



Full wwPDB EM Validation Report (i)

Nov 20, 2022 – 03:40 pm GMT

PDB ID : 3ZX9
EMDB ID : EMD-1864
Title : Cryo-EM reconstruction of native and expanded Turnip Crinkle virus
Authors : Bakker, S.E.; Robottom, J.; Pearson, A.R.; Stockley, P.G.; Ranson, N.A.
Deposited on : 2011-08-08
Resolution : 17.00 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the (i) 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 \(i\)](#)) were used in the production of this report:

EMDB validation analysis : 0.0.1.dev43
MolProbit : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.2

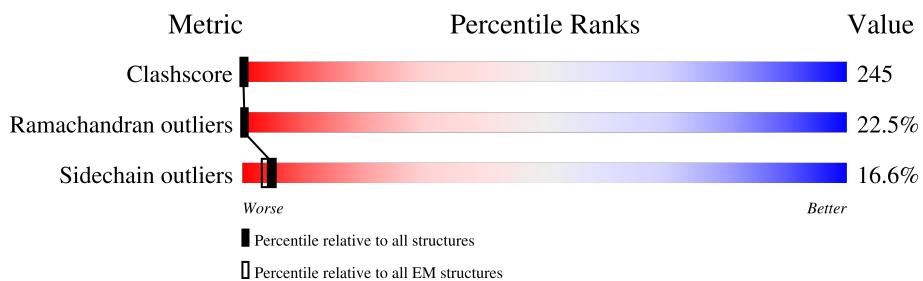
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

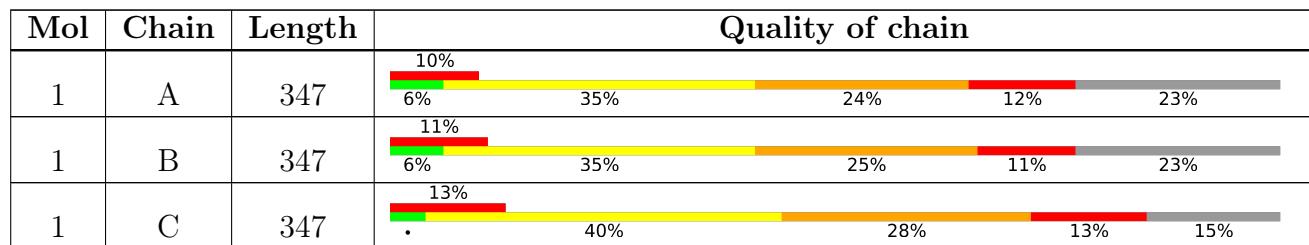
The reported resolution of this entry is 17.00 Å.

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



| Metric | Whole archive (#Entries) | EM structures (#Entries) |
|-----------------------|--------------------------|--------------------------|
| Clashscore | 158937 | 4297 |
| Ramachandran outliers | 154571 | 4023 |
| Sidechain outliers | 154315 | 3826 |

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5%. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion < 40%). The numeric value is given above the bar.



2 Entry composition (i)

There is only 1 type of molecule in this entry. The entry contains 6284 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called CAPSID PROTEIN.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 1 | A | 267 | 2024 | 1280 | 343 | 396 | 5 | 0 | 0 |
| 1 | B | 267 | 2024 | 1280 | 343 | 396 | 5 | 0 | 0 |
| 1 | C | 295 | 2236 | 1409 | 386 | 436 | 5 | 0 | 0 |

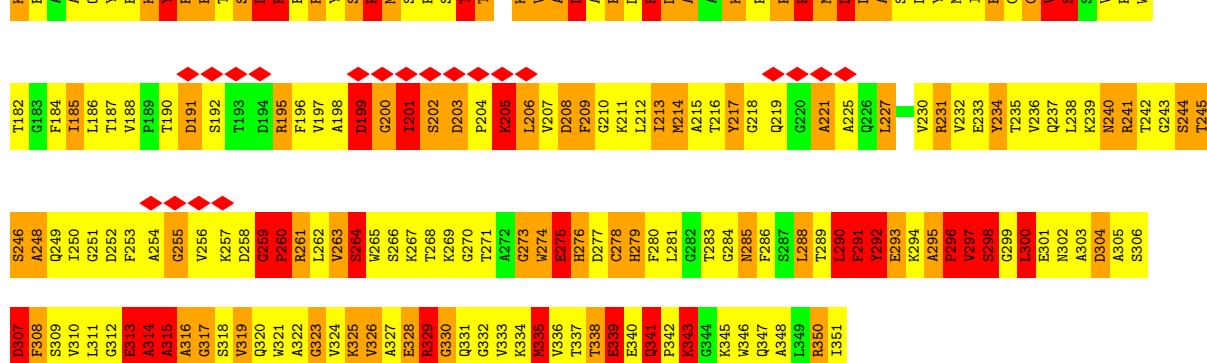
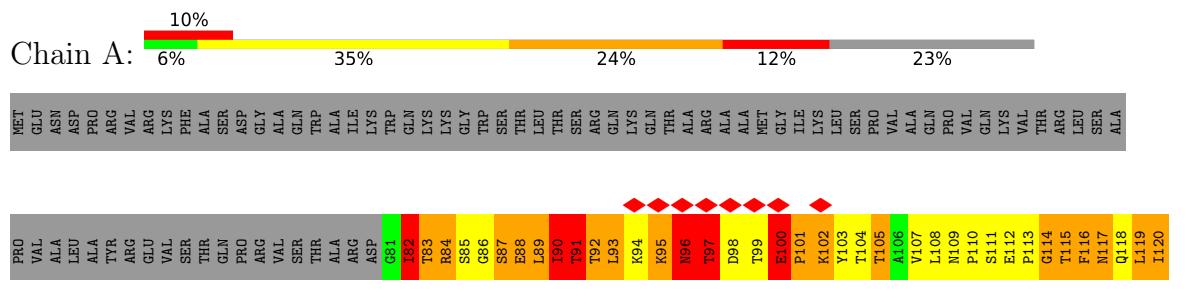
There are 15 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------|------------|
| A | ? | - | ASN | deletion | UNP P06663 |
| A | ? | - | ASP | deletion | UNP P06663 |
| A | ? | - | ALA | deletion | UNP P06663 |
| A | ? | - | ASP | deletion | UNP P06663 |
| A | 346 | TRP | LEU | variant | UNP P06663 |
| B | ? | - | ASN | deletion | UNP P06663 |
| B | ? | - | ASP | deletion | UNP P06663 |
| B | ? | - | ALA | deletion | UNP P06663 |
| B | ? | - | ASP | deletion | UNP P06663 |
| B | 346 | TRP | LEU | variant | UNP P06663 |
| C | ? | - | ASN | deletion | UNP P06663 |
| C | ? | - | ASP | deletion | UNP P06663 |
| C | ? | - | ALA | deletion | UNP P06663 |
| C | ? | - | ASP | deletion | UNP P06663 |
| C | 346 | TRP | LEU | variant | UNP P06663 |

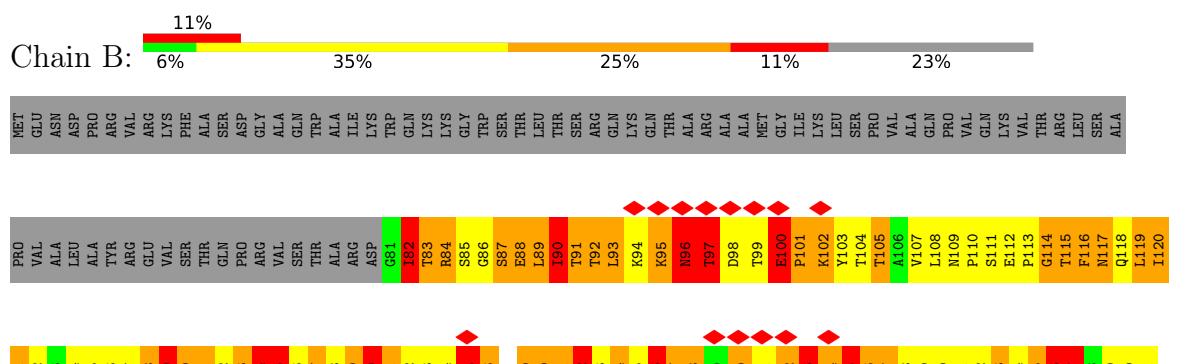
3 Residue-property plots

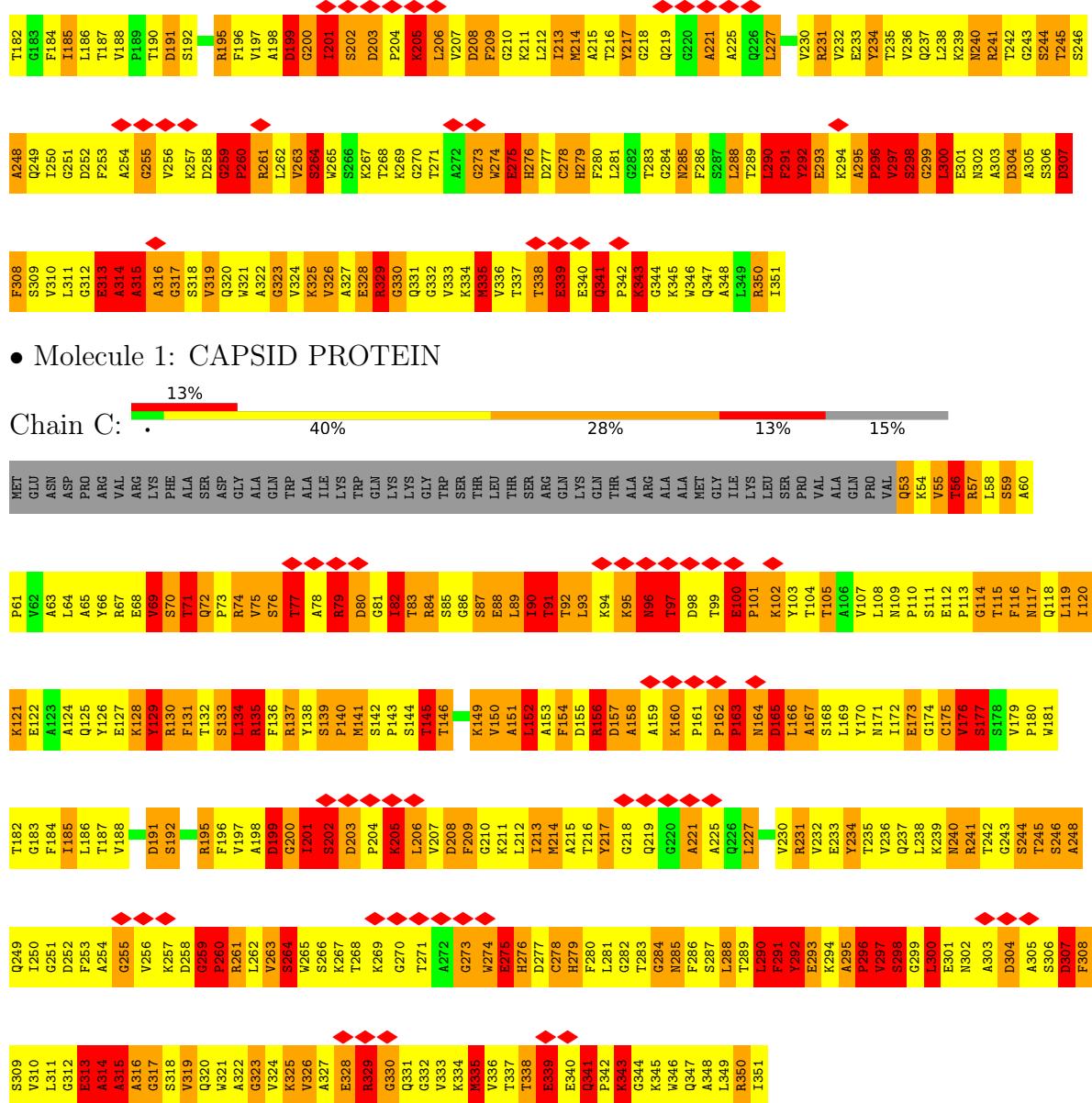
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: CAPSID PROTEIN



- Molecule 1: CAPSID PROTEIN





4 Experimental information (i)

| Property | Value | Source |
|--------------------------------------|------------------------------|-----------|
| EM reconstruction method | SINGLE PARTICLE | Depositor |
| Imposed symmetry | POINT, I | Depositor |
| Number of particles used | 5121 | Depositor |
| Resolution determination method | Not provided | |
| CTF correction method | PHASE-FLIPPING EACH PARTICLE | Depositor |
| Microscope | FEI TECNAI F20 | Depositor |
| Voltage (kV) | 200 | Depositor |
| Electron dose ($e^-/\text{\AA}^2$) | 15 | Depositor |
| Minimum defocus (nm) | 1000 | Depositor |
| Maximum defocus (nm) | 3500 | Depositor |
| Magnification | 52911 | Depositor |
| Image detector | KODAK SO-163 FILM | Depositor |
| Maximum map value | 4.173 | Depositor |
| Minimum map value | -1.868 | Depositor |
| Average map value | 0.162 | Depositor |
| Map value standard deviation | 1.486 | Depositor |
| Recommended contour level | 3.2 | Depositor |
| Map size (\AA) | 453.6, 453.6, 453.6 | wwPDB |
| Map dimensions | 240, 240, 240 | wwPDB |
| Map angles ($^\circ$) | 90.0, 90.0, 90.0 | wwPDB |
| Pixel spacing (\AA) | 1.89, 1.89, 1.89 | Depositor |

5 Model quality i

5.1 Standard geometry i

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

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|-----------------|-------------|-----------------|
| | | RMSZ | # $ Z > 5$ | RMSZ | # $ Z > 5$ |
| 1 | A | 2.49 | 42/2068 (2.0%) | 2.48 | 130/2804 (4.6%) |
| 1 | B | 2.49 | 42/2068 (2.0%) | 2.48 | 130/2804 (4.6%) |
| 1 | C | 2.51 | 56/2282 (2.5%) | 2.46 | 145/3096 (4.7%) |
| All | All | 2.50 | 140/6418 (2.2%) | 2.47 | 405/8704 (4.7%) |

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

| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 1 | A | 0 | 8 |
| 1 | B | 0 | 8 |
| 1 | C | 0 | 10 |
| All | All | 0 | 26 |

