY:HA3 | 2.03 | 0.41 |
| 1:D:270:LYS:HA | 1:D:273:LYS:CG | 2.50 | 0.41 |
| 1:D:350:VAL:HG12 | 1:D:351:HIS:N | 2.35 | 0.41 |
| 1:D:401:ILE:CG2 | 1:D:485:LEU:HB3 | 2.50 | 0.41 |
| 1:D:508:ILE:HG12 | 1:D:536:TYR:CD2 | 2.55 | 0.41 |
| 1:D:533:LEU:HD23 | 2:R:112:LEU:HD21 | 2.02 | 0.41 |
| 1:D:540:ARG:HH22 | 1:D:630:ARG:HE | 1.67 | 0.41 |
| 1:E:111:LEU:HD23 | 1:E:155:ASN:ND2 | 2.34 | 0.41 |
| 1:E:165:GLN:CD | 1:E:252:ASP:HB3 | 2.39 | 0.41 |
| 1:E:188:LEU:H | 1:E:188:LEU:HG | 1.73 | 0.41 |
| 1:E:263:ASP:O | 1:E:264:MET:C | 2.58 | 0.41 |
| 1:E:339:ILE:O | 1:E:340:LYS:C | 2.58 | 0.41 |
| 1:E:456:LYS:HD3 | 1:E:471:TRP:H | 1.84 | 0.41 |
| 1:E:648:PRO:O | 1:E:649:ILE:C | 2.58 | 0.41 |
| 1:E:744:GLU:CD | 1:E:744:GLU:H | 2.23 | 0.41 |
| 1:F:71:PHE:CD1 | 1:F:108:ASP:OD1 | 2.73 | 0.41 |
| 1:F:263:ASP:O | 1:F:264:MET:C | 2.58 | 0.41 |
| 1:F:635:ILE:HD12 | 1:F:635:ILE:N | 2.36 | 0.41 |
| 1:F:748:TYR:O | 1:F:751:TYR:N | 2.53 | 0.41 |
| 1:F:749:PHE:O | 1:F:753:LYS:HG3 | 2.20 | 0.41 |
| 1:F:790:PHE:O | 1:F:791:GLU:C | 2.59 | 0.41 |
| 2:Q:44:THR:OG1 | 2:Q:47:GLU:HG3 | 2.20 | 0.41 |
| 2:R:117:THR:HG23 | 2:R:120:GLU:HG3 | 2.02 | 0.41 |
| 2:S:9:ILE:HG23 | 2:S:69:LEU:HD21 | 2.02 | 0.41 |
| 2:S:117:THR:HG23 | 2:S:120:GLU:HG3 | 2.01 | 0.41 |
| 2:T:56:ASP:C | 2:T:58:ASP:H | 2.24 | 0.41 |
| 2:T:70:THR:O | 2:T:72:MET:N | 2.54 | 0.41 |
| 1:A:76:LEU:O | 1:A:80:GLN:N | 2.47 | 0.41 |
| 1:A:106:PHE:CZ | 1:A:171:TYR:OH | 2.66 | 0.41 |
| 1:A:188:LEU:H | 1:A:188:LEU:HG | 1.73 | 0.41 |
| 1:A:480:ASN:HD22 | 1:A:481:VAL:H | 1.67 | 0.41 |
| 1:A:744:GLU:CD | 1:A:744:GLU:H | 2.22 | 0.41 |
| 1:A:790:PHE:O | 1:A:791:GLU:C | 2.58 | 0.41 |
| 1:B:115:LYS:O | 1:B:117:LEU:N | 2.53 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:368:GLN:HG3 | 1:B:383:GLY:HA3 | 2.03 | 0.41 |
| 1:B:532:LEU:HA | 1:B:532:LEU:HD23 | 1.83 | 0.41 |
| 1:B:635:ILE:HD12 | 1:B:635:ILE:N | 2.33 | 0.41 |
| 1:B:663:PHE:CD1 | 1:B:752:LEU:HD11 | 2.55 | 0.41 |
| 1:B:687:GLU:O | 1:B:690:LYS:N | 2.53 | 0.41 |
| 1:C:255:THR:C | 1:C:257:LEU:N | 2.72 | 0.41 |
| 1:C:288:VAL:CG2 | 1:C:289:GLU:H | 2.22 | 0.41 |
| 1:C:292:ARG:NE | 1:C:617:LYS:HE3 | 2.35 | 0.41 |
| 1:C:350:VAL:HG12 | 1:C:351:HIS:N | 2.35 | 0.41 |
| 1:C:550:SER:H | 1:C:553:GLN:NE2 | 2.16 | 0.41 |
| 1:C:663:PHE:CD1 | 1:C:752:LEU:HD11 | 2.56 | 0.41 |
| 1:C:665:LYS:O | 1:C:668:SER:HB3 | 2.20 | 0.41 |
| 1:C:729:TYR:O | 1:C:732:ILE:N | 2.51 | 0.41 |
| 1:C:749:PHE:O | 1:C:753:LYS:HG3 | 2.21 | 0.41 |
| 1:D:220:LEU:HG | 1:D:223:LYS:HB3 | 2.02 | 0.41 |
| 1:D:292:ARG:NE | 1:D:617:LYS:HE3 | 2.36 | 0.41 |
| 1:D:451:ASN:O | 1:D:452:GLU:C | 2.59 | 0.41 |
| 1:D:520:PRO:CG | 1:D:521:ASN:H | 2.33 | 0.41 |
| 1:E:741:ILE:O | 1:E:741:ILE:HG13 | 2.21 | 0.41 |
| 1:F:87:LYS:HB3 | 1:F:87:LYS:HE2 | 1.81 | 0.41 |
| 1:F:128:MET:CE | 1:F:235:THR:HB | 2.49 | 0.41 |
| 1:F:202:ASP:HB2 | 1:F:208:LEU:CD2 | 2.51 | 0.41 |
| 1:F:295:VAL:C | 1:F:296:LEU:CD2 | 2.80 | 0.41 |
| 1:F:301:ALA:O | 1:F:304:ALA:N | 2.43 | 0.41 |
| 1:F:350:VAL:HG12 | 1:F:351:HIS:N | 2.35 | 0.41 |
| 1:F:397:GLU:O | 1:F:398:ILE:HD13 | 2.21 | 0.41 |
| 1:F:397:GLU:O | 1:F:480:ASN:N | 2.52 | 0.41 |
| 1:F:420:LEU:HD13 | 1:F:420:LEU:O | 2.20 | 0.41 |
| 1:F:667:LEU:O | 1:F:668:SER:C | 2.58 | 0.41 |
| 1:F:690:LYS:O | 1:F:693:SER:N | 2.54 | 0.41 |
| 2:R:65:PHE:CE2 | 2:R:69:LEU:HG | 2.55 | 0.41 |
| 1:A:142:VAL:HG13 | 1:A:154:ILE:HD12 | 2.03 | 0.41 |
| 1:A:179:LEU:O | 1:A:182:ILE:HG22 | 2.20 | 0.41 |
| 1:A:202:ASP:HB2 | 1:A:208:LEU:CD2 | 2.50 | 0.41 |
| 1:A:265:PHE:C | 1:A:267:TYR:H | 2.24 | 0.41 |
| 1:A:368:GLN:HB2 | 1:A:380:VAL:HG13 | 2.02 | 0.41 |
| 1:B:90:PRO:HG3 | 1:B:249:PHE:CZ | 2.55 | 0.41 |
| 1:B:497:LEU:HD13 | 1:B:556:MET:HG2 | 2.02 | 0.41 |
| 1:B:520:PRO:CG | 1:B:521:ASN:H | 2.33 | 0.41 |
| 1:C:90:PRO:HG3 | 1:C:249:PHE:CZ | 2.55 | 0.41 |
| 1:C:508:ILE:HG21 | 1:C:513:TRP:HB2 | 2.01 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:636:ALA:HA | 1:C:637:PRO:HD3 | 1.83 | 0.41 |
| 1:D:90:PRO:HG2 | 1:D:93:VAL:CG1 | 2.51 | 0.41 |
| 1:D:409:ARG:O | 1:D:413:LEU:HG | 2.20 | 0.41 |
| 1:D:523:LEU:HD11 | 2:R:144:MET:HG2 | 2.03 | 0.41 |
| 1:D:615:ILE:CD1 | 1:D:645:TRP:HH2 | 2.29 | 0.41 |
| 1:D:711:ILE:C | 1:D:712:PHE:CD2 | 2.93 | 0.41 |
| 1:E:74:GLU:HB2 | 1:E:78:LYS:HB3 | 2.03 | 0.41 |
| 1:E:77:ASP:OD1 | 1:E:159:TYR:CE2 | 2.73 | 0.41 |
| 1:E:217:LYS:HG3 | 1:E:236:GLU:HG3 | 2.02 | 0.41 |
| 1:E:403:LEU:HG | 1:E:405:LEU:CD1 | 2.51 | 0.41 |
| 1:E:523:LEU:HD11 | 2:S:144:MET:HG2 | 2.02 | 0.41 |
| 1:E:790:PHE:O | 1:E:791:GLU:C | 2.59 | 0.41 |
| 1:F:176:GLY:O | 1:F:178:SER:N | 2.53 | 0.41 |
| 1:F:298:GLY:C | 1:F:300:LYS:H | 2.23 | 0.41 |
| 1:F:746:LYS:HD2 | 1:F:747:ASN:HD22 | 1.84 | 0.41 |
| 2:O:68:PHE:C | 2:O:70:THR:N | 2.72 | 0.41 |
| 2:P:138:TYR:O | 2:P:141:PHE:HB3 | 2.20 | 0.41 |
| 2:Q:81:SER:O | 2:Q:82:GLU:C | 2.57 | 0.41 |
| 2:S:92:PHE:C | 2:S:94:LYS:N | 2.74 | 0.41 |
| 2:S:136:VAL:HG23 | 2:S:136:VAL:O | 2.19 | 0.41 |
| 2:T:39:LEU:HA | 2:T:39:LEU:HD12 | 1.82 | 0.41 |
| 1:A:92:ASP:O | 1:A:93:VAL:C | 2.58 | 0.41 |
| 1:A:197:LYS:NZ | 1:A:197:LYS:CB | 2.80 | 0.41 |
| 1:A:217:LYS:HG3 | 1:A:236:GLU:HG3 | 2.03 | 0.41 |
| 1:A:345:THR:CG2 | 1:A:491:ASP:HA | 2.51 | 0.41 |
| 1:A:671:ARG:NH1 | 1:A:671:ARG:HG3 | 2.35 | 0.41 |
| 1:B:128:MET:CE | 1:B:235:THR:HB | 2.49 | 0.41 |
| 1:B:165:GLN:CD | 1:B:252:ASP:HB3 | 2.41 | 0.41 |
| 1:B:189:ASP:O | 1:B:190:PRO:C | 2.56 | 0.41 |
| 1:B:414:LYS:C | 1:B:414:LYS:HD3 | 2.41 | 0.41 |
| 1:B:447:SER:OG | 1:B:448:ASP:N | 2.52 | 0.41 |
| 1:B:456:LYS:HD3 | 1:B:471:TRP:H | 1.84 | 0.41 |
| 1:C:77:ASP:OD1 | 1:C:159:TYR:CE2 | 2.74 | 0.41 |
| 1:C:131:ARG:CB | 1:C:243:LEU:HD21 | 2.50 | 0.41 |
| 1:C:308:VAL:O | 1:C:311:HIS:N | 2.46 | 0.41 |
| 1:C:684:ASP:C | 1:C:686:ASP:H | 2.22 | 0.41 |
| 1:C:751:TYR:C | 1:C:753:LYS:H | 2.24 | 0.41 |
| 1:D:121:SER:HB2 | 1:D:122:GLU:OE2 | 2.20 | 0.41 |
| 1:D:339:ILE:O | 1:D:340:LYS:C | 2.58 | 0.41 |
| 1:D:420:LEU:CD1 | 1:D:436:GLU:HB3 | 2.51 | 0.41 |
| 1:D:520:PRO:CG | 1:D:521:ASN:N | 2.84 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:535:LYS:HD3 | 1:D:536:TYR:CE2 | 2.55 | 0.41 |
| 1:D:715:GLU:CG | 1:D:767:GLN:HE21 | 2.33 | 0.41 |
| 1:E:197:LYS:HD3 | 1:E:263:ASP:CB | 2.51 | 0.41 |
| 1:E:409:ARG:O | 1:E:413:LEU:HG | 2.20 | 0.41 |
| 1:F:360:VAL:HA | 1:F:403:LEU:HD21 | 2.02 | 0.41 |
| 1:F:683:GLY:O | 1:F:684:ASP:C | 2.57 | 0.41 |
| 2:P:81:SER:O | 2:P:82:GLU:C | 2.58 | 0.41 |
| 2:R:13:LYS:C | 2:R:15:ALA:N | 2.70 | 0.41 |
| 2:R:81:SER:O | 2:R:82:GLU:C | 2.58 | 0.41 |
| 2:R:138:TYR:O | 2:R:141:PHE:HB3 | 2.21 | 0.41 |
| 2:T:70:THR:O | 2:T:71:MET:C | 2.59 | 0.41 |
| 2:T:138:TYR:O | 2:T:141:PHE:HB3 | 2.21 | 0.41 |
| 1:A:93:VAL:HG13 | 1:A:94:LEU:N | 2.35 | 0.41 |
| 1:A:111:LEU:HD23 | 1:A:155:ASN:ND2 | 2.33 | 0.41 |
| 1:A:456:LYS:HD3 | 1:A:471:TRP:H | 1.85 | 0.41 |
| 1:A:495:PHE:O | 1:A:496:ALA:HB2 | 2.20 | 0.41 |
| 1:B:66:LEU:HD23 | 1:B:94:LEU:HB3 | 2.01 | 0.41 |
| 1:B:216:GLU:HG3 | 1:B:217:LYS:HG2 | 2.03 | 0.41 |
| 1:B:368:GLN:C | 1:B:370:LEU:H | 2.23 | 0.41 |
| 1:B:420:LEU:CD1 | 1:B:436:GLU:HB3 | 2.51 | 0.41 |
| 1:C:216:GLU:HG3 | 1:C:217:LYS:HG2 | 2.02 | 0.41 |
| 1:C:271:LEU:HA | 1:C:275:GLY:HA3 | 2.02 | 0.41 |
| 1:C:279:ILE:O | 1:C:283:LEU:HB2 | 2.20 | 0.41 |
| 1:C:683:GLY:O | 1:C:684:ASP:C | 2.56 | 0.41 |
| 1:C:713:SER:O | 1:C:714:GLN:C | 2.59 | 0.41 |
| 1:C:748:TYR:O | 1:C:751:TYR:N | 2.53 | 0.41 |
| 1:D:131:ARG:CB | 1:D:243:LEU:HD21 | 2.51 | 0.41 |
| 1:D:144:GLU:O | 1:D:144:GLU:HG3 | 2.19 | 0.41 |
| 1:D:327:LEU:CD2 | 1:D:595:ILE:HG12 | 2.51 | 0.41 |
| 1:E:173:ILE:C | 1:E:175:LYS:H | 2.23 | 0.41 |
| 1:F:127:SER:OG | 1:F:135:VAL:HG21 | 2.21 | 0.41 |
| 1:F:297:LYS:HZ3 | 1:F:601:GLU:HB3 | 1.85 | 0.41 |
| 1:F:384:ASN:O | 1:F:386:GLU:N | 2.53 | 0.41 |
| 1:F:629:ASN:C | 1:F:631:SER:N | 2.74 | 0.41 |
| 2:R:86:ARG:O | 2:R:86:ARG:HG2 | 2.21 | 0.41 |
| 2:T:136:VAL:HG23 | 2:T:136:VAL:O | 2.21 | 0.41 |
| 1:B:89:ILE:H | 1:B:89:ILE:HG13 | 1.58 | 0.41 |
| 1:B:110:ASP:OD1 | 1:B:110:ASP:N | 2.53 | 0.41 |
| 1:B:217:LYS:HG3 | 1:B:236:GLU:HG3 | 2.03 | 0.41 |
| 1:B:225:ILE:HG12 | 1:B:229:PHE:HD2 | 1.81 | 0.41 |
| 1:B:409:ARG:O | 1:B:413:LEU:HG | 2.20 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:747:ASN:HD22 | 1:B:747:ASN:N | 2.18 | 0.41 |
| 1:C:134:LYS:O | 1:C:135:VAL:CG1 | 2.63 | 0.41 |
| 1:C:205:SER:C | 1:C:207:ASP:N | 2.72 | 0.41 |
| 1:C:279:ILE:HD13 | 1:C:279:ILE:N | 2.36 | 0.41 |
| 1:C:368:GLN:C | 1:C:370:LEU:H | 2.24 | 0.41 |
| 1:C:408:LEU:H | 1:C:408:LEU:CD1 | 2.03 | 0.41 |
| 1:C:433:TYR:N | 1:C:433:TYR:CD1 | 2.89 | 0.41 |
| 1:C:752:LEU:HD23 | 1:C:752:LEU:HA | 1.77 | 0.41 |
| 1:D:343:VAL:HG13 | 1:D:487:PRO:O | 2.21 | 0.41 |
| 1:D:368:GLN:HB2 | 1:D:380:VAL:HG13 | 2.02 | 0.41 |
| 1:D:718:ARG:NH1 | 1:D:767:GLN:HE21 | 2.18 | 0.41 |
| 1:E:90:PRO:O | 1:E:93:VAL:N | 2.54 | 0.41 |
| 1:E:171:TYR:CD1 | 1:E:175:LYS:NZ | 2.82 | 0.41 |
| 1:E:173:ILE:HG13 | 1:E:242:SER:CB | 2.49 | 0.41 |
| 1:E:663:PHE:CD1 | 1:E:752:LEU:HD11 | 2.55 | 0.41 |
| 1:F:214:PHE:CB | 1:F:218:LEU:HB3 | 2.40 | 0.41 |
| 1:F:443:GLU:HG3 | 1:F:458:LYS:HZ2 | 1.86 | 0.41 |
| 2:O:138:TYR:CE1 | 2:O:142:VAL:HG22 | 2.56 | 0.41 |
| 2:Q:97:ASN:HD22 | 2:Q:99:TYR:H | 1.66 | 0.41 |
| 2:Q:138:TYR:O | 2:Q:141:PHE:HB3 | 2.21 | 0.41 |
| 1:A:89:ILE:H | 1:A:89:ILE:HG13 | 1.55 | 0.41 |
| 1:A:111:LEU:CD2 | 1:A:155:ASN:HD21 | 2.33 | 0.41 |
| 1:A:140:ARG:NH1 | 1:A:141:PHE:CE1 | 2.89 | 0.41 |
| 1:A:144:GLU:O | 1:A:144:GLU:HG3 | 2.20 | 0.41 |
| 1:A:188:LEU:HD12 | 1:A:191:GLU:HG3 | 2.02 | 0.41 |
| 1:A:257:LEU:O | 1:A:261:ALA:O | 2.39 | 0.41 |
| 1:A:293:ILE:H | 1:A:293:ILE:HG12 | 1.44 | 0.41 |
| 1:A:307:LEU:N | 1:A:307:LEU:HD12 | 2.36 | 0.41 |
| 1:A:345:THR:HG21 | 1:A:491:ASP:HA | 2.03 | 0.41 |
| 1:A:368:GLN:C | 1:A:370:LEU:H | 2.24 | 0.41 |
| 1:A:435:LEU:HG | 1:A:446:ILE:CG2 | 2.47 | 0.41 |
| 1:A:635:ILE:HD12 | 1:A:635:ILE:N | 2.33 | 0.41 |
| 1:A:713:SER:O | 1:A:714:GLN:C | 2.58 | 0.41 |
| 1:A:725:GLY:O | 1:A:726:ILE:C | 2.59 | 0.41 |
| 1:A:749:PHE:O | 1:A:753:LYS:HG3 | 2.21 | 0.41 |
| 1:B:115:LYS:CB | 1:B:118:GLN:CG | 2.93 | 0.41 |
| 1:B:172:GLU:HG3 | 1:B:245:PHE:CE1 | 2.56 | 0.41 |
| 1:B:173:ILE:CG2 | 1:B:174:GLY:N | 2.83 | 0.41 |
| 1:B:197:LYS:HD3 | 1:B:263:ASP:CG | 2.41 | 0.41 |
| 1:B:297:LYS:NZ | 1:B:297:LYS:HB3 | 2.36 | 0.41 |
| 1:B:320:ARG:NH1 | 1:B:599:GLU:O | 2.54 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:794:GLN:HE21 | 1:B:794:GLN:HB3 | 1.61 | 0.41 |
| 1:C:89:ILE:CG2 | 1:C:90:PRO:HD2 | 2.51 | 0.41 |
| 1:C:223:LYS:NZ | 1:C:228:ASN:HB2 | 2.36 | 0.41 |
| 1:C:263:ASP:O | 1:C:264:MET:C | 2.58 | 0.41 |
| 1:C:298:GLY:C | 1:C:300:LYS:H | 2.23 | 0.41 |
| 1:C:339:ILE:O | 1:C:340:LYS:C | 2.59 | 0.41 |
| 1:C:398:ILE:CD1 | 1:C:479:LYS:HB3 | 2.51 | 0.41 |
| 1:C:414:LYS:HD3 | 1:C:414:LYS:C | 2.41 | 0.41 |
| 1:C:530:THR:O | 1:C:534:ILE:HG13 | 2.20 | 0.41 |
| 1:C:654:ILE:C | 1:C:655:ASN:HD22 | 2.24 | 0.41 |
| 1:C:692:GLU:CD | 2:Q:21:LYS:HZ1 | 2.19 | 0.41 |
| 1:C:715:GLU:CG | 1:C:767:GLN:HE21 | 2.34 | 0.41 |
| 1:D:223:LYS:NZ | 1:D:228:ASN:HB2 | 2.36 | 0.41 |
| 1:D:513:TRP:HZ2 | 2:R:114:GLU:HB2 | 1.84 | 0.41 |
| 1:E:90:PRO:HG3 | 1:E:249:PHE:CZ | 2.56 | 0.41 |
| 1:E:127:SER:OG | 1:E:135:VAL:HG21 | 2.21 | 0.41 |
| 1:E:176:GLY:C | 1:E:178:SER:H | 2.24 | 0.41 |
| 1:E:179:LEU:O | 1:E:180:ASP:C | 2.60 | 0.41 |
| 1:E:197:LYS:NZ | 1:E:197:LYS:CB | 2.83 | 0.41 |
| 1:E:255:THR:C | 1:E:257:LEU:N | 2.72 | 0.41 |
| 1:E:257:LEU:O | 1:E:261:ALA:O | 2.37 | 0.41 |
| 1:E:292:ARG:NE | 1:E:617:LYS:HE3 | 2.35 | 0.41 |
| 1:E:305:SER:O | 1:E:307:LEU:N | 2.52 | 0.41 |
| 1:E:420:LEU:HD22 | 1:E:421:LYS:N | 2.36 | 0.41 |
| 1:F:74:GLU:HB2 | 1:F:78:LYS:HB3 | 2.03 | 0.41 |
| 1:F:112:VAL:O | 1:F:114:HIS:N | 2.51 | 0.41 |
| 1:F:142:VAL:HG13 | 1:F:154:ILE:HD11 | 2.01 | 0.41 |
| 1:F:216:GLU:HG3 | 1:F:217:LYS:HG2 | 2.03 | 0.41 |
| 1:F:223:LYS:NZ | 1:F:228:ASN:HB2 | 2.36 | 0.41 |
| 1:F:255:THR:C | 1:F:257:LEU:N | 2.71 | 0.41 |
| 1:F:279:ILE:CD1 | 1:F:279:ILE:H | 2.33 | 0.41 |
| 1:F:297:LYS:HZ3 | 1:F:297:LYS:HB3 | 1.85 | 0.41 |
| 1:F:512:GLU:O | 1:F:515:LYS:NZ | 2.53 | 0.41 |
| 1:F:658:PRO:HB3 | 1:F:755:ARG:HH12 | 1.85 | 0.41 |
| 2:O:97:ASN:HD22 | 2:O:99:TYR:H | 1.66 | 0.41 |
| 2:P:33:GLY:O | 2:P:35:VAL:N | 2.54 | 0.41 |
| 2:Q:18:LEU:HB3 | 2:Q:19:PHE:CE1 | 2.56 | 0.41 |
| 2:Q:70:THR:O | 2:Q:72:MET:N | 2.54 | 0.41 |
| 2:R:70:THR:O | 2:R:72:MET:N | 2.54 | 0.41 |
| 2:S:11:GLU:C | 2:S:13:LYS:N | 2.74 | 0.41 |
| 2:S:29:THR:O | 2:S:32:LEU:N | 2.53 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:S:105:LEU:HD23 | 2:S:121:VAL:HG13 | 2.03 | 0.41 |
| 2:S:138:TYR:O | 2:S:141:PHE:HB3 | 2.21 | 0.41 |
| 2:T:13:LYS:C | 2:T:15:ALA:N | 2.70 | 0.41 |
| 2:T:18:LEU:HB3 | 2:T:19:PHE:CE1 | 2.56 | 0.41 |
| 1:A:223:LYS:NZ | 1:A:228:ASN:HB2 | 2.36 | 0.41 |
| 1:A:420:LEU:CD1 | 1:A:436:GLU:HB3 | 2.51 | 0.41 |
| 1:A:663:PHE:CD1 | 1:A:752:LEU:HD11 | 2.56 | 0.41 |
| 1:B:142:VAL:HG13 | 1:B:154:ILE:HD11 | 2.02 | 0.41 |
| 1:B:173:ILE:C | 1:B:175:LYS:H | 2.24 | 0.41 |
| 1:B:298:GLY:C | 1:B:300:LYS:H | 2.25 | 0.41 |
| 1:B:508:ILE:HG12 | 1:B:536:TYR:CD2 | 2.56 | 0.41 |
| 1:B:582:ASP:O | 1:B:584:GLU:N | 2.47 | 0.41 |
| 1:B:711:ILE:C | 1:B:712:PHE:CD2 | 2.94 | 0.41 |
| 1:B:741:ILE:O | 1:B:741:ILE:HG13 | 2.20 | 0.41 |
| 1:C:92:ASP:O | 1:C:93:VAL:C | 2.58 | 0.41 |
| 1:C:530:THR:O | 1:C:534:ILE:N | 2.49 | 0.41 |
| 1:C:597:ASN:C | 1:C:599:GLU:H | 2.24 | 0.41 |
| 1:D:305:SER:O | 1:D:307:LEU:N | 2.52 | 0.41 |
| 1:D:307:LEU:N | 1:D:307:LEU:HD12 | 2.36 | 0.41 |
| 1:D:561:ASN:HA | 1:D:564:VAL:HG22 | 2.02 | 0.41 |
| 1:D:665:LYS:O | 1:D:668:SER:HB3 | 2.21 | 0.41 |
| 1:D:671:ARG:NH1 | 1:D:671:ARG:HG3 | 2.35 | 0.41 |
| 1:E:343:VAL:HG12 | 1:E:344:ALA:O | 2.20 | 0.41 |
| 1:E:793:PHE:HA | 1:E:796:ILE:HG13 | 2.03 | 0.41 |
| 1:F:102:GLY:O | 1:F:103:GLU:HG3 | 2.21 | 0.41 |
| 1:F:172:GLU:HG3 | 1:F:245:PHE:CE1 | 2.56 | 0.41 |
| 1:F:292:ARG:NE | 1:F:617:LYS:HE3 | 2.35 | 0.41 |
| 1:F:533:LEU:HD23 | 2:T:112:LEU:HD21 | 2.03 | 0.41 |
| 1:F:663:PHE:CD1 | 1:F:752:LEU:HD11 | 2.56 | 0.41 |
| 1:F:713:SER:O | 1:F:714:GLN:C | 2.59 | 0.41 |
| 2:O:136:VAL:HG23 | 2:O:136:VAL:O | 2.21 | 0.41 |
| 2:P:65:PHE:CE2 | 2:P:69:LEU:HG | 2.56 | 0.41 |
| 2:P:101:SER:OG | 2:P:104:GLU:HG2 | 2.20 | 0.41 |
| 2:Q:70:THR:O | 2:Q:71:MET:C | 2.59 | 0.41 |
| 2:Q:79:THR:O | 2:Q:81:SER:N | 2.54 | 0.41 |
| 2:R:83:GLU:O | 2:R:84:GLU:C | 2.59 | 0.41 |
| 2:R:106:ARG:CB | 2:R:121:VAL:HG21 | 2.48 | 0.41 |
| 2:S:57:ALA:O | 2:S:59:GLY:N | 2.54 | 0.41 |
| 1:A:74:GLU:HB2 | 1:A:78:LYS:HB3 | 2.03 | 0.40 |
| 1:A:105:TYR:HE1 | 1:A:151:LYS:NZ | 2.15 | 0.40 |
| 1:A:350:VAL:HG12 | 1:A:351:HIS:N | 2.35 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:414:LYS:C | 1:A:414:LYS:HD3 | 2.41 | 0.40 |
| 1:A:514:ASP:C | 1:A:516:VAL:H | 2.25 | 0.40 |
| 1:A:523:LEU:HD11 | 2:O:144:MET:HG2 | 2.02 | 0.40 |
| 1:A:561:ASN:HA | 1:A:564:VAL:HG22 | 2.03 | 0.40 |
| 1:B:88:LYS:NZ | 1:B:172:GLU:CD | 2.74 | 0.40 |
| 1:B:127:SER:OG | 1:B:135:VAL:HG21 | 2.21 | 0.40 |
| 1:B:134:LYS:O | 1:B:135:VAL:CG1 | 2.67 | 0.40 |
| 1:B:173:ILE:HG13 | 1:B:242:SER:CB | 2.50 | 0.40 |
| 1:B:188:LEU:H | 1:B:188:LEU:HG | 1.73 | 0.40 |
| 1:B:265:PHE:C | 1:B:267:TYR:H | 2.25 | 0.40 |
| 1:B:293:ILE:H | 1:B:293:ILE:HG12 | 1.44 | 0.40 |
| 1:C:141:PHE:N | 1:C:141:PHE:CD1 | 2.90 | 0.40 |
| 1:C:217:LYS:HG3 | 1:C:236:GLU:HG3 | 2.04 | 0.40 |
| 1:C:288:VAL:O | 1:C:291:ASP:O | 2.38 | 0.40 |
| 1:C:455:TYR:HA | 1:C:471:TRP:CZ3 | 2.56 | 0.40 |
| 1:C:514:ASP:C | 1:C:516:VAL:H | 2.24 | 0.40 |
| 1:C:790:PHE:O | 1:C:791:GLU:C | 2.59 | 0.40 |
| 1:D:89:ILE:HG21 | 1:D:175:LYS:HE2 | 2.02 | 0.40 |
| 1:D:110:ASP:N | 1:D:110:ASP:OD1 | 2.54 | 0.40 |
| 1:D:255:THR:C | 1:D:257:LEU:N | 2.73 | 0.40 |
| 1:D:398:ILE:CD1 | 1:D:479:LYS:HB3 | 2.51 | 0.40 |
| 1:D:413:LEU:HB2 | 1:D:419:ILE:HG12 | 2.03 | 0.40 |
| 1:D:606:LYS:HB2 | 1:D:610:MET:CE | 2.51 | 0.40 |
| 1:D:630:ARG:NH1 | 2:R:83:GLU:HG2 | 2.36 | 0.40 |
| 1:D:729:TYR:O | 1:D:732:ILE:N | 2.51 | 0.40 |
| 1:D:736:LEU:HD21 | 1:D:750:GLN:OE1 | 2.21 | 0.40 |
| 1:E:71:PHE:CD1 | 1:E:108:ASP:OD1 | 2.74 | 0.40 |
| 1:E:89:ILE:HG21 | 1:E:175:LYS:HE2 | 2.04 | 0.40 |
| 1:E:179:LEU:O | 1:E:182:ILE:HG22 | 2.21 | 0.40 |
| 1:E:191:GLU:C | 1:E:193:LEU:N | 2.75 | 0.40 |
| 1:E:220:LEU:HG | 1:E:223:LYS:HB3 | 2.02 | 0.40 |
| 1:E:494:LEU:HD13 | 1:E:497:LEU:HD21 | 2.03 | 0.40 |
| 1:E:533:LEU:HD23 | 2:S:112:LEU:HD21 | 2.04 | 0.40 |
| 1:E:561:ASN:HA | 1:E:564:VAL:HG22 | 2.03 | 0.40 |
| 1:F:197:LYS:HD3 | 1:F:263:ASP:CG | 2.41 | 0.40 |
| 1:F:523:LEU:HD11 | 2:T:144:MET:HG2 | 2.03 | 0.40 |
| 1:F:736:LEU:HD21 | 1:F:750:GLN:OE1 | 2.21 | 0.40 |
| 2:O:33:GLY:O | 2:O:34:THR:C | 2.58 | 0.40 |
| 2:O:39:LEU:HA | 2:O:39:LEU:HD12 | 1.83 | 0.40 |
| 2:O:70:THR:O | 2:O:71:MET:C | 2.59 | 0.40 |
| 2:P:70:THR:O | 2:P:72:MET:N | 2.54 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:P:92:PHE:C | 2:P:94:LYS:N | 2.75 | 0.40 |
| 2:P:138:TYR:CE1 | 2:P:142:VAL:HG22 | 2.57 | 0.40 |
| 2:R:27:ILE:HD12 | 2:R:32:LEU:HA | 2.04 | 0.40 |
| 2:S:33:GLY:O | 2:S:34:THR:C | 2.58 | 0.40 |
| 1:A:339:ILE:O | 1:A:340:LYS:C | 2.58 | 0.40 |
| 1:A:529:VAL:HG21 | 2:O:109:MET:HE3 | 2.03 | 0.40 |
| 1:A:751:TYR:C | 1:A:753:LYS:H | 2.24 | 0.40 |
| 1:B:297:LYS:HZ3 | 1:B:297:LYS:HB3 | 1.87 | 0.40 |
| 1:B:397:GLU:O | 1:B:398:ILE:HD13 | 2.21 | 0.40 |
| 1:B:632:TYR:HD2 | 1:B:632:TYR:HA | 1.74 | 0.40 |
| 1:B:654:ILE:C | 1:B:655:ASN:HD22 | 2.25 | 0.40 |
| 1:B:667:LEU:O | 1:B:668:SER:C | 2.59 | 0.40 |
| 1:B:732:ILE:O | 1:B:733:GLU:C | 2.59 | 0.40 |
| 1:C:112:VAL:C | 1:C:114:HIS:N | 2.75 | 0.40 |
| 1:C:179:LEU:O | 1:C:180:ASP:C | 2.59 | 0.40 |
| 1:C:179:LEU:O | 1:C:182:ILE:HG22 | 2.22 | 0.40 |
| 1:C:323:ASN:HD22 | 1:C:598:PRO:HB3 | 1.86 | 0.40 |
| 1:C:409:ARG:O | 1:C:413:LEU:HG | 2.21 | 0.40 |
| 1:D:295:VAL:C | 1:D:296:LEU:CD2 | 2.82 | 0.40 |
| 1:D:408:LEU:H | 1:D:408:LEU:CD1 | 2.02 | 0.40 |
| 1:D:597:ASN:C | 1:D:599:GLU:H | 2.23 | 0.40 |
| 1:E:323:ASN:HD22 | 1:E:598:PRO:CB | 2.34 | 0.40 |
| 1:E:365:PRO:O | 1:E:366:PHE:C | 2.58 | 0.40 |
| 1:E:504:ILE:N | 1:E:504:ILE:CD1 | 2.84 | 0.40 |
| 1:F:175:LYS:O | 1:F:177:ILE:N | 2.54 | 0.40 |
| 1:F:191:GLU:O | 1:F:192:PHE:C | 2.59 | 0.40 |
| 1:F:271:LEU:HA | 1:F:275:GLY:HA3 | 2.02 | 0.40 |
| 1:F:752:LEU:HD23 | 1:F:752:LEU:HA | 1.76 | 0.40 |
| 2:O:36:MET:CE | 2:O:48:LEU:HD21 | 2.52 | 0.40 |
| 2:O:70:THR:O | 2:O:72:MET:N | 2.54 | 0.40 |
| 2:Q:63:ILE:CG2 | 2:Q:67:GLU:CB | 2.97 | 0.40 |
| 2:R:9:ILE:HG23 | 2:R:69:LEU:HD21 | 2.03 | 0.40 |
| 2:R:75:LYS:O | 2:R:79:THR:HG22 | 2.22 | 0.40 |
| 2:R:89:PHE:HB2 | 2:R:141:PHE:CE2 | 2.56 | 0.40 |
| 2:S:18:LEU:HB3 | 2:S:19:PHE:CE1 | 2.56 | 0.40 |
| 1:A:89:ILE:CG2 | 1:A:90:PRO:HD2 | 2.52 | 0.40 |
| 1:A:89:ILE:HG21 | 1:A:175:LYS:HE2 | 2.02 | 0.40 |
| 1:A:175:LYS:O | 1:A:177:ILE:N | 2.55 | 0.40 |
| 1:A:271:LEU:HA | 1:A:275:GLY:HA3 | 2.03 | 0.40 |
| 1:A:523:LEU:HD11 | 2:O:144:MET:HG3 | 2.02 | 0.40 |
| 1:A:632:TYR:HD2 | 1:A:632:TYR:HA | 1.74 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:741:ILE:H | 1:A:741:ILE:HG12 | 1.64 | 0.40 |
| 1:A:754:GLU:O | 1:A:757:THR:HB | 2.21 | 0.40 |
| 1:B:131:ARG:CB | 1:B:243:LEU:HD21 | 2.51 | 0.40 |