All (140) bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|--------|-------------|----------|
| 1 | B | 201 | ILE | C-N | -42.35 | 0.36 | 1.34 |
| 1 | C | 201 | ILE | C-N | -42.34 | 0.36 | 1.34 |
| 1 | A | 201 | ILE | C-N | -42.34 | 0.36 | 1.34 |
| 1 | B | 93 | LEU | N-CA | -41.10 | 0.64 | 1.46 |
| 1 | C | 93 | LEU | N-CA | -41.09 | 0.64 | 1.46 |
| 1 | A | 93 | LEU | N-CA | -41.09 | 0.64 | 1.46 |
| 1 | A | 259 | GLY | C-N | 33.07 | 1.97 | 1.34 |
| 1 | C | 259 | GLY | C-N | 33.04 | 1.97 | 1.34 |
| 1 | B | 259 | GLY | C-N | 33.02 | 1.97 | 1.34 |
| 1 | C | 133 | SER | CB-OG | 29.87 | 1.81 | 1.42 |
| 1 | B | 133 | SER | CB-OG | 29.86 | 1.81 | 1.42 |
| 1 | A | 133 | SER | CB-OG | 29.78 | 1.80 | 1.42 |
| 1 | B | 82 | ILE | C-N | 20.46 | 1.81 | 1.34 |
| 1 | A | 82 | ILE | C-N | 20.44 | 1.81 | 1.34 |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|--------|-------------|----------|
| 1 | C | 82 | ILE | C-N | 20.43 | 1.81 | 1.34 |
| 1 | B | 149 | LYS | CD-CE | 19.49 | 2.00 | 1.51 |
| 1 | C | 149 | LYS | CD-CE | 19.45 | 1.99 | 1.51 |
| 1 | A | 149 | LYS | CD-CE | 19.41 | 1.99 | 1.51 |
| 1 | A | 279 | HIS | C-N | 17.63 | 1.74 | 1.34 |
| 1 | B | 279 | HIS | C-N | 17.59 | 1.74 | 1.34 |
| 1 | C | 279 | HIS | C-N | 17.56 | 1.74 | 1.34 |
| 1 | A | 288 | LEU | C-N | -17.33 | 0.94 | 1.34 |
| 1 | B | 288 | LEU | C-N | -17.28 | 0.94 | 1.34 |
| 1 | C | 288 | LEU | C-N | -17.26 | 0.94 | 1.34 |
| 1 | A | 291 | PHE | C-N | 16.19 | 1.71 | 1.34 |
| 1 | C | 291 | PHE | C-N | 16.18 | 1.71 | 1.34 |
| 1 | B | 291 | PHE | C-N | 16.15 | 1.71 | 1.34 |
| 1 | A | 264 | SER | C-N | 15.13 | 1.68 | 1.34 |
| 1 | C | 264 | SER | C-N | 15.12 | 1.68 | 1.34 |
| 1 | B | 264 | SER | C-N | 15.11 | 1.68 | 1.34 |
| 1 | B | 339 | GLU | C-N | 14.95 | 1.68 | 1.34 |
| 1 | A | 339 | GLU | C-N | 14.94 | 1.68 | 1.34 |
| 1 | C | 339 | GLU | C-N | 14.94 | 1.68 | 1.34 |
| 1 | C | 76 | SER | N-CA | 14.84 | 1.76 | 1.46 |
| 1 | C | 297 | VAL | C-N | -14.48 | 1.00 | 1.34 |
| 1 | B | 297 | VAL | C-N | -14.45 | 1.00 | 1.34 |
| 1 | A | 297 | VAL | C-N | -14.44 | 1.00 | 1.34 |
| 1 | C | 53 | GLN | C-N | 14.32 | 1.67 | 1.34 |
| 1 | C | 177 | SER | C-N | -12.83 | 1.04 | 1.34 |
| 1 | B | 177 | SER | C-N | -12.83 | 1.04 | 1.34 |
| 1 | A | 177 | SER | C-N | -12.76 | 1.04 | 1.34 |
| 1 | A | 121 | LYS | CE-NZ | 12.07 | 1.79 | 1.49 |
| 1 | B | 121 | LYS | CE-NZ | 12.07 | 1.79 | 1.49 |
| 1 | C | 121 | LYS | CE-NZ | 12.05 | 1.79 | 1.49 |
| 1 | A | 319 | VAL | C-N | 11.99 | 1.61 | 1.34 |
| 1 | B | 319 | VAL | C-N | 11.99 | 1.61 | 1.34 |
| 1 | C | 319 | VAL | C-N | 11.98 | 1.61 | 1.34 |
| 1 | B | 139 | SER | C-N | -11.58 | 1.12 | 1.34 |
| 1 | A | 139 | SER | C-N | -11.53 | 1.12 | 1.34 |
| 1 | C | 139 | SER | C-N | -11.47 | 1.12 | 1.34 |
| 1 | C | 75 | VAL | C-N | 11.45 | 1.60 | 1.34 |
| 1 | C | 140 | PRO | N-CD | -10.99 | 1.32 | 1.47 |
| 1 | A | 140 | PRO | N-CD | -10.95 | 1.32 | 1.47 |
| 1 | C | 75 | VAL | N-CA | 10.87 | 1.68 | 1.46 |
| 1 | B | 140 | PRO | N-CD | -10.86 | 1.32 | 1.47 |
| 1 | C | 308 | PHE | C-N | -9.60 | 1.11 | 1.34 |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 1 | B | 308 | PHE | C-N | -9.59 | 1.11 | 1.34 |
| 1 | A | 308 | PHE | C-N | -9.59 | 1.11 | 1.34 |
| 1 | A | 200 | GLY | C-N | -9.39 | 1.12 | 1.34 |
| 1 | C | 200 | GLY | C-N | -9.38 | 1.12 | 1.34 |
| 1 | B | 200 | GLY | C-N | -9.36 | 1.12 | 1.34 |
| 1 | B | 91 | THR | N-CA | 9.31 | 1.65 | 1.46 |
| 1 | C | 91 | THR | N-CA | 9.27 | 1.64 | 1.46 |
| 1 | A | 91 | THR | N-CA | 9.25 | 1.64 | 1.46 |
| 1 | B | 298 | SER | C-N | -9.15 | 1.16 | 1.33 |
| 1 | C | 298 | SER | C-N | -9.12 | 1.16 | 1.33 |
| 1 | A | 298 | SER | C-N | -9.10 | 1.16 | 1.33 |
| 1 | B | 299 | GLY | N-CA | -9.04 | 1.32 | 1.46 |
| 1 | C | 299 | GLY | N-CA | -9.01 | 1.32 | 1.46 |
| 1 | A | 299 | GLY | N-CA | -9.01 | 1.32 | 1.46 |
| 1 | C | 75 | VAL | CA-C | 8.92 | 1.76 | 1.52 |
| 1 | C | 77 | THR | N-CA | 8.68 | 1.63 | 1.46 |
| 1 | A | 315 | ALA | C-N | -8.64 | 1.14 | 1.34 |
| 1 | C | 315 | ALA | C-N | -8.63 | 1.14 | 1.34 |
| 1 | B | 315 | ALA | C-N | -8.63 | 1.14 | 1.34 |
| 1 | C | 76 | SER | CA-C | 8.62 | 1.75 | 1.52 |
| 1 | A | 299 | GLY | CA-C | -8.51 | 1.38 | 1.51 |
| 1 | C | 299 | GLY | CA-C | -8.48 | 1.38 | 1.51 |
| 1 | B | 299 | GLY | CA-C | -8.44 | 1.38 | 1.51 |
| 1 | A | 260 | PRO | C-N | -8.04 | 1.15 | 1.34 |
| 1 | C | 260 | PRO | C-N | -8.03 | 1.15 | 1.34 |
| 1 | C | 74 | ARG | C-N | 8.02 | 1.52 | 1.34 |
| 1 | B | 260 | PRO | C-N | -8.01 | 1.15 | 1.34 |
| 1 | C | 323 | GLY | C-N | -7.71 | 1.16 | 1.34 |
| 1 | B | 323 | GLY | C-N | -7.70 | 1.16 | 1.34 |
| 1 | A | 323 | GLY | C-N | -7.66 | 1.16 | 1.34 |
| 1 | C | 290 | LEU | C-N | 7.61 | 1.51 | 1.34 |
| 1 | B | 290 | LEU | C-N | 7.60 | 1.51 | 1.34 |
| 1 | A | 290 | LEU | C-N | 7.57 | 1.51 | 1.34 |
| 1 | C | 300 | LEU | N-CA | -7.56 | 1.31 | 1.46 |
| 1 | B | 300 | LEU | N-CA | -7.54 | 1.31 | 1.46 |
| 1 | A | 300 | LEU | N-CA | -7.53 | 1.31 | 1.46 |
| 1 | B | 330 | GLY | C-N | 7.13 | 1.50 | 1.34 |
| 1 | A | 330 | GLY | C-N | 7.10 | 1.50 | 1.34 |
| 1 | C | 330 | GLY | C-N | 7.09 | 1.50 | 1.34 |
| 1 | B | 303 | ALA | C-N | 7.07 | 1.50 | 1.34 |
| 1 | C | 303 | ALA | C-N | 7.04 | 1.50 | 1.34 |
| 1 | A | 303 | ALA | C-N | 7.00 | 1.50 | 1.34 |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 1 | A | 299 | GLY | C-N | -6.99 | 1.18 | 1.34 |
| 1 | B | 299 | GLY | C-N | -6.96 | 1.18 | 1.34 |
| 1 | C | 299 | GLY | C-N | -6.95 | 1.18 | 1.34 |
| 1 | C | 72 | GLN | C-N | 6.88 | 1.47 | 1.34 |
| 1 | C | 74 | ARG | N-CA | 6.68 | 1.59 | 1.46 |
| 1 | C | 76 | SER | C-N | 6.64 | 1.49 | 1.34 |
| 1 | B | 259 | GLY | CA-C | 6.51 | 1.62 | 1.51 |
| 1 | C | 74 | ARG | CA-C | 6.49 | 1.69 | 1.52 |
| 1 | C | 259 | GLY | CA-C | 6.44 | 1.62 | 1.51 |
| 1 | A | 259 | GLY | CA-C | 6.39 | 1.62 | 1.51 |
| 1 | A | 175 | CYS | C-N | -6.38 | 1.19 | 1.34 |
| 1 | C | 175 | CYS | C-N | -6.37 | 1.19 | 1.34 |
| 1 | B | 175 | CYS | C-N | -6.34 | 1.19 | 1.34 |
| 1 | B | 90 | ILE | CA-C | 6.26 | 1.69 | 1.52 |
| 1 | A | 90 | ILE | CA-C | 6.25 | 1.69 | 1.52 |
| 1 | C | 90 | ILE | CA-C | 6.23 | 1.69 | 1.52 |
| 1 | A | 140 | PRO | CA-CB | -6.14 | 1.41 | 1.53 |
| 1 | B | 140 | PRO | CA-CB | -6.13 | 1.41 | 1.53 |
| 1 | C | 140 | PRO | CA-CB | -6.11 | 1.41 | 1.53 |
| 1 | C | 163 | PRO | N-CA | -6.06 | 1.36 | 1.47 |
| 1 | B | 163 | PRO | N-CA | -6.05 | 1.36 | 1.47 |
| 1 | A | 163 | PRO | N-CA | -6.01 | 1.37 | 1.47 |
| 1 | B | 221 | ALA | C-N | 5.84 | 1.47 | 1.34 |
| 1 | A | 221 | ALA | C-N | 5.84 | 1.47 | 1.34 |
| 1 | C | 221 | ALA | C-N | 5.82 | 1.47 | 1.34 |
| 1 | B | 175 | CYS | CA-C | -5.74 | 1.38 | 1.52 |
| 1 | C | 175 | CYS | CA-C | -5.73 | 1.38 | 1.52 |
| 1 | A | 175 | CYS | CA-C | -5.70 | 1.38 | 1.52 |
| 1 | A | 88 | GLU | C-N | -5.51 | 1.21 | 1.34 |
| 1 | C | 70 | SER | C-N | -5.50 | 1.21 | 1.34 |
| 1 | B | 88 | GLU | C-N | -5.46 | 1.21 | 1.34 |
| 1 | C | 88 | GLU | C-N | -5.45 | 1.21 | 1.34 |
| 1 | A | 284 | GLY | N-CA | 5.32 | 1.54 | 1.46 |
| 1 | B | 284 | GLY | N-CA | 5.29 | 1.53 | 1.46 |
| 1 | C | 284 | GLY | N-CA | 5.26 | 1.53 | 1.46 |
| 1 | C | 176 | VAL | N-CA | -5.26 | 1.35 | 1.46 |
| 1 | A | 176 | VAL | N-CA | -5.23 | 1.35 | 1.46 |
| 1 | B | 176 | VAL | N-CA | -5.22 | 1.35 | 1.46 |
| 1 | C | 203 | ASP | C-N | 5.21 | 1.44 | 1.34 |
| 1 | B | 203 | ASP | C-N | 5.20 | 1.44 | 1.34 |
| 1 | A | 203 | ASP | C-N | 5.19 | 1.44 | 1.34 |
| 1 | C | 274 | TRP | NE1-CE2 | -5.03 | 1.31 | 1.37 |

All (405) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|--------|--------|-------------|----------|
| 1 | B | 201 | ILE | O-C-N | -59.03 | 28.25 | 122.70 |
| 1 | A | 201 | ILE | O-C-N | -59.02 | 28.27 | 122.70 |
| 1 | C | 201 | ILE | O-C-N | -58.96 | 28.37 | 122.70 |
| 1 | A | 82 | ILE | O-C-N | -16.84 | 95.75 | 122.70 |
| 1 | C | 82 | ILE | O-C-N | -16.83 | 95.78 | 122.70 |
| 1 | B | 82 | ILE | O-C-N | -16.82 | 95.78 | 122.70 |
| 1 | C | 338 | THR | O-C-N | 15.64 | 147.72 | 122.70 |
| 1 | B | 338 | THR | O-C-N | 15.63 | 147.72 | 122.70 |
| 1 | A | 338 | THR | O-C-N | 15.57 | 147.62 | 122.70 |
| 1 | B | 300 | LEU | O-C-N | 14.54 | 145.97 | 122.70 |
| 1 | A | 300 | LEU | O-C-N | 14.50 | 145.90 | 122.70 |
| 1 | C | 300 | LEU | O-C-N | 14.49 | 145.89 | 122.70 |
| 1 | C | 307 | ASP | C-N-CA | 14.02 | 156.76 | 121.70 |
| 1 | B | 307 | ASP | C-N-CA | 14.00 | 156.70 | 121.70 |
| 1 | A | 307 | ASP | C-N-CA | 14.00 | 156.69 | 121.70 |
| 1 | C | 129 | TYR | O-C-N | 12.92 | 143.38 | 122.70 |
| 1 | A | 129 | TYR | O-C-N | 12.87 | 143.29 | 122.70 |
| 1 | B | 129 | TYR | O-C-N | 12.87 | 143.29 | 122.70 |
| 1 | C | 307 | ASP | O-C-N | -12.85 | 102.14 | 122.70 |
| 1 | A | 307 | ASP | O-C-N | -12.82 | 102.19 | 122.70 |
| 1 | B | 307 | ASP | O-C-N | -12.81 | 102.20 | 122.70 |
| 1 | C | 93 | LEU | N-CA-C | -12.67 | 76.80 | 111.00 |
| 1 | A | 93 | LEU | N-CA-C | -12.62 | 76.93 | 111.00 |
| 1 | B | 93 | LEU | N-CA-C | -12.61 | 76.97 | 111.00 |
| 1 | C | 201 | ILE | CA-C-N | 12.54 | 144.79 | 117.20 |
| 1 | B | 200 | GLY | O-C-N | 12.48 | 142.66 | 122.70 |
| 1 | B | 201 | ILE | CA-C-N | 12.44 | 144.57 | 117.20 |
| 1 | B | 290 | LEU | O-C-N | 12.44 | 142.60 | 122.70 |
| 1 | C | 200 | GLY | O-C-N | 12.44 | 142.60 | 122.70 |
| 1 | B | 264 | SER | O-C-N | 12.43 | 142.59 | 122.70 |
| 1 | A | 200 | GLY | O-C-N | 12.42 | 142.57 | 122.70 |
| 1 | C | 264 | SER | O-C-N | 12.39 | 142.53 | 122.70 |
| 1 | A | 290 | LEU | O-C-N | 12.39 | 142.52 | 122.70 |
| 1 | A | 201 | ILE | CA-C-N | 12.39 | 144.45 | 117.20 |
| 1 | C | 290 | LEU | O-C-N | 12.38 | 142.51 | 122.70 |
| 1 | A | 264 | SER | O-C-N | 12.35 | 142.47 | 122.70 |
| 1 | B | 339 | GLU | C-N-CA | -12.35 | 90.83 | 121.70 |
| 1 | C | 339 | GLU | C-N-CA | -12.34 | 90.86 | 121.70 |
| 1 | A | 339 | GLU | C-N-CA | -12.34 | 90.86 | 121.70 |
| 1 | B | 330 | GLY | O-C-N | -12.14 | 103.28 | 122.70 |
| 1 | C | 330 | GLY | O-C-N | -12.11 | 103.33 | 122.70 |
| 1 | A | 330 | GLY | O-C-N | -12.09 | 103.35 | 122.70 |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|---------|--------|-------------|----------|
| 1 | B | 299 | GLY | O-C-N | 11.96 | 141.83 | 122.70 |
| 1 | C | 299 | GLY | O-C-N | 11.96 | 141.83 | 122.70 |
| 1 | A | 299 | GLY | O-C-N | 11.94 | 141.81 | 122.70 |
| 1 | A | 297 | VAL | C-N-CA | -11.77 | 92.28 | 121.70 |
| 1 | B | 297 | VAL | C-N-CA | -11.77 | 92.29 | 121.70 |
| 1 | C | 297 | VAL | C-N-CA | -11.74 | 92.34 | 121.70 |
| 1 | C | 338 | THR | CA-C-N | -11.54 | 91.81 | 117.20 |
| 1 | B | 338 | THR | CA-C-N | -11.53 | 91.84 | 117.20 |
| 1 | A | 338 | THR | CA-C-N | -11.52 | 91.86 | 117.20 |
| 1 | C | 264 | SER | CA-C-N | -10.45 | 94.22 | 117.20 |
| 1 | B | 264 | SER | CA-C-N | -10.45 | 94.22 | 117.20 |
| 1 | A | 264 | SER | CA-C-N | -10.43 | 94.26 | 117.20 |
| 1 | B | 300 | LEU | CA-C-N | -10.21 | 94.75 | 117.20 |
| 1 | C | 300 | LEU | CA-C-N | -10.20 | 94.75 | 117.20 |
| 1 | A | 300 | LEU | CA-C-N | -10.17 | 94.83 | 117.20 |
| 1 | B | 200 | GLY | CA-C-N | -9.83 | 95.58 | 117.20 |
| 1 | C | 200 | GLY | CA-C-N | -9.80 | 95.65 | 117.20 |
| 1 | A | 200 | GLY | CA-C-N | -9.78 | 95.68 | 117.20 |
| 1 | C | 313 | GLU | O-C-N | 9.71 | 138.23 | 122.70 |
| 1 | C | 200 | GLY | C-N-CA | 9.70 | 145.95 | 121.70 |
| 1 | B | 313 | GLU | O-C-N | 9.70 | 138.22 | 122.70 |
| 1 | B | 200 | GLY | C-N-CA | 9.69 | 145.94 | 121.70 |
| 1 | A | 200 | GLY | C-N-CA | 9.69 | 145.93 | 121.70 |
| 1 | A | 313 | GLU | O-C-N | 9.69 | 138.21 | 122.70 |
| 1 | C | 129 | TYR | CA-C-N | -9.60 | 96.07 | 117.20 |
| 1 | A | 279 | HIS | O-C-N | -9.60 | 107.34 | 122.70 |
| 1 | B | 279 | HIS | O-C-N | -9.60 | 107.34 | 122.70 |
| 1 | C | 279 | HIS | O-C-N | -9.60 | 107.34 | 122.70 |
| 1 | A | 129 | TYR | CA-C-N | -9.57 | 96.15 | 117.20 |
| 1 | B | 129 | TYR | CA-C-N | -9.56 | 96.17 | 117.20 |
| 1 | B | 140 | PRO | N-CD-CG | -9.39 | 89.11 | 103.20 |
| 1 | C | 140 | PRO | N-CD-CG | -9.38 | 89.13 | 103.20 |
| 1 | A | 140 | PRO | N-CD-CG | -9.37 | 89.15 | 103.20 |
| 1 | B | 100 | GLU | O-C-N | -9.36 | 103.32 | 121.10 |
| 1 | C | 100 | GLU | O-C-N | -9.35 | 103.34 | 121.10 |
| 1 | A | 299 | GLY | CA-C-N | -9.35 | 96.64 | 117.20 |
| 1 | C | 299 | GLY | CA-C-N | -9.34 | 96.64 | 117.20 |
| 1 | B | 299 | GLY | CA-C-N | -9.34 | 96.65 | 117.20 |
| 1 | A | 100 | GLU | O-C-N | -9.33 | 103.38 | 121.10 |
| 1 | A | 335 | MET | CA-C-N | -9.31 | 96.71 | 117.20 |
| 1 | C | 140 | PRO | CA-N-CD | 9.31 | 124.73 | 111.70 |
| 1 | C | 335 | MET | CA-C-N | -9.30 | 96.73 | 117.20 |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|----------|-------|-------------|----------|
| 1 | B | 335 | MET | CA-C-N | -9.29 | 96.75 | 117.20 |
| 1 | C | 202 | SER | CB-CA-C | -9.26 | 92.51 | 110.10 |
| 1 | A | 202 | SER | CB-CA-C | -9.25 | 92.53 | 110.10 |
| 1 | B | 202 | SER | CB-CA-C | -9.24 | 92.54 | 110.10 |
| 1 | A | 140 | PRO | CA-N-CD | 9.23 | 124.62 | 111.70 |
| 1 | B | 140 | PRO | CA-N-CD | 9.20 | 124.58 | 111.70 |
| 1 | C | 264 | SER | C-N-CA | -9.13 | 98.88 | 121.70 |
| 1 | B | 264 | SER | C-N-CA | -9.12 | 98.89 | 121.70 |
| 1 | A | 264 | SER | C-N-CA | -9.12 | 98.90 | 121.70 |
| 1 | B | 278 | CYS | CA-CB-SG | -8.81 | 98.15 | 114.00 |
| 1 | A | 278 | CYS | CA-CB-SG | -8.79 | 98.17 | 114.00 |
| 1 | C | 278 | CYS | CA-CB-SG | -8.77 | 98.21 | 114.00 |
| 1 | C | 328 | GLU | O-C-N | 8.68 | 136.59 | 122.70 |
| 1 | B | 328 | GLU | O-C-N | 8.68 | 136.58 | 122.70 |
| 1 | A | 328 | GLU | O-C-N | 8.66 | 136.56 | 122.70 |
| 1 | A | 279 | HIS | CA-C-N | -8.58 | 98.32 | 117.20 |
| 1 | B | 279 | HIS | CA-C-N | -8.57 | 98.34 | 117.20 |
| 1 | C | 279 | HIS | CA-C-N | -8.56 | 98.36 | 117.20 |
| 1 | A | 275 | GLU | N-CA-C | -8.51 | 88.03 | 111.00 |
| 1 | C | 275 | GLU | N-CA-C | -8.48 | 88.10 | 111.00 |
| 1 | C | 325 | LYS | C-N-CA | -8.48 | 100.50 | 121.70 |
| 1 | B | 275 | GLU | N-CA-C | -8.47 | 88.14 | 111.00 |
| 1 | A | 325 | LYS | C-N-CA | -8.46 | 100.56 | 121.70 |
| 1 | B | 90 | ILE | O-C-N | -8.46 | 109.17 | 122.70 |
| 1 | A | 90 | ILE | O-C-N | -8.45 | 109.18 | 122.70 |
| 1 | B | 325 | LYS | C-N-CA | -8.45 | 100.57 | 121.70 |
| 1 | C | 90 | ILE | O-C-N | -8.44 | 109.19 | 122.70 |
| 1 | C | 314 | ALA | N-CA-C | -8.43 | 88.25 | 111.00 |
| 1 | A | 314 | ALA | N-CA-C | -8.41 | 88.28 | 111.00 |
| 1 | B | 314 | ALA | N-CA-C | -8.41 | 88.29 | 111.00 |
| 1 | A | 175 | CYS | CA-CB-SG | -8.29 | 99.07 | 114.00 |
| 1 | C | 175 | CYS | CA-CB-SG | -8.29 | 99.08 | 114.00 |
| 1 | B | 175 | CYS | CA-CB-SG | -8.28 | 99.11 | 114.00 |
| 1 | A | 175 | CYS | C-N-CA | -8.27 | 101.03 | 121.70 |
| 1 | B | 175 | CYS | C-N-CA | -8.27 | 101.03 | 121.70 |
| 1 | C | 175 | CYS | C-N-CA | -8.26 | 101.06 | 121.70 |
| 1 | A | 307 | ASP | CA-C-N | 8.15 | 135.13 | 117.20 |
| 1 | B | 163 | PRO | O-C-N | 8.15 | 135.74 | 122.70 |
| 1 | B | 307 | ASP | CA-C-N | 8.15 | 135.12 | 117.20 |
| 1 | C | 307 | ASP | CA-C-N | 8.15 | 135.12 | 117.20 |
| 1 | B | 296 | PRO | O-C-N | 8.14 | 135.73 | 122.70 |
| 1 | A | 296 | PRO | O-C-N | 8.11 | 135.68 | 122.70 |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 1 | C | 163 | PRO | O-C-N | 8.11 | 135.68 | 122.70 |
| 1 | C | 296 | PRO | O-C-N | 8.11 | 135.68 | 122.70 |
| 1 | A | 163 | PRO | O-C-N | 8.11 | 135.67 | 122.70 |
| 1 | C | 350 | ARG | NE-CZ-NH2 | 8.04 | 124.32 | 120.30 |
| 1 | B | 350 | ARG | NE-CZ-NH2 | 8.01 | 124.31 | 120.30 |
| 1 | A | 350 | ARG | NE-CZ-NH2 | 8.00 | 124.30 | 120.30 |
| 1 | B | 291 | PHE | CB-CG-CD2 | -7.99 | 115.21 | 120.80 |
| 1 | C | 291 | PHE | CB-CG-CD2 | -7.97 | 115.22 | 120.80 |
| 1 | C | 76 | SER | CB-CA-C | -7.96 | 94.98 | 110.10 |
| 1 | B | 203 | ASP | O-C-N | -7.95 | 106.00 | 121.10 |
| 1 | A | 203 | ASP | O-C-N | -7.94 | 106.02 | 121.10 |
| 1 | C | 74 | ARG | NE-CZ-NH2 | 7.93 | 124.26 | 120.30 |
| 1 | C | 291 | PHE | N-CA-CB | -7.91 | 96.36 | 110.60 |
| 1 | C | 203 | ASP | O-C-N | -7.90 | 106.09 | 121.10 |
| 1 | B | 291 | PHE | N-CA-CB | -7.90 | 96.39 | 110.60 |
| 1 | A | 291 | PHE | N-CA-CB | -7.88 | 96.41 | 110.60 |
| 1 | B | 330 | GLY | CA-C-N | 7.83 | 134.43 | 117.20 |
| 1 | C | 330 | GLY | CA-C-N | 7.83 | 134.43 | 117.20 |
| 1 | A | 330 | GLY | CA-C-N | 7.83 | 134.42 | 117.20 |
| 1 | A | 291 | PHE | CB-CG-CD2 | -7.78 | 115.35 | 120.80 |
| 1 | C | 140 | PRO | N-CA-CB | -7.78 | 93.96 | 103.30 |
| 1 | C | 273 | GLY | O-C-N | 7.71 | 135.03 | 122.70 |
| 1 | A | 140 | PRO | N-CA-CB | -7.70 | 94.06 | 103.30 |
| 1 | A | 273 | GLY | O-C-N | 7.70 | 135.03 | 122.70 |
| 1 | B | 140 | PRO | N-CA-CB | -7.70 | 94.06 | 103.30 |
| 1 | B | 273 | GLY | O-C-N | 7.67 | 134.97 | 122.70 |
| 1 | A | 273 | GLY | C-N-CA | -7.54 | 102.85 | 121.70 |
| 1 | B | 273 | GLY | C-N-CA | -7.53 | 102.88 | 121.70 |
| 1 | A | 84 | ARG | NE-CZ-NH2 | 7.53 | 124.06 | 120.30 |
| 1 | C | 273 | GLY | C-N-CA | -7.52 | 102.89 | 121.70 |
| 1 | A | 261 | ARG | NE-CZ-NH2 | 7.51 | 124.05 | 120.30 |
| 1 | C | 57 | ARG | NE-CZ-NH2 | 7.50 | 124.05 | 120.30 |
| 1 | A | 135 | ARG | NE-CZ-NH2 | 7.49 | 124.04 | 120.30 |
| 1 | C | 135 | ARG | NE-CZ-NH2 | 7.49 | 124.04 | 120.30 |
| 1 | B | 84 | ARG | NE-CZ-NH2 | 7.48 | 124.04 | 120.30 |
| 1 | C | 241 | ARG | NE-CZ-NH2 | 7.48 | 124.04 | 120.30 |
| 1 | B | 135 | ARG | NE-CZ-NH2 | 7.48 | 124.04 | 120.30 |
| 1 | A | 241 | ARG | NE-CZ-NH2 | 7.45 | 124.03 | 120.30 |
| 1 | B | 261 | ARG | NE-CZ-NH2 | 7.44 | 124.02 | 120.30 |
| 1 | C | 63 | ALA | O-C-N | 7.44 | 134.61 | 122.70 |
| 1 | A | 195 | ARG | NE-CZ-NH2 | 7.44 | 124.02 | 120.30 |
| 1 | B | 130 | ARG | NE-CZ-NH2 | 7.43 | 124.01 | 120.30 |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 1 | A | 329 | ARG | NE-CZ-NH2 | 7.41 | 124.00 | 120.30 |
| 1 | C | 195 | ARG | NE-CZ-NH2 | 7.41 | 124.00 | 120.30 |
| 1 | C | 261 | ARG | NE-CZ-NH2 | 7.41 | 124.00 | 120.30 |
| 1 | C | 84 | ARG | NE-CZ-NH2 | 7.40 | 124.00 | 120.30 |
| 1 | C | 130 | ARG | NE-CZ-NH2 | 7.40 | 124.00 | 120.30 |
| 1 | A | 156 | ARG | NE-CZ-NH2 | 7.37 | 123.99 | 120.30 |
| 1 | C | 329 | ARG | NE-CZ-NH2 | 7.37 | 123.99 | 120.30 |
| 1 | B | 241 | ARG | NE-CZ-NH2 | 7.37 | 123.98 | 120.30 |
| 1 | B | 195 | ARG | NE-CZ-NH2 | 7.36 | 123.98 | 120.30 |
| 1 | C | 57 | ARG | O-C-N | 7.34 | 134.45 | 122.70 |
| 1 | A | 130 | ARG | NE-CZ-NH2 | 7.34 | 123.97 | 120.30 |
| 1 | A | 290 | LEU | CA-C-N | -7.32 | 101.10 | 117.20 |
| 1 | B | 290 | LEU | CA-C-N | -7.31 | 101.11 | 117.20 |
| 1 | C | 290 | LEU | CA-C-N | -7.31 | 101.12 | 117.20 |
| 1 | A | 313 | GLU | CA-C-N | -7.30 | 101.13 | 117.20 |
| 1 | B | 313 | GLU | CA-C-N | -7.30 | 101.14 | 117.20 |
| 1 | B | 156 | ARG | NE-CZ-NH2 | 7.29 | 123.94 | 120.30 |
| 1 | B | 329 | ARG | NE-CZ-NH2 | 7.27 | 123.93 | 120.30 |
| 1 | C | 313 | GLU | CA-C-N | -7.27 | 101.21 | 117.20 |
| 1 | C | 156 | ARG | NE-CZ-NH2 | 7.26 | 123.93 | 120.30 |
| 1 | C | 79 | ARG | NE-CZ-NH2 | 7.25 | 123.93 | 120.30 |
| 1 | A | 274 | TRP | O-C-N | 7.24 | 134.28 | 122.70 |
| 1 | C | 274 | TRP | O-C-N | 7.23 | 134.27 | 122.70 |
| 1 | C | 176 | VAL | O-C-N | 7.22 | 134.26 | 122.70 |
| 1 | B | 274 | TRP | O-C-N | 7.19 | 134.21 | 122.70 |
| 1 | A | 176 | VAL | O-C-N | 7.18 | 134.20 | 122.70 |
| 1 | B | 290 | LEU | CB-CA-C | -7.15 | 96.61 | 110.20 |
| 1 | B | 191 | ASP | O-C-N | 7.14 | 134.12 | 122.70 |
| 1 | A | 290 | LEU | CB-CA-C | -7.13 | 96.66 | 110.20 |
| 1 | C | 290 | LEU | CB-CA-C | -7.12 | 96.67 | 110.20 |
| 1 | B | 176 | VAL | O-C-N | 7.12 | 134.09 | 122.70 |
| 1 | A | 191 | ASP | O-C-N | 7.11 | 134.07 | 122.70 |
| 1 | C | 191 | ASP | O-C-N | 7.03 | 133.95 | 122.70 |