| 1:B:520:PRO:CG | 1:B:521:ASN:N | 2.84 | 0.40 |
| 1:B:629:ASN:C | 1:B:631:SER:N | 2.75 | 0.40 |
| 1:B:713:SER:O | 1:B:714:GLN:C | 2.59 | 0.40 |
| 1:C:115:LYS:O | 1:C:117:LEU:N | 2.54 | 0.40 |
| 1:C:142:VAL:HG13 | 1:C:154:ILE:HD11 | 2.02 | 0.40 |
| 1:C:197:LYS:NZ | 1:C:197:LYS:O | 2.51 | 0.40 |
| 1:C:357:TRP:O | 1:C:357:TRP:CG | 2.74 | 0.40 |
| 1:D:173:ILE:HG13 | 1:D:242:SER:CB | 2.51 | 0.40 |
| 1:D:217:LYS:HG3 | 1:D:236:GLU:HG3 | 2.03 | 0.40 |
| 1:D:345:THR:CG2 | 1:D:491:ASP:HA | 2.51 | 0.40 |
| 1:D:455:TYR:HA | 1:D:471:TRP:CZ3 | 2.57 | 0.40 |
| 1:D:667:LEU:O | 1:D:668:SER:C | 2.59 | 0.40 |
| 1:D:687:GLU:HA | 1:D:687:GLU:OE2 | 2.21 | 0.40 |
| 1:D:790:PHE:O | 1:D:791:GLU:C | 2.59 | 0.40 |
| 1:E:100:LEU:CD2 | 1:E:182:ILE:HG21 | 2.51 | 0.40 |
| 1:E:185:ASP:HA | 1:E:194:ASN:CG | 2.42 | 0.40 |
| 1:E:225:ILE:HG23 | 1:E:229:PHE:HD2 | 1.83 | 0.40 |
| 1:E:355:SER:HA | 1:E:372:LYS:H | 1.86 | 0.40 |
| 1:E:495:PHE:O | 1:E:496:ALA:HB2 | 2.21 | 0.40 |
| 1:E:501:LEU:HD13 | 2:S:108:VAL:HG13 | 2.03 | 0.40 |
| 1:E:597:ASN:C | 1:E:599:GLU:H | 2.24 | 0.40 |
| 1:E:687:GLU:OE2 | 1:E:687:GLU:HA | 2.20 | 0.40 |
| 1:F:323:ASN:HD22 | 1:F:598:PRO:HB3 | 1.85 | 0.40 |
| 1:F:648:PRO:O | 1:F:649:ILE:C | 2.59 | 0.40 |
| 1:F:727:GLN:O | 1:F:730:ASN:HB3 | 2.22 | 0.40 |
| 2:O:18:LEU:HB3 | 2:O:19:PHE:CE1 | 2.57 | 0.40 |
| 2:O:64:ASP:CB | 2:O:67:GLU:OE2 | 2.67 | 0.40 |
| 2:P:9:ILE:HG23 | 2:P:69:LEU:HD21 | 2.03 | 0.40 |
| 2:Q:27:ILE:HD12 | 2:Q:32:LEU:HA | 2.03 | 0.40 |
| 2:Q:65:PHE:CE2 | 2:Q:69:LEU:HG | 2.56 | 0.40 |
| 2:T:33:GLY:O | 2:T:34:THR:C | 2.58 | 0.40 |
| 2:T:64:ASP:CB | 2:T:67:GLU:OE2 | 2.68 | 0.40 |
| 2:T:79:THR:O | 2:T:81:SER:N | 2.54 | 0.40 |
| 1:A:229:PHE:O | 1:A:231:LYS:N | 2.55 | 0.40 |
| 1:A:687:GLU:HA | 1:A:687:GLU:OE2 | 2.21 | 0.40 |
| 1:A:747:ASN:HD22 | 1:A:747:ASN:N | 2.18 | 0.40 |
| 1:B:77:ASP:OD1 | 1:B:159:TYR:HE2 | 2.03 | 0.40 |
| 1:B:179:LEU:O | 1:B:182:ILE:HG22 | 2.21 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:234:LEU:CD2 | 1:B:234:LEU:N | 2.85 | 0.40 |
| 1:B:263:ASP:C | 1:B:265:PHE:N | 2.74 | 0.40 |
| 1:B:283:LEU:O | 1:B:287:GLY:N | 2.55 | 0.40 |
| 1:B:292:ARG:NE | 1:B:617:LYS:HE3 | 2.36 | 0.40 |
| 1:B:339:ILE:O | 1:B:340:LYS:C | 2.59 | 0.40 |
| 1:B:355:SER:HA | 1:B:372:LYS:H | 1.87 | 0.40 |
| 1:B:622:LYS:HD3 | 1:B:622:LYS:HA | 1.85 | 0.40 |
| 1:B:643:ILE:HG22 | 1:B:644:GLU:N | 2.35 | 0.40 |
| 1:C:83:GLN:O | 1:C:84:ASP:C | 2.60 | 0.40 |
| 1:C:159:TYR:CD1 | 1:C:159:TYR:N | 2.90 | 0.40 |
| 1:C:455:TYR:HA | 1:C:471:TRP:HZ3 | 1.86 | 0.40 |
| 1:C:693:SER:OG | 1:C:731:GLU:OE1 | 2.38 | 0.40 |
| 1:D:93:VAL:HG13 | 1:D:94:LEU:N | 2.35 | 0.40 |
| 1:D:208:LEU:HD12 | 1:D:208:LEU:H | 1.86 | 0.40 |
| 1:D:399:GLY:O | 1:D:477:MET:HE3 | 2.22 | 0.40 |
| 1:E:254:ARG:HH11 | 1:E:254:ARG:CB | 2.27 | 0.40 |
| 1:E:514:ASP:C | 1:E:516:VAL:H | 2.25 | 0.40 |
| 1:E:549:LEU:HB2 | 1:E:553:GLN:HE21 | 1.87 | 0.40 |
| 1:F:131:ARG:CB | 1:F:243:LEU:HD21 | 2.51 | 0.40 |
| 1:F:197:LYS:NZ | 1:F:197:LYS:O | 2.48 | 0.40 |
| 1:F:234:LEU:CD2 | 1:F:234:LEU:N | 2.85 | 0.40 |
| 1:F:270:LYS:HA | 1:F:273:LYS:CG | 2.51 | 0.40 |
| 1:F:360:VAL:O | 1:F:360:VAL:HG22 | 2.22 | 0.40 |
| 1:F:399:GLY:O | 1:F:477:MET:HE3 | 2.21 | 0.40 |
| 1:F:409:ARG:O | 1:F:413:LEU:HG | 2.21 | 0.40 |
| 1:F:549:LEU:HB2 | 1:F:553:GLN:HE21 | 1.87 | 0.40 |
| 2:P:70:THR:O | 2:P:71:MET:C | 2.59 | 0.40 |
| 2:P:105:LEU:HD21 | 2:P:124:MET:SD | 2.62 | 0.40 |
| 2:Q:57:ALA:O | 2:Q:59:GLY:N | 2.54 | 0.40 |
| 2:T:65:PHE:CE2 | 2:T:69:LEU:HG | 2.56 | 0.40 |
| 1:A:71:PHE:CD1 | 1:A:108:ASP:OD1 | 2.75 | 0.40 |
| 1:A:161:ILE:HA | 1:A:167:LYS:HD2 | 2.04 | 0.40 |
| 1:A:173:ILE:HG13 | 1:A:242:SER:CB | 2.50 | 0.40 |
| 1:A:173:ILE:C | 1:A:175:LYS:H | 2.25 | 0.40 |
| 1:A:197:LYS:HD3 | 1:A:263:ASP:CB | 2.51 | 0.40 |
| 1:A:217:LYS:HZ1 | 1:A:236:GLU:HB2 | 1.81 | 0.40 |
| 1:A:315:PHE:CD2 | 1:A:560:LEU:HD13 | 2.57 | 0.40 |
| 1:A:320:ARG:NH1 | 1:A:599:GLU:O | 2.55 | 0.40 |
| 1:A:323:ASN:HD22 | 1:A:598:PRO:CB | 2.34 | 0.40 |
| 1:A:365:PRO:O | 1:A:366:PHE:C | 2.59 | 0.40 |
| 1:A:446:ILE:O | 1:A:446:ILE:HG23 | 2.21 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:365:PRO:O | 1:B:366:PHE:C | 2.59 | 0.40 |
| 1:B:514:ASP:C | 1:B:516:VAL:H | 2.25 | 0.40 |
| 1:B:716:LYS:O | 1:B:717:LYS:C | 2.60 | 0.40 |
| 1:B:790:PHE:O | 1:B:791:GLU:C | 2.58 | 0.40 |
| 1:C:197:LYS:HD3 | 1:C:263:ASP:CG | 2.41 | 0.40 |
| 1:C:254:ARG:HH11 | 1:C:254:ARG:CB | 2.27 | 0.40 |
| 1:C:323:ASN:HD22 | 1:C:598:PRO:CB | 2.33 | 0.40 |
| 1:C:451:ASN:O | 1:C:452:GLU:C | 2.60 | 0.40 |
| 1:C:667:LEU:O | 1:C:668:SER:C | 2.60 | 0.40 |
| 1:C:794:GLN:HE21 | 1:C:794:GLN:HB3 | 1.61 | 0.40 |
| 1:D:205:SER:C | 1:D:207:ASP:N | 2.71 | 0.40 |
| 1:D:234:LEU:CD2 | 1:D:234:LEU:N | 2.84 | 0.40 |
| 1:D:368:GLN:HG3 | 1:D:383:GLY:HA3 | 2.03 | 0.40 |
| 1:D:514:ASP:C | 1:D:516:VAL:H | 2.24 | 0.40 |
| 1:E:208:LEU:HD12 | 1:E:208:LEU:H | 1.87 | 0.40 |
| 1:E:216:GLU:HG3 | 1:E:217:LYS:HG2 | 2.03 | 0.40 |
| 1:E:265:PHE:C | 1:E:267:TYR:H | 2.24 | 0.40 |
| 1:E:399:GLY:O | 1:E:477:MET:HE3 | 2.21 | 0.40 |
| 1:E:688:PHE:C | 1:E:688:PHE:HD2 | 2.22 | 0.40 |
| 1:F:110:ASP:OD1 | 1:F:110:ASP:N | 2.54 | 0.40 |
| 1:F:142:VAL:CG2 | 1:F:154:ILE:HD12 | 2.37 | 0.40 |
| 1:F:179:LEU:O | 1:F:180:ASP:C | 2.60 | 0.40 |
| 1:F:243:LEU:O | 1:F:247:TYR:CD1 | 2.74 | 0.40 |
| 1:F:326:ILE:C | 1:F:327:LEU:HD12 | 2.42 | 0.40 |
| 1:F:398:ILE:CD1 | 1:F:479:LYS:HB3 | 2.51 | 0.40 |
| 1:F:455:TYR:HA | 1:F:471:TRP:CZ3 | 2.56 | 0.40 |
| 2:Q:33:GLY:O | 2:Q:35:VAL:N | 2.54 | 0.40 |
| 2:R:70:THR:O | 2:R:71:MET:C | 2.59 | 0.40 |
| 2:S:27:ILE:HD12 | 2:S:32:LEU:HA | 2.03 | 0.40 |
| 2:S:36:MET:CE | 2:S:48:LEU:HD21 | 2.51 | 0.40 |
| 2:T:9:ILE:HG23 | 2:T:69:LEU:HD21 | 2.03 | 0.40 |
| 2:T:24:ASP:HB2 | 2:T:26:THR:CG2 | 2.35 | 0.40 |
| 2:T:92:PHE:C | 2:T:94:LYS:N | 2.74 | 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 | 733/777 (94%) | 490 (67%) | 170 (23%) | 73 (10%) | 0 | 3 |
| 1 | B | 733/777 (94%) | 492 (67%) | 171 (23%) | 70 (10%) | 0 | 4 |
| 1 | C | 733/777 (94%) | 494 (67%) | 171 (23%) | 68 (9%) | 0 | 4 |
| 1 | D | 733/777 (94%) | 493 (67%) | 170 (23%) | 70 (10%) | 0 | 4 |
| 1 | E | 733/777 (94%) | 492 (67%) | 171 (23%) | 70 (10%) | 0 | 4 |
| 1 | F | 733/777 (94%) | 490 (67%) | 172 (24%) | 71 (10%) | 0 | 3 |
| 2 | O | 144/149 (97%) | 92 (64%) | 39 (27%) | 13 (9%) | 1 | 4 |
| 2 | P | 144/149 (97%) | 89 (62%) | 39 (27%) | 16 (11%) | 0 | 2 |
| 2 | Q | 144/149 (97%) | 90 (62%) | 37 (26%) | 17 (12%) | 0 | 2 |
| 2 | R | 144/149 (97%) | 90 (62%) | 38 (26%) | 16 (11%) | 0 | 2 |
| 2 | S | 144/149 (97%) | 90 (62%) | 39 (27%) | 15 (10%) | 0 | 3 |
| 2 | T | 144/149 (97%) | 90 (62%) | 40 (28%) | 14 (10%) | 0 | 3 |
| All | All | 5262/5556 (95%) | 3492 (66%) | 1257 (24%) | 513 (10%) | 0 | 3 |

All (513) Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 77 | ASP |
| 1 | A | 111 | LEU |
| 1 | A | 113 | GLU |
| 1 | A | 135 | VAL |
| 1 | A | 162 | ASN |
| 1 | A | 180 | ASP |
| 1 | A | 278 | LYS |
| 1 | A | 373 | LYS |
| 1 | A | 407 | HIS |
| 1 | A | 580 | GLU |
| 1 | A | 776 | LEU |
| 1 | B | 77 | ASP |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | B | 111 | LEU |
| 1 | B | 113 | GLU |
| 1 | B | 135 | VAL |
| 1 | B | 162 | ASN |
| 1 | B | 180 | ASP |
| 1 | B | 278 | LYS |
| 1 | B | 373 | LYS |
| 1 | B | 407 | HIS |
| 1 | B | 447 | SER |
| 1 | B | 580 | GLU |
| 1 | B | 765 | THR |
| 1 | B | 776 | LEU |
| 1 | C | 77 | ASP |
| 1 | C | 111 | LEU |
| 1 | C | 113 | GLU |
| 1 | C | 135 | VAL |
| 1 | C | 162 | ASN |
| 1 | C | 180 | ASP |
| 1 | C | 278 | LYS |
| 1 | C | 373 | LYS |
| 1 | C | 407 | HIS |
| 1 | C | 447 | SER |
| 1 | C | 580 | GLU |
| 1 | C | 765 | THR |
| 1 | C | 776 | LEU |
| 1 | D | 77 | ASP |
| 1 | D | 111 | LEU |
| 1 | D | 113 | GLU |
| 1 | D | 135 | VAL |
| 1 | D | 162 | ASN |
| 1 | D | 180 | ASP |
| 1 | D | 278 | LYS |
| 1 | D | 373 | LYS |
| 1 | D | 407 | HIS |
| 1 | D | 580 | GLU |
| 1 | D | 765 | THR |
| 1 | D | 776 | LEU |
| 1 | E | 77 | ASP |
| 1 | E | 111 | LEU |
| 1 | E | 113 | GLU |
| 1 | E | 135 | VAL |
| 1 | E | 162 | ASN |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | E | 180 | ASP |
| 1 | E | 373 | LYS |
| 1 | E | 407 | HIS |
| 1 | E | 580 | GLU |
| 1 | E | 776 | LEU |
| 1 | F | 77 | ASP |
| 1 | F | 111 | LEU |
| 1 | F | 113 | GLU |
| 1 | F | 135 | VAL |
| 1 | F | 162 | ASN |
| 1 | F | 180 | ASP |
| 1 | F | 278 | LYS |
| 1 | F | 373 | LYS |
| 1 | F | 407 | HIS |
| 1 | F | 580 | GLU |
| 1 | F | 776 | LEU |
| 1 | A | 80 | GLN |
| 1 | A | 112 | VAL |
| 1 | A | 176 | GLY |
| 1 | A | 178 | SER |
| 1 | A | 230 | ILE |
| 1 | A | 232 | GLU |
| 1 | A | 294 | ASP |
| 1 | A | 299 | GLU |
| 1 | A | 302 | LEU |
| 1 | A | 372 | LYS |
| 1 | A | 376 | GLN |
| 1 | A | 447 | SER |
| 1 | A | 485 | LEU |
| 1 | A | 510 | GLN |
| 1 | A | 709 | ASN |
| 1 | A | 711 | ILE |
| 1 | A | 765 | THR |
| 1 | A | 775 | LEU |
| 1 | B | 80 | GLN |
| 1 | B | 112 | VAL |
| 1 | B | 163 | SER |
| 1 | B | 176 | GLY |
| 1 | B | 178 | SER |
| 1 | B | 192 | PHE |
| 1 | B | 230 | ILE |
| 1 | B | 232 | GLU |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | B | 294 | ASP |
| 1 | B | 299 | GLU |
| 1 | B | 302 | LEU |
| 1 | B | 372 | LYS |
| 1 | B | 376 | GLN |
| 1 | B | 485 | LEU |
| 1 | B | 510 | GLN |
| 1 | B | 709 | ASN |
| 1 | B | 711 | ILE |
| 1 | B | 727 | GLN |
| 1 | B | 775 | LEU |
| 1 | C | 80 | GLN |
| 1 | C | 112 | VAL |
| 1 | C | 176 | GLY |
| 1 | C | 178 | SER |
| 1 | C | 230 | ILE |
| 1 | C | 232 | GLU |
| 1 | C | 294 | ASP |
| 1 | C | 299 | GLU |
| 1 | C | 302 | LEU |
| 1 | C | 372 | LYS |
| 1 | C | 376 | GLN |
| 1 | C | 385 | LEU |
| 1 | C | 485 | LEU |
| 1 | C | 510 | GLN |
| 1 | C | 709 | ASN |
| 1 | C | 711 | ILE |
| 1 | C | 727 | GLN |
| 1 | C | 775 | LEU |
| 1 | D | 80 | GLN |
| 1 | D | 112 | VAL |
| 1 | D | 176 | GLY |
| 1 | D | 178 | SER |
| 1 | D | 230 | ILE |
| 1 | D | 232 | GLU |
| 1 | D | 294 | ASP |
| 1 | D | 299 | GLU |
| 1 | D | 302 | LEU |
| 1 | D | 372 | LYS |
| 1 | D | 376 | GLN |
| 1 | D | 447 | SER |
| 1 | D | 485 | LEU |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | D | 510 | GLN |
| 1 | D | 709 | ASN |
| 1 | D | 711 | ILE |
| 1 | D | 775 | LEU |
| 1 | E | 80 | GLN |
| 1 | E | 112 | VAL |
| 1 | E | 176 | GLY |
| 1 | E | 178 | SER |
| 1 | E | 230 | ILE |
| 1 | E | 232 | GLU |
| 1 | E | 278 | LYS |
| 1 | E | 294 | ASP |
| 1 | E | 299 | GLU |
| 1 | E | 302 | LEU |
| 1 | E | 372 | LYS |
| 1 | E | 376 | GLN |
| 1 | E | 447 | SER |
| 1 | E | 485 | LEU |
| 1 | E | 510 | GLN |
| 1 | E | 709 | ASN |
| 1 | E | 711 | ILE |
| 1 | E | 765 | THR |
| 1 | E | 775 | LEU |
| 1 | F | 80 | GLN |
| 1 | F | 112 | VAL |
| 1 | F | 176 | GLY |
| 1 | F | 178 | SER |
| 1 | F | 230 | ILE |
| 1 | F | 232 | GLU |
| 1 | F | 294 | ASP |
| 1 | F | 299 | GLU |
| 1 | F | 302 | LEU |
| 1 | F | 372 | LYS |
| 1 | F | 376 | GLN |
| 1 | F | 447 | SER |
| 1 | F | 485 | LEU |
| 1 | F | 510 | GLN |
| 1 | F | 709 | ASN |
| 1 | F | 711 | ILE |
| 1 | F | 727 | GLN |
| 1 | F | 765 | THR |
| 1 | F | 775 | LEU |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 2 | O | 58 | ASP |
| 2 | O | 93 | ASP |
| 2 | O | 125 | ILE |
| 2 | P | 58 | ASP |
| 2 | P | 93 | ASP |
| 2 | P | 125 | ILE |
| 2 | Q | 58 | ASP |
| 2 | Q | 93 | ASP |
| 2 | Q | 125 | ILE |
| 2 | R | 58 | ASP |
| 2 | R | 93 | ASP |
| 2 | R | 125 | ILE |
| 2 | S | 58 | ASP |
| 2 | S | 93 | ASP |
| 2 | S | 125 | ILE |
| 2 | T | 58 | ASP |
| 2 | T | 93 | ASP |
| 2 | T | 125 | ILE |
| 1 | A | 147 | ARG |
| 1 | A | 163 | SER |
| 1 | A | 185 | ASP |
| 1 | A | 192 | PHE |
| 1 | A | 223 | LYS |
| 1 | A | 274 | GLY |
| 1 | A | 385 | LEU |
| 1 | A | 471 | TRP |
| 1 | A | 528 | GLY |
| 1 | A | 568 | GLY |
| 1 | A | 727 | GLN |
| 1 | A | 730 | ASN |
| 1 | A | 734 | ASN |
| 1 | A | 757 | THR |
| 1 | A | 787 | THR |
| 1 | A | 793 | PHE |
| 1 | B | 185 | ASP |
| 1 | B | 190 | PRO |
| 1 | B | 223 | LYS |
| 1 | B | 274 | GLY |
| 1 | B | 385 | LEU |
| 1 | B | 471 | TRP |
| 1 | B | 528 | GLY |
| 1 | B | 568 | GLY |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | B | 730 | ASN |
| 1 | B | 734 | ASN |
| 1 | B | 757 | THR |
| 1 | B | 787 | THR |
| 1 | C | 147 | ARG |
| 1 | C | 163 | SER |
| 1 | C | 185 | ASP |
| 1 | C | 223 | LYS |
| 1 | C | 274 | GLY |
| 1 | C | 471 | TRP |
| 1 | C | 568 | GLY |
| 1 | C | 730 | ASN |
| 1 | C | 734 | ASN |
| 1 | C | 757 | THR |
| 1 | C | 787 | THR |
| 1 | D | 163 | SER |
| 1 | D | 185 | ASP |
| 1 | D | 192 | PHE |
| 1 | D | 223 | LYS |
| 1 | D | 274 | GLY |
| 1 | D | 385 | LEU |
| 1 | D | 471 | TRP |
| 1 | D | 528 | GLY |
| 1 | D | 568 | GLY |
| 1 | D | 727 | GLN |
| 1 | D | 730 | ASN |
| 1 | D | 731 | GLU |
| 1 | D | 734 | ASN |
| 1 | D | 757 | THR |
| 1 | D | 787 | THR |
| 1 | E | 147 | ARG |
| 1 | E | 163 | SER |
| 1 | E | 185 | ASP |
| 1 | E | 192 | PHE |
| 1 | E | 223 | LYS |
| 1 | E | 274 | GLY |
| 1 | E | 385 | LEU |
| 1 | E | 471 | TRP |
| 1 | E | 568 | GLY |
| 1 | E | 727 | GLN |
| 1 | E | 730 | ASN |
| 1 | E | 734 | ASN |

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Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | E | 757 | THR |
| 1 | E | 787 | THR |
| 1 | F | 147 | ARG |
| 1 | F | 163 | SER |
| 1 | F | 185 | ASP |
| 1 | F | 223 | LYS |
| 1 | F | 274 | GLY |
| 1 | F | 385 | LEU |
| 1 | F | 471 | TRP |
| 1 | F | 528 | GLY |
| 1 | F | 568 | GLY |
| 1 | F | 730 | ASN |
| 1 | F | 734 | ASN |
| 1 | F | 757 | THR |
| 1 | F | 787 | THR |
| 2 | O | 73 | ALA |
| 2 | O | 80 | ASP |
| 2 | O | 118 | ASP |
| 2 | P | 73 | ALA |
| 2 | P | 80 | ASP |
| 2 | Q | 67 | GLU |
| 2 | Q | 73 | ALA |
| 2 | Q | 80 | ASP |
| 2 | R | 67 | GLU |
| 2 | R | 69 | LEU |
| 2 | R | 73 | ALA |
| 2 | R | 80 | ASP |
| 2 | R | 118 | ASP |
| 2 | S | 67 | GLU |
| 2 | S | 69 | LEU |
| 2 | S | 73 | ALA |
| 2 | S | 80 | ASP |
| 2 | T | 69 | LEU |
| 2 | T | 73 | ALA |
| 2 | T | 80 | ASP |
| 1 | A | 91 | LYS |
| 1 | A | 188 | LEU |
| 1 | A | 290 | LYS |
| 1 | A | 433 | TYR |
| 1 | A | 535 | LYS |
| 1 | A | 629 | ASN |
| 1 | A | 654 | ILE |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | A | 719 | LYS |
| 1 | A | 731 | GLU |
| 1 | A | 794 | GLN |
| 1 | B | 91 | LYS |
| 1 | B | 147 | ARG |
| 1 | B | 181 | ILE |
| 1 | B | 188 | LEU |
| 1 | B | 290 | LYS |
| 1 | B | 433 | TYR |
| 1 | B | 535 | LYS |
| 1 | B | 629 | ASN |
| 1 | B | 654 | ILE |
| 1 | B | 719 | LYS |
| 1 | B | 793 | PHE |
| 1 | B | 794 | GLN |
| 1 | C | 181 | ILE |
| 1 | C | 188 | LEU |
| 1 | C | 192 | PHE |
| 1 | C | 290 | LYS |
| 1 | C | 433 | TYR |
| 1 | C | 528 | GLY |
| 1 | C | 535 | LYS |
| 1 | C | 629 | ASN |
| 1 | C | 719 | LYS |
| 1 | C | 793 | PHE |
| 1 | C | 794 | GLN |
| 1 | D | 65 | ASN |
| 1 | D | 147 | ARG |
| 1 | D | 188 | LEU |
| 1 | D | 290 | LYS |
| 1 | D | 433 | TYR |
| 1 | D | 629 | ASN |
| 1 | D | 719 | LYS |
| 1 | D | 793 | PHE |
| 1 | D | 794 | GLN |
| 1 | E | 181 | ILE |
| 1 | E | 188 | LEU |
| 1 | E | 290 | LYS |
| 1 | E | 433 | TYR |
| 1 | E | 528 | GLY |
| 1 | E | 629 | ASN |
| 1 | E | 719 | LYS |

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Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | E | 731 | GLU |
| 1 | E | 793 | PHE |
| 1 | E | 794 | GLN |
| 1 | F | 181 | ILE |
| 1 | F | 188 | LEU |
| 1 | F | 290 | LYS |
| 1 | F | 433 | TYR |
| 1 | F | 535 | LYS |
| 1 | F | 629 | ASN |
| 1 | F | 654 | ILE |
| 1 | F | 719 | LYS |
| 1 | F | 731 | GLU |
| 1 | F | 793 | PHE |
| 1 | F | 794 | GLN |
| 2 | O | 14 | GLU |
| 2 | O | 34 | THR |
| 2 | O | 67 | GLU |
| 2 | O | 69 | LEU |
| 2 | P | 14 | GLU |
| 2 | P | 34 | THR |
| 2 | P | 67 | GLU |
| 2 | P | 69 | LEU |
| 2 | P | 118 | ASP |
| 2 | Q | 14 | GLU |
| 2 | Q | 34 | THR |
| 2 | Q | 69 | LEU |
| 2 | Q | 118 | ASP |
| 2 | R | 14 | GLU |
| 2 | S | 14 | GLU |
| 2 | S | 118 | ASP |
| 2 | T | 14 | GLU |
| 2 | T | 67 | GLU |
| 2 | T | 118 | ASP |
| 1 | A | 121 | SER |
| 1 | A | 181 | ILE |
| 1 | A | 423 | LYS |
| 1 | A | 515 | LYS |
| 1 | A | 527 | LYS |
| 1 | A | 748 | TYR |
| 1 | A | 779 | GLN |
| 1 | B | 423 | LYS |
| 1 | B | 527 | LYS |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | B | 698 | ALA |
| 1 | B | 731 | GLU |
| 1 | B | 748 | TYR |
| 1 | C | 423 | LYS |
| 1 | C | 654 | ILE |
| 1 | C | 731 | GLU |
| 1 | D | 515 | LYS |
| 1 | D | 527 | LYS |
| 1 | D | 535 | LYS |
| 1 | D | 537 | GLY |
| 1 | D | 698 | ALA |
| 1 | D | 714 | GLN |
| 1 | D | 748 | TYR |
| 1 | E | 423 | LYS |
| 1 | E | 535 | LYS |
| 1 | E | 643 | ILE |
| 1 | E | 698 | ALA |
| 1 | E | 714 | GLN |
| 1 | E | 748 | TYR |
| 1 | E | 779 | GLN |
| 1 | F | 192 | PHE |
| 1 | F | 423 | LYS |
| 1 | F | 527 | LYS |
| 1 | F | 698 | ALA |
| 2 | O | 60 | ASN |
| 2 | P | 60 | ASN |
| 2 | Q | 60 | ASN |
| 2 | R | 34 | THR |
| 2 | R | 60 | ASN |
| 2 | S | 34 | THR |
| 2 | S | 60 | ASN |
| 2 | S | 71 | MET |
| 2 | T | 34 | THR |
| 2 | T | 94 | LYS |
| 1 | A | 201 | ASP |
| 1 | A | 295 | VAL |
| 1 | A | 307 | LEU |
| 1 | A | 537 | GLY |
| 1 | A | 669 | SER |
| 1 | A | 698 | ALA |
| 1 | A | 714 | GLN |
| 1 | B | 201 | ASP |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | B | 438 | ASN |
| 1 | B | 537 | GLY |
| 1 | B | 779 | GLN |
| 1 | C | 201 | ASP |
| 1 | C | 307 | LEU |
| 1 | C | 515 | LYS |
| 1 | C | 527 | LYS |
| 1 | C | 537 | GLY |
| 1 | C | 669 | SER |
| 1 | C | 698 | ALA |
| 1 | D | 91 | LYS |
| 1 | D | 181 | ILE |
| 1 | D | 295 | VAL |
| 1 | D | 423 | LYS |
| 1 | D | 643 | ILE |
| 1 | D | 654 | ILE |
| 1 | E | 121 | SER |
| 1 | E | 189 | ASP |
| 1 | E | 201 | ASP |
| 1 | E | 295 | VAL |
| 1 | E | 527 | LYS |
| 1 | E | 537 | GLY |
| 1 | F | 91 | LYS |
| 1 | F | 201 | ASP |
| 1 | F | 295 | VAL |
| 1 | F | 515 | LYS |
| 1 | F | 537 | GLY |
| 1 | F | 714 | GLN |
| 1 | F | 779 | GLN |
| 2 | P | 17 | SER |
| 2 | P | 30 | LYS |
| 2 | P | 71 | MET |
| 2 | Q | 17 | SER |
| 2 | Q | 30 | LYS |
| 2 | Q | 56 | ASP |
| 2 | Q | 71 | MET |
| 2 | R | 30 | LYS |
| 2 | R | 56 | ASP |
| 2 | R | 71 | MET |
| 2 | S | 30 | LYS |
| 2 | T | 60 | ASN |
| 1 | B | 295 | VAL |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | C | 295 | VAL |
| 1 | E | 654 | ILE |
| 2 | O | 42 | ASN |
| 2 | P | 42 | ASN |
| 2 | P | 43 | PRO |
| 2 | Q | 42 | ASN |
| 2 | R | 42 | ASN |
| 2 | S | 42 | ASN |
| 2 | T | 42 | ASN |
| 1 | A | 699 | GLY |
| 1 | A | 742 | ALA |
| 1 | A | 792 | VAL |
| 1 | C | 643 | ILE |
| 1 | C | 792 | VAL |
| 1 | D | 699 | GLY |
| 1 | D | 742 | ALA |
| 1 | F | 792 | VAL |
| 2 | Q | 43 | PRO |
| 2 | R | 43 | PRO |
| 2 | S | 43 | PRO |
| 2 | T | 43 | PRO |
| 1 | A | 190 | PRO |
| 1 | B | 699 | GLY |
| 1 | B | 742 | ALA |
| 1 | B | 792 | VAL |
| 1 | C | 699 | GLY |
| 1 | C | 742 | ALA |
| 1 | D | 792 | VAL |
| 1 | E | 699 | GLY |
| 1 | E | 742 | ALA |
| 1 | E | 792 | VAL |
| 1 | F | 643 | ILE |
| 1 | F | 699 | GLY |
| 1 | F | 742 | ALA |
| 2 | O | 43 | PRO |
| 1 | B | 643 | ILE |
| 1 | D | 596 | ILE |
| 1 | F | 189 | ASP |
| 1 | F | 596 | 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.

| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|-----------------|------------|-----------|-------------|----|
| 1 | A | 664/705 (94%) | 580 (87%) | 84 (13%) | 4 | 19 |
| 1 | B | 664/705 (94%) | 576 (87%) | 88 (13%) | 4 | 17 |
| 1 | C | 664/705 (94%) | 578 (87%) | 86 (13%) | 4 | 17 |
| 1 | D | 664/705 (94%) | 577 (87%) | 87 (13%) | 4 | 17 |
| 1 | E | 664/705 (94%) | 578 (87%) | 86 (13%) | 4 | 17 |
| 1 | F | 664/705 (94%) | 579 (87%) | 85 (13%) | 4 | 18 |
| 2 | O | 123/127 (97%) | 106 (86%) | 17 (14%) | 3 | 16 |
| 2 | P | 123/127 (97%) | 106 (86%) | 17 (14%) | 3 | 16 |
| 2 | Q | 123/127 (97%) | 106 (86%) | 17 (14%) | 3 | 16 |
| 2 | R | 123/127 (97%) | 106 (86%) | 17 (14%) | 3 | 16 |
| 2 | S | 123/127 (97%) | 106 (86%) | 17 (14%) | 3 | 16 |
| 2 | T | 123/127 (97%) | 106 (86%) | 17 (14%) | 3 | 16 |
| All | All | 4722/4992 (95%) | 4104 (87%) | 618 (13%) | 4 | 17 |

All (618) residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 71 | PHE |
| 1 | A | 88 | LYS |
| 1 | A | 110 | ASP |
| 1 | A | 112 | VAL |
| 1 | A | 114 | HIS |
| 1 | A | 115 | LYS |
| 1 | A | 120 | LEU |
| 1 | A | 129 | ASN |
| 1 | A | 130 | SER |
| 1 | A | 133 | GLU |
| 1 | A | 135 | VAL |
| 1 | A | 140 | ARG |
| 1 | A | 141 | PHE |
| 1 | A | 144 | GLU |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | A | 147 | ARG |
| 1 | A | 149 | THR |
| 1 | A | 152 | LEU |
| 1 | A | 158 | ASP |
| 1 | A | 171 | TYR |
| 1 | A | 172 | GLU |
| 1 | A | 177 | ILE |
| 1 | A | 182 | ILE |
| 1 | A | 188 | LEU |
| 1 | A | 197 | LYS |
| 1 | A | 208 | LEU |
| 1 | A | 210 | PHE |
| 1 | A | 212 | GLN |
| 1 | A | 226 | ASP |
| 1 | A | 229 | PHE |
| 1 | A | 254 | ARG |
| 1 | A | 270 | LYS |
| 1 | A | 279 | ILE |
| 1 | A | 284 | LYS |
| 1 | A | 286 | GLU |
| 1 | A | 293 | ILE |
| 1 | A | 296 | LEU |
| 1 | A | 309 | PRO |
| 1 | A | 323 | ASN |
| 1 | A | 324 | THR |
| 1 | A | 346 | LYS |
| 1 | A | 349 | ASN |
| 1 | A | 377 | GLN |
| 1 | A | 385 | LEU |
| 1 | A | 395 | GLU |
| 1 | A | 400 | LYS |
| 1 | A | 408 | LEU |
| 1 | A | 410 | ILE |
| 1 | A | 415 | GLU |
| 1 | A | 416 | ASN |
| 1 | A | 420 | LEU |
| 1 | A | 438 | ASN |
| 1 | A | 455 | TYR |
| 1 | A | 470 | ASN |
| 1 | A | 472 | ARG |
| 1 | A | 473 | ASN |
| 1 | A | 479 | LYS |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | A | 484 | VAL |
| 1 | A | 500 | SER |
| 1 | A | 501 | LEU |
| 1 | A | 515 | LYS |
| 1 | A | 518 | ASN |
| 1 | A | 533 | LEU |
| 1 | A | 557 | LEU |
| 1 | A | 560 | LEU |
| 1 | A | 562 | GLU |
| 1 | A | 632 | TYR |
| 1 | A | 635 | ILE |
| 1 | A | 639 | ASN |
| 1 | A | 659 | THR |
| 1 | A | 665 | LYS |
| 1 | A | 672 | ARG |
| 1 | A | 674 | SER |
| 1 | A | 678 | VAL |
| 1 | A | 688 | PHE |
| 1 | A | 709 | ASN |
| 1 | A | 718 | ARG |
| 1 | A | 738 | SER |
| 1 | A | 744 | GLU |
| 1 | A | 752 | LEU |
| 1 | A | 767 | GLN |
| 1 | A | 770 | ASN |
| 1 | A | 780 | LEU |
| 1 | A | 781 | ASN |
| 1 | A | 794 | GLN |
| 1 | B | 64 | ASN |
| 1 | B | 71 | PHE |
| 1 | B | 88 | LYS |
| 1 | B | 110 | ASP |
| 1 | B | 112 | VAL |
| 1 | B | 114 | HIS |
| 1 | B | 115 | LYS |
| 1 | B | 120 | LEU |
| 1 | B | 129 | ASN |
| 1 | B | 130 | SER |
| 1 | B | 133 | GLU |
| 1 | B | 135 | VAL |
| 1 | B | 140 | ARG |
| 1 | B | 141 | PHE |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | B | 144 | GLU |
| 1 | B | 147 | ARG |
| 1 | B | 149 | THR |
| 1 | B | 152 | LEU |
| 1 | B | 158 | ASP |
| 1 | B | 171 | TYR |
| 1 | B | 172 | GLU |
| 1 | B | 177 | ILE |
| 1 | B | 182 | ILE |
| 1 | B | 188 | LEU |
| 1 | B | 197 | LYS |
| 1 | B | 208 | LEU |
| 1 | B | 210 | PHE |
| 1 | B | 212 | GLN |
| 1 | B | 226 | ASP |
| 1 | B | 229 | PHE |
| 1 | B | 254 | ARG |
| 1 | B | 270 | LYS |
| 1 | B | 279 | ILE |
| 1 | B | 284 | LYS |
| 1 | B | 286 | GLU |
| 1 | B | 293 | ILE |
| 1 | B | 296 | LEU |
| 1 | B | 309 | PRO |
| 1 | B | 323 | ASN |
| 1 | B | 324 | THR |
| 1 | B | 346 | LYS |
| 1 | B | 349 | ASN |
| 1 | B | 377 | GLN |
| 1 | B | 385 | LEU |
| 1 | B | 395 | GLU |
| 1 | B | 400 | LYS |
| 1 | B | 408 | LEU |
| 1 | B | 410 | ILE |
| 1 | B | 415 | GLU |
| 1 | B | 416 | ASN |
| 1 | B | 420 | LEU |
| 1 | B | 438 | ASN |
| 1 | B | 455 | TYR |
| 1 | B | 470 | ASN |
| 1 | B | 472 | ARG |
| 1 | B | 473 | ASN |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | B | 479 | LYS |
| 1 | B | 484 | VAL |
| 1 | B | 500 | SER |
| 1 | B | 501 | LEU |
| 1 | B | 502 | THR |
| 1 | B | 515 | LYS |
| 1 | B | 518 | ASN |
| 1 | B | 533 | LEU |
| 1 | B | 557 | LEU |
| 1 | B | 560 | LEU |
| 1 | B | 562 | GLU |
| 1 | B | 628 | PHE |
| 1 | B | 632 | TYR |
| 1 | B | 635 | ILE |
| 1 | B | 639 | ASN |
| 1 | B | 659 | THR |
| 1 | B | 665 | LYS |
| 1 | B | 672 | ARG |
| 1 | B | 674 | SER |
| 1 | B | 678 | VAL |
| 1 | B | 688 | PHE |
| 1 | B | 709 | ASN |
| 1 | B | 716 | LYS |
| 1 | B | 718 | ARG |
| 1 | B | 738 | SER |
| 1 | B | 744 | GLU |
| 1 | B | 752 | LEU |
| 1 | B | 767 | GLN |
| 1 | B | 770 | ASN |
| 1 | B | 780 | LEU |
| 1 | B | 781 | ASN |
| 1 | B | 794 | GLN |
| 1 | C | 71 | PHE |
| 1 | C | 88 | LYS |
| 1 | C | 110 | ASP |
| 1 | C | 112 | VAL |
| 1 | C | 114 | HIS |
| 1 | C | 115 | LYS |
| 1 | C | 120 | LEU |
| 1 | C | 129 | ASN |
| 1 | C | 130 | SER |
| 1 | C | 133 | GLU |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | C | 135 | VAL |
| 1 | C | 140 | ARG |
| 1 | C | 141 | PHE |
| 1 | C | 144 | GLU |
| 1 | C | 147 | ARG |
| 1 | C | 149 | THR |
| 1 | C | 152 | LEU |
| 1 | C | 158 | ASP |
| 1 | C | 171 | TYR |
| 1 | C | 172 | GLU |
| 1 | C | 177 | ILE |
| 1 | C | 182 | ILE |
| 1 | C | 188 | LEU |
| 1 | C | 197 | LYS |
| 1 | C | 208 | LEU |
| 1 | C | 210 | PHE |
| 1 | C | 212 | GLN |
| 1 | C | 226 | ASP |
| 1 | C | 229 | PHE |
| 1 | C | 254 | ARG |
| 1 | C | 263 | ASP |
| 1 | C | 270 | LYS |
| 1 | C | 279 | ILE |
| 1 | C | 284 | LYS |
| 1 | C | 286 | GLU |
| 1 | C | 293 | ILE |
| 1 | C | 296 | LEU |
| 1 | C | 309 | PRO |
| 1 | C | 323 | ASN |
| 1 | C | 324 | THR |
| 1 | C | 346 | LYS |
| 1 | C | 349 | ASN |
| 1 | C | 377 | GLN |
| 1 | C | 385 | LEU |
| 1 | C | 395 | GLU |
| 1 | C | 400 | LYS |
| 1 | C | 408 | LEU |
| 1 | C | 410 | ILE |
| 1 | C | 415 | GLU |
| 1 | C | 416 | ASN |
| 1 | C | 420 | LEU |
| 1 | C | 438 | ASN |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | C | 455 | TYR |
| 1 | C | 470 | ASN |
| 1 | C | 472 | ARG |
| 1 | C | 473 | ASN |
| 1 | C | 479 | LYS |
| 1 | C | 484 | VAL |
| 1 | C | 500 | SER |
| 1 | C | 501 | LEU |
| 1 | C | 502 | THR |
| 1 | C | 515 | LYS |
| 1 | C | 518 | ASN |
| 1 | C | 533 | LEU |
| 1 | C | 557 | LEU |
| 1 | C | 560 | LEU |
| 1 | C | 562 | GLU |
| 1 | C | 632 | TYR |
| 1 | C | 635 | ILE |
| 1 | C | 639 | ASN |
| 1 | C | 659 | THR |
| 1 | C | 665 | LYS |
| 1 | C | 672 | ARG |
| 1 | C | 674 | SER |
| 1 | C | 678 | VAL |
| 1 | C | 688 | PHE |
| 1 | C | 709 | ASN |
| 1 | C | 718 | ARG |
| 1 | C | 738 | SER |
| 1 | C | 744 | GLU |
| 1 | C | 752 | LEU |
| 1 | C | 767 | GLN |
| 1 | C | 770 | ASN |
| 1 | C | 780 | LEU |
| 1 | C | 781 | ASN |
| 1 | C | 794 | GLN |
| 1 | D | 71 | PHE |
| 1 | D | 88 | LYS |
| 1 | D | 110 | ASP |
| 1 | D | 112 | VAL |
| 1 | D | 114 | HIS |
| 1 | D | 115 | LYS |
| 1 | D | 120 | LEU |
| 1 | D | 129 | ASN |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | D | 130 | SER |
| 1 | D | 133 | GLU |
| 1 | D | 135 | VAL |
| 1 | D | 140 | ARG |
| 1 | D | 141 | PHE |
| 1 | D | 144 | GLU |
| 1 | D | 147 | ARG |
| 1 | D | 149 | THR |
| 1 | D | 152 | LEU |
| 1 | D | 158 | ASP |
| 1 | D | 171 | TYR |
| 1 | D | 172 | GLU |
| 1 | D | 177 | ILE |
| 1 | D | 182 | ILE |
| 1 | D | 188 | LEU |
| 1 | D | 197 | LYS |
| 1 | D | 208 | LEU |
| 1 | D | 210 | PHE |
| 1 | D | 212 | GLN |
| 1 | D | 226 | ASP |
| 1 | D | 229 | PHE |
| 1 | D | 254 | ARG |
| 1 | D | 270 | LYS |
| 1 | D | 279 | ILE |
| 1 | D | 284 | LYS |
| 1 | D | 286 | GLU |
| 1 | D | 293 | ILE |
| 1 | D | 296 | LEU |
| 1 | D | 309 | PRO |
| 1 | D | 323 | ASN |
| 1 | D | 324 | THR |
| 1 | D | 346 | LYS |
| 1 | D | 349 | ASN |
| 1 | D | 377 | GLN |
| 1 | D | 385 | LEU |
| 1 | D | 395 | GLU |
| 1 | D | 400 | LYS |
| 1 | D | 408 | LEU |
| 1 | D | 410 | ILE |
| 1 | D | 415 | GLU |
| 1 | D | 416 | ASN |
| 1 | D | 420 | LEU |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | D | 438 | ASN |
| 1 | D | 455 | TYR |
| 1 | D | 470 | ASN |
| 1 | D | 472 | ARG |
| 1 | D | 473 | ASN |
| 1 | D | 479 | LYS |
| 1 | D | 484 | VAL |
| 1 | D | 500 | SER |
| 1 | D | 501 | LEU |
| 1 | D | 502 | THR |
| 1 | D | 515 | LYS |
| 1 | D | 518 | ASN |
| 1 | D | 533 | LEU |
| 1 | D | 557 | LEU |
| 1 | D | 560 | LEU |
| 1 | D | 562 | GLU |
| 1 | D | 632 | TYR |
| 1 | D | 635 | ILE |
| 1 | D | 639 | ASN |
| 1 | D | 643 | ILE |
| 1 | D | 659 | THR |
| 1 | D | 665 | LYS |
| 1 | D | 672 | ARG |
| 1 | D | 674 | SER |
| 1 | D | 678 | VAL |
| 1 | D | 688 | PHE |
| 1 | D | 709 | ASN |
| 1 | D | 716 | LYS |
| 1 | D | 718 | ARG |
| 1 | D | 738 | SER |
| 1 | D | 744 | GLU |
| 1 | D | 752 | LEU |
| 1 | D | 767 | GLN |
| 1 | D | 770 | ASN |
| 1 | D | 780 | LEU |
| 1 | D | 781 | ASN |
| 1 | D | 794 | GLN |
| 1 | E | 71 | PHE |
| 1 | E | 88 | LYS |
| 1 | E | 110 | ASP |
| 1 | E | 112 | VAL |
| 1 | E | 114 | HIS |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | E | 115 | LYS |
| 1 | E | 120 | LEU |
| 1 | E | 129 | ASN |
| 1 | E | 130 | SER |
| 1 | E | 133 | GLU |
| 1 | E | 135 | VAL |
| 1 | E | 140 | ARG |
| 1 | E | 141 | PHE |
| 1 | E | 144 | GLU |
| 1 | E | 147 | ARG |
| 1 | E | 149 | THR |
| 1 | E | 152 | LEU |
| 1 | E | 158 | ASP |
| 1 | E | 171 | TYR |
| 1 | E | 172 | GLU |
| 1 | E | 177 | ILE |
| 1 | E | 182 | ILE |
| 1 | E | 188 | LEU |
| 1 | E | 197 | LYS |
| 1 | E | 208 | LEU |
| 1 | E | 210 | PHE |
| 1 | E | 212 | GLN |
| 1 | E | 226 | ASP |
| 1 | E | 229 | PHE |
| 1 | E | 254 | ARG |
| 1 | E | 270 | LYS |
| 1 | E | 279 | ILE |
| 1 | E | 284 | LYS |
| 1 | E | 286 | GLU |
| 1 | E | 293 | ILE |
| 1 | E | 296 | LEU |
| 1 | E | 309 | PRO |
| 1 | E | 323 | ASN |
| 1 | E | 324 | THR |
| 1 | E | 346 | LYS |
| 1 | E | 349 | ASN |
| 1 | E | 377 | GLN |
| 1 | E | 385 | LEU |
| 1 | E | 395 | GLU |
| 1 | E | 400 | LYS |
| 1 | E | 408 | LEU |
| 1 | E | 410 | ILE |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | E | 415 | GLU |
| 1 | E | 416 | ASN |
| 1 | E | 420 | LEU |
| 1 | E | 438 | ASN |
| 1 | E | 455 | TYR |
| 1 | E | 470 | ASN |
| 1 | E | 472 | ARG |
| 1 | E | 473 | ASN |
| 1 | E | 479 | LYS |
| 1 | E | 484 | VAL |
| 1 | E | 500 | SER |
| 1 | E | 501 | LEU |
| 1 | E | 502 | THR |
| 1 | E | 515 | LYS |
| 1 | E | 518 | ASN |
| 1 | E | 533 | LEU |
| 1 | E | 557 | LEU |
| 1 | E | 560 | LEU |
| 1 | E | 562 | GLU |
| 1 | E | 632 | TYR |
| 1 | E | 635 | ILE |
| 1 | E | 639 | ASN |
| 1 | E | 643 | ILE |
| 1 | E | 659 | THR |
| 1 | E | 665 | LYS |
| 1 | E | 672 | ARG |
| 1 | E | 674 | SER |
| 1 | E | 678 | VAL |
| 1 | E | 688 | PHE |
| 1 | E | 709 | ASN |
| 1 | E | 718 | ARG |
| 1 | E | 738 | SER |
| 1 | E | 744 | GLU |
| 1 | E | 752 | LEU |
| 1 | E | 767 | GLN |
| 1 | E | 770 | ASN |
| 1 | E | 780 | LEU |
| 1 | E | 781 | ASN |
| 1 | E | 794 | GLN |
| 1 | F | 71 | PHE |
| 1 | F | 88 | LYS |
| 1 | F | 110 | ASP |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | F | 112 | VAL |
| 1 | F | 114 | HIS |
| 1 | F | 115 | LYS |
| 1 | F | 120 | LEU |
| 1 | F | 129 | ASN |
| 1 | F | 130 | SER |
| 1 | F | 133 | GLU |
| 1 | F | 135 | VAL |
| 1 | F | 140 | ARG |
| 1 | F | 141 | PHE |
| 1 | F | 144 | GLU |
| 1 | F | 147 | ARG |
| 1 | F | 149 | THR |
| 1 | F | 152 | LEU |
| 1 | F | 158 | ASP |
| 1 | F | 171 | TYR |
| 1 | F | 172 | GLU |
| 1 | F | 177 | ILE |
| 1 | F | 182 | ILE |
| 1 | F | 188 | LEU |
| 1 | F | 197 | LYS |
| 1 | F | 208 | LEU |
| 1 | F | 210 | PHE |
| 1 | F | 212 | GLN |
| 1 | F | 226 | ASP |
| 1 | F | 229 | PHE |
| 1 | F | 254 | ARG |
| 1 | F | 270 | LYS |
| 1 | F | 279 | ILE |
| 1 | F | 284 | LYS |
| 1 | F | 286 | GLU |
| 1 | F | 293 | ILE |
| 1 | F | 296 | LEU |
| 1 | F | 309 | PRO |
| 1 | F | 323 | ASN |
| 1 | F | 324 | THR |
| 1 | F | 346 | LYS |
| 1 | F | 349 | ASN |
| 1 | F | 377 | GLN |
| 1 | F | 385 | LEU |
| 1 | F | 395 | GLU |
| 1 | F | 400 | LYS |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | F | 408 | LEU |
| 1 | F | 410 | ILE |
| 1 | F | 415 | GLU |
| 1 | F | 416 | ASN |
| 1 | F | 420 | LEU |
| 1 | F | 438 | ASN |
| 1 | F | 455 | TYR |
| 1 | F | 470 | ASN |
| 1 | F | 472 | ARG |
| 1 | F | 473 | ASN |
| 1 | F | 479 | LYS |
| 1 | F | 484 | VAL |
| 1 | F | 500 | SER |
| 1 | F | 501 | LEU |
| 1 | F | 502 | THR |
| 1 | F | 515 | LYS |
| 1 | F | 518 | ASN |
| 1 | F | 533 | LEU |
| 1 | F | 557 | LEU |
| 1 | F | 560 | LEU |
| 1 | F | 562 | GLU |
| 1 | F | 632 | TYR |
| 1 | F | 635 | ILE |
| 1 | F | 639 | ASN |
| 1 | F | 659 | THR |
| 1 | F | 665 | LYS |
| 1 | F | 672 | ARG |
| 1 | F | 674 | SER |
| 1 | F | 678 | VAL |
| 1 | F | 688 | PHE |
| 1 | F | 709 | ASN |
| 1 | F | 718 | ARG |
| 1 | F | 738 | SER |
| 1 | F | 744 | GLU |
| 1 | F | 752 | LEU |
| 1 | F | 767 | GLN |
| 1 | F | 770 | ASN |
| 1 | F | 780 | LEU |
| 1 | F | 781 | ASN |
| 1 | F | 794 | GLN |
| 2 | O | 5 | THR |
| 2 | O | 17 | SER |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 2 | O | 24 | ASP |
| 2 | O | 26 | THR |
| 2 | O | 28 | THR |
| 2 | O | 30 | LYS |
| 2 | O | 42 | ASN |
| 2 | O | 50 | ASP |
| 2 | O | 66 | PRO |
| 2 | O | 76 | MET |
| 2 | O | 83 | GLU |
| 2 | O | 97 | ASN |
| 2 | O | 106 | ARG |
| 2 | O | 112 | LEU |
| 2 | O | 117 | THR |
| 2 | O | 123 | GLN |
| 2 | O | 133 | ASP |
| 2 | P | 5 | THR |
| 2 | P | 17 | SER |
| 2 | P | 24 | ASP |
| 2 | P | 26 | THR |
| 2 | P | 28 | THR |
| 2 | P | 30 | LYS |
| 2 | P | 42 | ASN |
| 2 | P | 50 | ASP |
| 2 | P | 66 | PRO |
| 2 | P | 76 | MET |
| 2 | P | 83 | GLU |
| 2 | P | 97 | ASN |
| 2 | P | 106 | ARG |
| 2 | P | 112 | LEU |
| 2 | P | 117 | THR |
| 2 | P | 123 | GLN |
| 2 | P | 133 | ASP |
| 2 | Q | 5 | THR |
| 2 | Q | 17 | SER |
| 2 | Q | 24 | ASP |
| 2 | Q | 26 | THR |
| 2 | Q | 28 | THR |
| 2 | Q | 30 | LYS |
| 2 | Q | 42 | ASN |
| 2 | Q | 50 | ASP |
| 2 | Q | 66 | PRO |
| 2 | Q | 76 | MET |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 2 | Q | 83 | GLU |
| 2 | Q | 97 | ASN |
| 2 | Q | 106 | ARG |
| 2 | Q | 112 | LEU |
| 2 | Q | 117 | THR |
| 2 | Q | 123 | GLN |
| 2 | Q | 133 | ASP |
| 2 | R | 5 | THR |
| 2 | R | 17 | SER |
| 2 | R | 24 | ASP |
| 2 | R | 26 | THR |
| 2 | R | 28 | THR |
| 2 | R | 30 | LYS |
| 2 | R | 42 | ASN |
| 2 | R | 50 | ASP |
| 2 | R | 66 | PRO |
| 2 | R | 76 | MET |
| 2 | R | 83 | GLU |
| 2 | R | 97 | ASN |
| 2 | R | 106 | ARG |
| 2 | R | 112 | LEU |
| 2 | R | 117 | THR |
| 2 | R | 123 | GLN |
| 2 | R | 133 | ASP |
| 2 | S | 5 | THR |
| 2 | S | 17 | SER |
| 2 | S | 24 | ASP |
| 2 | S | 26 | THR |
| 2 | S | 28 | THR |
| 2 | S | 30 | LYS |
| 2 | S | 42 | ASN |
| 2 | S | 50 | ASP |
| 2 | S | 66 | PRO |
| 2 | S | 76 | MET |
| 2 | S | 83 | GLU |
| 2 | S | 97 | ASN |
| 2 | S | 106 | ARG |
| 2 | S | 112 | LEU |
| 2 | S | 117 | THR |
| 2 | S | 123 | GLN |
| 2 | S | 133 | ASP |
| 2 | T | 5 | THR |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 2 | T | 17 | SER |
| 2 | T | 24 | ASP |
| 2 | T | 26 | THR |
| 2 | T | 28 | THR |
| 2 | T | 30 | LYS |
| 2 | T | 42 | ASN |
| 2 | T | 50 | ASP |
| 2 | T | 66 | PRO |
| 2 | T | 76 | MET |
| 2 | T | 83 | GLU |
| 2 | T | 97 | ASN |
| 2 | T | 106 | ARG |
| 2 | T | 112 | LEU |
| 2 | T | 117 | THR |
| 2 | T | 123 | GLN |
| 2 | T | 133 | ASP |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (191) such sidechains are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 129 | ASN |
| 1 | A | 239 | HIS |
| 1 | A | 323 | ASN |
| 1 | A | 368 | GLN |
| 1 | A | 387 | ASN |
| 1 | A | 450 | ASN |
| 1 | A | 480 | ASN |
| 1 | A | 507 | GLN |
| 1 | A | 510 | GLN |
| 1 | A | 518 | ASN |
| 1 | A | 551 | ASN |
| 1 | A | 553 | GLN |
| 1 | A | 576 | ASN |
| 1 | A | 577 | HIS |
| 1 | A | 581 | GLN |
| 1 | A | 618 | ASN |
| 1 | A | 629 | ASN |
| 1 | A | 639 | ASN |
| 1 | A | 655 | ASN |
| 1 | A | 666 | ASN |
| 1 | A | 709 | ASN |
| 1 | A | 747 | ASN |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | A | 750 | GLN |
| 1 | A | 758 | ASN |
| 1 | A | 767 | GLN |
| 1 | A | 770 | ASN |
| 1 | A | 781 | ASN |
| 1 | A | 789 | ASN |
| 1 | A | 794 | GLN |
| 1 | B | 129 | ASN |
| 1 | B | 239 | HIS |
| 1 | B | 323 | ASN |
| 1 | B | 368 | GLN |
| 1 | B | 387 | ASN |
| 1 | B | 450 | ASN |
| 1 | B | 480 | ASN |
| 1 | B | 507 | GLN |
| 1 | B | 510 | GLN |
| 1 | B | 518 | ASN |
| 1 | B | 551 | ASN |
| 1 | B | 553 | GLN |
| 1 | B | 576 | ASN |
| 1 | B | 577 | HIS |
| 1 | B | 581 | GLN |
| 1 | B | 618 | ASN |
| 1 | B | 629 | ASN |
| 1 | B | 639 | ASN |
| 1 | B | 655 | ASN |
| 1 | B | 666 | ASN |
| 1 | B | 709 | ASN |
| 1 | B | 747 | ASN |
| 1 | B | 758 | ASN |
| 1 | B | 767 | GLN |
| 1 | B | 770 | ASN |
| 1 | B | 781 | ASN |
| 1 | B | 789 | ASN |
| 1 | B | 794 | GLN |
| 1 | C | 64 | ASN |
| 1 | C | 129 | ASN |
| 1 | C | 239 | HIS |
| 1 | C | 323 | ASN |
| 1 | C | 368 | GLN |
| 1 | C | 387 | ASN |
| 1 | C | 450 | ASN |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | C | 480 | ASN |
| 1 | C | 507 | GLN |
| 1 | C | 510 | GLN |
| 1 | C | 518 | ASN |
| 1 | C | 551 | ASN |
| 1 | C | 553 | GLN |
| 1 | C | 576 | ASN |
| 1 | C | 581 | GLN |
| 1 | C | 618 | ASN |
| 1 | C | 629 | ASN |
| 1 | C | 639 | ASN |
| 1 | C | 655 | ASN |
| 1 | C | 666 | ASN |
| 1 | C | 709 | ASN |
| 1 | C | 747 | ASN |
| 1 | C | 750 | GLN |
| 1 | C | 758 | ASN |
| 1 | C | 767 | GLN |
| 1 | C | 770 | ASN |
| 1 | C | 781 | ASN |
| 1 | C | 789 | ASN |
| 1 | C | 794 | GLN |
| 1 | D | 64 | ASN |
| 1 | D | 129 | ASN |
| 1 | D | 239 | HIS |
| 1 | D | 323 | ASN |
| 1 | D | 368 | GLN |
| 1 | D | 387 | ASN |
| 1 | D | 438 | ASN |
| 1 | D | 450 | ASN |
| 1 | D | 480 | ASN |
| 1 | D | 507 | GLN |
| 1 | D | 510 | GLN |
| 1 | D | 518 | ASN |
| 1 | D | 551 | ASN |
| 1 | D | 553 | GLN |
| 1 | D | 576 | ASN |
| 1 | D | 577 | HIS |
| 1 | D | 581 | GLN |
| 1 | D | 618 | ASN |
| 1 | D | 629 | ASN |
| 1 | D | 639 | ASN |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | D | 655 | ASN |
| 1 | D | 666 | ASN |
| 1 | D | 709 | ASN |
| 1 | D | 747 | ASN |
| 1 | D | 758 | ASN |
| 1 | D | 767 | GLN |
| 1 | D | 770 | ASN |
| 1 | D | 781 | ASN |
| 1 | D | 789 | ASN |
| 1 | D | 794 | GLN |
| 1 | E | 129 | ASN |
| 1 | E | 239 | HIS |
| 1 | E | 323 | ASN |
| 1 | E | 368 | GLN |
| 1 | E | 387 | ASN |
| 1 | E | 450 | ASN |
| 1 | E | 480 | ASN |
| 1 | E | 507 | GLN |
| 1 | E | 510 | GLN |
| 1 | E | 518 | ASN |
| 1 | E | 551 | ASN |
| 1 | E | 553 | GLN |
| 1 | E | 576 | ASN |
| 1 | E | 577 | HIS |
| 1 | E | 581 | GLN |
| 1 | E | 618 | ASN |
| 1 | E | 629 | ASN |
| 1 | E | 639 | ASN |
| 1 | E | 655 | ASN |
| 1 | E | 666 | ASN |
| 1 | E | 709 | ASN |
| 1 | E | 747 | ASN |
| 1 | E | 750 | GLN |
| 1 | E | 758 | ASN |
| 1 | E | 767 | GLN |
| 1 | E | 770 | ASN |
| 1 | E | 781 | ASN |
| 1 | E | 789 | ASN |
| 1 | E | 794 | GLN |
| 1 | F | 64 | ASN |
| 1 | F | 129 | ASN |
| 1 | F | 239 | HIS |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | F | 323 | ASN |
| 1 | F | 368 | GLN |
| 1 | F | 387 | ASN |
| 1 | F | 450 | ASN |
| 1 | F | 480 | ASN |
| 1 | F | 507 | GLN |
| 1 | F | 510 | GLN |
| 1 | F | 518 | ASN |
| 1 | F | 551 | ASN |
| 1 | F | 553 | GLN |
| 1 | F | 576 | ASN |
| 1 | F | 581 | GLN |
| 1 | F | 618 | ASN |
| 1 | F | 629 | ASN |
| 1 | F | 639 | ASN |
| 1 | F | 655 | ASN |
| 1 | F | 666 | ASN |
| 1 | F | 709 | ASN |
| 1 | F | 747 | ASN |
| 1 | F | 758 | ASN |
| 1 | F | 767 | GLN |
| 1 | F | 770 | ASN |
| 1 | F | 781 | ASN |
| 1 | F | 789 | ASN |