| 1 | B | 328 | GLU | CA-C-N | -7.03 | 101.74 | 117.20 |
| 1 | A | 91 | THR | N-CA-CB | 7.01 | 123.63 | 110.30 |
| 1 | C | 328 | GLU | CA-C-N | -7.01 | 101.78 | 117.20 |
| 1 | A | 328 | GLU | CA-C-N | -7.00 | 101.80 | 117.20 |
| 1 | C | 91 | THR | N-CA-CB | 6.98 | 123.56 | 110.30 |
| 1 | B | 91 | THR | N-CA-CB | 6.97 | 123.54 | 110.30 |
| 1 | C | 202 | SER | O-C-N | 6.95 | 133.82 | 122.70 |
| 1 | A | 202 | SER | O-C-N | 6.94 | 133.81 | 122.70 |
| 1 | B | 202 | SER | O-C-N | 6.94 | 133.80 | 122.70 |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 1 | B | 165 | ASP | O-C-N | 6.92 | 133.78 | 122.70 |
| 1 | A | 165 | ASP | O-C-N | 6.92 | 133.77 | 122.70 |
| 1 | C | 165 | ASP | O-C-N | 6.91 | 133.76 | 122.70 |
| 1 | A | 341 | GLN | O-C-N | -6.88 | 108.03 | 121.10 |
| 1 | B | 341 | GLN | O-C-N | -6.88 | 108.03 | 121.10 |
| 1 | C | 341 | GLN | O-C-N | -6.85 | 108.09 | 121.10 |
| 1 | A | 137 | ARG | NE-CZ-NH2 | 6.84 | 123.72 | 120.30 |
| 1 | C | 137 | ARG | NE-CZ-NH2 | 6.84 | 123.72 | 120.30 |
| 1 | A | 338 | THR | C-N-CA | 6.83 | 138.78 | 121.70 |
| 1 | B | 137 | ARG | NE-CZ-NH2 | 6.83 | 123.71 | 120.30 |
| 1 | C | 338 | THR | C-N-CA | 6.80 | 138.71 | 121.70 |
| 1 | B | 338 | THR | C-N-CA | 6.80 | 138.71 | 121.70 |
| 1 | A | 82 | ILE | C-N-CA | 6.78 | 138.66 | 121.70 |
| 1 | B | 82 | ILE | C-N-CA | 6.78 | 138.65 | 121.70 |
| 1 | C | 82 | ILE | C-N-CA | 6.77 | 138.63 | 121.70 |
| 1 | C | 69 | VAL | O-C-N | -6.76 | 111.89 | 122.70 |
| 1 | B | 273 | GLY | CA-C-N | -6.62 | 102.64 | 117.20 |
| 1 | C | 273 | GLY | CA-C-N | -6.62 | 102.64 | 117.20 |
| 1 | A | 273 | GLY | CA-C-N | -6.60 | 102.68 | 117.20 |
| 1 | B | 274 | TRP | C-N-CA | 6.58 | 138.15 | 121.70 |
| 1 | C | 313 | GLU | C-N-CA | 6.56 | 138.09 | 121.70 |
| 1 | A | 313 | GLU | C-N-CA | 6.55 | 138.08 | 121.70 |
| 1 | C | 274 | TRP | C-N-CA | 6.55 | 138.07 | 121.70 |
| 1 | A | 274 | TRP | C-N-CA | 6.54 | 138.05 | 121.70 |
| 1 | B | 313 | GLU | C-N-CA | 6.54 | 138.06 | 121.70 |
| 1 | A | 202 | SER | N-CA-C | 6.52 | 128.61 | 111.00 |
| 1 | B | 202 | SER | N-CA-C | 6.50 | 128.55 | 111.00 |
| 1 | C | 202 | SER | N-CA-C | 6.49 | 128.53 | 111.00 |
| 1 | A | 102 | LYS | CB-CA-C | 6.47 | 123.35 | 110.40 |
| 1 | C | 102 | LYS | CB-CA-C | 6.45 | 123.31 | 110.40 |
| 1 | B | 102 | LYS | CB-CA-C | 6.44 | 123.28 | 110.40 |
| 1 | B | 329 | ARG | O-C-N | 6.42 | 134.12 | 123.20 |
| 1 | A | 329 | ARG | O-C-N | 6.42 | 134.11 | 123.20 |
| 1 | C | 199 | ASP | O-C-N | 6.41 | 134.09 | 123.20 |
| 1 | A | 199 | ASP | O-C-N | 6.41 | 134.09 | 123.20 |
| 1 | B | 199 | ASP | O-C-N | 6.40 | 134.07 | 123.20 |
| 1 | C | 329 | ARG | O-C-N | 6.38 | 134.04 | 123.20 |
| 1 | C | 175 | CYS | CB-CA-C | -6.34 | 97.72 | 110.40 |
| 1 | A | 175 | CYS | CB-CA-C | -6.33 | 97.75 | 110.40 |
| 1 | A | 326 | VAL | O-C-N | 6.31 | 132.79 | 122.70 |
| 1 | B | 175 | CYS | CB-CA-C | -6.29 | 97.82 | 110.40 |
| 1 | B | 326 | VAL | O-C-N | 6.28 | 132.75 | 122.70 |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 1 | C | 326 | VAL | O-C-N | 6.27 | 132.74 | 122.70 |
| 1 | B | 288 | LEU | O-C-N | 6.26 | 132.72 | 122.70 |
| 1 | C | 288 | LEU | O-C-N | 6.25 | 132.71 | 122.70 |
| 1 | A | 288 | LEU | O-C-N | 6.21 | 132.64 | 122.70 |
| 1 | C | 67 | ARG | NE-CZ-NH2 | 6.21 | 123.40 | 120.30 |
| 1 | A | 335 | MET | CG-SD-CE | 6.15 | 110.04 | 100.20 |
| 1 | C | 71 | THR | N-CA-CB | -6.15 | 98.61 | 110.30 |
| 1 | C | 335 | MET | CG-SD-CE | 6.13 | 110.00 | 100.20 |
| 1 | B | 335 | MET | CG-SD-CE | 6.12 | 109.99 | 100.20 |
| 1 | A | 141 | MET | CG-SD-CE | 6.08 | 109.94 | 100.20 |
| 1 | C | 141 | MET | CG-SD-CE | 6.08 | 109.92 | 100.20 |
| 1 | B | 141 | MET | CG-SD-CE | 6.07 | 109.92 | 100.20 |
| 1 | C | 214 | MET | CG-SD-CE | 6.06 | 109.89 | 100.20 |
| 1 | B | 214 | MET | CG-SD-CE | 6.05 | 109.88 | 100.20 |
| 1 | A | 214 | MET | CG-SD-CE | 6.04 | 109.86 | 100.20 |
| 1 | A | 339 | GLU | O-C-N | 6.01 | 132.31 | 122.70 |
| 1 | A | 298 | SER | C-N-CA | -6.00 | 109.69 | 122.30 |
| 1 | C | 298 | SER | C-N-CA | -6.00 | 109.70 | 122.30 |
| 1 | B | 288 | LEU | CA-C-N | -6.00 | 104.01 | 117.20 |
| 1 | B | 298 | SER | C-N-CA | -5.99 | 109.72 | 122.30 |
| 1 | C | 288 | LEU | CA-C-N | -5.98 | 104.04 | 117.20 |
| 1 | B | 339 | GLU | O-C-N | 5.98 | 132.27 | 122.70 |
| 1 | C | 339 | GLU | O-C-N | 5.98 | 132.26 | 122.70 |
| 1 | C | 53 | GLN | O-C-N | -5.95 | 113.19 | 122.70 |
| 1 | C | 274 | TRP | CA-C-N | -5.93 | 104.16 | 117.20 |
| 1 | C | 76 | SER | N-CA-C | 5.93 | 127.00 | 111.00 |
| 1 | A | 288 | LEU | CA-C-N | -5.92 | 104.17 | 117.20 |
| 1 | A | 274 | TRP | CA-C-N | -5.89 | 104.23 | 117.20 |
| 1 | B | 274 | TRP | CA-C-N | -5.88 | 104.26 | 117.20 |
| 1 | C | 325 | LYS | O-C-N | 5.87 | 132.09 | 122.70 |
| 1 | B | 317 | GLY | O-C-N | -5.86 | 113.32 | 122.70 |
| 1 | C | 317 | GLY | O-C-N | -5.86 | 113.32 | 122.70 |
| 1 | B | 314 | ALA | CB-CA-C | 5.86 | 118.89 | 110.10 |
| 1 | A | 314 | ALA | CB-CA-C | 5.85 | 118.87 | 110.10 |
| 1 | C | 162 | PRO | O-C-N | -5.85 | 109.99 | 121.10 |
| 1 | A | 315 | ALA | O-C-N | -5.84 | 113.35 | 122.70 |
| 1 | C | 202 | SER | CA-C-N | -5.84 | 104.35 | 117.20 |
| 1 | A | 325 | LYS | O-C-N | 5.84 | 132.04 | 122.70 |
| 1 | B | 202 | SER | CA-C-N | -5.84 | 104.36 | 117.20 |
| 1 | A | 317 | GLY | O-C-N | -5.83 | 113.36 | 122.70 |
| 1 | A | 162 | PRO | O-C-N | -5.82 | 110.03 | 121.10 |
| 1 | A | 202 | SER | CA-C-N | -5.82 | 104.39 | 117.20 |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 1 | C | 63 | ALA | CA-C-N | -5.82 | 104.39 | 117.20 |
| 1 | B | 315 | ALA | O-C-N | -5.82 | 113.39 | 122.70 |
| 1 | C | 314 | ALA | CB-CA-C | 5.82 | 118.82 | 110.10 |
| 1 | B | 162 | PRO | O-C-N | -5.81 | 110.06 | 121.10 |
| 1 | B | 325 | LYS | O-C-N | 5.81 | 132.00 | 122.70 |
| 1 | C | 315 | ALA | O-C-N | -5.81 | 113.41 | 122.70 |
| 1 | A | 130 | ARG | CB-CA-C | -5.76 | 98.88 | 110.40 |
| 1 | B | 231 | ARG | NE-CZ-NH2 | 5.76 | 123.18 | 120.30 |
| 1 | C | 130 | ARG | CB-CA-C | -5.75 | 98.90 | 110.40 |
| 1 | C | 231 | ARG | NE-CZ-NH2 | 5.73 | 123.16 | 120.30 |
| 1 | B | 130 | ARG | CB-CA-C | -5.72 | 98.95 | 110.40 |
| 1 | A | 231 | ARG | NE-CZ-NH2 | 5.72 | 123.16 | 120.30 |
| 1 | A | 177 | SER | CA-C-N | -5.71 | 104.64 | 117.20 |
| 1 | B | 177 | SER | CA-C-N | -5.71 | 104.65 | 117.20 |
| 1 | C | 177 | SER | CA-C-N | -5.67 | 104.73 | 117.20 |
| 1 | C | 56 | THR | CB-CA-C | -5.65 | 96.35 | 111.60 |
| 1 | B | 305 | ALA | O-C-N | 5.63 | 131.71 | 122.70 |
| 1 | C | 305 | ALA | O-C-N | 5.60 | 131.66 | 122.70 |
| 1 | A | 305 | ALA | O-C-N | 5.58 | 131.64 | 122.70 |
| 1 | A | 191 | ASP | CA-C-N | -5.56 | 104.97 | 117.20 |
| 1 | B | 191 | ASP | CA-C-N | -5.54 | 105.00 | 117.20 |
| 1 | A | 300 | LEU | CA-CB-CG | -5.54 | 102.56 | 115.30 |
| 1 | B | 300 | LEU | CA-CB-CG | -5.53 | 102.58 | 115.30 |
| 1 | C | 300 | LEU | CA-CB-CG | -5.53 | 102.58 | 115.30 |
| 1 | C | 57 | ARG | CA-C-N | -5.53 | 105.04 | 117.20 |
| 1 | C | 191 | ASP | CA-C-N | -5.51 | 105.09 | 117.20 |
| 1 | A | 199 | ASP | CA-C-N | -5.50 | 105.20 | 116.20 |
| 1 | B | 199 | ASP | CA-C-N | -5.50 | 105.20 | 116.20 |
| 1 | B | 93 | LEU | N-CA-CB | -5.48 | 99.44 | 110.40 |
| 1 | A | 93 | LEU | N-CA-CB | -5.47 | 99.45 | 110.40 |
| 1 | B | 163 | PRO | CA-C-N | -5.47 | 105.16 | 117.20 |
| 1 | C | 199 | ASP | CA-C-N | -5.47 | 105.25 | 116.20 |
| 1 | C | 176 | VAL | CA-C-N | -5.47 | 105.17 | 117.20 |
| 1 | C | 163 | PRO | CA-C-N | -5.46 | 105.19 | 117.20 |
| 1 | C | 93 | LEU | N-CA-CB | -5.46 | 99.48 | 110.40 |
| 1 | A | 163 | PRO | CA-C-N | -5.45 | 105.21 | 117.20 |
| 1 | B | 273 | GLY | N-CA-C | -5.45 | 99.48 | 113.10 |
| 1 | C | 273 | GLY | N-CA-C | -5.45 | 99.48 | 113.10 |
| 1 | A | 273 | GLY | N-CA-C | -5.43 | 99.53 | 113.10 |
| 1 | A | 176 | VAL | CA-C-N | -5.43 | 105.26 | 117.20 |
| 1 | B | 176 | VAL | CA-C-N | -5.42 | 105.27 | 117.20 |
| 1 | C | 90 | ILE | CA-C-N | 5.39 | 129.06 | 117.20 |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 1 | A | 90 | ILE | CA-C-N | 5.39 | 129.05 | 117.20 |
| 1 | C | 72 | GLN | C-N-CD | -5.38 | 108.77 | 120.60 |
| 1 | B | 90 | ILE | CA-C-N | 5.37 | 129.00 | 117.20 |
| 1 | B | 264 | SER | CB-CA-C | -5.35 | 99.94 | 110.10 |
| 1 | A | 264 | SER | CB-CA-C | -5.34 | 99.95 | 110.10 |
| 1 | B | 296 | PRO | CA-C-N | -5.34 | 105.45 | 117.20 |
| 1 | B | 203 | ASP | CA-C-N | 5.33 | 132.04 | 117.10 |
| 1 | A | 296 | PRO | CA-C-N | -5.33 | 105.47 | 117.20 |
| 1 | A | 203 | ASP | CA-C-N | 5.33 | 132.01 | 117.10 |
| 1 | C | 296 | PRO | CA-C-N | -5.32 | 105.49 | 117.20 |
| 1 | A | 165 | ASP | CA-C-N | -5.32 | 105.49 | 117.20 |
| 1 | C | 203 | ASP | CA-C-N | 5.32 | 131.98 | 117.10 |
| 1 | B | 165 | ASP | CA-C-N | -5.31 | 105.52 | 117.20 |
| 1 | C | 264 | SER | CB-CA-C | -5.31 | 100.02 | 110.10 |
| 1 | B | 248 | ALA | CB-CA-C | -5.30 | 102.16 | 110.10 |
| 1 | C | 165 | ASP | CA-C-N | -5.29 | 105.56 | 117.20 |
| 1 | B | 176 | VAL | N-CA-CB | -5.29 | 99.87 | 111.50 |
| 1 | A | 248 | ALA | CB-CA-C | -5.27 | 102.20 | 110.10 |
| 1 | C | 176 | VAL | N-CA-CB | -5.27 | 99.91 | 111.50 |
| 1 | A | 176 | VAL | N-CA-CB | -5.26 | 99.92 | 111.50 |
| 1 | C | 248 | ALA | CB-CA-C | -5.26 | 102.21 | 110.10 |
| 1 | B | 291 | PHE | CB-CA-C | 5.24 | 120.89 | 110.40 |
| 1 | B | 338 | THR | CB-CA-C | -5.24 | 97.45 | 111.60 |
| 1 | B | 100 | GLU | CA-C-N | 5.24 | 131.77 | 117.10 |
| 1 | C | 338 | THR | CB-CA-C | -5.24 | 97.45 | 111.60 |
| 1 | C | 291 | PHE | CB-CA-C | 5.24 | 120.87 | 110.40 |
| 1 | A | 338 | THR | CB-CA-C | -5.23 | 97.48 | 111.60 |
| 1 | C | 175 | CYS | O-C-N | -5.22 | 114.34 | 122.70 |
| 1 | B | 304 | ASP | O-C-N | 5.21 | 131.04 | 122.70 |
| 1 | A | 291 | PHE | CB-CA-C | 5.21 | 120.83 | 110.40 |
| 1 | B | 175 | CYS | O-C-N | -5.21 | 114.36 | 122.70 |
| 1 | C | 100 | GLU | CA-C-N | 5.21 | 131.69 | 117.10 |
| 1 | A | 100 | GLU | CA-C-N | 5.20 | 131.66 | 117.10 |
| 1 | B | 129 | TYR | C-N-CA | 5.19 | 134.68 | 121.70 |
| 1 | A | 175 | CYS | O-C-N | -5.19 | 114.40 | 122.70 |
| 1 | C | 129 | TYR | C-N-CA | 5.18 | 134.65 | 121.70 |
| 1 | A | 129 | TYR | C-N-CA | 5.17 | 134.64 | 121.70 |
| 1 | A | 304 | ASP | O-C-N | 5.17 | 130.97 | 122.70 |
| 1 | C | 304 | ASP | O-C-N | 5.15 | 130.94 | 122.70 |
| 1 | C | 323 | GLY | C-N-CA | 5.15 | 134.58 | 121.70 |
| 1 | A | 176 | VAL | CB-CA-C | 5.15 | 121.19 | 111.40 |
| 1 | A | 290 | LEU | C-N-CA | 5.15 | 134.57 | 121.70 |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 1 | A | 323 | GLY | C-N-CA | 5.15 | 134.56 | 121.70 |
| 1 | C | 290 | LEU | C-N-CA | 5.14 | 134.56 | 121.70 |
| 1 | B | 176 | VAL | CB-CA-C | 5.14 | 121.16 | 111.40 |
| 1 | A | 329 | ARG | CA-C-N | -5.13 | 105.94 | 116.20 |
| 1 | B | 323 | GLY | C-N-CA | 5.12 | 134.51 | 121.70 |
| 1 | B | 290 | LEU | C-N-CA | 5.12 | 134.49 | 121.70 |
| 1 | B | 329 | ARG | CA-C-N | -5.12 | 105.97 | 116.20 |
| 1 | C | 329 | ARG | CA-C-N | -5.11 | 105.97 | 116.20 |
| 1 | C | 176 | VAL | CB-CA-C | 5.09 | 121.08 | 111.40 |
| 1 | A | 343 | LYS | CB-CA-C | -5.08 | 100.24 | 110.40 |
| 1 | B | 343 | LYS | CB-CA-C | -5.06 | 100.28 | 110.40 |
| 1 | C | 343 | LYS | CB-CA-C | -5.05 | 100.29 | 110.40 |
| 1 | A | 326 | VAL | CA-C-N | -5.05 | 106.09 | 117.20 |
| 1 | C | 326 | VAL | CA-C-N | -5.05 | 106.09 | 117.20 |
| 1 | A | 339 | GLU | CA-C-N | -5.05 | 106.10 | 117.20 |
| 1 | C | 325 | LYS | CA-C-N | -5.05 | 106.10 | 117.20 |
| 1 | B | 326 | VAL | CA-C-N | -5.04 | 106.11 | 117.20 |
| 1 | C | 339 | GLU | CA-C-N | -5.04 | 106.12 | 117.20 |
| 1 | A | 130 | ARG | N-CA-C | 5.03 | 124.59 | 111.00 |
| 1 | B | 290 | LEU | N-CA-C | 5.02 | 124.56 | 111.00 |
| 1 | B | 339 | GLU | CA-C-N | -5.02 | 106.16 | 117.20 |
| 1 | C | 290 | LEU | N-CA-C | 5.02 | 124.55 | 111.00 |
| 1 | A | 325 | LYS | CA-C-N | -5.01 | 106.17 | 117.20 |
| 1 | B | 130 | ARG | N-CA-C | 5.01 | 124.54 | 111.00 |
| 1 | C | 130 | ARG | N-CA-C | 5.01 | 124.53 | 111.00 |
| 1 | B | 325 | LYS | CA-C-N | -5.01 | 106.19 | 117.20 |
| 1 | A | 290 | LEU | N-CA-C | 5.00 | 124.51 | 111.00 |