| 1 | F | 794 | GLN |
| 2 | O | 8 | GLN |
| 2 | O | 111 | ASN |
| 2 | O | 143 | GLN |
| 2 | P | 8 | GLN |
| 2 | P | 111 | ASN |
| 2 | P | 143 | GLN |
| 2 | Q | 8 | GLN |
| 2 | Q | 111 | ASN |
| 2 | Q | 143 | GLN |
| 2 | R | 8 | GLN |
| 2 | R | 111 | ASN |
| 2 | R | 143 | GLN |
| 2 | S | 8 | GLN |
| 2 | S | 111 | ASN |
| 2 | S | 143 | GLN |
| 2 | T | 8 | GLN |
| 2 | T | 111 | ASN |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 2 | T | 143 | GLN |

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 18 ligands modelled in this entry, 18 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

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 | 735/777 (94%) | 3.03 | 439 (59%) | 0 0 | 24, 83, 143, 153 | 0 |
| 1 | B | 735/777 (94%) | 2.95 | 441 (60%) | 0 0 | 25, 83, 143, 153 | 0 |
| 1 | C | 735/777 (94%) | 3.07 | 483 (65%) | 0 0 | 25, 83, 143, 153 | 0 |
| 1 | D | 735/777 (94%) | 2.93 | 458 (62%) | 0 0 | 25, 83, 143, 153 | 0 |
| 1 | E | 735/777 (94%) | 2.94 | 453 (61%) | 0 0 | 24, 83, 142, 152 | 0 |
| 1 | F | 735/777 (94%) | 2.93 | 447 (60%) | 0 0 | 27, 83, 143, 154 | 0 |
| 2 | O | 146/149 (97%) | 2.80 | 85 (58%) | 0 0 | 22, 74, 121, 134 | 0 |
| 2 | P | 146/149 (97%) | 2.48 | 78 (53%) | 0 0 | 20, 75, 121, 135 | 0 |
| 2 | Q | 146/149 (97%) | 2.49 | 85 (58%) | 0 0 | 21, 75, 121, 134 | 0 |
| 2 | R | 146/149 (97%) | 2.58 | 75 (51%) | 0 0 | 20, 75, 120, 134 | 0 |
| 2 | S | 146/149 (97%) | 2.67 | 87 (59%) | 0 0 | 21, 76, 121, 134 | 0 |
| 2 | T | 146/149 (97%) | 2.81 | 80 (54%) | 0 0 | 21, 75, 120, 134 | 0 |
| All | All | 5286/5556 (95%) | 2.92 | 3211 (60%) | 0 0 | 20, 80, 142, 154 | 0 |

All (3211) RSRZ outliers are listed below:

| Mol | Chain | Res | Type | RSRZ |
|-----|-------|-----|------|------|
| 1 | F | 468 | LYS | 21.6 |
| 1 | D | 204 | ASP | 21.2 |
| 2 | P | 78 | ASP | 20.1 |
| 1 | D | 211 | SER | 19.8 |
| 1 | E | 593 | ILE | 19.8 |
| 1 | A | 230 | ILE | 18.7 |
| 1 | C | 205 | SER | 16.3 |
| 1 | B | 190 | PRO | 16.0 |
| 1 | B | 222 | ASN | 15.8 |
| 1 | C | 548 | THR | 15.0 |
| 1 | B | 612 | GLY | 14.9 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | F | 186 | LYS | 14.8 |
| 2 | O | 25 | GLY | 14.5 |
| 1 | A | 204 | ASP | 14.5 |
| 1 | F | 206 | SER | 14.4 |
| 1 | D | 224 | SER | 14.1 |
| 2 | T | 137 | ASN | 14.1 |
| 1 | D | 229 | PHE | 13.7 |
| 2 | T | 63 | ILE | 13.7 |
| 1 | C | 162 | ASN | 13.3 |
| 1 | F | 203 | SER | 13.2 |
| 1 | A | 203 | SER | 13.2 |
| 1 | A | 227 | ILE | 13.0 |
| 1 | B | 425 | GLU | 13.0 |
| 1 | C | 149 | THR | 13.0 |
| 1 | B | 156 | ILE | 12.5 |
| 1 | B | 611 | THR | 12.4 |
| 1 | A | 205 | SER | 12.3 |
| 1 | A | 187 | SER | 12.3 |
| 1 | A | 432 | TYR | 11.9 |
| 1 | C | 150 | PRO | 11.8 |
| 1 | C | 620 | THR | 11.7 |
| 1 | F | 262 | PRO | 11.7 |
| 1 | B | 419 | ILE | 11.7 |
| 1 | D | 416 | ASN | 11.6 |
| 1 | C | 422 | GLY | 11.5 |
| 1 | D | 221 | ASN | 11.5 |
| 1 | E | 225 | ILE | 11.5 |
| 1 | F | 133 | GLU | 11.5 |
| 1 | D | 225 | ILE | 11.4 |
| 1 | D | 205 | SER | 11.4 |
| 2 | O | 47 | GLU | 11.4 |
| 1 | E | 375 | GLY | 11.3 |
| 1 | A | 224 | SER | 11.3 |
| 1 | E | 216 | GLU | 10.8 |
| 1 | E | 358 | GLY | 10.8 |
| 1 | B | 204 | ASP | 10.8 |
| 1 | E | 254 | ARG | 10.8 |
| 1 | F | 187 | SER | 10.7 |
| 1 | C | 204 | ASP | 10.5 |
| 1 | E | 228 | ASN | 10.5 |
| 1 | C | 423 | LYS | 10.3 |
| 1 | A | 221 | ASN | 10.3 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | D | 604 | LEU | 10.3 |
| 1 | A | 184 | LYS | 10.3 |
| 1 | C | 225 | ILE | 10.2 |
| 2 | Q | 55 | VAL | 10.2 |
| 1 | E | 253 | HIS | 10.2 |
| 1 | B | 418 | ILE | 10.2 |
| 1 | B | 474 | ILE | 10.1 |
| 1 | F | 462 | ILE | 10.1 |
| 1 | A | 276 | PHE | 10.1 |
| 1 | D | 413 | LEU | 10.1 |
| 1 | E | 434 | LEU | 10.0 |
| 1 | B | 247 | TYR | 10.0 |
| 1 | D | 131 | ARG | 9.9 |
| 1 | C | 118 | GLN | 9.9 |
| 1 | F | 189 | ASP | 9.8 |
| 1 | B | 109 | ILE | 9.7 |
| 1 | A | 375 | GLY | 9.7 |
| 1 | B | 600 | GLY | 9.7 |
| 2 | O | 136 | VAL | 9.7 |
| 1 | D | 444 | PHE | 9.6 |
| 1 | F | 224 | SER | 9.6 |
| 1 | D | 230 | ILE | 9.6 |
| 1 | F | 158 | ASP | 9.6 |
| 1 | B | 230 | ILE | 9.5 |
| 2 | R | 128 | ALA | 9.5 |
| 2 | T | 79 | THR | 9.5 |
| 1 | A | 635 | ILE | 9.5 |
| 1 | C | 153 | ILE | 9.4 |
| 1 | B | 162 | ASN | 9.4 |
| 2 | O | 56 | ASP | 9.4 |
| 1 | F | 188 | LEU | 9.4 |
| 1 | A | 280 | SER | 9.3 |
| 1 | B | 205 | SER | 9.3 |
| 1 | D | 631 | SER | 9.3 |
| 1 | A | 142 | VAL | 9.3 |
| 1 | E | 218 | LEU | 9.2 |
| 1 | C | 367 | ASP | 9.2 |
| 1 | E | 80 | GLN | 9.2 |
| 2 | R | 145 | MET | 9.2 |
| 1 | D | 334 | LEU | 9.2 |
| 1 | B | 244 | ALA | 9.2 |
| 1 | A | 468 | LYS | 9.2 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | D | 605 | THR | 9.1 |
| 1 | E | 204 | ASP | 9.1 |
| 1 | B | 510 | GLN | 9.1 |
| 1 | C | 405 | LEU | 9.1 |
| 1 | C | 226 | ASP | 9.0 |
| 1 | F | 246 | SER | 9.0 |
| 1 | D | 410 | ILE | 9.0 |
| 1 | C | 787 | THR | 9.0 |
| 1 | D | 477 | MET | 9.0 |
| 1 | B | 374 | HIS | 9.0 |
| 2 | T | 16 | PHE | 9.0 |
| 1 | F | 560 | LEU | 8.9 |
| 1 | D | 148 | GLU | 8.9 |
| 1 | F | 72 | THR | 8.9 |
| 1 | B | 428 | ASN | 8.9 |
| 2 | T | 132 | GLY | 8.9 |
| 1 | E | 365 | PRO | 8.9 |
| 1 | F | 572 | GLY | 8.8 |
| 1 | E | 410 | ILE | 8.7 |
| 1 | B | 171 | TYR | 8.7 |
| 1 | A | 442 | TYR | 8.7 |
| 1 | A | 206 | SER | 8.7 |
| 1 | E | 413 | LEU | 8.6 |
| 1 | C | 171 | TYR | 8.6 |
| 1 | A | 494 | LEU | 8.6 |
| 1 | C | 202 | ASP | 8.6 |
| 1 | D | 418 | ILE | 8.6 |
| 1 | E | 446 | ILE | 8.6 |
| 1 | A | 215 | LYS | 8.6 |
| 1 | B | 420 | LEU | 8.6 |
| 1 | A | 185 | ASP | 8.6 |
| 1 | B | 797 | ILE | 8.5 |
| 1 | E | 380 | VAL | 8.5 |
| 1 | D | 417 | GLY | 8.5 |
| 1 | C | 312 | ALA | 8.5 |
| 1 | E | 202 | ASP | 8.5 |
| 1 | C | 605 | THR | 8.5 |
| 1 | F | 107 | THR | 8.5 |
| 1 | F | 653 | LYS | 8.4 |
| 1 | F | 296 | LEU | 8.4 |
| 1 | A | 677 | GLY | 8.4 |
| 1 | B | 302 | LEU | 8.4 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 513 | TRP | 8.4 |
| 1 | D | 339 | ILE | 8.4 |
| 1 | D | 206 | SER | 8.4 |
| 1 | D | 286 | GLU | 8.3 |
| 1 | F | 205 | SER | 8.3 |
| 1 | D | 165 | GLN | 8.3 |
| 1 | A | 158 | ASP | 8.3 |
| 1 | A | 698 | ALA | 8.3 |
| 1 | C | 421 | LYS | 8.3 |
| 1 | A | 770 | ASN | 8.2 |
| 1 | E | 203 | SER | 8.2 |
| 1 | A | 418 | ILE | 8.2 |
| 1 | A | 186 | LYS | 8.2 |
| 1 | A | 126 | ASN | 8.2 |
| 1 | F | 147 | ARG | 8.2 |
| 1 | E | 787 | THR | 8.2 |
| 1 | E | 618 | ASN | 8.2 |
| 1 | F | 169 | VAL | 8.2 |
| 1 | E | 159 | TYR | 8.2 |
| 1 | B | 401 | ILE | 8.2 |
| 1 | B | 159 | TYR | 8.1 |
| 1 | F | 434 | LEU | 8.1 |
| 1 | A | 741 | ILE | 8.0 |
| 1 | C | 64 | ASN | 8.0 |
| 1 | B | 447 | SER | 8.0 |
| 1 | E | 205 | SER | 8.0 |
| 1 | C | 213 | LYS | 8.0 |
| 1 | F | 773 | PHE | 8.0 |
| 2 | O | 58 | ASP | 8.0 |
| 2 | R | 23 | GLY | 8.0 |
| 1 | E | 160 | ALA | 7.9 |
| 1 | C | 371 | SER | 7.9 |
| 1 | F | 168 | GLU | 7.9 |
| 1 | D | 700 | TYR | 7.9 |
| 1 | B | 377 | GLN | 7.9 |
| 1 | B | 568 | GLY | 7.9 |
| 1 | A | 419 | ILE | 7.9 |
| 1 | B | 658 | PRO | 7.9 |
| 1 | C | 557 | LEU | 7.9 |
| 2 | S | 57 | ALA | 7.9 |
| 1 | F | 89 | ILE | 7.9 |
| 2 | S | 127 | GLU | 7.9 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | E | 440 | GLN | 7.9 |
| 1 | A | 773 | PHE | 7.9 |
| 1 | B | 454 | GLN | 7.8 |
| 1 | A | 297 | LYS | 7.8 |
| 1 | A | 192 | PHE | 7.8 |
| 1 | F | 66 | LEU | 7.8 |
| 2 | O | 111 | ASN | 7.8 |
| 2 | O | 72 | MET | 7.8 |
| 1 | A | 156 | ILE | 7.8 |
| 1 | F | 252 | ASP | 7.8 |
| 1 | F | 127 | SER | 7.7 |
| 1 | B | 150 | PRO | 7.7 |
| 1 | D | 442 | TYR | 7.7 |
| 1 | E | 632 | TYR | 7.7 |
| 1 | A | 165 | GLN | 7.7 |
| 1 | C | 325 | TYR | 7.7 |
| 1 | D | 457 | THR | 7.7 |
| 1 | B | 126 | ASN | 7.7 |
| 1 | F | 784 | GLU | 7.6 |
| 2 | R | 26 | THR | 7.6 |
| 1 | C | 260 | TYR | 7.6 |
| 1 | F | 257 | LEU | 7.6 |
| 2 | Q | 54 | GLU | 7.6 |
| 2 | R | 52 | ILE | 7.6 |
| 1 | F | 451 | ASN | 7.6 |
| 1 | C | 156 | ILE | 7.6 |
| 1 | C | 743 | PRO | 7.6 |
| 2 | T | 7 | GLU | 7.6 |
| 1 | F | 370 | LEU | 7.6 |
| 1 | A | 439 | ASN | 7.6 |
| 1 | F | 225 | ILE | 7.6 |
| 1 | C | 157 | LYS | 7.6 |
| 1 | B | 311 | HIS | 7.6 |
| 1 | E | 572 | GLY | 7.6 |
| 1 | C | 247 | TYR | 7.5 |
| 2 | R | 4 | LEU | 7.5 |
| 1 | D | 111 | LEU | 7.5 |
| 1 | A | 189 | ASP | 7.5 |
| 2 | O | 9 | ILE | 7.5 |
| 1 | E | 469 | PHE | 7.4 |
| 1 | A | 200 | SER | 7.4 |
| 1 | D | 275 | GLY | 7.4 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 224 | SER | 7.4 |
| 1 | A | 557 | LEU | 7.4 |
| 1 | C | 709 | ASN | 7.4 |
| 1 | F | 359 | PRO | 7.4 |
| 1 | E | 560 | LEU | 7.4 |
| 1 | A | 576 | ASN | 7.4 |
| 1 | F | 261 | ALA | 7.4 |
| 1 | B | 137 | PHE | 7.4 |
| 1 | B | 582 | ASP | 7.3 |
| 1 | D | 185 | ASP | 7.3 |
| 1 | D | 306 | GLY | 7.3 |
| 1 | C | 369 | ASP | 7.3 |
| 1 | B | 643 | ILE | 7.3 |
| 1 | B | 402 | PRO | 7.3 |
| 2 | T | 62 | THR | 7.3 |
| 1 | E | 357 | TRP | 7.3 |
| 2 | T | 111 | ASN | 7.3 |
| 1 | D | 364 | ILE | 7.3 |
| 1 | C | 339 | ILE | 7.3 |
| 1 | D | 287 | GLY | 7.3 |
| 2 | S | 144 | MET | 7.3 |
| 1 | B | 237 | PHE | 7.3 |
| 1 | D | 162 | ASN | 7.3 |
| 1 | A | 359 | PRO | 7.2 |
| 1 | A | 305 | SER | 7.2 |
| 1 | A | 226 | ASP | 7.2 |
| 1 | B | 455 | TYR | 7.2 |
| 1 | E | 457 | THR | 7.2 |
| 1 | B | 163 | SER | 7.1 |
| 1 | C | 769 | SER | 7.1 |
| 1 | A | 127 | SER | 7.1 |
| 2 | Q | 128 | ALA | 7.1 |
| 1 | C | 221 | ASN | 7.1 |
| 1 | F | 192 | PHE | 7.1 |
| 2 | O | 46 | ALA | 7.1 |
| 1 | F | 202 | ASP | 7.1 |
| 1 | D | 433 | TYR | 7.1 |
| 1 | D | 743 | PRO | 7.1 |
| 1 | E | 422 | GLY | 7.1 |
| 1 | A | 315 | PHE | 7.1 |
| 1 | C | 214 | PHE | 7.1 |
| 1 | E | 214 | PHE | 7.1 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 2 | S | 78 | ASP | 7.1 |
| 1 | F | 678 | VAL | 7.0 |
| 1 | D | 434 | LEU | 7.0 |
| 1 | D | 624 | TYR | 7.0 |
| 1 | B | 489 | THR | 7.0 |
| 1 | C | 272 | GLU | 7.0 |
| 1 | C | 621 | GLY | 7.0 |
| 1 | E | 411 | GLU | 7.0 |
| 1 | A | 331 | VAL | 7.0 |
| 1 | F | 149 | THR | 7.0 |
| 1 | C | 346 | LYS | 7.0 |
| 1 | F | 259 | LEU | 7.0 |
| 2 | T | 45 | GLU | 7.0 |
| 1 | E | 227 | ILE | 7.0 |
| 1 | B | 212 | GLN | 6.9 |
| 1 | F | 380 | VAL | 6.9 |
| 1 | A | 307 | LEU | 6.9 |
| 2 | T | 93 | ASP | 6.9 |
| 2 | R | 19 | PHE | 6.9 |
| 1 | B | 225 | ILE | 6.9 |
| 1 | C | 73 | ASN | 6.9 |
| 2 | R | 68 | PHE | 6.9 |
| 2 | R | 109 | MET | 6.9 |
| 1 | E | 389 | LYS | 6.9 |
| 1 | E | 107 | THR | 6.9 |
| 1 | B | 139 | SER | 6.9 |
| 1 | B | 206 | SER | 6.9 |
| 1 | C | 524 | GLU | 6.8 |
| 1 | D | 107 | THR | 6.8 |
| 1 | F | 75 | THR | 6.8 |
| 1 | A | 216 | GLU | 6.8 |
| 2 | T | 17 | SER | 6.8 |
| 1 | B | 642 | TYR | 6.8 |
| 1 | A | 107 | THR | 6.8 |
| 1 | D | 252 | ASP | 6.8 |
| 1 | A | 90 | PRO | 6.8 |
| 1 | A | 202 | ASP | 6.8 |
| 1 | A | 207 | ASP | 6.8 |
| 1 | A | 356 | ASP | 6.8 |
| 1 | A | 788 | ASP | 6.8 |
| 1 | E | 207 | ASP | 6.8 |
| 2 | T | 6 | GLU | 6.8 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 2 | P | 28 | THR | 6.8 |
| 1 | B | 452 | GLU | 6.7 |
| 1 | B | 262 | PRO | 6.7 |
| 1 | E | 621 | GLY | 6.7 |
| 1 | C | 168 | GLU | 6.7 |
| 2 | T | 112 | LEU | 6.7 |
| 1 | F | 793 | PHE | 6.7 |
| 1 | E | 75 | THR | 6.7 |
| 1 | F | 258 | GLU | 6.7 |
| 1 | F | 260 | TYR | 6.7 |
| 1 | A | 330 | PRO | 6.7 |
| 1 | F | 165 | GLN | 6.7 |
| 1 | C | 163 | SER | 6.7 |
| 2 | O | 52 | ILE | 6.7 |
| 1 | B | 226 | ASP | 6.6 |
| 1 | D | 719 | LYS | 6.6 |
| 2 | Q | 53 | ASN | 6.6 |
| 1 | D | 141 | PHE | 6.6 |
| 1 | D | 349 | ASN | 6.6 |
| 1 | E | 266 | GLU | 6.6 |
| 1 | C | 127 | SER | 6.6 |
| 1 | B | 352 | GLY | 6.6 |
| 1 | E | 433 | TYR | 6.6 |
| 1 | F | 476 | VAL | 6.6 |
| 1 | F | 556 | MET | 6.6 |
| 1 | B | 709 | ASN | 6.6 |
| 1 | C | 345 | THR | 6.6 |
| 1 | C | 279 | ILE | 6.6 |
| 1 | A | 714 | GLN | 6.6 |
| 1 | C | 564 | VAL | 6.6 |
| 2 | O | 26 | THR | 6.6 |
| 2 | S | 101 | SER | 6.6 |
| 1 | F | 356 | ASP | 6.5 |
| 1 | F | 525 | LYS | 6.5 |
| 1 | B | 490 | ALA | 6.5 |
| 1 | C | 197 | LYS | 6.5 |
| 1 | B | 437 | SER | 6.5 |
| 1 | A | 441 | VAL | 6.5 |
| 1 | A | 514 | ASP | 6.5 |
| 1 | E | 390 | SER | 6.5 |
| 1 | E | 726 | ILE | 6.5 |
| 1 | F | 467 | GLU | 6.5 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | E | 283 | LEU | 6.5 |
| 2 | P | 96 | GLY | 6.5 |
| 1 | D | 708 | ALA | 6.5 |
| 1 | E | 460 | GLY | 6.5 |
| 1 | E | 391 | ILE | 6.5 |
| 1 | A | 103 | GLU | 6.5 |
| 1 | C | 425 | GLU | 6.5 |
| 1 | A | 518 | ASN | 6.4 |
| 1 | B | 131 | ARG | 6.4 |
| 1 | C | 612 | GLY | 6.4 |
| 1 | A | 416 | ASN | 6.4 |
| 1 | B | 734 | ASN | 6.4 |
| 1 | D | 455 | TYR | 6.4 |
| 1 | E | 186 | LYS | 6.4 |
| 2 | P | 77 | LYS | 6.4 |
| 1 | A | 529 | VAL | 6.4 |
| 1 | B | 185 | ASP | 6.4 |
| 1 | B | 263 | ASP | 6.4 |
| 1 | C | 148 | GLU | 6.4 |
| 2 | S | 22 | ASP | 6.4 |
| 1 | D | 463 | THR | 6.4 |
| 1 | A | 542 | PRO | 6.4 |
| 1 | D | 593 | ILE | 6.4 |
| 2 | T | 61 | GLY | 6.4 |
| 1 | E | 76 | LEU | 6.4 |
| 1 | F | 152 | LEU | 6.4 |
| 1 | C | 203 | SER | 6.4 |
| 1 | D | 203 | SER | 6.4 |
| 1 | D | 280 | SER | 6.4 |
| 1 | C | 568 | GLY | 6.4 |
| 1 | D | 307 | LEU | 6.3 |
| 1 | E | 770 | ASN | 6.3 |
| 1 | B | 614 | PHE | 6.3 |
| 1 | E | 229 | PHE | 6.3 |
| 1 | A | 461 | LYS | 6.3 |
| 1 | D | 194 | ASN | 6.3 |
| 1 | A | 465 | LEU | 6.3 |
| 1 | A | 398 | ILE | 6.3 |
| 1 | E | 797 | ILE | 6.3 |
| 1 | E | 165 | GLN | 6.2 |
| 1 | B | 583 | ASN | 6.2 |
| 1 | B | 602 | PHE | 6.2 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | A | 433 | TYR | 6.2 |
| 1 | A | 487 | PRO | 6.2 |
| 1 | F | 530 | THR | 6.2 |
| 1 | E | 201 | ASP | 6.2 |
| 1 | B | 569 | TYR | 6.2 |
| 1 | B | 659 | THR | 6.2 |
| 2 | Q | 42 | ASN | 6.2 |
| 1 | D | 344 | ALA | 6.2 |
| 1 | A | 589 | LYS | 6.2 |
| 1 | C | 119 | ASP | 6.2 |
| 2 | T | 64 | ASP | 6.2 |
| 1 | F | 170 | TYR | 6.2 |
| 1 | B | 708 | ALA | 6.2 |
| 1 | C | 228 | ASN | 6.2 |
| 1 | A | 141 | PHE | 6.2 |
| 1 | C | 108 | ASP | 6.2 |
| 1 | D | 350 | VAL | 6.1 |
| 1 | A | 70 | GLU | 6.1 |
| 1 | F | 204 | ASP | 6.1 |
| 1 | C | 74 | GLU | 6.1 |
| 1 | F | 379 | ALA | 6.1 |
| 1 | C | 454 | GLN | 6.1 |
| 1 | D | 793 | PHE | 6.1 |
| 1 | B | 763 | LEU | 6.1 |
| 2 | R | 29 | THR | 6.1 |
| 1 | F | 607 | ASN | 6.1 |
| 1 | A | 352 | GLY | 6.1 |
| 1 | F | 782 | PHE | 6.1 |
| 1 | C | 508 | ILE | 6.1 |
| 2 | Q | 112 | LEU | 6.1 |
| 1 | A | 464 | VAL | 6.1 |
| 1 | C | 746 | LYS | 6.1 |
| 1 | A | 647 | ASP | 6.1 |
| 2 | R | 18 | LEU | 6.1 |
| 1 | F | 420 | LEU | 6.1 |
| 1 | C | 185 | ASP | 6.1 |
| 1 | E | 158 | ASP | 6.1 |
| 1 | E | 582 | ASP | 6.1 |
| 1 | D | 97 | TYR | 6.1 |
| 1 | C | 126 | ASN | 6.1 |
| 1 | F | 768 | LYS | 6.1 |
| 1 | C | 415 | GLU | 6.0 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | B | 64 | ASN | 6.0 |
| 1 | A | 420 | LEU | 6.0 |
| 1 | B | 197 | LYS | 6.0 |
| 1 | D | 443 | GLU | 6.0 |
| 1 | A | 590 | ASP | 6.0 |
| 1 | D | 592 | GLU | 6.0 |
| 1 | F | 121 | SER | 6.0 |
| 2 | P | 29 | THR | 6.0 |
| 1 | F | 509 | PRO | 6.0 |
| 1 | F | 569 | TYR | 6.0 |
| 1 | D | 216 | GLU | 6.0 |
| 1 | D | 461 | LYS | 6.0 |
| 1 | E | 492 | TYR | 6.0 |
| 1 | B | 367 | ASP | 6.0 |
| 1 | D | 786 | GLU | 6.0 |
| 1 | F | 297 | LYS | 6.0 |
| 1 | A | 229 | PHE | 6.0 |
| 1 | B | 473 | ASN | 6.0 |
| 1 | C | 110 | ASP | 6.0 |
| 2 | Q | 96 | GLY | 6.0 |
| 1 | F | 129 | ASN | 6.0 |
| 1 | C | 313 | ASP | 6.0 |
| 1 | F | 654 | ILE | 6.0 |
| 1 | F | 454 | GLN | 6.0 |
| 1 | E | 443 | GLU | 5.9 |
| 1 | B | 110 | ASP | 5.9 |
| 1 | A | 171 | TYR | 5.9 |
| 1 | B | 557 | LEU | 5.9 |
| 1 | F | 253 | HIS | 5.9 |
| 1 | F | 657 | ILE | 5.9 |
| 1 | B | 119 | ASP | 5.9 |
| 1 | F | 531 | ASN | 5.9 |
| 1 | B | 161 | ILE | 5.9 |
| 1 | E | 619 | ILE | 5.9 |
| 1 | D | 254 | ARG | 5.9 |
| 1 | B | 451 | ASN | 5.9 |
| 1 | A | 262 | PRO | 5.9 |
| 1 | A | 125 | LYS | 5.9 |
| 1 | C | 453 | VAL | 5.9 |
| 1 | D | 460 | GLY | 5.9 |
| 1 | B | 218 | LEU | 5.9 |
| 1 | A | 145 | LYS | 5.9 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | D | 80 | GLN | 5.9 |
| 1 | C | 601 | GLU | 5.9 |
| 1 | E | 181 | ILE | 5.9 |
| 1 | F | 153 | ILE | 5.9 |
| 1 | E | 222 | ASN | 5.9 |
| 1 | A | 238 | GLN | 5.9 |
| 1 | D | 335 | ALA | 5.9 |
| 1 | A | 652 | ALA | 5.8 |
| 1 | F | 268 | MET | 5.8 |
| 1 | A | 702 | SER | 5.8 |
| 2 | S | 63 | ILE | 5.8 |
| 1 | A | 399 | GLY | 5.8 |
| 2 | P | 25 | GLY | 5.8 |
| 1 | E | 798 | ASP | 5.8 |
| 1 | A | 83 | GLN | 5.8 |
| 1 | D | 130 | SER | 5.8 |
| 1 | E | 252 | ASP | 5.8 |
| 2 | S | 107 | HIS | 5.8 |
| 1 | E | 366 | PHE | 5.8 |
| 1 | F | 442 | TYR | 5.8 |
| 1 | E | 639 | ASN | 5.8 |
| 2 | P | 42 | ASN | 5.8 |
| 1 | F | 490 | ALA | 5.8 |
| 1 | C | 431 | LYS | 5.8 |
| 1 | E | 564 | VAL | 5.8 |
| 2 | Q | 39 | LEU | 5.8 |
| 1 | E | 587 | PRO | 5.8 |
| 1 | F | 90 | PRO | 5.8 |
| 1 | F | 65 | ASN | 5.8 |
| 1 | E | 624 | TYR | 5.8 |
| 1 | C | 358 | GLY | 5.8 |
| 1 | D | 601 | GLU | 5.7 |
| 1 | A | 201 | ASP | 5.7 |
| 1 | F | 298 | GLY | 5.7 |
| 1 | E | 620 | THR | 5.7 |
| 1 | D | 469 | PHE | 5.7 |
| 1 | A | 190 | PRO | 5.7 |
| 1 | C | 399 | GLY | 5.7 |
| 1 | A | 257 | LEU | 5.7 |
| 1 | F | 605 | THR | 5.7 |
| 1 | B | 132 | GLY | 5.7 |
| 1 | D | 116 | GLU | 5.7 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | D | 761 | GLN | 5.7 |
| 1 | A | 228 | ASN | 5.7 |
| 1 | C | 490 | ALA | 5.7 |
| 1 | F | 229 | PHE | 5.6 |
| 1 | F | 321 | GLU | 5.6 |
| 1 | F | 526 | GLN | 5.6 |
| 1 | D | 365 | PRO | 5.6 |
| 1 | A | 162 | ASN | 5.6 |
| 1 | E | 162 | ASN | 5.6 |
| 1 | B | 465 | LEU | 5.6 |
| 1 | A | 577 | HIS | 5.6 |
| 1 | E | 171 | TYR | 5.6 |
| 1 | C | 304 | ALA | 5.6 |
| 2 | T | 14 | GLU | 5.6 |
| 1 | D | 629 | ASN | 5.6 |
| 1 | F | 435 | LEU | 5.6 |
| 1 | D | 226 | ASP | 5.6 |
| 2 | O | 59 | GLY | 5.6 |
| 1 | E | 307 | LEU | 5.6 |
| 1 | C | 504 | ILE | 5.6 |
| 2 | O | 54 | GLU | 5.6 |
| 1 | B | 781 | ASN | 5.6 |
| 2 | T | 138 | TYR | 5.5 |
| 1 | F | 578 | GLY | 5.5 |
| 1 | F | 652 | ALA | 5.5 |
| 1 | A | 435 | LEU | 5.5 |
| 1 | E | 591 | ASN | 5.5 |
| 1 | E | 686 | ASP | 5.5 |
| 1 | C | 796 | ILE | 5.5 |
| 1 | A | 605 | THR | 5.5 |
| 1 | F | 494 | LEU | 5.5 |
| 1 | C | 290 | LYS | 5.5 |
| 1 | E | 442 | TYR | 5.5 |
| 1 | C | 592 | GLU | 5.5 |
| 1 | A | 490 | ALA | 5.5 |
| 1 | B | 157 | LYS | 5.5 |
| 1 | C | 442 | TYR | 5.5 |
| 1 | D | 202 | ASP | 5.5 |
| 1 | F | 376 | GLN | 5.5 |
| 2 | Q | 45 | GLU | 5.5 |
| 1 | A | 742 | ALA | 5.5 |
| 1 | C | 549 | LEU | 5.5 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | B | 615 | ILE | 5.5 |
| 1 | B | 136 | PRO | 5.5 |
| 1 | D | 249 | PHE | 5.5 |
| 1 | A | 653 | LYS | 5.5 |
| 1 | D | 728 | ALA | 5.5 |
| 1 | A | 168 | GLU | 5.5 |
| 1 | E | 575 | VAL | 5.5 |
| 1 | F | 178 | SER | 5.5 |
| 1 | D | 129 | ASN | 5.5 |
| 1 | D | 421 | LYS | 5.5 |
| 1 | E | 407 | HIS | 5.5 |
| 1 | C | 420 | LEU | 5.5 |
| 1 | E | 409 | ARG | 5.5 |
| 2 | P | 144 | MET | 5.5 |
| 1 | F | 571 | GLY | 5.5 |
| 1 | C | 350 | VAL | 5.4 |
| 1 | B | 324 | THR | 5.4 |
| 1 | A | 368 | GLN | 5.4 |
| 1 | D | 207 | ASP | 5.4 |
| 1 | C | 379 | ALA | 5.4 |
| 2 | S | 126 | ARG | 5.4 |
| 1 | F | 109 | ILE | 5.4 |
| 1 | B | 518 | ASN | 5.4 |
| 1 | A | 672 | ARG | 5.4 |
| 1 | A | 98 | SER | 5.4 |
| 1 | C | 308 | VAL | 5.4 |
| 2 | S | 145 | MET | 5.4 |
| 1 | A | 84 | ASP | 5.4 |
| 1 | A | 740 | GLN | 5.4 |
| 1 | A | 253 | HIS | 5.4 |
| 1 | D | 228 | ASN | 5.4 |
| 1 | F | 135 | VAL | 5.4 |
| 1 | F | 620 | THR | 5.4 |
| 1 | B | 350 | VAL | 5.4 |
| 1 | F | 618 | ASN | 5.4 |
| 2 | S | 3 | GLN | 5.4 |
| 1 | B | 698 | ALA | 5.4 |
| 2 | T | 56 | ASP | 5.4 |
| 1 | C | 494 | LEU | 5.4 |
| 2 | R | 25 | GLY | 5.4 |
| 1 | A | 251 | PRO | 5.4 |
| 1 | C | 363 | TYR | 5.4 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | E | 376 | GLN | 5.4 |
| 1 | D | 366 | PHE | 5.4 |
| 1 | E | 230 | ILE | 5.4 |
| 1 | F | 426 | ILE | 5.4 |
| 1 | A | 222 | ASN | 5.4 |
| 1 | C | 233 | ASN | 5.4 |
| 2 | R | 21 | LYS | 5.4 |
| 1 | F | 255 | THR | 5.4 |
| 1 | D | 705 | TYR | 5.4 |
| 1 | C | 470 | ASN | 5.4 |
| 1 | D | 574 | VAL | 5.3 |
| 1 | E | 323 | ASN | 5.3 |
| 1 | D | 428 | ASN | 5.3 |
| 1 | C | 166 | SER | 5.3 |
| 1 | F | 564 | VAL | 5.3 |
| 2 | P | 112 | LEU | 5.3 |
| 1 | C | 578 | GLY | 5.3 |
| 1 | F | 69 | THR | 5.3 |
| 1 | A | 225 | ILE | 5.3 |
| 1 | A | 248 | TYR | 5.3 |
| 1 | A | 492 | TYR | 5.3 |
| 1 | B | 381 | GLU | 5.3 |
| 2 | Q | 28 | THR | 5.3 |
| 1 | A | 194 | ASN | 5.3 |
| 1 | F | 492 | TYR | 5.3 |
| 2 | O | 128 | ALA | 5.3 |
| 1 | D | 214 | PHE | 5.3 |
| 1 | B | 160 | ALA | 5.3 |
| 1 | C | 707 | SER | 5.3 |
| 1 | E | 449 | GLU | 5.3 |
| 1 | D | 218 | LEU | 5.3 |
| 1 | E | 701 | LEU | 5.3 |
| 1 | A | 525 | LYS | 5.3 |
| 2 | O | 70 | THR | 5.3 |
| 1 | C | 250 | ALA | 5.2 |
| 1 | A | 779 | GLN | 5.2 |
| 1 | B | 760 | VAL | 5.2 |
| 1 | E | 69 | THR | 5.2 |
| 1 | D | 742 | ALA | 5.2 |
| 1 | F | 104 | ILE | 5.2 |
| 1 | C | 387 | ASN | 5.2 |
| 2 | Q | 137 | ASN | 5.2 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | F | 331 | VAL | 5.2 |
| 1 | E | 426 | ILE | 5.2 |
| 2 | O | 5 | THR | 5.2 |
| 2 | O | 57 | ALA | 5.2 |
| 2 | S | 135 | GLN | 5.2 |
| 2 | P | 134 | GLY | 5.2 |
| 1 | F | 143 | PHE | 5.2 |
| 1 | B | 245 | PHE | 5.2 |
| 1 | C | 113 | GLU | 5.2 |
| 1 | C | 161 | ILE | 5.2 |
| 1 | F | 421 | LYS | 5.2 |
| 1 | E | 208 | LEU | 5.2 |
| 1 | E | 367 | ASP | 5.2 |
| 1 | E | 637 | PRO | 5.2 |
| 1 | A | 159 | TYR | 5.2 |
| 1 | D | 540 | ARG | 5.2 |
| 1 | B | 694 | VAL | 5.2 |
| 1 | D | 237 | PHE | 5.2 |
| 1 | D | 264 | MET | 5.2 |
| 1 | D | 446 | ILE | 5.2 |
| 1 | A | 169 | VAL | 5.2 |
| 1 | F | 563 | ALA | 5.2 |
| 1 | E | 633 | ASN | 5.2 |
| 1 | B | 345 | THR | 5.2 |
| 1 | E | 562 | GLU | 5.1 |
| 1 | B | 248 | TYR | 5.1 |
| 1 | D | 251 | PRO | 5.1 |
| 1 | C | 230 | ILE | 5.1 |
| 1 | D | 378 | LEU | 5.1 |
| 1 | A | 344 | ALA | 5.1 |
| 2 | R | 144 | MET | 5.1 |
| 1 | E | 470 | ASN | 5.1 |
| 1 | C | 606 | LYS | 5.1 |
| 1 | E | 461 | LYS | 5.1 |
| 1 | E | 105 | TYR | 5.1 |
| 1 | F | 405 | LEU | 5.1 |
| 1 | D | 440 | GLN | 5.1 |
| 1 | F | 185 | ASP | 5.1 |
| 1 | A | 437 | SER | 5.1 |
| 1 | D | 253 | HIS | 5.1 |
| 1 | D | 126 | ASN | 5.1 |
| 1 | E | 629 | ASN | 5.1 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | E | 644 | GLU | 5.1 |
| 1 | B | 460 | GLY | 5.1 |
| 1 | C | 222 | ASN | 5.1 |
| 1 | D | 756 | ILE | 5.1 |
| 1 | C | 582 | ASP | 5.1 |
| 1 | F | 469 | PHE | 5.1 |
| 1 | F | 522 | SER | 5.1 |
| 2 | O | 85 | ILE | 5.1 |
| 1 | C | 496 | ALA | 5.1 |
| 1 | D | 220 | LEU | 5.1 |
| 2 | Q | 114 | GLU | 5.1 |
| 1 | B | 228 | ASN | 5.1 |
| 1 | D | 305 | SER | 5.1 |
| 1 | C | 170 | TYR | 5.0 |
| 2 | Q | 83 | GLU | 5.0 |
| 2 | S | 56 | ASP | 5.0 |
| 1 | D | 363 | TYR | 5.0 |
| 1 | C | 583 | ASN | 5.0 |
| 2 | P | 107 | HIS | 5.0 |
| 1 | B | 149 | THR | 5.0 |
| 1 | B | 217 | LYS | 5.0 |
| 1 | C | 569 | TYR | 5.0 |
| 2 | R | 146 | THR | 5.0 |
| 1 | D | 273 | LYS | 5.0 |
| 1 | D | 623 | ASP | 5.0 |
| 1 | F | 577 | HIS | 5.0 |
| 1 | D | 487 | PRO | 5.0 |
| 1 | E | 431 | LYS | 5.0 |
| 2 | R | 126 | ARG | 5.0 |
| 1 | E | 215 | LYS | 5.0 |
| 1 | B | 664 | ILE | 5.0 |
| 1 | C | 694 | VAL | 5.0 |
| 1 | B | 713 | SER | 5.0 |
| 1 | C | 489 | THR | 5.0 |
| 1 | C | 728 | ALA | 5.0 |
| 1 | C | 584 | GLU | 5.0 |
| 1 | D | 398 | ILE | 5.0 |
| 1 | E | 468 | LYS | 5.0 |
| 1 | C | 65 | ASN | 5.0 |
| 1 | A | 405 | LEU | 5.0 |
| 1 | B | 549 | LEU | 5.0 |
| 1 | C | 100 | LEU | 5.0 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | F | 368 | GLN | 5.0 |
| 1 | B | 207 | ASP | 5.0 |
| 1 | B | 203 | SER | 5.0 |
| 1 | C | 102 | GLY | 5.0 |
| 1 | B | 326 | ILE | 5.0 |
| 1 | D | 212 | GLN | 5.0 |
| 1 | D | 595 | ILE | 5.0 |
| 1 | B | 443 | GLU | 5.0 |
| 1 | E | 796 | ILE | 5.0 |
| 2 | Q | 76 | MET | 5.0 |
| 1 | B | 528 | GLY | 5.0 |
| 1 | C | 396 | GLY | 5.0 |
| 1 | A | 784 | GLU | 4.9 |
| 1 | A | 474 | ILE | 4.9 |
| 1 | E | 133 | GLU | 4.9 |
| 1 | C | 93 | VAL | 4.9 |
| 1 | B | 667 | LEU | 4.9 |
| 1 | F | 677 | GLY | 4.9 |
| 1 | A | 360 | VAL | 4.9 |
| 2 | P | 111 | ASN | 4.9 |
| 1 | E | 749 | PHE | 4.9 |
| 1 | C | 72 | THR | 4.9 |
| 2 | Q | 107 | HIS | 4.9 |
| 2 | S | 108 | VAL | 4.9 |
| 1 | A | 561 | ASN | 4.9 |
| 2 | S | 8 | GLN | 4.9 |
| 1 | D | 566 | TYR | 4.9 |
| 2 | P | 15 | ALA | 4.9 |
| 1 | F | 332 | ASN | 4.9 |
| 1 | B | 415 | GLU | 4.9 |
| 2 | O | 77 | LYS | 4.9 |
| 1 | A | 313 | ASP | 4.9 |
| 1 | B | 229 | PHE | 4.9 |
| 1 | E | 447 | SER | 4.9 |
| 1 | F | 403 | LEU | 4.9 |
| 1 | F | 500 | SER | 4.9 |
| 2 | T | 5 | THR | 4.9 |
| 1 | F | 398 | ILE | 4.9 |
| 1 | E | 111 | LEU | 4.9 |
| 1 | D | 709 | ASN | 4.9 |
| 1 | F | 487 | PRO | 4.9 |
| 1 | E | 604 | LEU | 4.8 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | F | 538 | ILE | 4.8 |
| 1 | B | 407 | HIS | 4.8 |
| 1 | E | 74 | GLU | 4.8 |
| 1 | A | 476 | VAL | 4.8 |
| 2 | R | 56 | ASP | 4.8 |
| 1 | D | 140 | ARG | 4.8 |
| 1 | D | 478 | ALA | 4.8 |
| 1 | A | 191 | GLU | 4.8 |
| 1 | F | 70 | GLU | 4.8 |
| 1 | B | 596 | ILE | 4.8 |
| 1 | B | 732 | ILE | 4.8 |
| 1 | C | 697 | ILE | 4.8 |
| 1 | A | 611 | THR | 4.8 |
| 1 | E | 417 | GLY | 4.8 |
| 1 | A | 485 | LEU | 4.8 |
| 1 | F | 221 | ASN | 4.8 |
| 1 | E | 594 | PHE | 4.8 |
| 1 | A | 467 | GLU | 4.8 |
| 1 | B | 397 | GLU | 4.8 |
| 2 | S | 26 | THR | 4.8 |
| 2 | T | 23 | GLY | 4.8 |
| 1 | C | 760 | VAL | 4.8 |
| 1 | C | 673 | SER | 4.8 |
| 1 | D | 603 | ILE | 4.8 |
| 1 | A | 72 | THR | 4.8 |
| 1 | A | 147 | ARG | 4.8 |
| 1 | F | 446 | ILE | 4.8 |
| 1 | C | 761 | GLN | 4.8 |
| 1 | B | 221 | ASN | 4.8 |
| 1 | D | 769 | SER | 4.8 |
| 1 | F | 155 | ASN | 4.8 |
| 1 | F | 190 | PRO | 4.8 |
| 1 | A | 188 | LEU | 4.8 |
| 1 | A | 256 | VAL | 4.8 |
| 1 | A | 198 | SER | 4.8 |
| 1 | B | 314 | ALA | 4.8 |
| 1 | F | 682 | SER | 4.8 |
| 1 | E | 296 | LEU | 4.8 |
| 1 | E | 643 | ILE | 4.8 |
| 1 | A | 411 | GLU | 4.8 |
| 1 | B | 363 | TYR | 4.8 |
| 1 | B | 358 | GLY | 4.8 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | B | 155 | ASN | 4.8 |
| 2 | R | 108 | VAL | 4.8 |
| 1 | D | 668 | SER | 4.8 |
| 1 | C | 177 | ILE | 4.8 |
| 1 | E | 771 | ILE | 4.8 |
| 1 | F | 579 | THR | 4.7 |
| 2 | O | 55 | VAL | 4.7 |
| 1 | F | 315 | PHE | 4.7 |
| 1 | A | 664 | ILE | 4.7 |
| 1 | C | 429 | GLY | 4.7 |
| 2 | S | 21 | LYS | 4.7 |
| 1 | E | 185 | ASP | 4.7 |
| 1 | B | 630 | ARG | 4.7 |
| 1 | D | 322 | LEU | 4.7 |
| 1 | E | 273 | LYS | 4.7 |
| 1 | F | 223 | LYS | 4.7 |
| 1 | F | 307 | LEU | 4.7 |
| 1 | F | 461 | LYS | 4.7 |
| 1 | B | 496 | ALA | 4.7 |
| 1 | C | 212 | GLN | 4.7 |
| 1 | D | 142 | VAL | 4.7 |
| 1 | A | 231 | LYS | 4.7 |
| 1 | A | 247 | TYR | 4.7 |
| 1 | D | 488 | LEU | 4.7 |
| 1 | C | 602 | PHE | 4.7 |
| 1 | C | 629 | ASN | 4.7 |
| 1 | B | 421 | LYS | 4.7 |
| 1 | E | 325 | TYR | 4.7 |
| 1 | C | 334 | LEU | 4.7 |
| 1 | D | 606 | LYS | 4.7 |
| 2 | P | 104 | GLU | 4.7 |
| 1 | A | 649 | ILE | 4.7 |
| 1 | F | 156 | ILE | 4.7 |
| 1 | D | 247 | TYR | 4.7 |
| 2 | T | 25 | GLY | 4.7 |
| 2 | O | 135 | GLN | 4.7 |
| 1 | A | 183 | SER | 4.7 |
| 1 | A | 370 | LEU | 4.7 |
| 1 | E | 247 | TYR | 4.7 |
| 1 | F | 222 | ASN | 4.7 |
| 1 | F | 660 | SER | 4.7 |
| 1 | D | 476 | VAL | 4.7 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | E | 226 | ASP | 4.7 |
| 1 | A | 82 | THR | 4.6 |
| 1 | D | 354 | SER | 4.6 |
| 1 | D | 575 | VAL | 4.6 |
| 1 | E | 256 | VAL | 4.6 |
| 1 | A | 749 | PHE | 4.6 |
| 1 | E | 109 | ILE | 4.6 |
| 1 | B | 507 | GLN | 4.6 |
| 1 | B | 621 | GLY | 4.6 |
| 1 | A | 558 | ASP | 4.6 |
| 1 | E | 474 | ILE | 4.6 |
| 2 | O | 53 | ASN | 4.6 |
| 1 | E | 386 | GLU | 4.6 |
| 1 | E | 563 | ALA | 4.6 |
| 1 | C | 190 | PRO | 4.6 |
| 1 | B | 315 | PHE | 4.6 |
| 1 | C | 526 | GLN | 4.6 |
| 1 | B | 95 | GLU | 4.6 |
| 1 | C | 502 | THR | 4.6 |
| 1 | E | 161 | ILE | 4.6 |
| 1 | C | 571 | GLY | 4.6 |
| 2 | S | 43 | PRO | 4.6 |
| 1 | A | 214 | PHE | 4.6 |
| 1 | A | 161 | ILE | 4.6 |
| 1 | D | 160 | ALA | 4.6 |
| 1 | D | 619 | ILE | 4.6 |
| 1 | F | 251 | PRO | 4.6 |
| 1 | C | 729 | TYR | 4.6 |
| 1 | F | 118 | GLN | 4.6 |
| 1 | D | 336 | THR | 4.6 |
| 1 | D | 615 | ILE | 4.6 |
| 1 | F | 117 | LEU | 4.6 |
| 1 | A | 541 | LYS | 4.6 |
| 1 | A | 554 | LYS | 4.6 |
| 1 | C | 351 | HIS | 4.6 |
| 1 | C | 484 | VAL | 4.6 |
| 1 | B | 497 | LEU | 4.6 |
| 1 | F | 749 | PHE | 4.6 |
| 1 | B | 372 | LYS | 4.6 |
| 1 | E | 647 | ASP | 4.6 |
| 1 | C | 776 | LEU | 4.6 |
| 1 | B | 414 | LYS | 4.6 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | E | 134 | LYS | 4.6 |
| 2 | T | 54 | GLU | 4.6 |
| 1 | A | 102 | GLY | 4.5 |
| 1 | A | 591 | ASN | 4.5 |
| 1 | E | 398 | ILE | 4.5 |
| 1 | A | 219 | GLU | 4.5 |
| 1 | B | 169 | VAL | 4.5 |
| 1 | F | 85 | LEU | 4.5 |
| 1 | A | 500 | SER | 4.5 |
| 1 | C | 245 | PHE | 4.5 |
| 1 | E | 477 | MET | 4.5 |
| 1 | D | 450 | ASN | 4.5 |
| 1 | E | 360 | VAL | 4.5 |
| 1 | F | 233 | ASN | 4.5 |
| 1 | A | 310 | GLU | 4.5 |
| 1 | E | 393 | GLU | 4.5 |
| 1 | D | 283 | LEU | 4.5 |
| 1 | A | 104 | ILE | 4.5 |
| 1 | A | 233 | ASN | 4.5 |
| 1 | E | 257 | LEU | 4.5 |
| 1 | F | 207 | ASP | 4.5 |
| 1 | C | 139 | SER | 4.5 |
| 1 | E | 302 | LEU | 4.5 |
| 1 | D | 213 | LYS | 4.5 |
| 2 | P | 39 | LEU | 4.5 |
| 1 | A | 608 | TRP | 4.5 |
| 1 | E | 83 | GLN | 4.5 |
| 1 | A | 369 | ASP | 4.5 |
| 1 | E | 553 | GLN | 4.5 |
| 1 | C | 370 | LEU | 4.5 |
| 1 | F | 465 | LEU | 4.5 |
| 2 | S | 79 | THR | 4.5 |
| 1 | E | 707 | SER | 4.5 |
| 1 | A | 160 | ALA | 4.5 |
| 1 | D | 562 | GLU | 4.5 |
| 1 | A | 252 | ASP | 4.5 |
| 1 | A | 341 | SER | 4.5 |
| 1 | B | 743 | PRO | 4.5 |
| 1 | F | 330 | PRO | 4.5 |
| 2 | T | 27 | ILE | 4.5 |
| 1 | A | 769 | SER | 4.5 |
| 1 | D | 163 | SER | 4.5 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 781 | ASN | 4.5 |
| 1 | E | 758 | ASN | 4.5 |
| 1 | F | 523 | LEU | 4.5 |
| 2 | T | 72 | MET | 4.4 |
| 1 | D | 412 | GLU | 4.4 |
| 1 | B | 145 | LYS | 4.4 |
| 1 | C | 667 | LEU | 4.4 |
| 2 | Q | 78 | ASP | 4.4 |
| 1 | E | 421 | LYS | 4.4 |
| 1 | B | 449 | GLU | 4.4 |
| 1 | E | 116 | GLU | 4.4 |
| 1 | E | 574 | VAL | 4.4 |
| 1 | F | 350 | VAL | 4.4 |
| 1 | A | 195 | LEU | 4.4 |
| 1 | C | 631 | SER | 4.4 |
| 1 | B | 776 | LEU | 4.4 |
| 1 | D | 667 | LEU | 4.4 |
| 2 | P | 32 | LEU | 4.4 |
| 1 | C | 314 | ALA | 4.4 |
| 1 | A | 462 | ILE | 4.4 |
| 1 | B | 164 | GLU | 4.4 |
| 1 | D | 281 | GLU | 4.4 |
| 1 | D | 649 | ILE | 4.4 |
| 1 | E | 244 | ALA | 4.4 |
| 1 | C | 206 | SER | 4.4 |
| 1 | B | 215 | LYS | 4.4 |
| 1 | B | 410 | ILE | 4.4 |
| 1 | E | 571 | GLY | 4.4 |
| 1 | D | 523 | LEU | 4.4 |
| 1 | D | 560 | LEU | 4.4 |
| 1 | F | 542 | PRO | 4.4 |
| 1 | D | 127 | SER | 4.4 |
| 1 | C | 294 | ASP | 4.4 |
| 1 | B | 605 | THR | 4.4 |
| 1 | C | 238 | GLN | 4.4 |
| 1 | C | 675 | ASN | 4.4 |
| 1 | C | 347 | GLY | 4.4 |
| 1 | B | 493 | ASP | 4.4 |
| 1 | B | 525 | LYS | 4.4 |
| 1 | F | 546 | LYS | 4.4 |
| 1 | A | 250 | ALA | 4.4 |
| 1 | E | 212 | GLN | 4.4 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | B | 756 | ILE | 4.4 |
| 1 | C | 591 | ASN | 4.4 |
| 1 | D | 760 | VAL | 4.4 |
| 1 | F | 134 | LYS | 4.4 |
| 2 | O | 112 | LEU | 4.4 |
| 1 | C | 507 | GLN | 4.4 |
| 1 | B | 260 | TYR | 4.4 |
| 1 | D | 187 | SER | 4.3 |
| 2 | S | 23 | GLY | 4.4 |
| 1 | A | 785 | ASN | 4.3 |
| 1 | C | 786 | GLU | 4.3 |
| 1 | A | 278 | LYS | 4.3 |
| 1 | D | 297 | LYS | 4.3 |
| 1 | E | 309 | PRO | 4.3 |
| 1 | A | 376 | GLN | 4.3 |
| 1 | D | 638 | GLY | 4.3 |
| 1 | C | 111 | LEU | 4.3 |
| 1 | C | 323 | ASN | 4.3 |
| 1 | E | 439 | ASN | 4.3 |
| 1 | D | 449 | GLU | 4.3 |
| 1 | C | 239 | HIS | 4.3 |
| 1 | E | 462 | ILE | 4.3 |
| 1 | A | 121 | SER | 4.3 |
| 1 | A | 793 | PHE | 4.3 |
| 1 | D | 782 | PHE | 4.3 |
| 2 | S | 81 | SER | 4.3 |
| 1 | A | 443 | GLU | 4.3 |
| 1 | A | 636 | ALA | 4.3 |
| 2 | S | 109 | MET | 4.3 |
| 1 | A | 483 | GLY | 4.3 |
| 1 | C | 309 | PRO | 4.3 |
| 1 | C | 114 | HIS | 4.3 |
| 1 | C | 377 | GLN | 4.3 |
| 2 | R | 10 | ALA | 4.3 |
| 1 | C | 658 | PRO | 4.3 |
| 1 | E | 465 | LEU | 4.3 |
| 1 | D | 171 | TYR | 4.3 |
| 1 | E | 585 | GLU | 4.3 |
| 1 | F | 93 | VAL | 4.3 |
| 1 | F | 453 | VAL | 4.3 |
| 1 | C | 311 | HIS | 4.3 |
| 1 | A | 771 | ILE | 4.3 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 2 | S | 52 | ILE | 4.3 |
| 2 | S | 68 | PHE | 4.3 |
| 1 | A | 540 | ARG | 4.3 |
| 1 | E | 251 | PRO | 4.3 |
| 1 | A | 691 | LYS | 4.3 |
| 1 | B | 548 | THR | 4.3 |
| 2 | S | 112 | LEU | 4.3 |
| 1 | D | 173 | ILE | 4.3 |
| 1 | E | 364 | ILE | 4.3 |
| 1 | A | 237 | PHE | 4.3 |
| 1 | B | 187 | SER | 4.3 |
| 1 | D | 325 | TYR | 4.3 |
| 1 | F | 445 | ARG | 4.3 |
| 1 | C | 521 | ASN | 4.3 |
| 1 | B | 287 | GLY | 4.3 |
| 1 | A | 139 | SER | 4.3 |
| 1 | A | 109 | ILE | 4.3 |
| 1 | B | 106 | PHE | 4.3 |
| 1 | B | 446 | ILE | 4.3 |
| 1 | E | 455 | TYR | 4.3 |
| 1 | E | 456 | LYS | 4.3 |
| 2 | S | 116 | LEU | 4.3 |
| 1 | B | 308 | VAL | 4.3 |
| 1 | D | 279 | ILE | 4.3 |
| 1 | E | 308 | VAL | 4.3 |
| 1 | E | 596 | ILE | 4.3 |
| 1 | D | 223 | LYS | 4.2 |
| 2 | Q | 146 | THR | 4.2 |
| 1 | E | 520 | PRO | 4.2 |
| 1 | F | 198 | SER | 4.2 |
| 1 | C | 229 | PHE | 4.2 |
| 1 | D | 735 | VAL | 4.2 |
| 1 | A | 501 | LEU | 4.2 |
| 2 | T | 116 | LEU | 4.2 |
| 1 | A | 114 | HIS | 4.2 |
| 1 | A | 678 | VAL | 4.2 |
| 1 | B | 565 | LYS | 4.2 |
| 1 | C | 209 | LEU | 4.2 |
| 1 | A | 782 | PHE | 4.2 |
| 1 | F | 216 | GLU | 4.2 |
| 1 | A | 578 | GLY | 4.2 |
| 1 | D | 132 | GLY | 4.2 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | E | 548 | THR | 4.2 |
| 2 | T | 128 | ALA | 4.2 |
| 2 | S | 58 | ASP | 4.2 |
| 1 | F | 76 | LEU | 4.2 |
| 2 | O | 89 | PHE | 4.2 |
| 2 | T | 96 | GLY | 4.2 |
| 1 | B | 603 | ILE | 4.2 |
| 1 | B | 98 | SER | 4.2 |
| 1 | E | 258 | GLU | 4.2 |
| 2 | R | 127 | GLU | 4.2 |
| 1 | A | 349 | ASN | 4.2 |
| 1 | B | 284 | LYS | 4.2 |
| 1 | E | 319 | ALA | 4.2 |
| 1 | C | 374 | HIS | 4.2 |
| 1 | B | 413 | LEU | 4.2 |
| 1 | E | 206 | SER | 4.2 |
| 1 | B | 594 | PHE | 4.2 |
| 1 | F | 384 | ASN | 4.2 |
| 2 | T | 59 | GLY | 4.2 |
| 1 | A | 279 | ILE | 4.2 |
| 1 | E | 424 | LYS | 4.2 |
| 1 | E | 603 | ILE | 4.2 |
| 1 | A | 705 | TYR | 4.2 |
| 1 | C | 704 | TYR | 4.2 |
| 1 | E | 282 | SER | 4.2 |
| 1 | F | 681 | ASP | 4.2 |
| 1 | B | 633 | ASN | 4.2 |
| 1 | B | 224 | SER | 4.2 |
| 2 | O | 132 | GLY | 4.2 |
| 1 | F | 230 | ILE | 4.2 |
| 1 | A | 648 | PRO | 4.2 |
| 1 | A | 223 | LYS | 4.2 |
| 1 | E | 566 | TYR | 4.2 |
| 1 | F | 363 | TYR | 4.2 |
| 1 | E | 321 | GLU | 4.2 |
| 1 | A | 618 | ASN | 4.2 |
| 1 | C | 613 | ARG | 4.2 |
| 2 | S | 42 | ASN | 4.2 |
| 1 | A | 717 | LYS | 4.2 |
| 1 | C | 657 | ILE | 4.2 |
| 1 | D | 504 | ILE | 4.2 |
| 1 | E | 99 | GLU | 4.2 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | F | 769 | SER | 4.2 |
| 1 | A | 353 | LYS | 4.1 |
| 1 | E | 152 | LEU | 4.1 |
| 1 | E | 269 | ASN | 4.1 |
| 1 | E | 343 | VAL | 4.1 |
| 1 | E | 760 | VAL | 4.1 |
| 1 | B | 711 | ILE | 4.1 |
| 1 | E | 772 | GLU | 4.1 |
| 1 | E | 761 | GLN | 4.1 |
| 1 | F | 750 | GLN | 4.1 |
| 1 | A | 451 | ASN | 4.1 |
| 1 | D | 627 | TYR | 4.1 |
| 1 | F | 529 | VAL | 4.1 |
| 2 | Q | 104 | GLU | 4.1 |
| 2 | T | 143 | GLN | 4.1 |
| 1 | D | 201 | ASP | 4.1 |
| 2 | T | 58 | ASP | 4.1 |
| 1 | A | 777 | TYR | 4.1 |
| 1 | F | 269 | ASN | 4.1 |
| 1 | A | 565 | LYS | 4.1 |
| 1 | A | 732 | ILE | 4.1 |
| 1 | B | 186 | LYS | 4.1 |
| 1 | B | 379 | ALA | 4.1 |
| 1 | C | 501 | LEU | 4.1 |
| 1 | E | 489 | THR | 4.1 |
| 1 | B | 279 | ILE | 4.1 |
| 1 | C | 467 | GLU | 4.1 |
| 1 | F | 279 | ILE | 4.1 |
| 1 | A | 143 | PHE | 4.1 |
| 1 | A | 694 | VAL | 4.1 |
| 1 | F | 316 | LYS | 4.1 |
| 2 | Q | 131 | ASP | 4.1 |
| 1 | F | 310 | GLU | 4.1 |
| 1 | F | 643 | ILE | 4.1 |
| 1 | C | 764 | LEU | 4.1 |
| 1 | F | 81 | GLN | 4.1 |
| 1 | E | 217 | LYS | 4.1 |
| 1 | C | 356 | ASP | 4.1 |
| 1 | B | 576 | ASN | 4.1 |
| 1 | C | 561 | ASN | 4.1 |
| 1 | B | 373 | LYS | 4.1 |
| 1 | C | 491 | ASP | 4.1 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | E | 622 | LYS | 4.1 |
| 1 | F | 333 | LYS | 4.1 |
| 1 | F | 479 | LYS | 4.1 |
| 1 | D | 351 | HIS | 4.1 |
| 1 | A | 426 | ILE | 4.1 |
| 1 | C | 246 | SER | 4.1 |
| 2 | R | 22 | ASP | 4.1 |
| 2 | T | 4 | LEU | 4.1 |
| 1 | F | 237 | PHE | 4.1 |
| 1 | C | 730 | ASN | 4.1 |
| 1 | E | 73 | ASN | 4.1 |
| 1 | E | 661 | ALA | 4.1 |
| 1 | F | 641 | ALA | 4.1 |
| 1 | D | 657 | ILE | 4.1 |
| 1 | A | 469 | PHE | 4.1 |
| 1 | D | 69 | THR | 4.1 |
| 1 | F | 765 | THR | 4.1 |
| 1 | F | 291 | ASP | 4.1 |
| 1 | B | 213 | LYS | 4.1 |
| 1 | D | 564 | VAL | 4.1 |
| 1 | E | 453 | VAL | 4.1 |
| 1 | F | 103 | GLU | 4.1 |
| 1 | B | 733 | GLU | 4.0 |
| 1 | F | 119 | ASP | 4.0 |
| 1 | F | 128 | MET | 4.0 |
| 1 | F | 341 | SER | 4.0 |
| 2 | Q | 135 | GLN | 4.0 |
| 1 | E | 338 | LEU | 4.0 |
| 1 | F | 741 | ILE | 4.0 |
| 1 | C | 469 | PHE | 4.0 |
| 1 | B | 317 | LYS | 4.0 |
| 1 | B | 572 | GLY | 4.0 |
| 1 | D | 258 | GLU | 4.0 |
| 2 | P | 57 | ALA | 4.0 |
| 1 | C | 130 | SER | 4.0 |
| 1 | D | 368 | GLN | 4.0 |
| 1 | F | 373 | LYS | 4.0 |
| 2 | Q | 24 | ASP | 4.0 |
| 2 | R | 79 | THR | 4.0 |
| 1 | C | 759 | GLN | 4.0 |
| 1 | B | 78 | LYS | 4.0 |
| 1 | E | 276 | PHE | 4.0 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | F | 450 | ASN | 4.0 |
| 2 | O | 36 | MET | 4.0 |
| 1 | A | 254 | ARG | 4.0 |
| 1 | B | 227 | ILE | 4.0 |
| 1 | D | 538 | ILE | 4.0 |
| 1 | E | 249 | PHE | 4.0 |
| 2 | P | 121 | VAL | 4.0 |
| 2 | Q | 11 | GLU | 4.0 |
| 1 | E | 132 | GLY | 4.0 |
| 1 | B | 303 | LYS | 4.0 |
| 1 | C | 783 | THR | 4.0 |
| 1 | A | 736 | LEU | 4.0 |
| 1 | E | 586 | PHE | 4.0 |
| 2 | O | 3 | GLN | 4.0 |
| 1 | A | 798 | ASP | 4.0 |
| 1 | E | 354 | SER | 4.0 |
| 1 | A | 511 | LYS | 4.0 |
| 1 | D | 763 | LEU | 4.0 |
| 1 | D | 771 | ILE | 4.0 |
| 2 | Q | 27 | ILE | 4.0 |
| 1 | C | 324 | THR | 4.0 |
| 2 | O | 94 | LYS | 4.0 |
| 1 | B | 170 | TYR | 4.0 |
| 1 | E | 221 | ASN | 4.0 |
| 1 | A | 645 | TRP | 4.0 |
| 1 | E | 479 | LYS | 4.0 |
| 1 | A | 650 | THR | 4.0 |
| 2 | S | 62 | THR | 4.0 |
| 1 | B | 328 | PHE | 4.0 |
| 1 | B | 80 | GLN | 4.0 |
| 1 | C | 768 | LYS | 4.0 |
| 1 | C | 365 | PRO | 4.0 |
| 1 | C | 517 | VAL | 4.0 |
| 1 | A | 239 | HIS | 4.0 |
| 1 | D | 695 | LYS | 4.0 |
| 1 | B | 514 | ASP | 4.0 |
| 2 | O | 78 | ASP | 4.0 |
| 2 | S | 69 | LEU | 4.0 |
| 1 | F | 635 | ILE | 4.0 |
| 1 | A | 581 | GLN | 3.9 |
| 1 | C | 416 | ASN | 3.9 |
| 1 | E | 264 | MET | 3.9 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 2 | O | 64 | ASP | 3.9 |
| 1 | A | 676 | VAL | 3.9 |
| 1 | C | 485 | LEU | 3.9 |
| 1 | B | 499 | PRO | 3.9 |
| 2 | P | 73 | ALA | 3.9 |
| 1 | F | 584 | GLU | 3.9 |
| 1 | B | 357 | TRP | 3.9 |
| 1 | C | 619 | ILE | 3.9 |
| 1 | E | 444 | PHE | 3.9 |
| 1 | B | 115 | LYS | 3.9 |
| 1 | E | 577 | HIS | 3.9 |
| 1 | A | 296 | LEU | 3.9 |
| 1 | B | 399 | GLY | 3.9 |
| 1 | E | 769 | SER | 3.9 |
| 1 | C | 608 | TRP | 3.9 |
| 1 | F | 181 | ILE | 3.9 |
| 1 | C | 518 | ASN | 3.9 |
| 2 | R | 55 | VAL | 3.9 |
| 1 | C | 326 | ILE | 3.9 |
| 1 | A | 164 | GLU | 3.9 |
| 1 | B | 340 | LYS | 3.9 |
| 1 | B | 566 | TYR | 3.9 |
| 1 | D | 559 | ARG | 3.9 |
| 1 | B | 75 | THR | 3.9 |
| 1 | B | 469 | PHE | 3.9 |
| 1 | B | 783 | THR | 3.9 |
| 2 | P | 85 | ILE | 3.9 |
| 1 | A | 445 | ARG | 3.9 |
| 1 | C | 626 | TYR | 3.9 |
| 2 | O | 24 | ASP | 3.9 |
| 1 | B | 79 | ILE | 3.9 |
| 1 | B | 771 | ILE | 3.9 |
| 2 | O | 27 | ILE | 3.9 |
| 1 | A | 363 | TYR | 3.9 |
| 1 | D | 542 | PRO | 3.9 |
| 2 | P | 91 | VAL | 3.9 |
| 1 | C | 315 | PHE | 3.9 |
| 1 | C | 663 | PHE | 3.9 |