There are no chirality outliers.

All (26) planarity outliers are listed below:

| Mol | Chain | Res | Type | Group |
|-----|-------|-----|------|-----------|
| 1 | A | 100 | GLU | Mainchain |
| 1 | A | 177 | SER | Mainchain |
| 1 | A | 201 | ILE | Mainchain |
| 1 | A | 260 | PRO | Mainchain |
| 1 | A | 307 | ASP | Mainchain |
| 1 | A | 330 | GLY | Mainchain |
| 1 | A | 335 | MET | Mainchain |
| 1 | A | 92 | THR | Peptide |
| 1 | B | 100 | GLU | Mainchain |
| 1 | B | 177 | SER | Mainchain |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type | Group |
|-----|-------|-----|------|-----------|
| 1 | B | 201 | ILE | Mainchain |
| 1 | B | 260 | PRO | Mainchain |
| 1 | B | 307 | ASP | Mainchain |
| 1 | B | 330 | GLY | Mainchain |
| 1 | B | 335 | MET | Mainchain |
| 1 | B | 92 | THR | Peptide |
| 1 | C | 100 | GLU | Mainchain |
| 1 | C | 177 | SER | Mainchain |
| 1 | C | 201 | ILE | Mainchain |
| 1 | C | 260 | PRO | Mainchain |
| 1 | C | 307 | ASP | Mainchain |
| 1 | C | 330 | GLY | Mainchain |
| 1 | C | 335 | MET | Mainchain |
| 1 | C | 59 | SER | Mainchain |
| 1 | C | 69 | VAL | Mainchain |
| 1 | C | 92 | THR | Peptide |

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

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbit. 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 | 2024 | 0 | 1964 | 947 | 0 |
| 1 | B | 2024 | 0 | 1963 | 941 | 0 |
| 1 | C | 2236 | 0 | 2181 | 1146 | 0 |
| All | All | 6284 | 0 | 6108 | 3034 | 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 245.