| 1 | A | 519 | THR | 3.9 |
| 1 | E | 704 | TYR | 3.9 |
| 1 | F | 770 | ASN | 3.9 |
| 1 | A | 415 | GLU | 3.9 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 616 | GLU | 3.9 |
| 1 | E | 70 | GLU | 3.9 |
| 1 | F | 151 | LYS | 3.9 |
| 1 | A | 249 | PHE | 3.9 |
| 1 | B | 759 | GLN | 3.9 |
| 1 | D | 664 | ILE | 3.9 |
| 1 | F | 108 | ASP | 3.9 |
| 1 | F | 629 | ASN | 3.9 |
| 1 | C | 777 | TYR | 3.9 |
| 1 | B | 269 | ASN | 3.9 |
| 1 | B | 577 | HIS | 3.9 |
| 1 | B | 710 | HIS | 3.9 |
| 1 | E | 368 | GLN | 3.9 |
| 1 | D | 64 | ASN | 3.9 |
| 1 | A | 66 | LEU | 3.8 |
| 1 | D | 117 | LEU | 3.8 |
| 1 | B | 267 | TYR | 3.8 |
| 1 | F | 249 | PHE | 3.8 |
| 1 | B | 238 | GLN | 3.8 |
| 1 | D | 340 | LYS | 3.8 |
| 1 | D | 726 | ILE | 3.8 |
| 1 | F | 411 | GLU | 3.8 |
| 2 | S | 84 | GLU | 3.8 |
| 1 | B | 610 | MET | 3.8 |
| 1 | A | 155 | ASN | 3.8 |
| 1 | C | 700 | TYR | 3.8 |
| 1 | A | 213 | LYS | 3.8 |
| 1 | E | 151 | LYS | 3.8 |
| 1 | B | 779 | GLN | 3.8 |
| 1 | F | 226 | ASP | 3.8 |
| 1 | E | 579 | THR | 3.8 |
| 1 | E | 655 | ASN | 3.8 |
| 1 | A | 567 | THR | 3.8 |
| 1 | C | 330 | PRO | 3.8 |
| 1 | F | 533 | LEU | 3.8 |
| 2 | S | 123 | GLN | 3.8 |
| 1 | D | 745 | TYR | 3.8 |
| 2 | Q | 134 | GLY | 3.8 |
| 1 | C | 131 | ARG | 3.8 |
| 1 | C | 703 | ASP | 3.8 |
| 1 | D | 74 | GLU | 3.8 |
| 1 | B | 360 | VAL | 3.8 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | E | 578 | GLY | 3.8 |
| 1 | E | 788 | ASP | 3.8 |
| 1 | D | 553 | GLN | 3.8 |
| 1 | D | 191 | GLU | 3.8 |
| 1 | A | 604 | LEU | 3.8 |
| 1 | B | 208 | LEU | 3.8 |
| 1 | C | 403 | LEU | 3.8 |
| 1 | D | 94 | LEU | 3.8 |
| 1 | F | 781 | ASN | 3.8 |
| 1 | A | 755 | ARG | 3.8 |
| 2 | O | 98 | GLY | 3.8 |
| 2 | R | 57 | ALA | 3.8 |
| 1 | E | 642 | TYR | 3.8 |
| 1 | B | 364 | ILE | 3.8 |
| 1 | D | 285 | LYS | 3.8 |
| 2 | Q | 63 | ILE | 3.8 |
| 1 | C | 488 | LEU | 3.8 |
| 1 | F | 532 | LEU | 3.8 |
| 1 | F | 64 | ASN | 3.8 |
| 2 | O | 137 | ASN | 3.8 |
| 1 | B | 184 | LYS | 3.8 |
| 1 | D | 791 | GLU | 3.8 |
| 1 | F | 517 | VAL | 3.8 |
| 1 | A | 347 | GLY | 3.8 |
| 1 | B | 124 | GLU | 3.8 |
| 1 | C | 622 | LYS | 3.8 |
| 2 | S | 143 | GLN | 3.8 |
| 1 | A | 255 | THR | 3.8 |
| 1 | C | 530 | THR | 3.8 |
| 1 | B | 189 | ASP | 3.8 |
| 1 | B | 491 | ASP | 3.8 |
| 1 | C | 175 | LYS | 3.8 |
| 1 | C | 563 | ALA | 3.8 |
| 1 | F | 580 | GLU | 3.8 |
| 2 | R | 8 | GLN | 3.8 |
| 1 | C | 726 | ILE | 3.8 |
| 1 | E | 127 | SER | 3.8 |
| 2 | P | 92 | PHE | 3.8 |
| 1 | B | 122 | GLU | 3.7 |
| 1 | C | 767 | GLN | 3.7 |
| 1 | E | 262 | PRO | 3.7 |
| 1 | C | 441 | VAL | 3.7 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | D | 710 | HIS | 3.7 |
| 1 | E | 245 | PHE | 3.7 |
| 1 | E | 486 | LYS | 3.7 |
| 1 | E | 570 | THR | 3.7 |
| 2 | Q | 75 | LYS | 3.7 |
| 1 | F | 369 | ASP | 3.7 |
| 1 | B | 591 | ASN | 3.7 |
| 1 | C | 595 | ILE | 3.7 |
| 1 | F | 736 | LEU | 3.7 |
| 2 | S | 16 | PHE | 3.7 |
| 2 | O | 109 | MET | 3.7 |
| 2 | T | 146 | THR | 3.7 |
| 1 | B | 327 | LEU | 3.7 |
| 1 | B | 339 | ILE | 3.7 |
| 1 | D | 188 | LEU | 3.7 |
| 2 | Q | 125 | ILE | 3.7 |
| 1 | C | 329 | ARG | 3.7 |
| 1 | E | 131 | ARG | 3.7 |
| 2 | P | 53 | ASN | 3.7 |
| 1 | B | 744 | GLU | 3.7 |
| 1 | E | 784 | GLU | 3.7 |
| 1 | C | 301 | ALA | 3.7 |
| 1 | E | 778 | LYS | 3.7 |
| 1 | F | 125 | LYS | 3.7 |
| 1 | B | 714 | GLN | 3.7 |
| 1 | C | 426 | ILE | 3.7 |
| 2 | Q | 100 | ILE | 3.7 |
| 1 | B | 453 | VAL | 3.7 |
| 1 | C | 337 | ASN | 3.7 |
| 2 | O | 48 | LEU | 3.7 |
| 1 | D | 355 | SER | 3.7 |
| 1 | E | 118 | GLN | 3.7 |
| 2 | O | 41 | GLN | 3.7 |
| 1 | F | 634 | LYS | 3.7 |
| 2 | R | 11 | GLU | 3.7 |
| 1 | E | 129 | ASN | 3.7 |
| 2 | P | 69 | LEU | 3.7 |
| 1 | B | 376 | GLN | 3.7 |
| 1 | A | 631 | SER | 3.7 |
| 1 | C | 765 | THR | 3.7 |
| 1 | E | 350 | VAL | 3.7 |
| 1 | C | 493 | ASP | 3.7 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | E | 395 | GLU | 3.7 |
| 1 | B | 789 | ASN | 3.7 |
| 1 | C | 160 | ALA | 3.7 |
| 1 | D | 770 | ASN | 3.7 |
| 1 | B | 462 | ILE | 3.7 |
| 1 | A | 163 | SER | 3.7 |
| 1 | B | 769 | SER | 3.7 |
| 2 | P | 71 | MET | 3.7 |
| 1 | A | 484 | VAL | 3.7 |
| 1 | B | 432 | TYR | 3.7 |
| 1 | B | 712 | PHE | 3.7 |
| 1 | C | 293 | ILE | 3.7 |
| 1 | C | 492 | TYR | 3.7 |
| 1 | E | 363 | TYR | 3.7 |
| 1 | A | 306 | GLY | 3.7 |
| 1 | A | 522 | SER | 3.7 |
| 1 | A | 776 | LEU | 3.7 |
| 1 | B | 128 | MET | 3.7 |
| 1 | D | 296 | LEU | 3.7 |
| 1 | F | 488 | LEU | 3.7 |
| 1 | D | 167 | LYS | 3.7 |
| 1 | E | 536 | TYR | 3.7 |
| 1 | E | 538 | ILE | 3.7 |
| 1 | A | 332 | ASN | 3.7 |
| 1 | C | 140 | ARG | 3.7 |
| 1 | E | 396 | GLY | 3.7 |
| 1 | B | 202 | ASP | 3.7 |
| 2 | R | 93 | ASP | 3.7 |
| 2 | R | 92 | PHE | 3.7 |
| 2 | Q | 123 | GLN | 3.7 |
| 2 | S | 54 | GLU | 3.7 |
| 1 | A | 660 | SER | 3.6 |
| 1 | E | 149 | THR | 3.6 |
| 1 | F | 658 | PRO | 3.6 |
| 2 | Q | 109 | MET | 3.6 |
| 1 | E | 180 | ASP | 3.6 |
| 1 | E | 263 | ASP | 3.6 |
| 2 | O | 63 | ILE | 3.6 |
| 1 | B | 704 | TYR | 3.6 |
| 1 | F | 777 | TYR | 3.6 |
| 1 | D | 118 | GLN | 3.6 |
| 1 | D | 707 | SER | 3.6 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 2 | P | 146 | THR | 3.6 |
| 1 | A | 687 | GLU | 3.6 |
| 1 | C | 381 | GLU | 3.6 |
| 1 | A | 101 | GLY | 3.6 |
| 1 | A | 340 | LYS | 3.6 |
| 1 | A | 510 | GLN | 3.6 |
| 2 | R | 143 | GLN | 3.6 |
| 1 | C | 560 | LEU | 3.6 |
| 1 | E | 607 | ASN | 3.6 |
| 1 | F | 655 | ASN | 3.6 |
| 2 | O | 4 | LEU | 3.6 |
| 1 | B | 749 | PHE | 3.6 |
| 1 | A | 620 | THR | 3.6 |
| 1 | F | 650 | THR | 3.6 |
| 1 | D | 333 | LYS | 3.6 |
| 2 | R | 24 | ASP | 3.6 |
| 2 | O | 18 | LEU | 3.6 |
| 1 | A | 602 | PHE | 3.6 |
| 1 | E | 387 | ASN | 3.6 |
| 1 | D | 792 | VAL | 3.6 |
| 1 | E | 670 | ILE | 3.6 |
| 1 | F | 184 | LYS | 3.6 |
| 2 | T | 136 | VAL | 3.6 |
| 1 | F | 764 | LEU | 3.6 |
| 1 | F | 272 | GLU | 3.6 |
| 1 | C | 624 | TYR | 3.6 |
| 1 | E | 751 | TYR | 3.6 |
| 1 | E | 187 | SER | 3.6 |
| 1 | C | 779 | GLN | 3.6 |
| 1 | E | 740 | GLN | 3.6 |
| 2 | O | 49 | GLN | 3.6 |
| 1 | B | 214 | PHE | 3.6 |
| 1 | B | 337 | ASN | 3.6 |
| 1 | E | 397 | GLU | 3.6 |
| 1 | A | 329 | ARG | 3.6 |
| 1 | C | 466 | GLY | 3.6 |
| 1 | D | 149 | THR | 3.6 |
| 1 | F | 82 | THR | 3.6 |
| 1 | F | 201 | ASP | 3.6 |
| 2 | O | 146 | THR | 3.6 |
| 2 | S | 118 | ASP | 3.6 |
| 1 | B | 331 | VAL | 3.6 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | E | 126 | ASN | 3.6 |
| 1 | E | 768 | LYS | 3.6 |
| 1 | D | 178 | SER | 3.6 |
| 1 | D | 570 | THR | 3.6 |
| 1 | E | 623 | ASP | 3.6 |
| 1 | B | 436 | GLU | 3.6 |
| 1 | C | 635 | ILE | 3.6 |
| 1 | B | 259 | LEU | 3.6 |
| 1 | C | 382 | LYS | 3.6 |
| 1 | D | 456 | LYS | 3.6 |
| 1 | D | 483 | GLY | 3.6 |
| 1 | B | 470 | ASN | 3.6 |
| 1 | B | 508 | ILE | 3.6 |
| 1 | D | 672 | ARG | 3.6 |
| 2 | Q | 29 | THR | 3.6 |
| 1 | D | 737 | LYS | 3.6 |
| 1 | E | 223 | LYS | 3.6 |
| 1 | E | 361 | ALA | 3.6 |
| 1 | F | 651 | LYS | 3.6 |
| 1 | C | 452 | GLU | 3.6 |
| 1 | A | 217 | LYS | 3.6 |
| 1 | B | 398 | ILE | 3.6 |
| 1 | E | 452 | GLU | 3.6 |
| 1 | B | 478 | ALA | 3.6 |
| 1 | D | 312 | ALA | 3.6 |
| 2 | T | 18 | LEU | 3.6 |
| 1 | B | 587 | PRO | 3.6 |
| 1 | E | 359 | PRO | 3.6 |
| 2 | T | 89 | PHE | 3.6 |
| 1 | D | 155 | ASN | 3.6 |
| 1 | E | 458 | LYS | 3.6 |
| 1 | F | 785 | ASN | 3.6 |
| 1 | F | 697 | ILE | 3.6 |
| 2 | P | 63 | ILE | 3.6 |
| 2 | P | 87 | GLU | 3.6 |
| 1 | E | 335 | ALA | 3.6 |
| 1 | D | 625 | LEU | 3.6 |
| 1 | D | 701 | LEU | 3.6 |
| 1 | A | 715 | GLU | 3.5 |
| 1 | E | 697 | ILE | 3.5 |
| 1 | F | 767 | GLN | 3.5 |
| 2 | P | 6 | GLU | 3.5 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | A | 351 | HIS | 3.5 |
| 1 | D | 492 | TYR | 3.5 |
| 1 | F | 248 | TYR | 3.5 |
| 1 | B | 346 | LYS | 3.5 |
| 1 | D | 411 | GLU | 3.5 |
| 1 | D | 796 | ILE | 3.5 |
| 1 | F | 212 | GLN | 3.5 |
| 1 | D | 445 | ARG | 3.5 |
| 1 | C | 368 | GLN | 3.5 |
| 1 | D | 697 | ILE | 3.5 |
| 1 | D | 301 | ALA | 3.5 |
| 1 | E | 414 | LYS | 3.5 |
| 1 | E | 791 | GLU | 3.5 |
| 1 | D | 513 | TRP | 3.5 |
| 1 | E | 645 | TRP | 3.5 |
| 1 | E | 636 | ALA | 3.5 |
| 1 | C | 141 | PHE | 3.5 |
| 1 | E | 722 | ILE | 3.5 |
| 1 | C | 151 | LYS | 3.5 |
| 1 | F | 753 | LYS | 3.5 |
| 2 | O | 32 | LEU | 3.5 |
| 1 | C | 138 | ALA | 3.5 |
| 1 | D | 319 | ALA | 3.5 |
| 1 | F | 537 | GLY | 3.5 |
| 2 | S | 122 | ASP | 3.5 |
| 1 | E | 200 | SER | 3.5 |
| 1 | E | 213 | LYS | 3.5 |
| 1 | D | 435 | LEU | 3.5 |
| 1 | E | 683 | GLY | 3.5 |
| 2 | Q | 15 | ALA | 3.5 |
| 1 | E | 459 | GLU | 3.5 |
| 2 | T | 126 | ARG | 3.5 |
| 2 | S | 53 | ASN | 3.5 |
| 1 | C | 553 | GLN | 3.5 |
| 1 | C | 660 | SER | 3.5 |
| 1 | D | 748 | TYR | 3.5 |
| 1 | A | 316 | LYS | 3.5 |
| 1 | F | 503 | GLU | 3.5 |
| 2 | P | 75 | LYS | 3.5 |
| 1 | F | 141 | PHE | 3.5 |
| 1 | B | 541 | LYS | 3.5 |
| 2 | P | 55 | VAL | 3.5 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 533 | LEU | 3.5 |
| 1 | D | 466 | GLY | 3.5 |
| 1 | E | 573 | ASP | 3.5 |
| 1 | F | 428 | ASN | 3.5 |
| 1 | C | 737 | LYS | 3.5 |
| 1 | C | 738 | SER | 3.5 |
| 1 | E | 728 | ALA | 3.5 |
| 1 | F | 157 | LYS | 3.5 |
| 1 | D | 248 | TYR | 3.5 |
| 1 | D | 536 | TYR | 3.5 |
| 1 | E | 748 | TYR | 3.5 |
| 1 | F | 513 | TRP | 3.5 |
| 1 | B | 735 | VAL | 3.5 |
| 1 | E | 108 | ASP | 3.5 |
| 2 | Q | 57 | ALA | 3.5 |
| 1 | B | 584 | GLU | 3.5 |
| 1 | F | 471 | TRP | 3.5 |
| 1 | B | 796 | ILE | 3.5 |
| 2 | R | 63 | ILE | 3.5 |
| 1 | B | 573 | ASP | 3.4 |
| 1 | F | 116 | GLU | 3.4 |
| 2 | O | 87 | GLU | 3.4 |
| 1 | A | 569 | TYR | 3.4 |
| 1 | E | 112 | VAL | 3.4 |
| 2 | T | 142 | VAL | 3.4 |
| 1 | D | 797 | ILE | 3.4 |
| 1 | C | 478 | ALA | 3.4 |
| 1 | A | 533 | LEU | 3.4 |
| 1 | B | 622 | LYS | 3.4 |
| 1 | C | 525 | LYS | 3.4 |
| 1 | D | 79 | ILE | 3.4 |
| 1 | D | 278 | LYS | 3.4 |
| 1 | C | 237 | PHE | 3.4 |
| 1 | F | 712 | PHE | 3.4 |
| 2 | Q | 98 | GLY | 3.4 |
| 1 | B | 129 | ASN | 3.4 |
| 1 | C | 158 | ASP | 3.4 |
| 2 | P | 24 | ASP | 3.4 |
| 2 | T | 77 | LYS | 3.4 |
| 1 | D | 227 | ILE | 3.4 |
| 1 | E | 274 | GLY | 3.4 |
| 2 | R | 5 | THR | 3.4 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | A | 497 | LEU | 3.4 |
| 1 | A | 549 | LEU | 3.4 |
| 1 | C | 566 | TYR | 3.4 |
| 1 | F | 775 | LEU | 3.4 |
| 1 | E | 194 | ASN | 3.4 |
| 2 | P | 56 | ASP | 3.4 |
| 1 | B | 571 | GLY | 3.4 |
| 1 | E | 102 | GLY | 3.4 |
| 1 | A | 373 | LYS | 3.4 |
| 1 | A | 783 | THR | 3.4 |
| 2 | T | 36 | MET | 3.4 |
| 1 | E | 698 | ALA | 3.4 |
| 1 | F | 234 | LEU | 3.4 |
| 1 | C | 732 | ILE | 3.4 |
| 1 | A | 71 | PHE | 3.4 |
| 1 | D | 518 | ASN | 3.4 |
| 1 | A | 146 | LYS | 3.4 |
| 1 | D | 400 | LYS | 3.4 |
| 2 | S | 7 | GLU | 3.4 |
| 1 | F | 250 | ALA | 3.4 |
| 1 | C | 763 | LEU | 3.4 |
| 1 | B | 495 | PHE | 3.4 |
| 1 | A | 491 | ASP | 3.4 |
| 1 | D | 798 | ASP | 3.4 |
| 1 | A | 452 | GLU | 3.4 |
| 1 | B | 521 | ASN | 3.4 |
| 1 | D | 332 | ASN | 3.4 |
| 2 | T | 60 | ASN | 3.4 |
| 2 | O | 102 | ALA | 3.4 |
| 1 | E | 285 | LYS | 3.4 |
| 1 | C | 352 | GLY | 3.4 |
| 1 | D | 298 | GLY | 3.4 |
| 1 | B | 299 | GLU | 3.4 |
| 1 | D | 582 | ASP | 3.4 |
| 2 | R | 71 | MET | 3.4 |
| 1 | A | 314 | ALA | 3.4 |
| 1 | E | 355 | SER | 3.4 |
| 1 | B | 534 | ILE | 3.4 |
| 1 | D | 101 | GLY | 3.4 |
| 1 | C | 286 | GLU | 3.4 |
| 1 | B | 780 | LEU | 3.4 |
| 1 | C | 661 | ALA | 3.4 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | D | 532 | LEU | 3.4 |
| 2 | Q | 25 | GLY | 3.4 |
| 1 | A | 404 | LYS | 3.4 |
| 1 | D | 308 | VAL | 3.4 |
| 2 | P | 136 | VAL | 3.4 |
| 2 | T | 133 | ASP | 3.4 |
| 1 | B | 492 | TYR | 3.4 |
| 1 | F | 247 | TYR | 3.4 |
| 1 | C | 579 | THR | 3.4 |
| 1 | E | 399 | GLY | 3.4 |
| 1 | E | 581 | GLN | 3.4 |
| 1 | F | 570 | THR | 3.4 |
| 2 | P | 79 | THR | 3.4 |
| 1 | D | 145 | LYS | 3.4 |
| 1 | B | 488 | LEU | 3.4 |
| 1 | B | 540 | ARG | 3.4 |
| 1 | C | 259 | LEU | 3.4 |
| 1 | C | 465 | LEU | 3.4 |
| 2 | O | 10 | ALA | 3.4 |
| 1 | C | 495 | PHE | 3.4 |
| 1 | D | 276 | PHE | 3.4 |
| 1 | F | 679 | TYR | 3.4 |
| 1 | C | 253 | HIS | 3.4 |
| 1 | D | 533 | LEU | 3.3 |
| 1 | E | 610 | MET | 3.4 |
| 2 | O | 91 | VAL | 3.3 |
| 1 | A | 92 | ASP | 3.3 |
| 1 | D | 161 | ILE | 3.3 |
| 1 | D | 313 | ASP | 3.3 |
| 1 | D | 427 | ASP | 3.3 |
| 1 | D | 645 | TRP | 3.3 |
| 2 | Q | 19 | PHE | 3.3 |
| 2 | S | 100 | ILE | 3.3 |
| 1 | D | 622 | LYS | 3.3 |
| 2 | R | 96 | GLY | 3.3 |
| 1 | B | 371 | SER | 3.3 |
| 1 | A | 380 | VAL | 3.3 |
| 1 | C | 322 | LEU | 3.3 |
| 1 | E | 516 | VAL | 3.3 |
| 1 | F | 243 | LEU | 3.3 |
| 1 | C | 698 | ALA | 3.3 |
| 1 | D | 652 | ALA | 3.3 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 474 | ILE | 3.3 |
| 1 | C | 670 | ILE | 3.3 |
| 1 | A | 287 | GLY | 3.3 |
| 1 | A | 466 | GLY | 3.3 |
| 1 | A | 584 | GLU | 3.3 |
| 1 | B | 158 | ASP | 3.3 |
| 1 | B | 680 | LYS | 3.3 |
| 1 | A | 473 | ASN | 3.3 |
| 1 | D | 83 | GLN | 3.3 |
| 1 | B | 625 | LEU | 3.3 |
| 1 | D | 736 | LEU | 3.3 |
| 1 | F | 604 | LEU | 3.3 |
| 1 | A | 75 | THR | 3.3 |
| 2 | Q | 35 | VAL | 3.3 |
| 2 | Q | 79 | THR | 3.3 |
| 2 | S | 38 | SER | 3.3 |
| 2 | Q | 13 | LYS | 3.3 |
| 1 | C | 448 | ASP | 3.3 |
| 1 | F | 313 | ASP | 3.3 |
| 2 | Q | 120 | GLU | 3.3 |
| 1 | F | 740 | GLN | 3.3 |
| 2 | T | 38 | SER | 3.3 |
| 1 | A | 319 | ALA | 3.3 |
| 1 | A | 797 | ILE | 3.3 |
| 1 | A | 460 | GLY | 3.3 |
| 1 | B | 627 | TYR | 3.3 |
| 1 | D | 159 | TYR | 3.3 |
| 1 | D | 474 | ILE | 3.3 |
| 1 | E | 164 | GLU | 3.3 |
| 1 | F | 573 | ASP | 3.3 |
| 1 | F | 701 | LEU | 3.3 |
| 1 | A | 400 | LYS | 3.3 |
| 1 | C | 710 | HIS | 3.3 |
| 1 | B | 570 | THR | 3.3 |
| 1 | E | 649 | ILE | 3.3 |
| 2 | P | 101 | SER | 3.3 |
| 1 | D | 432 | TYR | 3.3 |
| 1 | F | 412 | GLU | 3.3 |
| 1 | F | 357 | TRP | 3.3 |
| 2 | R | 131 | ASP | 3.3 |
| 1 | F | 328 | PHE | 3.3 |
| 1 | A | 615 | ILE | 3.3 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | A | 641 | ALA | 3.3 |
| 1 | D | 98 | SER | 3.3 |
| 1 | E | 757 | THR | 3.3 |
| 1 | F | 352 | GLY | 3.3 |
| 1 | A | 513 | TRP | 3.3 |
| 1 | D | 746 | LYS | 3.3 |
| 2 | S | 148 | LYS | 3.3 |
| 1 | D | 367 | ASP | 3.3 |
| 2 | S | 71 | MET | 3.3 |
| 1 | A | 699 | GLY | 3.3 |
| 1 | C | 758 | ASN | 3.3 |
| 1 | E | 122 | GLU | 3.3 |
| 1 | E | 551 | ASN | 3.3 |
| 2 | O | 73 | ALA | 3.3 |
| 2 | P | 27 | ILE | 3.3 |
| 1 | F | 566 | TYR | 3.3 |
| 1 | A | 486 | LYS | 3.3 |
| 1 | F | 714 | GLN | 3.3 |
| 1 | B | 342 | GLY | 3.3 |
| 1 | C | 725 | GLY | 3.3 |
| 1 | F | 86 | LEU | 3.3 |
| 1 | E | 345 | THR | 3.3 |
| 1 | A | 77 | ASP | 3.3 |
| 1 | A | 539 | GLU | 3.3 |
| 1 | B | 168 | GLU | 3.3 |
| 1 | B | 590 | ASP | 3.3 |
| 1 | C | 186 | LYS | 3.3 |
| 1 | C | 401 | ILE | 3.3 |
| 1 | E | 467 | GLU | 3.3 |
| 2 | O | 13 | LYS | 3.3 |
| 1 | A | 434 | LEU | 3.3 |
| 1 | E | 98 | SER | 3.3 |
| 1 | E | 315 | PHE | 3.3 |
| 2 | O | 68 | PHE | 3.3 |
| 1 | B | 578 | GLY | 3.3 |
| 1 | E | 140 | ARG | 3.3 |
| 1 | C | 432 | TYR | 3.3 |
| 1 | E | 432 | TYR | 3.3 |
| 1 | E | 351 | HIS | 3.3 |
| 1 | E | 67 | VAL | 3.3 |
| 1 | E | 450 | ASN | 3.3 |
| 2 | T | 53 | ASN | 3.3 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 336 | THR | 3.3 |
| 1 | B | 151 | LYS | 3.3 |
| 1 | B | 351 | HIS | 3.3 |
| 1 | B | 484 | VAL | 3.3 |
| 1 | F | 464 | VAL | 3.3 |
| 1 | A | 118 | GLN | 3.2 |
| 1 | B | 758 | ASN | 3.2 |
| 1 | C | 499 | PRO | 3.2 |
| 2 | P | 127 | GLU | 3.2 |
| 1 | A | 659 | THR | 3.2 |
| 1 | F | 287 | GLY | 3.2 |
| 1 | B | 427 | ASP | 3.2 |
| 1 | C | 80 | GLN | 3.2 |
| 1 | F | 126 | ASN | 3.2 |
| 2 | P | 109 | MET | 3.2 |
| 2 | R | 139 | GLU | 3.2 |
| 1 | B | 127 | SER | 3.2 |
| 1 | E | 625 | LEU | 3.2 |
| 1 | A | 295 | VAL | 3.2 |
| 1 | D | 106 | PHE | 3.2 |
| 1 | B | 365 | PRO | 3.2 |
| 1 | C | 534 | ILE | 3.2 |
| 2 | P | 135 | GLN | 3.2 |
| 1 | F | 73 | ASN | 3.2 |
| 1 | B | 424 | LYS | 3.2 |
| 1 | B | 329 | ARG | 3.2 |
| 1 | B | 574 | VAL | 3.2 |
| 1 | D | 369 | ASP | 3.2 |
| 1 | E | 259 | LEU | 3.2 |
| 1 | E | 648 | PRO | 3.2 |
| 1 | F | 154 | ILE | 3.2 |
| 1 | F | 474 | ILE | 3.2 |
| 1 | F | 636 | ALA | 3.2 |
| 1 | C | 642 | TYR | 3.2 |
| 1 | C | 617 | LYS | 3.2 |
| 2 | Q | 71 | MET | 3.2 |
| 2 | R | 72 | MET | 3.2 |
| 1 | D | 259 | LEU | 3.2 |
| 1 | D | 183 | SER | 3.2 |
| 2 | T | 81 | SER | 3.2 |
| 1 | E | 235 | THR | 3.2 |
| 1 | F | 463 | THR | 3.2 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 681 | ASP | 3.2 |
| 1 | C | 147 | ARG | 3.2 |
| 1 | C | 319 | ALA | 3.2 |
| 1 | C | 632 | TYR | 3.2 |
| 1 | E | 237 | PHE | 3.2 |
| 2 | S | 17 | SER | 3.2 |
| 1 | A | 537 | GLY | 3.2 |
| 1 | A | 560 | LEU | 3.2 |
| 2 | Q | 32 | LEU | 3.2 |
| 1 | E | 125 | LYS | 3.2 |
| 1 | E | 700 | TYR | 3.2 |
| 1 | A | 323 | ASN | 3.2 |
| 1 | A | 79 | ILE | 3.2 |
| 1 | A | 326 | ILE | 3.2 |
| 1 | B | 619 | ILE | 3.2 |
| 1 | B | 650 | THR | 3.2 |
| 1 | A | 212 | GLN | 3.2 |
| 1 | D | 590 | ASP | 3.2 |
| 1 | E | 493 | ASP | 3.2 |
| 1 | E | 590 | ASP | 3.2 |
| 1 | B | 249 | PHE | 3.2 |
| 1 | B | 325 | TYR | 3.2 |
| 1 | C | 505 | LYS | 3.2 |
| 2 | O | 108 | VAL | 3.2 |
| 2 | Q | 108 | VAL | 3.2 |
| 1 | B | 593 | ILE | 3.2 |
| 1 | C | 666 | ASN | 3.2 |
| 1 | E | 233 | ASN | 3.2 |
| 1 | F | 98 | SER | 3.2 |
| 1 | C | 685 | LYS | 3.2 |
| 2 | Q | 77 | LYS | 3.2 |
| 1 | C | 575 | VAL | 3.2 |
| 1 | D | 394 | HIS | 3.2 |
| 1 | C | 627 | TYR | 3.2 |
| 1 | F | 67 | VAL | 3.2 |
| 2 | R | 67 | GLU | 3.2 |
| 1 | F | 283 | LEU | 3.2 |
| 1 | B | 579 | THR | 3.2 |
| 1 | C | 678 | VAL | 3.2 |
| 2 | Q | 133 | ASP | 3.2 |
| 1 | C | 462 | ILE | 3.2 |
| 1 | A | 781 | ASN | 3.2 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 477 | MET | 3.2 |
| 1 | B | 623 | ASP | 3.2 |
| 2 | P | 129 | ASP | 3.2 |
| 1 | A | 421 | LYS | 3.1 |
| 1 | E | 333 | LYS | 3.1 |
| 1 | B | 725 | GLY | 3.1 |
| 1 | D | 128 | MET | 3.1 |
| 1 | E | 540 | ARG | 3.1 |
| 1 | B | 498 | ALA | 3.1 |
| 1 | D | 698 | ALA | 3.1 |
| 1 | F | 393 | GLU | 3.1 |
| 1 | F | 115 | LYS | 3.1 |
| 1 | B | 76 | LEU | 3.1 |
| 1 | D | 419 | ILE | 3.1 |
| 1 | D | 602 | PHE | 3.1 |
| 1 | E | 503 | GLU | 3.1 |
| 2 | S | 41 | GLN | 3.1 |
| 2 | T | 57 | ALA | 3.1 |
| 1 | C | 455 | TYR | 3.1 |
| 1 | F | 130 | SER | 3.1 |
| 1 | F | 557 | LEU | 3.1 |
| 1 | A | 364 | ILE | 3.1 |
| 1 | E | 600 | GLY | 3.1 |
| 1 | C | 712 | PHE | 3.1 |
| 1 | A | 574 | VAL | 3.1 |
| 1 | B | 125 | LYS | 3.1 |
| 1 | C | 754 | GLU | 3.1 |
| 1 | D | 133 | GLU | 3.1 |
| 2 | O | 8 | GLN | 3.1 |
| 1 | B | 480 | ASN | 3.1 |
| 1 | B | 485 | LEU | 3.1 |
| 1 | B | 618 | ASN | 3.1 |
| 1 | F | 447 | SER | 3.1 |
| 1 | D | 401 | ILE | 3.1 |
| 1 | F | 347 | GLY | 3.1 |
| 1 | F | 686 | ASP | 3.1 |
| 1 | E | 106 | PHE | 3.1 |
| 1 | F | 270 | LYS | 3.1 |
| 2 | S | 139 | GLU | 3.1 |
| 1 | F | 496 | ALA | 3.1 |
| 1 | D | 750 | GLN | 3.1 |
| 1 | B | 73 | ASN | 3.1 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | A | 646 | THR | 3.1 |
| 1 | A | 663 | PHE | 3.1 |
| 1 | D | 577 | HIS | 3.1 |
| 1 | C | 167 | LYS | 3.1 |
| 1 | E | 402 | PRO | 3.1 |
| 2 | T | 94 | LYS | 3.1 |
| 1 | B | 219 | GLU | 3.1 |
| 2 | T | 109 | MET | 3.1 |
| 2 | S | 138 | TYR | 3.1 |
| 1 | C | 106 | PHE | 3.1 |
| 1 | C | 771 | ILE | 3.1 |
| 1 | D | 210 | PHE | 3.1 |
| 1 | F | 663 | PHE | 3.1 |
| 1 | C | 95 | GLU | 3.1 |
| 1 | C | 263 | ASP | 3.1 |
| 1 | F | 180 | ASP | 3.1 |
| 1 | A | 403 | LEU | 3.1 |
| 1 | A | 124 | GLU | 3.1 |
| 1 | E | 148 | GLU | 3.1 |
| 1 | E | 224 | SER | 3.1 |
| 1 | A | 498 | ALA | 3.1 |
| 1 | B | 433 | TYR | 3.1 |
| 1 | B | 153 | ILE | 3.1 |
| 1 | E | 153 | ILE | 3.1 |
| 2 | P | 98 | GLY | 3.1 |
| 1 | D | 785 | ASN | 3.1 |
| 1 | F | 709 | ASN | 3.1 |
| 1 | A | 681 | ASP | 3.1 |
| 1 | B | 494 | LEU | 3.1 |
| 1 | E | 370 | LEU | 3.1 |
| 1 | F | 700 | TYR | 3.1 |
| 1 | F | 705 | TYR | 3.1 |
| 1 | E | 418 | ILE | 3.1 |
| 2 | Q | 12 | PHE | 3.1 |
| 1 | E | 232 | GLU | 3.1 |
| 1 | D | 470 | ASN | 3.1 |
| 1 | B | 646 | THR | 3.1 |
| 1 | A | 80 | GLN | 3.1 |
| 1 | A | 96 | ILE | 3.1 |
| 1 | A | 508 | ILE | 3.1 |
| 1 | A | 654 | ILE | 3.1 |
| 1 | F | 732 | ILE | 3.1 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | B | 529 | VAL | 3.1 |
| 1 | C | 236 | GLU | 3.1 |
| 1 | F | 122 | GLU | 3.1 |
| 1 | B | 114 | HIS | 3.1 |
| 1 | F | 208 | LEU | 3.1 |
| 1 | B | 130 | SER | 3.1 |
| 1 | C | 540 | ARG | 3.1 |
| 1 | A | 619 | ILE | 3.1 |
| 1 | B | 670 | ILE | 3.1 |
| 1 | F | 440 | GLN | 3.1 |
| 2 | T | 134 | GLY | 3.1 |
| 2 | T | 135 | GLN | 3.1 |
| 1 | B | 412 | GLU | 3.1 |
| 1 | F | 574 | VAL | 3.1 |
| 2 | O | 6 | GLU | 3.1 |
| 1 | A | 317 | LYS | 3.0 |
| 1 | B | 706 | ASN | 3.0 |
| 2 | Q | 30 | LYS | 3.0 |
| 2 | T | 129 | ASP | 3.0 |
| 1 | C | 116 | GLU | 3.0 |
| 2 | Q | 67 | GLU | 3.0 |
| 1 | E | 167 | LYS | 3.0 |
| 1 | E | 725 | GLY | 3.0 |
| 1 | F | 231 | LYS | 3.0 |
| 1 | A | 395 | GLU | 3.0 |
| 1 | C | 750 | GLN | 3.0 |
| 1 | D | 198 | SER | 3.0 |
| 1 | E | 427 | ASP | 3.0 |
| 1 | B | 120 | LEU | 3.0 |
| 2 | R | 69 | LEU | 3.0 |
| 1 | B | 192 | PHE | 3.0 |
| 1 | D | 245 | PHE | 3.0 |
| 1 | A | 725 | GLY | 3.0 |
| 1 | E | 95 | GLU | 3.0 |
| 1 | F | 797 | ILE | 3.0 |
| 1 | A | 579 | THR | 3.0 |
| 2 | P | 30 | LYS | 3.0 |
| 1 | A | 366 | PHE | 3.0 |
| 1 | F | 628 | PHE | 3.0 |
| 1 | B | 426 | ILE | 3.0 |
| 1 | C | 298 | GLY | 3.0 |
| 1 | C | 398 | ILE | 3.0 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | D | 274 | GLY | 3.0 |
| 2 | S | 10 | ALA | 3.0 |
| 1 | B | 146 | LYS | 3.0 |
| 1 | C | 300 | LYS | 3.0 |
| 2 | T | 70 | THR | 3.0 |
| 2 | P | 88 | ALA | 3.0 |
| 1 | C | 772 | GLU | 3.0 |
| 1 | C | 791 | GLU | 3.0 |
| 1 | D | 93 | VAL | 3.0 |
| 1 | E | 509 | PRO | 3.0 |
| 1 | A | 117 | LEU | 3.0 |
| 1 | A | 427 | ASP | 3.0 |
| 1 | B | 243 | LEU | 3.0 |
| 1 | C | 282 | SER | 3.0 |
| 1 | C | 473 | ASN | 3.0 |
| 1 | D | 390 | SER | 3.0 |
| 1 | F | 367 | ASP | 3.0 |
| 2 | R | 58 | ASP | 3.0 |
| 1 | C | 328 | PHE | 3.0 |
| 1 | E | 567 | THR | 3.0 |
| 1 | B | 476 | VAL | 3.0 |
| 1 | B | 511 | LYS | 3.0 |
| 1 | D | 360 | VAL | 3.0 |
| 2 | O | 21 | LYS | 3.0 |
| 2 | Q | 136 | VAL | 3.0 |
| 1 | C | 66 | LEU | 3.0 |
| 1 | A | 628 | PHE | 3.0 |
| 1 | F | 305 | SER | 3.0 |
| 1 | D | 731 | GLU | 3.0 |
| 1 | D | 757 | THR | 3.0 |
| 1 | E | 101 | GLY | 3.0 |
| 1 | C | 424 | LYS | 3.0 |
| 1 | B | 405 | LEU | 3.0 |
| 1 | F | 265 | PHE | 3.0 |
| 1 | A | 655 | ASN | 3.0 |
| 1 | D | 397 | GLU | 3.0 |
| 1 | D | 486 | LYS | 3.0 |
| 1 | E | 144 | GLU | 3.0 |
| 1 | E | 666 | ASN | 3.0 |
| 2 | T | 113 | GLY | 3.0 |
| 2 | O | 79 | THR | 3.0 |
| 1 | D | 403 | LEU | 3.0 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 555 | GLN | 3.0 |
| 1 | D | 712 | PHE | 3.0 |
| 1 | D | 686 | ASP | 3.0 |
| 1 | F | 508 | ILE | 3.0 |
| 2 | R | 78 | ASP | 3.0 |
| 1 | B | 200 | SER | 3.0 |
| 1 | C | 447 | SER | 3.0 |
| 1 | E | 626 | TYR | 3.0 |
| 1 | E | 679 | TYR | 3.0 |
| 1 | C | 780 | LEU | 3.0 |
| 1 | D | 76 | LEU | 3.0 |
| 1 | D | 755 | ARG | 3.0 |
| 1 | D | 773 | PHE | 3.0 |
| 1 | F | 423 | LYS | 3.0 |
| 2 | P | 145 | MET | 3.0 |
| 2 | T | 124 | MET | 3.0 |
| 1 | F | 164 | GLU | 3.0 |
| 1 | D | 670 | ILE | 3.0 |
| 1 | F | 105 | TYR | 3.0 |
| 2 | S | 93 | ASP | 3.0 |
| 2 | Q | 101 | SER | 3.0 |
| 2 | S | 18 | LEU | 3.0 |
| 1 | C | 565 | LYS | 3.0 |
| 1 | A | 499 | PRO | 3.0 |
| 1 | B | 368 | GLN | 3.0 |
| 1 | D | 376 | GLN | 3.0 |
| 2 | O | 66 | PRO | 3.0 |
| 2 | Q | 41 | GLN | 3.0 |
| 1 | C | 201 | ASP | 3.0 |
| 1 | C | 705 | TYR | 3.0 |
| 1 | D | 569 | TYR | 3.0 |
| 1 | E | 435 | LEU | 3.0 |
| 1 | D | 633 | ASN | 3.0 |
| 1 | D | 789 | ASN | 3.0 |
| 1 | F | 416 | ASN | 3.0 |
| 1 | F | 518 | ASN | 3.0 |
| 1 | B | 107 | THR | 3.0 |
| 1 | C | 255 | THR | 3.0 |
| 1 | F | 80 | GLN | 3.0 |
| 2 | O | 45 | GLU | 3.0 |
| 2 | R | 104 | GLU | 3.0 |
| 1 | F | 441 | VAL | 2.9 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | B | 108 | ASP | 2.9 |
| 1 | B | 201 | ASP | 2.9 |
| 1 | C | 788 | ASP | 2.9 |
| 1 | D | 543 | ASP | 2.9 |
| 2 | O | 30 | LYS | 2.9 |
| 1 | A | 607 | ASN | 2.9 |
| 1 | C | 522 | SER | 2.9 |
| 1 | F | 438 | ASN | 2.9 |
| 1 | B | 581 | GLN | 2.9 |
| 1 | C | 342 | GLY | 2.9 |
| 1 | F | 766 | HIS | 2.9 |
| 2 | S | 90 | ARG | 2.9 |
| 2 | T | 3 | GLN | 2.9 |
| 1 | C | 587 | PRO | 2.9 |
| 1 | E | 720 | ILE | 2.9 |
| 1 | D | 302 | LEU | 2.9 |
| 1 | D | 549 | LEU | 2.9 |
| 1 | E | 763 | LEU | 2.9 |
| 1 | A | 477 | MET | 2.9 |
| 1 | E | 731 | GLU | 2.9 |
| 1 | F | 581 | GLN | 2.9 |
| 1 | D | 134 | LYS | 2.9 |
| 1 | D | 293 | ILE | 2.9 |
| 2 | R | 94 | LYS | 2.9 |
| 2 | T | 9 | ILE | 2.9 |
| 1 | B | 406 | ASP | 2.9 |
| 1 | D | 514 | ASP | 2.9 |
| 1 | F | 491 | ASP | 2.9 |
| 1 | C | 231 | LYS | 2.9 |
| 2 | O | 143 | GLN | 2.9 |
| 1 | D | 711 | ILE | 2.9 |
| 1 | B | 604 | LEU | 2.9 |
| 1 | F | 256 | VAL | 2.9 |
| 2 | Q | 121 | VAL | 2.9 |
| 2 | R | 62 | THR | 2.9 |
| 1 | E | 141 | PHE | 2.9 |
| 1 | C | 208 | LEU | 2.9 |
| 2 | S | 97 | ASN | 2.9 |
| 1 | B | 663 | PHE | 2.9 |
| 1 | C | 317 | LYS | 2.9 |
| 1 | F | 123 | GLU | 2.9 |
| 1 | D | 169 | VAL | 2.9 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | D | 508 | ILE | 2.9 |
| 1 | D | 516 | VAL | 2.9 |
| 1 | E | 533 | LEU | 2.9 |
| 1 | F | 419 | ILE | 2.9 |
| 2 | O | 116 | LEU | 2.9 |
| 1 | D | 639 | ASN | 2.9 |
| 1 | E | 689 | ALA | 2.9 |
| 1 | A | 614 | PHE | 2.9 |
| 2 | P | 148 | LYS | 2.9 |
| 1 | B | 118 | GLN | 2.9 |
| 1 | E | 484 | VAL | 2.9 |
| 2 | O | 100 | ILE | 2.9 |
| 2 | S | 136 | VAL | 2.9 |
| 1 | A | 738 | SER | 2.9 |
| 1 | C | 404 | LYS | 2.9 |
| 1 | D | 290 | LYS | 2.9 |
| 1 | B | 416 | ASN | 2.9 |
| 1 | B | 673 | SER | 2.9 |
| 2 | P | 138 | TYR | 2.9 |
| 1 | B | 562 | GLU | 2.9 |
| 1 | B | 620 | THR | 2.9 |
| 1 | C | 412 | GLU | 2.9 |
| 2 | Q | 31 | GLU | 2.9 |
| 2 | S | 117 | THR | 2.9 |
| 1 | C | 572 | GLY | 2.9 |
| 1 | E | 408 | LEU | 2.9 |
| 1 | B | 589 | LYS | 2.9 |
| 1 | A | 241 | PHE | 2.9 |
| 1 | D | 328 | PHE | 2.9 |
| 1 | F | 349 | ASN | 2.9 |
| 1 | A | 324 | THR | 2.9 |
| 1 | C | 392 | THR | 2.9 |
| 1 | E | 287 | GLY | 2.9 |
| 1 | F | 489 | THR | 2.9 |
| 2 | P | 74 | ARG | 2.9 |
| 1 | A | 780 | LEU | 2.9 |
| 1 | C | 128 | MET | 2.9 |
| 1 | C | 184 | LYS | 2.9 |
| 1 | C | 215 | LYS | 2.9 |
| 1 | B | 344 | ALA | 2.9 |
| 1 | F | 210 | PHE | 2.9 |
| 2 | R | 41 | GLN | 2.9 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | A | 721 | SER | 2.9 |
| 1 | A | 153 | ILE | 2.9 |
| 1 | B | 757 | THR | 2.9 |
| 1 | C | 117 | LEU | 2.9 |
| 1 | D | 423 | LYS | 2.9 |
| 2 | R | 137 | ASN | 2.9 |
| 1 | F | 603 | ILE | 2.9 |
| 1 | E | 750 | GLN | 2.9 |
| 1 | B | 558 | ASP | 2.9 |
| 1 | C | 671 | ARG | 2.9 |
| 1 | E | 103 | GLU | 2.9 |
| 1 | B | 355 | SER | 2.9 |
| 1 | F | 383 | GLY | 2.9 |
| 1 | C | 597 | ASN | 2.9 |
| 1 | E | 322 | LEU | 2.9 |
| 1 | E | 497 | LEU | 2.9 |
| 1 | F | 162 | ASN | 2.9 |
| 1 | C | 782 | PHE | 2.9 |
| 1 | F | 659 | THR | 2.9 |
| 1 | C | 559 | ARG | 2.9 |
| 1 | D | 70 | GLU | 2.9 |
| 1 | D | 144 | GLU | 2.9 |
| 1 | E | 97 | TYR | 2.9 |
| 1 | C | 115 | LYS | 2.9 |
| 1 | B | 330 | PRO | 2.9 |
| 1 | D | 683 | GLY | 2.9 |
| 1 | F | 239 | HIS | 2.9 |
| 1 | F | 374 | HIS | 2.9 |
| 1 | B | 678 | VAL | 2.8 |
| 1 | C | 603 | ILE | 2.8 |
| 1 | A | 440 | GLN | 2.8 |
| 1 | A | 566 | TYR | 2.8 |
| 1 | C | 133 | GLU | 2.8 |
| 1 | C | 146 | LYS | 2.8 |
| 2 | R | 54 | GLU | 2.8 |
| 1 | B | 348 | LEU | 2.8 |
| 1 | C | 359 | PRO | 2.8 |
| 1 | D | 330 | PRO | 2.8 |
| 1 | D | 338 | LEU | 2.8 |
| 1 | D | 654 | ILE | 2.8 |
| 1 | A | 675 | ASN | 2.8 |
| 1 | B | 535 | LYS | 2.8 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 297 | LYS | 2.8 |
| 1 | D | 632 | TYR | 2.8 |
| 1 | F | 656 | THR | 2.8 |
| 1 | A | 308 | VAL | 2.8 |
| 1 | C | 722 | ILE | 2.8 |
| 1 | D | 628 | PHE | 2.8 |
| 1 | E | 104 | ILE | 2.8 |
| 2 | Q | 85 | ILE | 2.8 |
| 1 | E | 475 | GLU | 2.8 |
| 1 | E | 490 | ALA | 2.8 |
| 1 | C | 590 | ASP | 2.8 |
| 1 | C | 797 | ILE | 2.8 |
| 2 | P | 108 | VAL | 2.8 |
| 2 | Q | 90 | ARG | 2.8 |
| 1 | D | 402 | PRO | 2.8 |
| 1 | B | 524 | GLU | 2.8 |
| 1 | A | 211 | SER | 2.8 |
| 1 | C | 785 | ASN | 2.8 |
| 1 | D | 480 | ASN | 2.8 |
| 1 | E | 627 | TYR | 2.8 |
| 1 | C | 109 | ILE | 2.8 |
| 1 | D | 565 | LYS | 2.8 |
| 1 | C | 594 | PHE | 2.8 |
| 1 | D | 77 | ASP | 2.8 |
| 1 | E | 708 | ALA | 2.8 |
| 2 | O | 15 | ALA | 2.8 |
| 1 | A | 73 | ASN | 2.8 |
| 1 | A | 532 | LEU | 2.8 |
| 1 | B | 422 | GLY | 2.8 |
| 1 | B | 660 | SER | 2.8 |
| 1 | B | 461 | LYS | 2.8 |
| 1 | C | 630 | ARG | 2.8 |
| 1 | D | 222 | ASN | 2.8 |
| 1 | C | 210 | PHE | 2.8 |
| 1 | C | 757 | THR | 2.8 |
| 1 | F | 227 | ILE | 2.8 |
| 1 | F | 457 | THR | 2.8 |
| 1 | C | 648 | PRO | 2.8 |
| 1 | A | 455 | TYR | 2.8 |
| 1 | A | 624 | TYR | 2.8 |
| 1 | C | 193 | LEU | 2.8 |
| 1 | C | 217 | LYS | 2.8 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | D | 724 | ARG | 2.8 |
| 1 | C | 338 | LEU | 2.8 |
| 1 | C | 701 | LEU | 2.8 |
| 1 | F | 163 | SER | 2.8 |
| 1 | C | 410 | ILE | 2.8 |
| 2 | S | 82 | GLU | 2.8 |
| 1 | C | 251 | PRO | 2.8 |
| 1 | E | 68 | LYS | 2.8 |
| 2 | R | 118 | ASP | 2.8 |
| 1 | B | 305 | SER | 2.8 |
| 1 | C | 480 | ASN | 2.8 |
| 1 | B | 353 | LYS | 2.8 |
| 1 | C | 650 | THR | 2.8 |
| 2 | R | 122 | ASP | 2.8 |
| 1 | D | 375 | GLY | 2.8 |
| 1 | E | 326 | ILE | 2.8 |
| 1 | F | 137 | PHE | 2.8 |
| 1 | A | 122 | GLU | 2.8 |
| 1 | B | 404 | LYS | 2.8 |
| 1 | C | 778 | LYS | 2.8 |
| 1 | D | 95 | GLU | 2.8 |
| 1 | D | 673 | SER | 2.8 |
| 1 | F | 562 | GLU | 2.8 |
| 1 | B | 72 | THR | 2.8 |
| 1 | D | 648 | PRO | 2.8 |
| 1 | F | 455 | TYR | 2.8 |
| 1 | A | 328 | PHE | 2.8 |
| 1 | B | 645 | TRP | 2.8 |
| 2 | S | 19 | PHE | 2.8 |
| 1 | B | 616 | GLU | 2.8 |
| 1 | E | 673 | SER | 2.8 |
| 1 | B | 752 | LEU | 2.8 |
| 1 | C | 789 | ASN | 2.8 |
| 1 | C | 235 | THR | 2.8 |
| 1 | A | 115 | LYS | 2.8 |
| 1 | A | 756 | ILE | 2.8 |
| 1 | C | 581 | GLN | 2.8 |
| 2 | Q | 20 | ASP | 2.8 |
| 1 | C | 588 | GLU | 2.8 |
| 1 | E | 286 | GLU | 2.8 |
| 1 | C | 341 | SER | 2.8 |
| 1 | A | 298 | GLY | 2.8 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 2 | Q | 111 | ASN | 2.8 |
| 2 | S | 128 | ALA | 2.8 |
| 1 | C | 735 | VAL | 2.8 |
| 1 | D | 634 | LYS | 2.8 |
| 1 | E | 400 | LYS | 2.8 |
| 1 | E | 783 | THR | 2.8 |
| 1 | F | 502 | THR | 2.8 |
| 1 | F | 723 | PHE | 2.8 |
| 1 | E | 119 | ASP | 2.8 |
| 1 | B | 503 | GLU | 2.7 |
| 1 | B | 655 | ASN | 2.7 |
| 1 | C | 708 | ALA | 2.7 |
| 2 | S | 25 | GLY | 2.7 |
| 1 | E | 756 | ILE | 2.7 |
| 2 | P | 110 | THR | 2.7 |
| 1 | A | 406 | ASP | 2.7 |
| 2 | P | 125 | ILE | 2.7 |
| 2 | Q | 8 | GLN | 2.7 |
| 1 | D | 681 | ASP | 2.7 |
| 1 | E | 724 | ARG | 2.7 |
| 1 | B | 729 | TYR | 2.7 |
| 2 | R | 102 | ALA | 2.7 |
| 2 | S | 92 | PHE | 2.7 |
| 1 | B | 592 | GLU | 2.7 |
| 1 | B | 687 | GLU | 2.7 |
| 1 | C | 668 | SER | 2.7 |
| 1 | D | 616 | GLU | 2.7 |
| 1 | E | 163 | SER | 2.7 |
| 1 | C | 194 | ASN | 2.7 |
| 1 | B | 235 | THR | 2.7 |
| 1 | D | 479 | LYS | 2.7 |
| 1 | E | 659 | THR | 2.7 |
| 1 | F | 567 | THR | 2.7 |
| 1 | A | 488 | LEU | 2.7 |
| 1 | B | 179 | LEU | 2.7 |
| 1 | F | 477 | MET | 2.7 |
| 2 | O | 145 | MET | 2.7 |
| 2 | T | 118 | ASP | 2.7 |
| 2 | T | 131 | ASP | 2.7 |
| 1 | D | 422 | GLY | 2.7 |
| 1 | A | 67 | VAL | 2.7 |
| 2 | R | 65 | PHE | 2.7 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | F | 432 | TYR | 2.7 |
| 1 | A | 144 | GLU | 2.7 |
| 1 | C | 391 | ILE | 2.7 |
| 1 | C | 397 | GLU | 2.7 |
| 1 | E | 601 | GLU | 2.7 |
| 1 | F | 148 | GLU | 2.7 |
| 1 | A | 695 | LYS | 2.7 |
| 1 | C | 273 | LYS | 2.7 |
| 1 | C | 509 | PRO | 2.7 |
| 1 | C | 774 | LYS | 2.7 |
| 1 | D | 359 | PRO | 2.7 |
| 1 | B | 701 | LEU | 2.7 |
| 2 | P | 70 | THR | 2.7 |
| 1 | C | 433 | TYR | 2.7 |
| 1 | C | 731 | GLU | 2.7 |
| 2 | Q | 127 | GLU | 2.7 |
| 1 | B | 188 | LEU | 2.7 |
| 1 | C | 523 | LEU | 2.7 |
| 1 | C | 702 | SER | 2.7 |
| 1 | E | 451 | ASN | 2.7 |
| 1 | F | 241 | PHE | 2.7 |
| 1 | B | 536 | TYR | 2.7 |
| 1 | A | 643 | ILE | 2.7 |
| 1 | F | 772 | GLU | 2.7 |
| 1 | A | 629 | ASN | 2.7 |
| 1 | C | 143 | PHE | 2.7 |
| 1 | E | 773 | PHE | 2.7 |
| 1 | F | 710 | HIS | 2.7 |
| 1 | F | 608 | TRP | 2.7 |
| 1 | A | 786 | GLU | 2.7 |
| 1 | E | 589 | LYS | 2.7 |
| 1 | E | 634 | LYS | 2.7 |
| 1 | F | 495 | PHE | 2.7 |
| 1 | A | 502 | THR | 2.7 |
| 1 | E | 588 | GLU | 2.7 |
| 1 | B | 654 | ILE | 2.7 |
| 1 | E | 646 | THR | 2.7 |
| 2 | R | 129 | ASP | 2.7 |
| 1 | A | 555 | GLN | 2.7 |
| 1 | C | 249 | PHE | 2.7 |
| 1 | A | 93 | VAL | 2.7 |
| 1 | B | 354 | SER | 2.7 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 544 | SER | 2.7 |
| 2 | R | 91 | VAL | 2.7 |
| 1 | A | 789 | ASN | 2.7 |
| 1 | E | 705 | TYR | 2.7 |
| 1 | F | 312 | ALA | 2.7 |
| 2 | T | 78 | ASP | 2.7 |
| 1 | A | 625 | LEU | 2.7 |
| 1 | C | 218 | LEU | 2.7 |
| 1 | D | 485 | LEU | 2.7 |
| 1 | F | 774 | LYS | 2.7 |
| 1 | B | 396 | GLY | 2.7 |
| 1 | D | 429 | GLY | 2.7 |
| 2 | S | 134 | GLY | 2.7 |
| 2 | T | 91 | VAL | 2.7 |
| 1 | B | 105 | TYR | 2.7 |
| 1 | D | 426 | ILE | 2.7 |
| 1 | B | 384 | ASN | 2.7 |
| 1 | B | 770 | ASN | 2.7 |
| 1 | C | 120 | LEU | 2.7 |
| 1 | D | 387 | ASN | 2.7 |
| 2 | Q | 62 | THR | 2.7 |
| 2 | Q | 129 | ASP | 2.7 |
| 2 | T | 95 | ASP | 2.7 |
| 1 | A | 81 | GLN | 2.7 |
| 1 | B | 477 | MET | 2.7 |
| 1 | C | 727 | GLN | 2.7 |
| 1 | C | 103 | GLU | 2.7 |
| 1 | D | 425 | GLU | 2.7 |
| 1 | F | 601 | GLU | 2.7 |
| 2 | P | 67 | GLU | 2.7 |
| 1 | A | 357 | TRP | 2.6 |
| 1 | B | 522 | SER | 2.6 |
| 1 | D | 636 | ALA | 2.7 |
| 1 | E | 672 | ARG | 2.6 |
| 2 | Q | 69 | LEU | 2.6 |
| 1 | A | 384 | ASN | 2.6 |
| 1 | A | 69 | THR | 2.6 |
| 1 | D | 787 | THR | 2.6 |
| 2 | R | 12 | PHE | 2.6 |
| 1 | D | 399 | GLY | 2.6 |
| 1 | D | 299 | GLU | 2.6 |
| 1 | B | 251 | PRO | 2.6 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | A | 718 | ARG | 2.6 |
| 1 | C | 154 | ILE | 2.6 |
| 1 | F | 430 | LYS | 2.6 |
| 1 | F | 486 | LYS | 2.6 |
| 1 | C | 344 | ALA | 2.6 |
| 1 | F | 624 | TYR | 2.6 |
| 1 | F | 670 | ILE | 2.6 |
| 2 | R | 138 | TYR | 2.6 |
| 1 | D | 706 | ASN | 2.6 |
| 1 | C | 556 | MET | 2.6 |
| 1 | D | 372 | LYS | 2.6 |
| 2 | T | 49 | GLN | 2.6 |
| 1 | B | 253 | HIS | 2.6 |
| 1 | D | 405 | LEU | 2.6 |
| 1 | F | 642 | TYR | 2.6 |
| 2 | O | 138 | TYR | 2.6 |
| 1 | D | 522 | SER | 2.6 |
| 1 | E | 702 | SER | 2.6 |
| 2 | S | 141 | PHE | 2.6 |
| 1 | C | 129 | ASN | 2.6 |
| 1 | C | 558 | ASP | 2.6 |
| 1 | D | 521 | ASN | 2.6 |
| 1 | E | 511 | LYS | 2.6 |
| 1 | F | 145 | LYS | 2.6 |
| 1 | F | 582 | ASP | 2.6 |
| 1 | C | 611 | THR | 2.6 |
| 2 | O | 76 | MET | 2.6 |
| 2 | Q | 6 | GLU | 2.6 |
| 2 | S | 67 | GLU | 2.6 |
| 1 | F | 177 | ILE | 2.6 |
| 1 | F | 339 | ILE | 2.6 |
| 1 | C | 137 | PHE | 2.6 |
| 1 | F | 284 | LYS | 2.6 |
| 1 | B | 140 | ARG | 2.6 |
| 1 | C | 464 | VAL | 2.6 |
| 1 | D | 119 | ASP | 2.6 |
| 1 | E | 168 | GLU | 2.6 |
| 2 | S | 45 | GLU | 2.6 |
| 2 | T | 139 | GLU | 2.6 |
| 1 | D | 759 | GLN | 2.6 |
| 1 | F | 220 | LEU | 2.6 |
| 1 | A | 665 | LYS | 2.6 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 303 | LYS | 2.6 |
| 1 | E | 268 | MET | 2.6 |
| 1 | F | 674 | SER | 2.6 |
| 1 | A | 348 | LEU | 2.6 |
| 1 | A | 701 | LEU | 2.6 |
| 2 | R | 9 | ILE | 2.6 |
| 1 | D | 651 | LYS | 2.6 |
| 1 | E | 423 | LYS | 2.6 |
| 1 | E | 519 | THR | 2.6 |
| 2 | O | 107 | HIS | 2.6 |
| 1 | E | 482 | GLU | 2.6 |
| 1 | B | 702 | SER | 2.6 |
| 1 | A | 480 | ASN | 2.6 |
| 1 | C | 576 | ASN | 2.6 |
| 1 | D | 431 | LYS | 2.6 |
| 1 | D | 591 | ASN | 2.6 |
| 1 | A | 630 | ARG | 2.6 |
| 1 | F | 444 | PHE | 2.6 |
| 1 | A | 374 | HIS | 2.6 |
| 1 | F | 449 | GLU | 2.6 |
| 1 | D | 389 | LYS | 2.6 |
| 1 | E | 546 | LYS | 2.6 |
| 1 | F | 364 | ILE | 2.6 |
| 2 | S | 4 | LEU | 2.6 |
| 1 | B | 788 | ASP | 2.6 |
| 1 | F | 704 | TYR | 2.6 |
| 2 | O | 88 | ALA | 2.6 |
| 2 | S | 12 | PHE | 2.6 |
| 2 | S | 133 | ASP | 2.6 |
| 1 | A | 345 | THR | 2.6 |
| 1 | A | 735 | VAL | 2.6 |
| 1 | C | 547 | GLY | 2.6 |
| 1 | D | 408 | LEU | 2.6 |
| 1 | E | 657 | ILE | 2.6 |
| 1 | F | 510 | GLN | 2.6 |
| 1 | B | 652 | ALA | 2.6 |
| 1 | E | 448 | ASP | 2.6 |
| 1 | E | 688 | PHE | 2.6 |
| 1 | B | 290 | LYS | 2.6 |
| 1 | B | 306 | GLY | 2.6 |
| 1 | B | 567 | THR | 2.6 |
| 1 | B | 634 | LYS | 2.6 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | D | 696 | LYS | 2.6 |
| 1 | E | 640 | LYS | 2.6 |
| 1 | D | 147 | ARG | 2.6 |
| 1 | D | 780 | LEU | 2.6 |
| 1 | E | 510 | GLN | 2.6 |
| 2 | P | 128 | ALA | 2.6 |
| 2 | R | 46 | ALA | 2.6 |
| 1 | C | 291 | ASP | 2.6 |
| 1 | E | 270 | LYS | 2.6 |
| 1 | F | 791 | GLU | 2.6 |
| 1 | D | 464 | VAL | 2.6 |
| 1 | A | 182 | ILE | 2.6 |
| 1 | B | 293 | ILE | 2.6 |
| 1 | C | 227 | ILE | 2.6 |
| 1 | C | 538 | ILE | 2.6 |
| 1 | D | 594 | PHE | 2.6 |
| 1 | B | 705 | TYR | 2.6 |
| 1 | C | 498 | ALA | 2.6 |
| 1 | C | 733 | GLU | 2.6 |
| 1 | D | 640 | LYS | 2.6 |
| 2 | Q | 132 | GLY | 2.6 |
| 2 | S | 11 | GLU | 2.6 |
| 2 | T | 83 | GLU | 2.6 |
| 1 | C | 532 | LEU | 2.6 |
| 1 | E | 374 | HIS | 2.6 |
| 1 | A | 157 | LYS | 2.5 |
| 1 | F | 715 | GLU | 2.5 |
| 1 | F | 672 | ARG | 2.5 |
| 1 | A | 100 | LEU | 2.5 |
| 1 | B | 356 | ASP | 2.5 |
| 1 | F | 166 | SER | 2.5 |
| 1 | B | 785 | ASN | 2.5 |
| 1 | D | 73 | ASN | 2.5 |
| 1 | D | 655 | ASN | 2.5 |
| 1 | E | 136 | PRO | 2.5 |
| 1 | E | 284 | LYS | 2.5 |
| 1 | E | 628 | PHE | 2.5 |
| 1 | F | 680 | LYS | 2.5 |
| 1 | D | 689 | ALA | 2.5 |
| 2 | Q | 140 | GLU | 2.5 |
| 2 | S | 87 | GLU | 2.5 |
| 1 | C | 101 | GLY | 2.5 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | F | 466 | GLY | 2.5 |
| 1 | E | 488 | LEU | 2.5 |
| 2 | S | 24 | ASP | 2.5 |
| 1 | C | 87 | LYS | 2.5 |
| 1 | D | 177 | ILE | 2.5 |
| 1 | D | 758 | ASN | 2.5 |
| 1 | F | 761 | GLN | 2.5 |
| 2 | O | 113 | GLY | 2.5 |
| 1 | A | 152 | LEU | 2.5 |
| 1 | C | 385 | LEU | 2.5 |
| 1 | C | 651 | LYS | 2.5 |
| 1 | F | 209 | LEU | 2.5 |
| 1 | F | 541 | LYS | 2.5 |
| 1 | A | 177 | ILE | 2.5 |
| 1 | A | 181 | ILE | 2.5 |
| 1 | A | 318 | ILE | 2.5 |
| 1 | F | 711 | ILE | 2.5 |
| 2 | P | 100 | ILE | 2.5 |
| 1 | F | 140 | ARG | 2.5 |
| 1 | A | 706 | ASN | 2.5 |
| 1 | E | 260 | TYR | 2.5 |
| 2 | Q | 139 | GLU | 2.5 |
| 1 | B | 380 | VAL | 2.5 |
| 1 | B | 608 | TRP | 2.5 |
| 1 | F | 783 | THR | 2.5 |
| 2 | R | 40 | GLY | 2.5 |
| 1 | B | 533 | LEU | 2.5 |
| 1 | C | 234 | LEU | 2.5 |
| 1 | C | 400 | LYS | 2.5 |
| 1 | F | 218 | LEU | 2.5 |
| 2 | O | 105 | LEU | 2.5 |
| 1 | D | 268 | MET | 2.5 |
| 1 | F | 131 | ARG | 2.5 |
| 1 | D | 371 | SER | 2.5 |
| 1 | F | 183 | SER | 2.5 |
| 1 | F | 514 | ASP | 2.5 |
| 1 | E | 766 | HIS | 2.5 |
| 1 | D | 382 | LYS | 2.5 |
| 1 | E | 373 | LYS | 2.5 |
| 1 | E | 545 | THR | 2.5 |
| 1 | A | 339 | ILE | 2.5 |
| 1 | F | 79 | ILE | 2.5 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | B | 448 | ASP | 2.5 |
| 2 | O | 84 | GLU | 2.5 |
| 1 | C | 295 | VAL | 2.5 |
| 1 | D | 68 | LYS | 2.5 |
| 1 | E | 727 | GLN | 2.5 |
| 1 | B | 561 | ASN | 2.5 |
| 1 | E | 324 | THR | 2.5 |
| 2 | P | 5 | THR | 2.5 |
| 1 | A | 593 | ILE | 2.5 |
| 1 | F | 596 | ILE | 2.5 |
| 1 | A | 515 | LYS | 2.5 |
| 1 | B | 585 | GLU | 2.5 |
| 1 | C | 125 | LYS | 2.5 |
| 1 | C | 535 | LYS | 2.5 |
| 1 | B | 532 | LEU | 2.5 |
| 1 | D | 675 | ASN | 2.5 |
| 2 | R | 97 | ASN | 2.5 |
| 1 | C | 79 | ILE | 2.5 |
| 1 | E | 605 | THR | 2.5 |
| 2 | P | 140 | GLU | 2.5 |
| 1 | B | 464 | VAL | 2.5 |
| 1 | E | 478 | ALA | 2.5 |
| 1 | E | 743 | PRO | 2.5 |
| 2 | Q | 10 | ALA | 2.5 |
| 1 | B | 767 | GLN | 2.5 |