All (3034) 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:138:TYR:CB | 1:A:184:PHE:CE1 | 1.75 | 1.66 |
| 1:C:138:TYR:CB | 1:C:184:PHE:CE1 | 1.75 | 1.65 |
| 1:C:138:TYR:HB2 | 1:C:184:PHE:CZ | 1.15 | 1.64 |
| 1:A:138:TYR:HB2 | 1:A:184:PHE:CZ | 1.15 | 1.64 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:101:PRO:CD | 1:B:166:LEU:CD1 | 1.75 | 1.64 |
| 1:B:138:TYR:CB | 1:B:184:PHE:CE1 | 1.75 | 1.64 |
| 1:C:101:PRO:CD | 1:C:166:LEU:HD11 | 1.21 | 1.63 |
| 1:A:101:PRO:CD | 1:A:166:LEU:CD1 | 1.75 | 1.63 |
| 1:B:138:TYR:HB2 | 1:B:184:PHE:CZ | 1.15 | 1.62 |
| 1:B:101:PRO:CD | 1:B:166:LEU:HD11 | 1.22 | 1.57 |
| 1:A:101:PRO:CD | 1:A:166:LEU:HD11 | 1.21 | 1.56 |
| 1:B:130:ARG:CD | 1:B:237:GLN:CB | 1.82 | 1.56 |
| 1:A:130:ARG:CD | 1:A:237:GLN:CB | 1.81 | 1.54 |
| 1:C:101:PRO:CD | 1:C:166:LEU:CD1 | 1.75 | 1.53 |
| 1:C:75:VAL:CA | 1:C:75:VAL:C | 1.76 | 1.53 |
| 1:C:130:ARG:CD | 1:C:237:GLN:CB | 1.82 | 1.53 |
| 1:A:248:ALA:CB | 1:A:264:SER:C | 1.75 | 1.53 |
| 1:A:278:CYS:H | 1:A:334:LYS:CD | 1.21 | 1.53 |
| 1:C:278:CYS:H | 1:C:334:LYS:CD | 1.21 | 1.52 |
| 1:C:76:SER:CA | 1:C:76:SER:C | 1.75 | 1.52 |
| 1:C:159:ALA:HB1 | 1:C:328:GLU:CB | 1.32 | 1.52 |
| 1:B:278:CYS:H | 1:B:334:LYS:CD | 1.21 | 1.51 |
| 1:A:101:PRO:HD3 | 1:A:166:LEU:CD1 | 1.34 | 1.51 |
| 1:C:75:VAL:CA | 1:C:75:VAL:N | 1.68 | 1.51 |
| 1:C:101:PRO:HD3 | 1:C:166:LEU:CD1 | 1.34 | 1.50 |
| 1:C:76:SER:CA | 1:C:76:SER:N | 1.76 | 1.49 |
| 1:C:185:ILE:HD12 | 1:C:186:LEU:N | 1.18 | 1.49 |
| 1:C:153:ALA:CB | 1:C:174:GLY:HA3 | 1.43 | 1.48 |
| 1:A:153:ALA:CB | 1:A:174:GLY:HA3 | 1.43 | 1.47 |
| 1:C:200:GLY:N | 1:C:265:TRP:CD1 | 1.82 | 1.47 |
| 1:A:130:ARG:CD | 1:A:237:GLN:HB2 | 0.98 | 1.46 |
| 1:C:80:ASP:HA | 1:C:241:ARG:NH2 | 1.24 | 1.46 |
| 1:A:121:LYS:NZ | 1:A:121:LYS:CE | 1.79 | 1.45 |
| 1:B:153:ALA:CB | 1:B:174:GLY:HA3 | 1.43 | 1.45 |
| 1:C:130:ARG:CD | 1:C:237:GLN:HB2 | 0.98 | 1.45 |
| 1:C:207:VAL:CG1 | 1:C:329:ARG:CZ | 1.93 | 1.45 |
| 1:B:130:ARG:CD | 1:B:237:GLN:HB2 | 0.98 | 1.45 |
| 1:B:264:SER:C | 1:B:265:TRP:N | 1.68 | 1.45 |
| 1:C:291:PHE:C | 1:C:292:TYR:N | 1.71 | 1.44 |
| 1:C:339:GLU:C | 1:C:340:GLU:N | 1.68 | 1.44 |
| 1:B:101:PRO:HD3 | 1:B:166:LEU:CD1 | 1.34 | 1.43 |
| 1:B:121:LYS:NZ | 1:B:121:LYS:CE | 1.79 | 1.43 |
| 1:C:134:LEU:CA | 1:C:233:GLU:O | 1.66 | 1.43 |
| 1:C:207:VAL:N | 1:C:329:ARG:HH22 | 0.96 | 1.43 |
| 1:A:264:SER:C | 1:A:265:TRP:N | 1.68 | 1.43 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:269:LYS:O | 1:A:277:ASP:CB | 1.67 | 1.43 |
| 1:A:296:PRO:CG | 1:A:337:THR:HG22 | 0.96 | 1.43 |
| 1:C:207:VAL:HG12 | 1:C:329:ARG:NH2 | 1.27 | 1.43 |
| 1:C:264:SER:C | 1:C:265:TRP:N | 1.68 | 1.43 |
| 1:C:296:PRO:CG | 1:C:337:THR:HG22 | 0.96 | 1.43 |
| 1:A:339:GLU:C | 1:A:340:GLU:N | 1.68 | 1.42 |
| 1:B:185:ILE:HD12 | 1:B:186:LEU:N | 1.18 | 1.42 |
| 1:B:269:LYS:O | 1:B:277:ASP:CB | 1.67 | 1.42 |
| 1:C:121:LYS:NZ | 1:C:121:LYS:CE | 1.79 | 1.42 |
| 1:C:207:VAL:HG12 | 1:C:329:ARG:CZ | 0.96 | 1.42 |
| 1:C:207:VAL:H | 1:C:329:ARG:NH2 | 1.11 | 1.42 |
| 1:B:296:PRO:CG | 1:B:337:THR:HG22 | 0.96 | 1.42 |
| 1:C:197:VAL:CG2 | 1:C:350:ARG:HH22 | 1.30 | 1.42 |
| 1:B:185:ILE:CD1 | 1:B:186:LEU:H | 1.32 | 1.41 |
| 1:C:269:LYS:O | 1:C:277:ASP:CB | 1.67 | 1.41 |
| 1:C:203:ASP:OD1 | 1:C:205:LYS:CD | 1.68 | 1.41 |
| 1:B:339:GLU:C | 1:B:340:GLU:N | 1.68 | 1.41 |
| 1:A:134:LEU:CA | 1:A:233:GLU:O | 1.66 | 1.41 |
| 1:A:203:ASP:OD1 | 1:A:205:LYS:CD | 1.68 | 1.40 |
| 1:A:291:PHE:C | 1:A:292:TYR:N | 1.71 | 1.40 |
| 1:B:279:HIS:C | 1:B:280:PHE:N | 1.74 | 1.40 |
| 1:C:207:VAL:CG1 | 1:C:329:ARG:NH2 | 1.81 | 1.40 |
| 1:B:149:LYS:CD | 1:B:149:LYS:CE | 2.00 | 1.39 |
| 1:B:291:PHE:C | 1:B:292:TYR:N | 1.71 | 1.39 |
| 1:A:185:ILE:HD12 | 1:A:186:LEU:N | 1.18 | 1.39 |
| 1:C:185:ILE:CD1 | 1:C:186:LEU:H | 1.32 | 1.39 |
| 1:A:130:ARG:HD2 | 1:A:237:GLN:CB | 1.47 | 1.39 |
| 1:A:149:LYS:CE | 1:A:149:LYS:CD | 1.99 | 1.39 |
| 1:B:115:THR:O | 1:B:116:PHE:CD1 | 1.75 | 1.39 |
| 1:C:279:HIS:C | 1:C:280:PHE:N | 1.74 | 1.39 |
| 1:B:350:ARG:O | 1:B:351:ILE:CG2 | 1.71 | 1.39 |
| 1:A:185:ILE:CD1 | 1:A:186:LEU:H | 1.32 | 1.39 |
| 1:C:149:LYS:CD | 1:C:149:LYS:CE | 1.99 | 1.39 |
| 1:A:115:THR:O | 1:A:116:PHE:CD1 | 1.76 | 1.38 |
| 1:B:138:TYR:CB | 1:B:184:PHE:CZ | 1.96 | 1.38 |
| 1:B:203:ASP:OD1 | 1:B:205:LYS:CD | 1.68 | 1.38 |
| 1:B:134:LEU:CA | 1:B:233:GLU:O | 1.66 | 1.38 |
| 1:A:248:ALA:HB3 | 1:A:264:SER:C | 1.01 | 1.37 |
| 1:C:350:ARG:O | 1:C:351:ILE:CG2 | 1.71 | 1.38 |
| 1:B:149:LYS:CD | 1:B:170:TYR:OH | 1.72 | 1.37 |
| 1:A:149:LYS:CD | 1:A:170:TYR:OH | 1.72 | 1.37 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:C:204:PRO:HG2 | 1:C:328:GLU:CG | 1.54 | 1.37 |
| 1:C:115:THR:O | 1:C:116:PHE:CD1 | 1.75 | 1.37 |
| 1:C:149:LYS:CD | 1:C:170:TYR:OH | 1.72 | 1.36 |
| 1:A:138:TYR:CG | 1:A:184:PHE:CE1 | 2.12 | 1.36 |
| 1:B:130:ARG:HD3 | 1:B:237:GLN:CB | 1.46 | 1.36 |
| 1:A:279:HIS:C | 1:A:280:PHE:N | 1.74 | 1.36 |
| 1:A:350:ARG:O | 1:A:351:ILE:CG2 | 1.71 | 1.36 |
| 1:C:138:TYR:CG | 1:C:184:PHE:CE1 | 2.12 | 1.36 |
| 1:C:138:TYR:CB | 1:C:184:PHE:CZ | 1.96 | 1.35 |
| 1:C:165:ASP:O | 1:C:168:SER:HB2 | 1.25 | 1.35 |
| 1:C:159:ALA:CB | 1:C:328:GLU:HB2 | 1.54 | 1.35 |
| 1:C:296:PRO:HG2 | 1:C:337:THR:CG2 | 0.89 | 1.34 |
| 1:A:296:PRO:HG2 | 1:A:337:THR:CG2 | 0.89 | 1.34 |
| 1:B:138:TYR:CG | 1:B:184:PHE:CE1 | 2.12 | 1.34 |
| 1:B:278:CYS:N | 1:B:334:LYS:CD | 1.87 | 1.34 |
| 1:B:296:PRO:HG2 | 1:B:337:THR:CG2 | 0.88 | 1.34 |
| 1:A:82:ILE:C | 1:A:83:THR:N | 1.81 | 1.34 |
| 1:A:309:SER:O | 1:A:322:ALA:HA | 1.19 | 1.34 |
| 1:B:82:ILE:C | 1:B:83:THR:N | 1.81 | 1.34 |
| 1:B:291:PHE:HA | 1:B:345:LYS:O | 1.23 | 1.34 |
| 1:C:82:ILE:C | 1:C:83:THR:N | 1.81 | 1.34 |
| 1:C:278:CYS:N | 1:C:334:LYS:CD | 1.87 | 1.34 |
| 1:B:153:ALA:HB1 | 1:B:174:GLY:CA | 1.57 | 1.34 |
| 1:B:278:CYS:H | 1:B:334:LYS:CE | 1.41 | 1.34 |
| 1:C:153:ALA:HB1 | 1:C:174:GLY:CA | 1.57 | 1.34 |
| 1:A:153:ALA:HB1 | 1:A:174:GLY:CA | 1.57 | 1.33 |
| 1:A:278:CYS:N | 1:A:334:LYS:CD | 1.87 | 1.33 |
| 1:C:138:TYR:CD2 | 1:C:184:PHE:HE1 | 1.46 | 1.33 |
| 1:C:278:CYS:H | 1:C:334:LYS:CE | 1.41 | 1.33 |
| 1:A:278:CYS:H | 1:A:334:LYS:CE | 1.41 | 1.33 |
| 1:C:130:ARG:HD3 | 1:C:237:GLN:CB | 1.46 | 1.33 |
| 1:B:130:ARG:HD2 | 1:B:237:GLN:CB | 1.47 | 1.32 |
| 1:B:138:TYR:CD2 | 1:B:184:PHE:HE1 | 1.46 | 1.32 |
| 1:A:138:TYR:CD2 | 1:A:184:PHE:HE1 | 1.46 | 1.32 |
| 1:A:130:ARG:HD3 | 1:A:237:GLN:CB | 1.46 | 1.32 |
| 1:C:265:TRP:CZ3 | 1:C:348:ALA:O | 1.82 | 1.32 |
| 1:A:133:SER:O | 1:A:234:TYR:HA | 1.28 | 1.32 |
| 1:A:198:ALA:HB1 | 1:A:200:GLY:O | 1.17 | 1.32 |
| 1:A:304:ASP:O | 1:A:331:GLN:HB3 | 1.14 | 1.32 |
| 1:A:265:TRP:CZ3 | 1:A:348:ALA:O | 1.82 | 1.32 |
| 1:C:130:ARG:HD2 | 1:C:237:GLN:CB | 1.47 | 1.32 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:B:165:ASP:O | 1:B:168:SER:HB2 | 1.26 | 1.31 |
| 1:B:265:TRP:CZ3 | 1:B:348:ALA:O | 1.82 | 1.31 |
| 1:C:149:LYS:HG2 | 1:C:177:SER:OG | 1.22 | 1.31 |
| 1:A:165:ASP:O | 1:A:168:SER:HB2 | 1.26 | 1.30 |
| 1:C:71:THR:CG2 | 1:C:87:SER:OG | 1.78 | 1.30 |
| 1:C:291:PHE:CA | 1:C:345:LYS:O | 1.78 | 1.30 |
| 1:A:138:TYR:CB | 1:A:184:PHE:CZ | 1.96 | 1.30 |
| 1:C:159:ALA:HB1 | 1:C:328:GLU:CG | 1.60 | 1.30 |
| 1:A:291:PHE:HA | 1:A:345:LYS:O | 1.22 | 1.30 |
| 1:A:248:ALA:CB | 1:A:264:SER:OG | 1.81 | 1.29 |
| 1:C:204:PRO:CG | 1:C:328:GLU:HG2 | 1.59 | 1.29 |
| 1:B:291:PHE:CA | 1:B:345:LYS:O | 1.79 | 1.29 |
| 1:A:313:GLU:HG3 | 1:A:318:SER:CB | 1.63 | 1.29 |
| 1:C:154:PHE:CD1 | 1:C:155:ASP:N | 2.01 | 1.29 |
| 1:A:291:PHE:CA | 1:A:345:LYS:O | 1.78 | 1.29 |
| 1:B:88:GLU:O | 1:B:231:ARG:HB2 | 1.19 | 1.29 |
| 1:C:309:SER:O | 1:C:322:ALA:HA | 1.19 | 1.29 |
| 1:A:333:VAL:O | 1:A:334:LYS:HD3 | 1.30 | 1.29 |
| 1:B:327:ALA:HB3 | 1:B:331:GLN:CD | 1.53 | 1.29 |
| 1:C:313:GLU:HG3 | 1:C:318:SER:CB | 1.63 | 1.28 |
| 1:A:119:LEU:CD2 | 1:A:234:TYR:OH | 1.82 | 1.28 |
| 1:A:154:PHE:CD1 | 1:A:155:ASP:N | 2.01 | 1.28 |
| 1:B:154:PHE:CD1 | 1:B:155:ASP:N | 2.01 | 1.28 |
| 1:C:88:GLU:O | 1:C:231:ARG:HB2 | 1.19 | 1.28 |
| 1:B:105:THR:OG1 | 1:B:211:LYS:CD | 1.82 | 1.28 |
| 1:B:133:SER:OG | 1:B:133:SER:CB | 1.81 | 1.28 |
| 1:B:149:LYS:HG2 | 1:B:177:SER:OG | 1.23 | 1.28 |
| 1:A:154:PHE:HD1 | 1:A:155:ASP:N | 1.32 | 1.28 |
| 1:C:291:PHE:HA | 1:C:345:LYS:O | 1.23 | 1.27 |
| 1:B:119:LEU:CD2 | 1:B:234:TYR:OH | 1.82 | 1.27 |
| 1:C:78:ALA:O | 1:C:80:ASP:N | 1.63 | 1.27 |
| 1:B:198:ALA:HB1 | 1:B:200:GLY:O | 1.17 | 1.27 |
| 1:C:133:SER:O | 1:C:234:TYR:HA | 1.28 | 1.27 |
| 1:C:304:ASP:O | 1:C:331:GLN:HB3 | 1.15 | 1.27 |
| 1:C:105:THR:OG1 | 1:C:211:LYS:CD | 1.82 | 1.27 |
| 1:A:133:SER:CB | 1:A:133:SER:OG | 1.81 | 1.27 |
| 1:C:159:ALA:CB | 1:C:328:GLU:CB | 2.08 | 1.27 |
| 1:C:198:ALA:HB1 | 1:C:200:GLY:O | 1.16 | 1.27 |
| 1:A:105:THR:OG1 | 1:A:211:LYS:CD | 1.82 | 1.26 |
| 1:C:133:SER:OG | 1:C:133:SER:CB | 1.81 | 1.26 |
| 1:A:149:LYS:HG2 | 1:A:177:SER:OG | 1.23 | 1.26 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:309:SER:O | 1:B:322:ALA:HA | 1.19 | 1.26 |
| 1:B:313:GLU:HG3 | 1:B:318:SER:CB | 1.63 | 1.26 |
| 1:C:119:LEU:CD2 | 1:C:234:TYR:OH | 1.82 | 1.26 |
| 1:A:156:ARG:O | 1:A:210:GLY:HA3 | 1.36 | 1.25 |
| 1:C:327:ALA:HB3 | 1:C:331:GLN:CD | 1.53 | 1.25 |
| 1:A:327:ALA:HB3 | 1:A:331:GLN:CD | 1.53 | 1.25 |
| 1:B:133:SER:O | 1:B:234:TYR:HA | 1.28 | 1.25 |
| 1:C:80:ASP:CA | 1:C:241:ARG:HH22 | 1.49 | 1.25 |
| 1:C:138:TYR:HB3 | 1:C:184:PHE:CE1 | 1.51 | 1.25 |
| 1:C:179:VAL:HG11 | 1:C:181:TRP:CD1 | 1.71 | 1.25 |
| 1:A:88:GLU:O | 1:A:231:ARG:HB2 | 1.18 | 1.25 |
| 1:A:138:TYR:HB3 | 1:A:184:PHE:CE1 | 1.51 | 1.25 |
| 1:B:154:PHE:HD1 | 1:B:155:ASP:N | 1.32 | 1.25 |
| 1:B:288:LEU:HD11 | 1:B:290:LEU:CD2 | 1.67 | 1.25 |
| 1:C:201:ILE:HB | 1:C:265:TRP:O | 1.12 | 1.25 |
| 1:C:156:ARG:O | 1:C:210:GLY:HA3 | 1.37 | 1.24 |
| 1:A:248:ALA:HB1 | 1:A:264:SER:OG | 1.20 | 1.24 |
| 1:B:328:GLU:O | 1:B:329:ARG:O | 1.55 | 1.24 |
| 1:A:96:ASN:O | 1:A:98:ASP:N | 1.70 | 1.24 |
| 1:A:179:VAL:HG11 | 1:A:181:TRP:CD1 | 1.71 | 1.24 |
| 1:C:138:TYR:OH | 1:C:227:LEU:HB3 | 1.38 | 1.24 |