| 1 | C | 749 | PHE | 2.5 |
| 1 | A | 270 | LYS | 2.5 |
| 1 | A | 603 | ILE | 2.5 |
| 1 | B | 730 | ASN | 2.5 |
| 1 | C | 446 | ILE | 2.5 |
| 1 | D | 765 | THR | 2.5 |
| 1 | E | 79 | ILE | 2.5 |
| 1 | F | 353 | LYS | 2.5 |
| 1 | B | 459 | GLU | 2.5 |
| 1 | D | 219 | GLU | 2.5 |
| 1 | A | 342 | GLY | 2.5 |
| 1 | D | 166 | SER | 2.5 |
| 1 | F | 213 | LYS | 2.5 |
| 1 | F | 214 | PHE | 2.5 |
| 1 | F | 217 | LYS | 2.5 |
| 2 | T | 130 | ILE | 2.5 |
| 1 | B | 644 | GLU | 2.5 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 656 | THR | 2.5 |
| 1 | A | 304 | ALA | 2.5 |
| 1 | E | 549 | LEU | 2.5 |
| 2 | Q | 99 | TYR | 2.5 |
| 2 | T | 46 | ALA | 2.5 |
| 1 | B | 423 | LYS | 2.5 |
| 1 | E | 115 | LYS | 2.5 |
| 1 | F | 106 | PHE | 2.5 |
| 1 | F | 276 | PHE | 2.5 |
| 2 | T | 141 | PHE | 2.5 |
| 1 | B | 123 | GLU | 2.5 |
| 2 | P | 52 | ILE | 2.5 |
| 1 | D | 409 | ARG | 2.5 |
| 2 | T | 127 | GLU | 2.5 |
| 1 | A | 149 | THR | 2.5 |
| 1 | A | 521 | ASN | 2.5 |
| 1 | A | 667 | LEU | 2.5 |
| 1 | C | 169 | VAL | 2.5 |
| 1 | D | 380 | VAL | 2.5 |
| 1 | D | 551 | ASN | 2.5 |
| 1 | D | 579 | THR | 2.5 |
| 1 | D | 620 | THR | 2.5 |
| 1 | F | 676 | VAL | 2.5 |
| 1 | B | 175 | LYS | 2.5 |
| 1 | B | 717 | LYS | 2.5 |
| 1 | E | 690 | LYS | 2.5 |
| 2 | P | 21 | LYS | 2.5 |
| 1 | B | 309 | PRO | 2.5 |
| 2 | P | 68 | PHE | 2.5 |
| 1 | E | 419 | ILE | 2.5 |
| 1 | A | 64 | ASN | 2.4 |
| 1 | B | 468 | LYS | 2.4 |
| 1 | C | 271 | LEU | 2.4 |
| 1 | F | 706 | ASN | 2.4 |
| 2 | S | 146 | THR | 2.4 |
| 1 | B | 241 | PHE | 2.4 |
| 2 | O | 130 | ILE | 2.4 |
| 2 | R | 74 | ARG | 2.4 |
| 1 | C | 459 | GLU | 2.4 |
| 2 | Q | 87 | GLU | 2.4 |
| 1 | A | 284 | LYS | 2.4 |
| 1 | B | 100 | LEU | 2.4 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 471 | TRP | 2.4 |
| 1 | E | 128 | MET | 2.4 |
| 1 | B | 628 | PHE | 2.4 |
| 1 | C | 267 | TYR | 2.4 |
| 1 | C | 450 | ASN | 2.4 |
| 1 | E | 765 | THR | 2.4 |
| 1 | F | 245 | PHE | 2.4 |
| 1 | A | 767 | GLN | 2.4 |
| 1 | C | 510 | GLN | 2.4 |
| 2 | Q | 51 | MET | 2.4 |
| 1 | B | 513 | TRP | 2.4 |
| 1 | A | 688 | PHE | 2.4 |
| 1 | C | 71 | PHE | 2.4 |
| 1 | D | 105 | TYR | 2.4 |
| 2 | T | 102 | ALA | 2.4 |
| 1 | D | 781 | ASN | 2.4 |
| 1 | D | 714 | GLN | 2.4 |
| 1 | F | 336 | THR | 2.4 |
| 1 | F | 587 | PRO | 2.4 |
| 2 | R | 76 | MET | 2.4 |
| 1 | F | 422 | GLY | 2.4 |
| 2 | O | 40 | GLY | 2.4 |
| 1 | A | 105 | TYR | 2.4 |
| 1 | A | 137 | PHE | 2.4 |
| 2 | P | 99 | TYR | 2.4 |
| 1 | C | 634 | LYS | 2.4 |
| 2 | R | 45 | GLU | 2.4 |
| 1 | C | 497 | LEU | 2.4 |
| 1 | F | 110 | ASP | 2.4 |
| 2 | R | 59 | GLY | 2.4 |
| 2 | T | 122 | ASP | 2.4 |
| 1 | B | 138 | ALA | 2.4 |
| 1 | C | 689 | ALA | 2.4 |
| 1 | A | 393 | GLU | 2.4 |
| 1 | C | 172 | GLU | 2.4 |
| 1 | A | 220 | LEU | 2.4 |
| 1 | B | 268 | MET | 2.4 |
| 1 | B | 547 | GLY | 2.4 |
| 1 | D | 309 | PRO | 2.4 |
| 1 | D | 501 | LEU | 2.4 |
| 2 | O | 44 | THR | 2.4 |
| 1 | C | 78 | LYS | 2.4 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 187 | SER | 2.4 |
| 1 | E | 196 | ILE | 2.4 |
| 1 | D | 288 | VAL | 2.4 |
| 1 | D | 730 | ASN | 2.4 |
| 1 | E | 719 | LYS | 2.4 |
| 2 | Q | 26 | THR | 2.4 |
| 1 | A | 552 | TRP | 2.4 |
| 1 | B | 742 | ALA | 2.4 |
| 1 | F | 191 | GLU | 2.4 |
| 1 | F | 443 | GLU | 2.4 |
| 2 | Q | 138 | TYR | 2.4 |
| 2 | S | 104 | GLU | 2.4 |
| 1 | E | 178 | SER | 2.4 |
| 1 | F | 619 | ILE | 2.4 |
| 1 | E | 120 | LEU | 2.4 |
| 1 | A | 768 | LYS | 2.4 |
| 1 | F | 146 | LYS | 2.4 |
| 1 | F | 760 | VAL | 2.4 |
| 2 | P | 8 | GLN | 2.4 |
| 1 | B | 347 | GLY | 2.4 |
| 1 | B | 787 | THR | 2.4 |
| 1 | D | 618 | ASN | 2.4 |
| 1 | E | 734 | ASN | 2.4 |
| 1 | C | 105 | TYR | 2.4 |
| 1 | F | 644 | GLU | 2.4 |
| 1 | E | 552 | TRP | 2.4 |
| 1 | C | 669 | SER | 2.4 |
| 1 | D | 453 | VAL | 2.4 |
| 1 | D | 693 | SER | 2.4 |
| 1 | E | 537 | GLY | 2.4 |
| 2 | O | 16 | PHE | 2.4 |
| 2 | P | 51 | MET | 2.4 |
| 1 | D | 598 | PRO | 2.4 |
| 1 | A | 286 | GLU | 2.4 |
| 1 | A | 412 | GLU | 2.4 |
| 1 | C | 159 | TYR | 2.4 |
| 1 | D | 260 | TYR | 2.4 |
| 1 | E | 754 | GLU | 2.4 |
| 1 | A | 685 | LYS | 2.4 |
| 1 | C | 623 | ASP | 2.4 |
| 1 | A | 547 | GLY | 2.4 |
| 1 | F | 429 | GLY | 2.4 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | F | 779 | GLN | 2.4 |
| 2 | T | 12 | PHE | 2.4 |
| 1 | D | 630 | ARG | 2.4 |
| 1 | D | 671 | ARG | 2.4 |
| 2 | R | 6 | GLU | 2.4 |
| 1 | D | 690 | LYS | 2.4 |
| 1 | F | 96 | ILE | 2.4 |
| 2 | T | 26 | THR | 2.4 |
| 1 | A | 311 | HIS | 2.4 |
| 1 | B | 552 | TRP | 2.4 |
| 1 | C | 302 | LEU | 2.4 |
| 2 | R | 80 | ASP | 2.4 |
| 1 | E | 135 | VAL | 2.4 |
| 1 | F | 638 | GLY | 2.4 |
| 1 | E | 346 | LYS | 2.4 |
| 1 | F | 91 | LYS | 2.4 |
| 1 | F | 285 | LYS | 2.4 |
| 1 | B | 450 | ASN | 2.4 |
| 1 | F | 161 | ILE | 2.4 |
| 2 | P | 103 | ALA | 2.4 |
| 1 | C | 283 | LEU | 2.4 |
| 1 | C | 604 | LEU | 2.4 |
| 1 | B | 369 | ASP | 2.3 |
| 1 | B | 198 | SER | 2.3 |
| 1 | B | 431 | LYS | 2.3 |
| 1 | E | 425 | GLU | 2.3 |
| 2 | P | 115 | LYS | 2.3 |
| 1 | C | 625 | LEU | 2.3 |
| 2 | R | 116 | LEU | 2.3 |
| 1 | D | 530 | THR | 2.3 |
| 1 | E | 476 | VAL | 2.3 |
| 1 | F | 142 | VAL | 2.3 |
| 1 | D | 143 | PHE | 2.3 |
| 1 | F | 236 | GLU | 2.3 |
| 1 | B | 718 | ARG | 2.3 |
| 1 | C | 94 | LEU | 2.3 |
| 1 | D | 327 | LEU | 2.3 |
| 2 | S | 74 | ARG | 2.3 |
| 1 | A | 489 | THR | 2.3 |
| 1 | E | 306 | GLY | 2.3 |
| 1 | F | 300 | LYS | 2.3 |
| 1 | F | 594 | PHE | 2.3 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | F | 633 | ASN | 2.3 |
| 2 | P | 60 | ASN | 2.3 |
| 1 | A | 623 | ASP | 2.3 |
| 1 | A | 744 | GLU | 2.3 |
| 1 | F | 299 | GLU | 2.3 |
| 1 | B | 538 | ILE | 2.3 |
| 1 | B | 613 | ARG | 2.3 |
| 1 | C | 641 | ALA | 2.3 |
| 1 | E | 305 | SER | 2.3 |
| 1 | E | 674 | SER | 2.3 |
| 2 | S | 27 | ILE | 2.3 |
| 1 | C | 192 | PHE | 2.3 |
| 1 | D | 347 | GLY | 2.3 |
| 1 | D | 571 | GLY | 2.3 |
| 1 | C | 357 | TRP | 2.3 |
| 2 | T | 82 | GLU | 2.3 |
| 2 | T | 110 | THR | 2.3 |
| 1 | C | 643 | ILE | 2.3 |
| 1 | F | 485 | LEU | 2.3 |
| 1 | B | 575 | VAL | 2.3 |
| 1 | C | 353 | LYS | 2.3 |
| 1 | D | 669 | SER | 2.3 |
| 1 | E | 693 | SER | 2.3 |
| 1 | A | 621 | GLY | 2.3 |
| 1 | A | 633 | ASN | 2.3 |
| 1 | C | 376 | GLN | 2.3 |
| 1 | D | 323 | ASN | 2.3 |
| 1 | D | 507 | GLN | 2.3 |
| 1 | E | 709 | ASN | 2.3 |
| 1 | F | 320 | ARG | 2.3 |
| 1 | F | 597 | ASN | 2.3 |
| 1 | B | 318 | ILE | 2.3 |
| 1 | F | 751 | TYR | 2.3 |
| 2 | P | 94 | LYS | 2.3 |
| 2 | T | 75 | LYS | 2.3 |
| 1 | B | 564 | VAL | 2.3 |
| 1 | C | 390 | SER | 2.3 |
| 1 | C | 699 | GLY | 2.3 |
| 1 | F | 211 | SER | 2.3 |
| 1 | C | 216 | GLU | 2.3 |
| 1 | E | 744 | GLU | 2.3 |
| 1 | F | 592 | GLU | 2.3 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 2 | Q | 86 | ARG | 2.3 |
| 1 | B | 165 | GLN | 2.3 |
| 1 | D | 81 | GLN | 2.3 |
| 1 | D | 764 | LEU | 2.3 |
| 1 | F | 792 | VAL | 2.3 |
| 1 | A | 637 | PRO | 2.3 |
| 1 | D | 113 | GLU | 2.3 |
| 1 | F | 354 | SER | 2.3 |
| 2 | O | 7 | GLU | 2.3 |
| 1 | F | 617 | LYS | 2.3 |
| 2 | O | 51 | MET | 2.3 |
| 2 | S | 94 | LYS | 2.3 |
| 1 | C | 378 | LEU | 2.3 |
| 1 | C | 419 | ILE | 2.3 |
| 1 | C | 451 | ASN | 2.3 |
| 1 | C | 706 | ASN | 2.3 |
| 2 | R | 100 | ILE | 2.3 |
| 1 | F | 99 | GLU | 2.3 |
| 1 | E | 485 | LEU | 2.3 |
| 1 | E | 759 | GLN | 2.3 |
| 2 | P | 3 | GLN | 2.3 |
| 2 | T | 41 | GLN | 2.3 |
| 1 | A | 312 | ALA | 2.3 |
| 1 | B | 624 | TYR | 2.3 |
| 1 | D | 392 | THR | 2.3 |
| 2 | S | 95 | ASP | 2.3 |
| 1 | B | 74 | GLU | 2.3 |
| 1 | F | 599 | GLU | 2.3 |
| 1 | B | 501 | LEU | 2.3 |
| 1 | E | 523 | LEU | 2.3 |
| 1 | E | 532 | LEU | 2.3 |
| 1 | F | 242 | SER | 2.3 |
| 1 | C | 552 | TRP | 2.3 |
| 1 | C | 577 | HIS | 2.3 |
| 1 | C | 695 | LYS | 2.3 |
| 1 | D | 666 | ASN | 2.3 |
| 1 | E | 113 | GLU | 2.3 |
| 2 | O | 129 | ASP | 2.3 |
| 1 | C | 152 | LEU | 2.3 |
| 1 | D | 86 | LEU | 2.3 |
| 1 | F | 309 | PRO | 2.3 |
| 1 | B | 741 | ILE | 2.3 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | D | 154 | ILE | 2.3 |
| 1 | E | 96 | ILE | 2.3 |
| 1 | F | 282 | SER | 2.3 |
| 1 | A | 753 | LYS | 2.3 |
| 1 | B | 580 | GLU | 2.3 |
| 1 | E | 483 | GLY | 2.3 |
| 1 | A | 548 | THR | 2.3 |
| 1 | B | 332 | ASN | 2.3 |
| 1 | D | 597 | ASN | 2.3 |
| 1 | F | 493 | ASP | 2.3 |
| 1 | F | 639 | ASN | 2.3 |
| 2 | S | 64 | ASP | 2.3 |
| 1 | E | 630 | ARG | 2.3 |
| 1 | B | 691 | LYS | 2.3 |
| 1 | D | 468 | LYS | 2.3 |
| 1 | F | 554 | LYS | 2.3 |
| 1 | C | 536 | TYR | 2.3 |
| 1 | D | 295 | VAL | 2.3 |
| 1 | E | 166 | SER | 2.3 |
| 1 | E | 198 | SER | 2.3 |
| 1 | E | 211 | SER | 2.3 |
| 1 | E | 441 | VAL | 2.3 |
| 1 | E | 481 | VAL | 2.3 |
| 1 | A | 568 | GLY | 2.2 |
| 2 | S | 103 | ALA | 2.3 |
| 1 | A | 616 | GLU | 2.2 |
| 1 | A | 128 | MET | 2.2 |
| 1 | B | 703 | ASP | 2.2 |
| 1 | B | 764 | LEU | 2.2 |
| 1 | C | 647 | ASP | 2.2 |
| 1 | D | 494 | LEU | 2.2 |
| 1 | D | 647 | ASP | 2.2 |
| 1 | E | 438 | ASN | 2.2 |
| 2 | O | 22 | ASP | 2.2 |
| 2 | P | 122 | ASP | 2.2 |
| 2 | Q | 18 | LEU | 2.2 |
| 2 | Q | 116 | LEU | 2.2 |
| 1 | A | 546 | LYS | 2.2 |
| 1 | B | 657 | ILE | 2.2 |
| 1 | F | 382 | LYS | 2.2 |
| 1 | A | 350 | VAL | 2.2 |
| 1 | B | 688 | PHE | 2.2 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 793 | PHE | 2.2 |
| 1 | F | 664 | ILE | 2.2 |
| 2 | S | 65 | PHE | 2.2 |
| 2 | R | 3 | GLN | 2.2 |
| 2 | T | 121 | VAL | 2.2 |
| 1 | C | 280 | SER | 2.2 |
| 1 | D | 674 | SER | 2.2 |
| 1 | F | 539 | GLU | 2.2 |
| 1 | F | 568 | GLY | 2.2 |
| 2 | P | 81 | SER | 2.2 |
| 1 | C | 672 | ARG | 2.2 |
| 1 | A | 622 | LYS | 2.2 |
| 1 | C | 589 | LYS | 2.2 |
| 1 | E | 611 | THR | 2.2 |
| 1 | F | 337 | ASN | 2.2 |
| 1 | B | 520 | PRO | 2.2 |
| 1 | E | 114 | HIS | 2.2 |
| 2 | R | 101 | SER | 2.2 |
| 1 | B | 231 | LYS | 2.2 |
| 1 | B | 716 | LYS | 2.2 |
| 1 | C | 567 | THR | 2.2 |
| 1 | D | 438 | ASN | 2.2 |
| 1 | A | 170 | TYR | 2.2 |
| 1 | A | 526 | GLN | 2.2 |
| 1 | B | 298 | GLY | 2.2 |
| 1 | D | 277 | GLU | 2.2 |
| 1 | D | 718 | ARG | 2.2 |
| 1 | F | 171 | TYR | 2.2 |
| 1 | F | 232 | GLU | 2.2 |
| 1 | D | 511 | LYS | 2.2 |
| 1 | D | 795 | LYS | 2.2 |
| 2 | R | 30 | LYS | 2.2 |
| 1 | D | 720 | ILE | 2.2 |
| 1 | A | 108 | ASP | 2.2 |
| 1 | F | 319 | ALA | 2.2 |
| 1 | F | 456 | LYS | 2.2 |
| 2 | Q | 102 | ALA | 2.2 |
| 2 | T | 140 | GLU | 2.2 |
| 1 | F | 721 | SER | 2.2 |
| 1 | A | 89 | ILE | 2.2 |
| 2 | Q | 124 | MET | 2.2 |
| 1 | A | 528 | GLY | 2.2 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 145 | LYS | 2.2 |
| 1 | D | 78 | LYS | 2.2 |
| 1 | D | 612 | GLY | 2.2 |
| 1 | E | 525 | LYS | 2.2 |
| 1 | F | 159 | TYR | 2.2 |
| 1 | F | 317 | LYS | 2.2 |
| 1 | A | 531 | ASN | 2.2 |
| 1 | B | 323 | ASN | 2.2 |
| 1 | B | 597 | ASN | 2.2 |
| 1 | D | 473 | ASN | 2.2 |
| 1 | F | 325 | TYR | 2.2 |
| 2 | Q | 110 | THR | 2.2 |
| 1 | D | 766 | HIS | 2.2 |
| 1 | A | 68 | LYS | 2.2 |
| 1 | A | 242 | SER | 2.2 |
| 1 | C | 456 | LYS | 2.2 |
| 1 | C | 654 | ILE | 2.2 |
| 1 | F | 366 | PHE | 2.2 |
| 2 | O | 19 | PHE | 2.2 |
| 1 | B | 731 | GLU | 2.2 |
| 1 | D | 92 | ASP | 2.2 |
| 1 | A | 787 | THR | 2.2 |
| 1 | C | 633 | ASN | 2.2 |
| 1 | D | 583 | ASN | 2.2 |
| 1 | D | 646 | THR | 2.2 |
| 1 | D | 656 | THR | 2.2 |
| 2 | P | 49 | GLN | 2.2 |
| 1 | C | 409 | ARG | 2.2 |
| 1 | B | 154 | ILE | 2.2 |
| 1 | D | 391 | ILE | 2.2 |
| 1 | E | 665 | LYS | 2.2 |
| 1 | E | 696 | LYS | 2.2 |
| 2 | Q | 144 | MET | 2.2 |
| 1 | A | 700 | TYR | 2.2 |
| 1 | D | 752 | LEU | 2.2 |
| 1 | E | 66 | LEU | 2.2 |
| 1 | E | 340 | LYS | 2.2 |
| 2 | S | 5 | THR | 2.2 |
| 1 | A | 475 | GLU | 2.2 |
| 2 | P | 54 | GLU | 2.2 |
| 1 | B | 631 | SER | 2.2 |
| 1 | D | 447 | SER | 2.2 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | D | 528 | GLY | 2.2 |
| 1 | A | 151 | LYS | 2.2 |
| 1 | B | 77 | ASP | 2.2 |
| 1 | A | 428 | ASN | 2.2 |
| 1 | A | 656 | THR | 2.2 |
| 1 | E | 143 | PHE | 2.2 |
| 1 | B | 595 | ILE | 2.2 |
| 2 | R | 34 | THR | 2.2 |
| 1 | C | 644 | GLU | 2.2 |
| 1 | E | 142 | VAL | 2.2 |
| 1 | B | 341 | SER | 2.2 |
| 1 | D | 373 | LYS | 2.2 |
| 1 | D | 713 | SER | 2.2 |
| 1 | F | 565 | LYS | 2.2 |
| 1 | F | 661 | ALA | 2.2 |
| 2 | O | 38 | SER | 2.2 |
| 1 | C | 123 | GLU | 2.2 |
| 1 | E | 82 | THR | 2.2 |
| 1 | E | 508 | ILE | 2.2 |
| 1 | E | 781 | ASN | 2.2 |
| 1 | F | 519 | THR | 2.2 |
| 2 | Q | 130 | ILE | 2.2 |
| 1 | D | 578 | GLY | 2.2 |
| 1 | E | 290 | LYS | 2.2 |
| 1 | E | 301 | ALA | 2.2 |
| 1 | F | 280 | SER | 2.2 |
| 1 | D | 153 | ILE | 2.2 |
| 1 | F | 452 | GLU | 2.2 |
| 1 | F | 590 | ASP | 2.2 |
| 1 | A | 129 | ASN | 2.2 |
| 1 | A | 506 | LYS | 2.2 |
| 1 | D | 217 | LYS | 2.2 |
| 1 | D | 653 | LYS | 2.2 |
| 1 | E | 78 | LYS | 2.2 |
| 1 | E | 530 | THR | 2.2 |
| 1 | E | 547 | GLY | 2.2 |
| 1 | F | 460 | GLY | 2.2 |
| 2 | P | 137 | ASN | 2.2 |
| 2 | Q | 23 | GLY | 2.2 |
| 1 | C | 748 | TYR | 2.1 |
| 1 | E | 403 | LEU | 2.1 |
| 1 | F | 195 | LEU | 2.1 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | A | 246 | SER | 2.1 |
| 1 | A | 321 | GLU | 2.1 |
| 1 | C | 393 | GLU | 2.1 |
| 1 | C | 503 | GLU | 2.1 |
| 1 | E | 317 | LYS | 2.1 |
| 1 | E | 565 | LYS | 2.1 |
| 1 | F | 588 | GLU | 2.1 |
| 1 | C | 132 | GLY | 2.1 |
| 1 | E | 583 | ASN | 2.1 |
| 1 | A | 123 | GLU | 2.1 |
| 1 | A | 634 | LYS | 2.1 |
| 1 | C | 664 | ILE | 2.1 |
| 1 | C | 674 | SER | 2.1 |
| 1 | C | 711 | ILE | 2.1 |
| 1 | D | 136 | PRO | 2.1 |
| 1 | A | 582 | ASP | 2.1 |
| 1 | D | 158 | ASP | 2.1 |
| 1 | F | 406 | ASP | 2.1 |
| 1 | A | 661 | ALA | 2.1 |
| 1 | D | 82 | THR | 2.1 |
| 1 | D | 548 | THR | 2.1 |
| 1 | E | 428 | ASN | 2.1 |
| 1 | F | 480 | ASN | 2.1 |
| 2 | Q | 89 | PHE | 2.1 |
| 1 | C | 316 | LYS | 2.1 |
| 1 | D | 512 | GLU | 2.1 |
| 1 | F | 404 | LYS | 2.1 |
| 1 | A | 150 | PRO | 2.1 |
| 1 | D | 361 | ALA | 2.1 |
| 1 | F | 742 | ALA | 2.1 |
| 2 | S | 99 | TYR | 2.1 |
| 1 | D | 439 | ASN | 2.1 |
| 1 | D | 519 | THR | 2.1 |
| 1 | B | 722 | ILE | 2.1 |
| 1 | E | 154 | ILE | 2.1 |
| 1 | F | 83 | GLN | 2.1 |
| 1 | F | 410 | ILE | 2.1 |
| 1 | F | 459 | GLU | 2.1 |
| 2 | P | 45 | GLU | 2.1 |
| 2 | S | 14 | GLU | 2.1 |
| 2 | S | 55 | VAL | 2.1 |
| 1 | E | 334 | LEU | 2.1 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | F | 417 | GLY | 2.1 |
| 1 | C | 679 | TYR | 2.1 |
| 1 | D | 589 | LYS | 2.1 |
| 1 | D | 790 | PHE | 2.1 |
| 1 | E | 681 | ASP | 2.1 |
| 1 | F | 724 | ARG | 2.1 |
| 2 | P | 58 | ASP | 2.1 |
| 1 | D | 239 | HIS | 2.1 |
| 2 | O | 11 | GLU | 2.1 |
| 1 | B | 173 | ILE | 2.1 |
| 1 | B | 726 | ILE | 2.1 |
| 1 | E | 339 | ILE | 2.1 |
| 1 | B | 385 | LEU | 2.1 |
| 1 | E | 764 | LEU | 2.1 |
| 1 | F | 111 | LEU | 2.1 |
| 1 | F | 348 | LEU | 2.1 |
| 1 | B | 382 | LYS | 2.1 |
| 2 | Q | 106 | ARG | 2.1 |
| 1 | D | 304 | ALA | 2.1 |
| 1 | E | 569 | TYR | 2.1 |
| 2 | S | 129 | ASP | 2.1 |
| 1 | C | 124 | GLU | 2.1 |
| 1 | D | 266 | GLU | 2.1 |
| 1 | B | 504 | ILE | 2.1 |
| 1 | E | 521 | ASN | 2.1 |
| 1 | A | 642 | TYR | 2.1 |
| 2 | O | 83 | GLU | 2.1 |
| 2 | S | 102 | ALA | 2.1 |
| 2 | T | 10 | ALA | 2.1 |
| 1 | D | 181 | ILE | 2.1 |
| 2 | P | 76 | MET | 2.1 |
| 1 | D | 563 | ALA | 2.1 |
| 1 | F | 138 | ALA | 2.1 |
| 2 | O | 140 | GLU | 2.1 |
| 1 | A | 453 | VAL | 2.1 |
| 2 | S | 77 | LYS | 2.1 |
| 2 | S | 91 | VAL | 2.1 |
| 1 | C | 394 | HIS | 2.1 |
| 1 | A | 76 | LEU | 2.1 |
| 1 | B | 271 | LEU | 2.1 |
| 1 | E | 671 | ARG | 2.1 |
| 2 | R | 106 | ARG | 2.1 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 83 | GLN | 2.1 |
| 2 | R | 110 | THR | 2.1 |
| 2 | R | 117 | THR | 2.1 |
| 1 | C | 468 | LYS | 2.1 |
| 1 | D | 282 | SER | 2.1 |
| 1 | E | 792 | VAL | 2.1 |
| 1 | C | 610 | MET | 2.1 |
| 1 | E | 602 | PHE | 2.1 |
| 1 | B | 392 | THR | 2.1 |
| 1 | A | 459 | GLU | 2.1 |
| 1 | B | 512 | GLU | 2.1 |
| 1 | B | 737 | LYS | 2.1 |
| 1 | C | 430 | LYS | 2.1 |
| 1 | F | 671 | ARG | 2.1 |
| 2 | Q | 43 | PRO | 2.1 |
| 1 | A | 355 | SER | 2.1 |
| 1 | F | 595 | ILE | 2.1 |
| 1 | A | 367 | ASP | 2.1 |
| 1 | B | 313 | ASP | 2.1 |
| 1 | C | 207 | ASP | 2.1 |
| 1 | C | 573 | ASP | 2.1 |
| 1 | E | 714 | GLN | 2.1 |
| 2 | O | 71 | MET | 2.1 |
| 1 | B | 387 | ASN | 2.1 |
| 1 | C | 479 | LYS | 2.1 |
| 1 | B | 745 | TYR | 2.1 |
| 1 | C | 734 | ASN | 2.1 |
| 1 | D | 123 | GLU | 2.1 |
| 1 | E | 463 | THR | 2.1 |
| 1 | C | 574 | VAL | 2.1 |
| 1 | D | 262 | PRO | 2.1 |
| 1 | D | 441 | VAL | 2.1 |
| 1 | D | 318 | ILE | 2.1 |
| 1 | E | 220 | LEU | 2.1 |
| 1 | D | 110 | ASP | 2.1 |
| 1 | B | 606 | LYS | 2.0 |
| 1 | F | 407 | HIS | 2.1 |
| 1 | E | 344 | ALA | 2.0 |
| 1 | F | 762 | LEU | 2.0 |
| 1 | C | 98 | SER | 2.0 |
| 1 | E | 495 | PHE | 2.0 |
| 1 | E | 680 | LYS | 2.0 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | C | 440 | GLN | 2.0 |
| 1 | A | 260 | TYR | 2.0 |
| 1 | D | 704 | TYR | 2.0 |
| 1 | A | 657 | ILE | 2.0 |
| 1 | D | 182 | ILE | 2.0 |
| 1 | D | 489 | THR | 2.0 |
| 1 | F | 318 | ILE | 2.0 |
| 1 | D | 186 | LYS | 2.0 |
| 1 | D | 215 | LYS | 2.0 |
| 1 | D | 572 | GLY | 2.0 |
| 2 | S | 96 | GLY | 2.0 |
| 1 | E | 755 | ARG | 2.0 |
| 1 | C | 449 | GLU | 2.0 |
| 1 | D | 581 | GLN | 2.0 |
| 1 | D | 733 | GLU | 2.0 |
| 2 | O | 131 | ASP | 2.0 |
| 2 | R | 31 | GLU | 2.0 |
| 1 | C | 97 | TYR | 2.0 |
| 1 | C | 261 | ALA | 2.0 |
| 1 | B | 598 | PRO | 2.0 |
| 1 | B | 695 | LYS | 2.0 |
| 1 | A | 723 | PHE | 2.0 |
| 1 | C | 659 | THR | 2.0 |
| 1 | D | 362 | GLY | 2.0 |
| 1 | D | 415 | GLU | 2.0 |
| 2 | T | 84 | GLU | 2.0 |
| 1 | D | 529 | VAL | 2.0 |
| 2 | Q | 80 | ASP | 2.0 |
| 1 | D | 388 | LYS | 2.0 |
| 1 | E | 496 | ALA | 2.0 |
| 1 | B | 445 | ARG | 2.0 |
| 2 | T | 105 | LEU | 2.0 |
| 1 | D | 352 | GLY | 2.0 |
| 1 | D | 600 | GLY | 2.0 |
| 2 | P | 59 | GLY | 2.0 |
| 1 | A | 444 | PHE | 2.0 |
| 1 | E | 192 | PHE | 2.0 |
| 1 | E | 330 | PRO | 2.0 |
| 1 | A | 450 | ASN | 2.0 |
| 1 | C | 740 | GLN | 2.0 |
| 1 | A | 175 | LYS | 2.0 |
| 1 | A | 710 | HIS | 2.0 |

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| Mol | Chain | Res | Type | RSRZ |
|-----|-------|-----|------|------|
| 1 | A | 218 | LEU | 2.0 |
| 1 | E | 664 | ILE | 2.0 |
| 1 | F | 301 | ALA | 2.0 |
| 2 | P | 106 | ARG | 2.0 |
| 1 | E | 172 | GLU | 2.0 |
| 1 | E | 767 | GLN | 2.0 |
| 1 | B | 370 | LEU | 2.0 |
| 1 | D | 694 | VAL | 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 [i](#)

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 |
|-----|------|-------|-----|-------|-------|------|----------------------------|-------|
| 3 | MG | E | 904 | 1/1 | -0.20 | 0.34 | 23,23,23,23 | 0 |
| 4 | CA | O | 802 | 1/1 | 0.08 | 0.13 | 33,33,33,33 | 0 |
| 4 | CA | S | 809 | 1/1 | 0.29 | 0.20 | 29,29,29,29 | 0 |
| 4 | CA | R | 808 | 1/1 | 0.30 | 0.21 | 36,36,36,36 | 0 |
| 3 | MG | C | 902 | 1/1 | 0.33 | 0.57 | 23,23,23,23 | 0 |
| 4 | CA | R | 807 | 1/1 | 0.35 | 0.13 | 30,30,30,30 | 0 |
| 3 | MG | D | 903 | 1/1 | 0.39 | 0.31 | 21,21,21,21 | 0 |
| 3 | MG | B | 901 | 1/1 | 0.40 | 0.29 | 16,16,16,16 | 0 |
| 4 | CA | T | 812 | 1/1 | 0.40 | 0.25 | 35,35,35,35 | 0 |
| 4 | CA | Q | 806 | 1/1 | 0.41 | 0.16 | 35,35,35,35 | 0 |
| 4 | CA | P | 803 | 1/1 | 0.49 | 0.48 | 32,32,32,32 | 0 |
| 3 | MG | A | 900 | 1/1 | 0.53 | 0.28 | 23,23,23,23 | 0 |
| 4 | CA | S | 810 | 1/1 | 0.55 | 0.28 | 40,40,40,40 | 0 |
| 4 | CA | O | 801 | 1/1 | 0.60 | 0.13 | 33,33,33,33 | 0 |
| 4 | CA | Q | 805 | 1/1 | 0.65 | 0.21 | 29,29,29,29 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|-----|-------|------|------|-----------------------------|-------|
| 4 | CA | P | 804 | 1/1 | 0.67 | 0.28 | 34,34,34,34 | 0 |
| 4 | CA | T | 811 | 1/1 | 0.79 | 0.23 | 28,28,28,28 | 0 |
| 3 | MG | F | 905 | 1/1 | 0.92 | 0.29 | 17,17,17,17 | 0 |

6.5 Other polymers [i](#)

There are no such residues in this entry.