| 1:C:159:ALA:CB | 1:C:328:GLU:CG | 2.15 | 1.24 |
| 1:C:333:VAL:O | 1:C:334:LYS:HD3 | 1.30 | 1.24 |
| 1:B:304:ASP:O | 1:B:331:GLN:HB3 | 1.15 | 1.23 |
| 1:B:138:TYR:HB3 | 1:B:184:PHE:CE1 | 1.51 | 1.23 |
| 1:B:156:ARG:O | 1:B:210:GLY:HA3 | 1.36 | 1.23 |
| 1:B:179:VAL:HG11 | 1:B:181:TRP:CD1 | 1.71 | 1.23 |
| 1:A:248:ALA:CB | 1:A:264:SER:O | 1.87 | 1.23 |
| 1:A:288:LEU:HD11 | 1:A:290:LEU:CD2 | 1.66 | 1.23 |
| 1:B:293:GLU:O | 1:B:317:GLY:N | 1.72 | 1.23 |
| 1:B:333:VAL:O | 1:B:334:LYS:HD3 | 1.30 | 1.23 |
| 1:C:96:ASN:O | 1:C:98:ASP:N | 1.70 | 1.22 |
| 1:B:96:ASN:O | 1:B:98:ASP:N | 1.70 | 1.22 |
| 1:C:90:ILE:HD11 | 1:C:232:VAL:CG2 | 1.69 | 1.22 |
| 1:C:154:PHE:HD1 | 1:C:155:ASP:N | 1.32 | 1.22 |
| 1:C:197:VAL:CG2 | 1:C:350:ARG:NH2 | 2.01 | 1.22 |
| 1:C:101:PRO:O | 1:C:102:LYS:CG | 1.88 | 1.22 |
| 1:C:288:LEU:HD11 | 1:C:290:LEU:CD2 | 1.66 | 1.22 |
| 1:C:293:GLU:O | 1:C:317:GLY:N | 1.72 | 1.22 |
| 1:A:293:GLU:O | 1:A:317:GLY:N | 1.72 | 1.22 |
| 1:C:200:GLY:C | 1:C:282:GLY:CA | 2.08 | 1.22 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-----------------|--------------------------|-------------------|
| 1:C:328:GLU:O | 1:C:329:ARG:O | 1.55 | 1.21 |
| 1:C:149:LYS:HB3 | 1:C:217:TYR:CE1 | 1.75 | 1.21 |
| 1:A:328:GLU:O | 1:A:329:ARG:O | 1.55 | 1.21 |
| 1:A:327:ALA:CB | 1:A:331:GLN:OE1 | 1.88 | 1.21 |
| 1:C:201:ILE:CB | 1:C:265:TRP:O | 1.87 | 1.21 |
| 1:C:207:VAL:HG12 | 1:C:329:ARG:NE | 1.52 | 1.21 |
| 1:A:90:ILE:HD11 | 1:A:232:VAL:CG2 | 1.69 | 1.20 |
| 1:B:294:LYS:O | 1:B:296:PRO:HD3 | 1.04 | 1.20 |
| 1:A:294:LYS:O | 1:A:296:PRO:HD3 | 1.04 | 1.20 |
| 1:B:327:ALA:CB | 1:B:331:GLN:OE1 | 1.88 | 1.20 |
| 1:C:327:ALA:CB | 1:C:331:GLN:OE1 | 1.88 | 1.20 |
| 1:B:90:ILE:HD11 | 1:B:232:VAL:CG2 | 1.69 | 1.20 |
| 1:C:200:GLY:HA2 | 1:C:265:TRP:CB | 1.70 | 1.20 |
| 1:C:200:GLY:CA | 1:C:265:TRP:CD1 | 2.25 | 1.19 |
| 1:A:149:LYS:HB3 | 1:A:217:TYR:CE1 | 1.75 | 1.19 |
| 1:B:101:PRO:O | 1:B:102:LYS:CG | 1.88 | 1.19 |
| 1:B:149:LYS:HB3 | 1:B:217:TYR:CE1 | 1.75 | 1.19 |
| 1:C:204:PRO:HG3 | 1:C:328:GLU:C | 1.61 | 1.19 |
| 1:C:294:LYS:O | 1:C:296:PRO:HD3 | 1.04 | 1.19 |
| 1:A:101:PRO:O | 1:A:102:LYS:CG | 1.88 | 1.19 |
| 1:A:101:PRO:C | 1:A:102:LYS:HG3 | 1.57 | 1.18 |
| 1:B:164:ASN:HD22 | 1:B:164:ASN:N | 1.19 | 1.18 |
| 1:C:204:PRO:CG | 1:C:329:ARG:N | 2.06 | 1.18 |
| 1:B:259:GLY:C | 1:B:260:PRO:N | 1.97 | 1.18 |
| 1:C:138:TYR:HB3 | 1:C:184:PHE:CD1 | 1.78 | 1.18 |
| 1:B:101:PRO:C | 1:B:102:LYS:HG3 | 1.57 | 1.18 |
| 1:B:326:VAL:CG1 | 1:B:327:ALA:H | 1.54 | 1.18 |
| 1:A:295:ALA:N | 1:A:316:ALA:HA | 1.51 | 1.18 |
| 1:C:138:TYR:CG | 1:C:184:PHE:HE1 | 1.56 | 1.17 |
| 1:C:259:GLY:C | 1:C:260:PRO:N | 1.97 | 1.17 |
| 1:B:138:TYR:OH | 1:B:227:LEU:HB3 | 1.38 | 1.17 |
| 1:A:138:TYR:OH | 1:A:227:LEU:HB3 | 1.38 | 1.17 |
| 1:A:326:VAL:CG1 | 1:A:327:ALA:H | 1.54 | 1.17 |
| 1:B:138:TYR:HB3 | 1:B:184:PHE:CD1 | 1.78 | 1.17 |
| 1:C:295:ALA:N | 1:C:316:ALA:HA | 1.51 | 1.17 |
| 1:A:101:PRO:HD2 | 1:A:166:LEU:CD1 | 1.68 | 1.17 |
| 1:A:138:TYR:HB3 | 1:A:184:PHE:CD1 | 1.78 | 1.17 |
| 1:A:149:LYS:HD3 | 1:A:170:TYR:HH | 1.05 | 1.17 |
| 1:A:248:ALA:CB | 1:A:265:TRP:HA | 1.73 | 1.17 |
| 1:A:259:GLY:C | 1:A:260:PRO:N | 1.97 | 1.16 |
| 1:A:326:VAL:HG12 | 1:A:327:ALA:N | 1.60 | 1.16 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:88:GLU:O | 1:B:231:ARG:CB | 1.93 | 1.15 |
| 1:B:309:SER:O | 1:B:322:ALA:CA | 1.94 | 1.15 |
| 1:C:88:GLU:O | 1:C:231:ARG:CB | 1.93 | 1.15 |
| 1:C:204:PRO:HG3 | 1:C:329:ARG:N | 1.13 | 1.15 |
| 1:A:88:GLU:O | 1:A:231:ARG:CB | 1.93 | 1.15 |
| 1:A:179:VAL:HG11 | 1:A:181:TRP:NE1 | 1.61 | 1.15 |
| 1:C:105:THR:OG1 | 1:C:211:LYS:HD3 | 0.98 | 1.15 |
| 1:C:179:VAL:HG11 | 1:C:181:TRP:NE1 | 1.61 | 1.15 |
| 1:A:313:GLU:HG3 | 1:A:318:SER:HB2 | 1.28 | 1.15 |
| 1:B:138:TYR:CD2 | 1:B:184:PHE:CE1 | 2.34 | 1.15 |
| 1:C:138:TYR:CD2 | 1:C:184:PHE:CE1 | 2.34 | 1.15 |
| 1:B:116:PHE:O | 1:B:120:ILE:HG21 | 1.46 | 1.14 |
| 1:B:151:ALA:HA | 1:B:177:SER:HB2 | 1.28 | 1.14 |
| 1:A:116:PHE:O | 1:A:120:ILE:HG21 | 1.46 | 1.14 |
| 1:A:277:ASP:CA | 1:A:334:LYS:HD2 | 1.77 | 1.14 |
| 1:A:294:LYS:O | 1:A:296:PRO:CD | 1.96 | 1.14 |
| 1:B:277:ASP:CA | 1:B:334:LYS:HD2 | 1.77 | 1.14 |
| 1:B:294:LYS:O | 1:B:296:PRO:CD | 1.96 | 1.14 |
| 1:C:101:PRO:CD | 1:C:166:LEU:HD12 | 1.73 | 1.14 |
| 1:C:204:PRO:CG | 1:C:328:GLU:CG | 2.20 | 1.14 |
| 1:C:204:PRO:CB | 1:C:328:GLU:HG3 | 1.77 | 1.14 |
| 1:A:105:THR:OG1 | 1:A:211:LYS:HD3 | 0.98 | 1.14 |
| 1:A:309:SER:O | 1:A:322:ALA:CA | 1.94 | 1.14 |
| 1:A:101:PRO:HG3 | 1:A:217:TYR:CE2 | 1.83 | 1.14 |
| 1:B:86:GLY:HA2 | 1:B:234:TYR:CD1 | 1.83 | 1.14 |
| 1:B:112:GLU:HG3 | 1:B:329:ARG:NH2 | 1.61 | 1.14 |
| 1:C:86:GLY:HA2 | 1:C:234:TYR:CD1 | 1.83 | 1.14 |
| 1:C:294:LYS:O | 1:C:296:PRO:CD | 1.96 | 1.14 |
| 1:C:297:VAL:HB | 1:C:336:VAL:O | 1.47 | 1.14 |
| 1:B:105:THR:OG1 | 1:B:211:LYS:HD3 | 0.98 | 1.13 |
| 1:B:179:VAL:HG11 | 1:B:181:TRP:NE1 | 1.61 | 1.13 |
| 1:C:277:ASP:CA | 1:C:334:LYS:HD2 | 1.77 | 1.13 |
| 1:A:297:VAL:HB | 1:A:336:VAL:HG13 | 1.26 | 1.13 |
| 1:A:265:TRP:HZ3 | 1:A:348:ALA:O | 1.20 | 1.13 |
| 1:C:116:PHE:O | 1:C:120:ILE:HG21 | 1.46 | 1.13 |
| 1:C:101:PRO:HG3 | 1:C:217:TYR:CE2 | 1.83 | 1.12 |
| 1:A:126:TYR:CA | 1:A:242:THR:HG22 | 1.80 | 1.12 |
| 1:A:248:ALA:HB2 | 1:A:265:TRP:HA | 1.31 | 1.12 |
| 1:B:297:VAL:HB | 1:B:336:VAL:HG13 | 1.27 | 1.12 |
| 1:C:101:PRO:C | 1:C:102:LYS:HG3 | 1.57 | 1.12 |
| 1:C:249:GLN:NE2 | 1:C:265:TRP:CE3 | 2.15 | 1.12 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:309:SER:O | 1:C:322:ALA:CA | 1.94 | 1.12 |
| 1:A:86:GLY:HA2 | 1:A:234:TYR:CD1 | 1.83 | 1.12 |
| 1:A:119:LEU:HD22 | 1:A:234:TYR:CZ | 1.85 | 1.12 |
| 1:B:101:PRO:O | 1:B:102:LYS:HG3 | 0.95 | 1.12 |
| 1:B:101:PRO:HG3 | 1:B:217:TYR:CE2 | 1.83 | 1.12 |
| 1:B:301:GLU:O | 1:B:333:VAL:HG13 | 1.50 | 1.12 |
| 1:B:326:VAL:HG12 | 1:B:327:ALA:N | 1.60 | 1.12 |
| 1:C:164:ASN:HD22 | 1:C:164:ASN:N | 1.19 | 1.12 |
| 1:A:248:ALA:HB3 | 1:A:264:SER:CA | 1.79 | 1.12 |
| 1:B:126:TYR:CA | 1:B:242:THR:HG22 | 1.80 | 1.12 |
| 1:B:297:VAL:HB | 1:B:336:VAL:O | 1.47 | 1.12 |
| 1:C:120:ILE:HD11 | 1:C:351:ILE:C | 1.69 | 1.12 |
| 1:C:265:TRP:HZ3 | 1:C:348:ALA:O | 1.20 | 1.12 |
| 1:C:301:GLU:O | 1:C:333:VAL:HG13 | 1.50 | 1.12 |
| 1:C:326:VAL:HG12 | 1:C:327:ALA:N | 1.60 | 1.12 |
| 1:B:295:ALA:H | 1:B:316:ALA:CA | 1.63 | 1.11 |
| 1:B:295:ALA:N | 1:B:316:ALA:HA | 1.51 | 1.11 |
| 1:C:198:ALA:CB | 1:C:200:GLY:O | 1.96 | 1.11 |
| 1:A:101:PRO:O | 1:A:102:LYS:HG3 | 0.95 | 1.11 |
| 1:B:119:LEU:HD22 | 1:B:234:TYR:CZ | 1.85 | 1.11 |
| 1:B:149:LYS:HD2 | 1:B:170:TYR:OH | 1.44 | 1.11 |
| 1:C:126:TYR:CA | 1:C:242:THR:HG22 | 1.80 | 1.11 |
| 1:C:248:ALA:HB1 | 1:C:287:SER:O | 1.48 | 1.11 |
| 1:A:198:ALA:CB | 1:A:200:GLY:O | 1.97 | 1.11 |
| 1:C:295:ALA:H | 1:C:316:ALA:CA | 1.63 | 1.11 |
| 1:A:151:ALA:HA | 1:A:177:SER:HB2 | 1.28 | 1.11 |
| 1:A:295:ALA:H | 1:A:316:ALA:CA | 1.63 | 1.11 |
| 1:B:164:ASN:N | 1:B:164:ASN:ND2 | 1.88 | 1.11 |
| 1:C:151:ALA:HA | 1:C:177:SER:HB2 | 1.28 | 1.11 |
| 1:A:297:VAL:HB | 1:A:336:VAL:O | 1.47 | 1.10 |
| 1:C:80:ASP:CA | 1:C:241:ARG:NH2 | 2.10 | 1.10 |
| 1:C:313:GLU:HG3 | 1:C:318:SER:HB2 | 1.28 | 1.10 |
| 1:A:301:GLU:O | 1:A:333:VAL:HG13 | 1.50 | 1.10 |
| 1:B:198:ALA:CB | 1:B:200:GLY:O | 1.97 | 1.10 |
| 1:C:101:PRO:O | 1:C:102:LYS:HG3 | 0.95 | 1.10 |
| 1:C:116:PHE:O | 1:C:120:ILE:CG2 | 2.00 | 1.10 |
| 1:C:119:LEU:HD22 | 1:C:234:TYR:CZ | 1.85 | 1.10 |
| 1:C:326:VAL:CG1 | 1:C:327:ALA:H | 1.54 | 1.10 |
| 1:A:164:ASN:N | 1:A:164:ASN:ND2 | 1.88 | 1.10 |
| 1:A:248:ALA:HB3 | 1:A:264:SER:O | 1.45 | 1.10 |
| 1:A:315:ALA:CB | 1:A:318:SER:HB3 | 1.82 | 1.10 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:101:PRO:HD2 | 1:C:166:LEU:CD1 | 1.68 | 1.10 |
| 1:A:116:PHE:O | 1:A:120:ILE:CG2 | 2.00 | 1.10 |
| 1:B:313:GLU:HG3 | 1:B:318:SER:HB2 | 1.28 | 1.10 |
| 1:C:164:ASN:N | 1:C:164:ASN:ND2 | 1.88 | 1.10 |
| 1:C:199:ASP:C | 1:C:265:TRP:CD1 | 2.25 | 1.10 |
| 1:C:315:ALA:CB | 1:C:318:SER:HB3 | 1.82 | 1.10 |
| 1:A:288:LEU:HD11 | 1:A:290:LEU:HD21 | 1.31 | 1.09 |
| 1:B:116:PHE:O | 1:B:120:ILE:CG2 | 2.00 | 1.09 |
| 1:B:138:TYR:CG | 1:B:184:PHE:HE1 | 1.56 | 1.09 |
| 1:A:86:GLY:CA | 1:A:234:TYR:CD1 | 2.34 | 1.09 |
| 1:B:86:GLY:CA | 1:B:234:TYR:CD1 | 2.34 | 1.09 |
| 1:B:101:PRO:CD | 1:B:166:LEU:HD12 | 1.73 | 1.09 |
| 1:C:249:GLN:HB3 | 1:C:265:TRP:HZ3 | 1.17 | 1.09 |
| 1:A:101:PRO:CD | 1:A:166:LEU:HD12 | 1.73 | 1.09 |
| 1:A:138:TYR:CG | 1:A:184:PHE:HE1 | 1.56 | 1.09 |
| 1:C:86:GLY:CA | 1:C:234:TYR:CD1 | 2.34 | 1.09 |
| 1:C:160:LYS:HG3 | 1:C:161:PRO:HD2 | 1.11 | 1.09 |
| 1:C:204:PRO:HB2 | 1:C:328:GLU:HG3 | 1.15 | 1.09 |
| 1:A:149:LYS:CG | 1:A:177:SER:OG | 2.01 | 1.09 |
| 1:B:101:PRO:HD2 | 1:B:166:LEU:CD1 | 1.68 | 1.09 |
| 1:B:149:LYS:CG | 1:B:177:SER:OG | 2.01 | 1.09 |
| 1:B:315:ALA:HB1 | 1:B:318:SER:N | 1.67 | 1.09 |
| 1:C:179:VAL:CG2 | 1:C:180:PRO:HD2 | 1.83 | 1.09 |
| 1:A:138:TYR:CD2 | 1:A:184:PHE:CE1 | 2.34 | 1.08 |
| 1:A:149:LYS:HD2 | 1:A:170:TYR:OH | 1.44 | 1.08 |
| 1:A:315:ALA:HB1 | 1:A:318:SER:N | 1.67 | 1.08 |
| 1:B:179:VAL:CG2 | 1:B:180:PRO:HD2 | 1.83 | 1.08 |
| 1:B:248:ALA:O | 1:B:263:VAL:HB | 1.54 | 1.08 |
| 1:B:315:ALA:CB | 1:B:318:SER:HB3 | 1.82 | 1.08 |
| 1:C:134:LEU:HD21 | 1:C:188:VAL:HG21 | 1.08 | 1.08 |
| 1:C:297:VAL:HB | 1:C:336:VAL:HG13 | 1.27 | 1.08 |
| 1:C:315:ALA:HB1 | 1:C:318:SER:N | 1.67 | 1.08 |
| 1:A:179:VAL:CG2 | 1:A:180:PRO:HD2 | 1.83 | 1.08 |
| 1:B:278:CYS:HB3 | 1:B:333:VAL:O | 1.52 | 1.08 |
| 1:C:71:THR:HG21 | 1:C:87:SER:OG | 0.92 | 1.08 |
| 1:C:130:ARG:HD3 | 1:C:237:GLN:CA | 1.83 | 1.08 |
| 1:B:255:GLY:HA2 | 1:B:342:PRO:HB3 | 1.33 | 1.08 |
| 1:B:278:CYS:N | 1:B:334:LYS:HD2 | 1.68 | 1.08 |
| 1:C:197:VAL:HG23 | 1:C:350:ARG:HH22 | 1.17 | 1.08 |
| 1:C:244:SER:O | 1:C:245:THR:HG22 | 1.54 | 1.08 |
| 1:A:130:ARG:HD3 | 1:A:237:GLN:CA | 1.84 | 1.07 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:200:GLY:HA2 | 1:C:265:TRP:CG | 1.88 | 1.07 |
| 1:C:327:ALA:N | 1:C:331:GLN:OE1 | 1.87 | 1.07 |
| 1:A:125:GLN:HA | 1:A:243:GLY:HA2 | 1.37 | 1.07 |
| 1:B:249:GLN:HB3 | 1:B:265:TRP:HZ3 | 1.17 | 1.07 |
| 1:C:69:VAL:HG12 | 1:C:70:SER:H | 1.09 | 1.07 |
| 1:C:130:ARG:HB2 | 1:C:237:GLN:HB3 | 1.07 | 1.07 |
| 1:C:149:LYS:CG | 1:C:177:SER:OG | 2.01 | 1.07 |
| 1:A:244:SER:O | 1:A:245:THR:HG22 | 1.54 | 1.07 |
| 1:A:288:LEU:HD11 | 1:A:290:LEU:CG | 1.84 | 1.07 |
| 1:C:149:LYS:HD3 | 1:C:170:TYR:OH | 1.43 | 1.07 |
| 1:C:172:ILE:O | 1:C:173:GLU:O | 1.72 | 1.07 |
| 1:C:200:GLY:C | 1:C:282:GLY:HA3 | 1.51 | 1.07 |
| 1:B:297:VAL:CB | 1:B:336:VAL:HG13 | 1.41 | 1.07 |
| 1:C:296:PRO:CG | 1:C:337:THR:CG2 | 1.76 | 1.07 |
| 1:A:86:GLY:HA2 | 1:A:234:TYR:CE1 | 1.90 | 1.07 |
| 1:A:166:LEU:O | 1:A:169:LEU:N | 1.88 | 1.07 |
| 1:B:125:GLN:HA | 1:B:243:GLY:HA2 | 1.37 | 1.07 |
| 1:B:149:LYS:HD3 | 1:B:170:TYR:HH | 0.94 | 1.07 |
| 1:B:166:LEU:O | 1:B:169:LEU:N | 1.88 | 1.07 |
| 1:B:277:ASP:HA | 1:B:334:LYS:HD2 | 1.34 | 1.07 |
| 1:B:327:ALA:N | 1:B:331:GLN:OE1 | 1.87 | 1.07 |
| 1:A:327:ALA:N | 1:A:331:GLN:OE1 | 1.87 | 1.06 |
| 1:B:156:ARG:O | 1:B:210:GLY:CA | 2.03 | 1.06 |
| 1:B:244:SER:O | 1:B:245:THR:HG22 | 1.54 | 1.06 |
| 1:C:149:LYS:HD2 | 1:C:170:TYR:OH | 1.44 | 1.06 |
| 1:C:152:LEU:HD22 | 1:C:186:LEU:CD1 | 1.85 | 1.06 |
| 1:A:156:ARG:O | 1:A:210:GLY:CA | 2.03 | 1.06 |
| 1:B:86:GLY:HA2 | 1:B:234:TYR:CE1 | 1.90 | 1.06 |
| 1:B:288:LEU:HD11 | 1:B:290:LEU:CG | 1.84 | 1.06 |
| 1:B:288:LEU:HD11 | 1:B:290:LEU:HD21 | 1.31 | 1.06 |
| 1:C:149:LYS:HD3 | 1:C:170:TYR:HH | 1.07 | 1.06 |
| 1:C:288:LEU:HD11 | 1:C:290:LEU:CG | 1.84 | 1.06 |
| 1:A:252:ASP:OD2 | 1:A:345:LYS:HE2 | 1.55 | 1.06 |
| 1:A:315:ALA:HB1 | 1:A:318:SER:H | 1.16 | 1.06 |
| 1:A:339:GLU:C | 1:A:340:GLU:CA | 2.24 | 1.06 |
| 1:B:252:ASP:OD2 | 1:B:345:LYS:HE2 | 1.55 | 1.06 |
| 1:B:291:PHE:CB | 1:B:345:LYS:O | 2.03 | 1.06 |
| 1:C:120:ILE:CD1 | 1:C:351:ILE:C | 2.24 | 1.06 |
| 1:C:201:ILE:HG22 | 1:C:265:TRP:HA | 1.38 | 1.06 |
| 1:C:278:CYS:HB3 | 1:C:333:VAL:O | 1.53 | 1.06 |
| 1:A:160:LYS:HG3 | 1:A:161:PRO:HD2 | 1.11 | 1.06 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:304:ASP:O | 1:A:331:GLN:CB | 2.04 | 1.06 |
| 1:B:86:GLY:CA | 1:B:234:TYR:HD1 | 1.68 | 1.06 |
| 1:B:339:GLU:C | 1:B:340:GLU:CA | 2.24 | 1.06 |
| 1:C:69:VAL:HG12 | 1:C:70:SER:N | 1.66 | 1.06 |
| 1:C:156:ARG:O | 1:C:210:GLY:CA | 2.03 | 1.06 |
| 1:C:278:CYS:N | 1:C:334:LYS:HD2 | 1.68 | 1.06 |
| 1:A:134:LEU:HD21 | 1:A:188:VAL:HG21 | 1.08 | 1.06 |
| 1:B:160:LYS:HG3 | 1:B:161:PRO:HD2 | 1.11 | 1.06 |
| 1:B:248:ALA:O | 1:B:263:VAL:CB | 2.03 | 1.06 |
| 1:C:207:VAL:N | 1:C:329:ARG:NH2 | 1.78 | 1.06 |
| 1:C:288:LEU:HD11 | 1:C:290:LEU:HD21 | 1.31 | 1.06 |
| 1:A:152:LEU:HD22 | 1:A:186:LEU:CD1 | 1.85 | 1.05 |
| 1:A:172:ILE:O | 1:A:173:GLU:O | 1.72 | 1.05 |
| 1:B:152:LEU:HD22 | 1:B:186:LEU:CD1 | 1.85 | 1.05 |
| 1:B:265:TRP:HZ3 | 1:B:348:ALA:O | 1.20 | 1.05 |
| 1:A:278:CYS:N | 1:A:334:LYS:HD2 | 1.68 | 1.05 |
| 1:A:278:CYS:HB3 | 1:A:333:VAL:O | 1.53 | 1.05 |
| 1:B:130:ARG:HD3 | 1:B:237:GLN:CA | 1.84 | 1.05 |
| 1:C:255:GLY:HA2 | 1:C:342:PRO:HB3 | 1.33 | 1.05 |
| 1:C:277:ASP:HA | 1:C:334:LYS:HD2 | 1.35 | 1.05 |
| 1:A:96:ASN:OD1 | 1:A:216:THR:O | 1.74 | 1.05 |
| 1:A:255:GLY:HA2 | 1:A:342:PRO:HB3 | 1.33 | 1.05 |
| 1:B:172:ILE:O | 1:B:173:GLU:O | 1.72 | 1.05 |
| 1:B:304:ASP:O | 1:B:331:GLN:CB | 2.04 | 1.05 |
| 1:B:327:ALA:HB3 | 1:B:331:GLN:OE1 | 1.48 | 1.05 |
| 1:C:86:GLY:HA2 | 1:C:234:TYR:CE1 | 1.90 | 1.05 |
| 1:C:166:LEU:O | 1:C:169:LEU:N | 1.88 | 1.05 |
| 1:C:291:PHE:CB | 1:C:345:LYS:O | 2.03 | 1.05 |
| 1:C:327:ALA:HB3 | 1:C:331:GLN:OE1 | 1.48 | 1.05 |
| 1:C:339:GLU:C | 1:C:340:GLU:CA | 2.24 | 1.05 |
| 1:A:130:ARG:HB2 | 1:A:237:GLN:HB3 | 1.07 | 1.04 |
| 1:A:249:GLN:HB3 | 1:A:265:TRP:HZ3 | 1.17 | 1.04 |
| 1:A:291:PHE:CB | 1:A:345:LYS:O | 2.03 | 1.04 |
| 1:B:134:LEU:HD21 | 1:B:188:VAL:HG21 | 1.08 | 1.04 |
| 1:A:89:LEU:C | 1:A:89:LEU:HD23 | 1.78 | 1.04 |
| 1:A:179:VAL:CG1 | 1:A:181:TRP:CD1 | 2.40 | 1.04 |
| 1:B:89:LEU:HD23 | 1:B:89:LEU:C | 1.77 | 1.04 |
| 1:B:96:ASN:OD1 | 1:B:216:THR:O | 1.74 | 1.04 |
| 1:C:96:ASN:OD1 | 1:C:216:THR:O | 1.74 | 1.04 |
| 1:A:164:ASN:N | 1:A:164:ASN:HD22 | 1.19 | 1.04 |
| 1:B:179:VAL:CG1 | 1:B:181:TRP:CD1 | 2.40 | 1.04 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-----------------|--------------------------|-------------------|
| 1:B:278:CYS:N | 1:B:334:LYS:HD3 | 1.71 | 1.04 |
| 1:B:315:ALA:HB2 | 1:B:318:SER:HB3 | 1.36 | 1.04 |
| 1:C:159:ALA:HB2 | 1:C:328:GLU:HB2 | 1.35 | 1.04 |
| 1:C:315:ALA:HB2 | 1:C:318:SER:HB3 | 1.36 | 1.04 |
| 1:C:252:ASP:OD2 | 1:C:345:LYS:HE2 | 1.55 | 1.04 |
| 1:A:277:ASP:HA | 1:A:334:LYS:HD2 | 1.35 | 1.04 |
| 1:A:315:ALA:HB2 | 1:A:318:SER:HB3 | 1.36 | 1.04 |
| 1:C:304:ASP:O | 1:C:331:GLN:CB | 2.04 | 1.04 |
| 1:B:296:PRO:CG | 1:B:337:THR:CG2 | 1.76 | 1.03 |
| 1:C:179:VAL:CG1 | 1:C:181:TRP:CD1 | 2.40 | 1.03 |
| 1:B:130:ARG:HB2 | 1:B:237:GLN:CB | 1.88 | 1.03 |
| 1:B:130:ARG:HB2 | 1:B:237:GLN:HB3 | 1.07 | 1.03 |
| 1:C:207:VAL:CA | 1:C:329:ARG:NH2 | 2.21 | 1.03 |
| 1:C:297:VAL:HB | 1:C:336:VAL:C | 1.78 | 1.03 |
| 1:C:315:ALA:HB1 | 1:C:318:SER:H | 1.16 | 1.03 |
| 1:A:119:LEU:HD22 | 1:A:234:TYR:OH | 0.86 | 1.03 |
| 1:A:297:VAL:HB | 1:A:336:VAL:C | 1.78 | 1.03 |
| 1:C:119:LEU:HD22 | 1:C:234:TYR:OH | 0.86 | 1.03 |
| 1:C:130:ARG:HB2 | 1:C:237:GLN:CB | 1.88 | 1.03 |
| 1:A:86:GLY:CA | 1:A:234:TYR:HD1 | 1.68 | 1.03 |
| 1:A:254:ALA:O | 1:A:256:VAL:N | 1.91 | 1.03 |
| 1:B:119:LEU:HD22 | 1:B:234:TYR:OH | 0.86 | 1.03 |
| 1:B:290:LEU:HD22 | 1:B:346:TRP:HB2 | 1.41 | 1.03 |
| 1:C:89:LEU:HD23 | 1:C:89:LEU:C | 1.78 | 1.03 |
| 1:C:290:LEU:HD22 | 1:C:346:TRP:HB2 | 1.41 | 1.03 |
| 1:A:308:PHE:CE2 | 1:A:310:VAL:CG2 | 2.42 | 1.02 |
| 1:A:327:ALA:HB3 | 1:A:331:GLN:OE1 | 1.48 | 1.02 |
| 1:C:254:ALA:O | 1:C:256:VAL:N | 1.91 | 1.02 |
| 1:B:297:VAL:HB | 1:B:336:VAL:C | 1.78 | 1.02 |
| 1:A:286:PHE:HA | 1:A:351:ILE:CG2 | 1.89 | 1.02 |
| 1:B:248:ALA:O | 1:B:263:VAL:CG1 | 2.08 | 1.02 |
| 1:C:308:PHE:CE2 | 1:C:310:VAL:CG2 | 2.42 | 1.02 |
| 1:B:308:PHE:CE2 | 1:B:310:VAL:CG2 | 2.42 | 1.02 |
| 1:C:326:VAL:HG12 | 1:C:327:ALA:H | 1.18 | 1.02 |
| 1:A:338:THR:OG1 | 1:A:339:GLU:HB2 | 1.60 | 1.01 |
| 1:B:254:ALA:O | 1:B:256:VAL:N | 1.91 | 1.01 |
| 1:B:338:THR:OG1 | 1:B:339:GLU:HB2 | 1.60 | 1.01 |
| 1:C:286:PHE:HA | 1:C:351:ILE:CG2 | 1.89 | 1.01 |
| 1:C:338:THR:OG1 | 1:C:339:GLU:HB2 | 1.60 | 1.01 |
| 1:A:85:SER:HA | 1:A:234:TYR:O | 1.60 | 1.01 |
| 1:A:130:ARG:HB2 | 1:A:237:GLN:CB | 1.88 | 1.01 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:165:ASP:O | 1:B:168:SER:CB | 2.07 | 1.01 |
| 1:C:86:GLY:CA | 1:C:234:TYR:HD1 | 1.68 | 1.01 |
| 1:A:86:GLY:N | 1:A:234:TYR:CD1 | 2.29 | 1.01 |
| 1:A:165:ASP:O | 1:A:168:SER:CB | 2.07 | 1.01 |
| 1:B:86:GLY:N | 1:B:234:TYR:CD1 | 2.29 | 1.01 |
| 1:B:134:LEU:HD21 | 1:B:188:VAL:CG2 | 1.91 | 1.01 |
| 1:B:286:PHE:HA | 1:B:351:ILE:CG2 | 1.89 | 1.01 |
| 1:C:68:GLU:OE2 | 1:C:137:ARG:NH2 | 1.94 | 1.01 |
| 1:C:165:ASP:O | 1:C:168:SER:CB | 2.07 | 1.01 |
| 1:C:200:GLY:HA2 | 1:C:265:TRP:CD1 | 1.90 | 1.01 |
| 1:B:315:ALA:HB1 | 1:B:318:SER:H | 1.16 | 1.01 |
| 1:C:135:ARG:HG3 | 1:C:233:GLU:HB3 | 1.43 | 1.01 |
| 1:C:200:GLY:HA2 | 1:C:265:TRP:HB3 | 1.42 | 1.01 |
| 1:A:134:LEU:CD2 | 1:A:188:VAL:HG21 | 1.91 | 1.01 |
| 1:A:203:ASP:CG | 1:A:205:LYS:HD3 | 1.81 | 1.01 |
| 1:C:85:SER:HA | 1:C:234:TYR:O | 1.60 | 1.01 |
| 1:C:86:GLY:N | 1:C:234:TYR:CD1 | 2.29 | 1.01 |
| 1:A:278:CYS:H | 1:A:334:LYS:HD3 | 1.25 | 1.00 |
| 1:C:278:CYS:N | 1:C:334:LYS:HD3 | 1.71 | 1.00 |
| 1:B:253:PHE:HA | 1:B:258:ASP:HA | 1.44 | 1.00 |
| 1:C:133:SER:O | 1:C:234:TYR:CA | 2.09 | 1.00 |
| 1:C:253:PHE:HA | 1:C:258:ASP:HA | 1.44 | 1.00 |
| 1:A:253:PHE:HA | 1:A:258:ASP:HA | 1.44 | 1.00 |
| 1:B:85:SER:HA | 1:B:234:TYR:O | 1.60 | 1.00 |
| 1:B:134:LEU:CD2 | 1:B:188:VAL:HG21 | 1.91 | 1.00 |
| 1:C:278:CYS:H | 1:C:334:LYS:HE2 | 1.27 | 1.00 |
| 1:C:125:GLN:HA | 1:C:243:GLY:HA2 | 1.36 | 1.00 |
| 1:A:249:GLN:HB3 | 1:A:265:TRP:CZ3 | 1.97 | 1.00 |
| 1:A:297:VAL:CB | 1:A:336:VAL:HG13 | 1.41 | 1.00 |
| 1:C:197:VAL:HG21 | 1:C:350:ARG:HH22 | 1.20 | 1.00 |
| 1:B:133:SER:O | 1:B:234:TYR:CA | 2.09 | 1.00 |
| 1:A:133:SER:O | 1:A:234:TYR:CA | 2.09 | 0.99 |
| 1:A:135:ARG:HG3 | 1:A:233:GLU:HB3 | 1.43 | 0.99 |
| 1:A:134:LEU:HD21 | 1:A:188:VAL:CG2 | 1.91 | 0.99 |
| 1:A:326:VAL:HG12 | 1:A:327:ALA:H | 1.18 | 0.99 |
| 1:C:308:PHE:CE2 | 1:C:310:VAL:HG23 | 1.97 | 0.99 |
| 1:B:203:ASP:CG | 1:B:205:LYS:HD3 | 1.82 | 0.99 |
| 1:B:269:LYS:C | 1:B:277:ASP:HB3 | 1.82 | 0.99 |
| 1:C:159:ALA:HB1 | 1:C:328:GLU:CD | 1.80 | 0.99 |
| 1:A:185:ILE:CD1 | 1:A:186:LEU:N | 2.05 | 0.99 |
| 1:A:269:LYS:C | 1:A:277:ASP:HB3 | 1.82 | 0.99 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:249:GLN:HB3 | 1:B:265:TRP:CZ3 | 1.97 | 0.99 |
| 1:C:79:ARG:O | 1:C:80:ASP:HB2 | 1.61 | 0.99 |
| 1:C:297:VAL:CB | 1:C:336:VAL:HG13 | 1.41 | 0.99 |
| 1:B:278:CYS:H | 1:B:334:LYS:HE2 | 1.27 | 0.99 |
| 1:A:160:LYS:HG3 | 1:A:161:PRO:CD | 1.93 | 0.99 |
| 1:C:134:LEU:CD2 | 1:C:188:VAL:HG21 | 1.91 | 0.99 |
| 1:A:290:LEU:HD22 | 1:A:346:TRP:HB2 | 1.41 | 0.98 |
| 1:B:160:LYS:HG3 | 1:B:161:PRO:CD | 1.93 | 0.98 |
| 1:C:249:GLN:HB3 | 1:C:265:TRP:CZ3 | 1.97 | 0.98 |
| 1:A:252:ASP:CG | 1:A:345:LYS:HG2 | 1.84 | 0.98 |
| 1:B:152:LEU:HD22 | 1:B:186:LEU:HD13 | 1.45 | 0.98 |
| 1:B:179:VAL:HG23 | 1:B:180:PRO:HD2 | 1.46 | 0.98 |
| 1:B:252:ASP:CG | 1:B:345:LYS:HG2 | 1.84 | 0.98 |
| 1:C:152:LEU:HD22 | 1:C:186:LEU:HD13 | 1.45 | 0.98 |
| 1:A:308:PHE:CE2 | 1:A:310:VAL:HG23 | 1.97 | 0.98 |
| 1:B:135:ARG:HG3 | 1:B:233:GLU:HB3 | 1.43 | 0.98 |
| 1:C:134:LEU:HD21 | 1:C:188:VAL:CG2 | 1.91 | 0.98 |
| 1:A:296:PRO:CG | 1:A:337:THR:CG2 | 1.76 | 0.98 |
| 1:C:203:ASP:CG | 1:C:205:LYS:HD3 | 1.81 | 0.98 |
| 1:A:278:CYS:N | 1:A:334:LYS:HE2 | 1.78 | 0.98 |
| 1:B:308:PHE:CE2 | 1:B:310:VAL:HG23 | 1.97 | 0.98 |
| 1:C:77:THR:HG22 | 1:C:78:ALA:N | 1.78 | 0.98 |
| 1:C:160:LYS:HG3 | 1:C:161:PRO:CD | 1.93 | 0.98 |
| 1:A:338:THR:OG1 | 1:A:339:GLU:N | 1.94 | 0.98 |
| 1:B:174:GLY:C | 1:B:175:CYS:SG | 2.42 | 0.98 |
| 1:C:200:GLY:HA3 | 1:C:265:TRP:HA | 1.43 | 0.98 |
| 1:C:269:LYS:C | 1:C:277:ASP:HB3 | 1.82 | 0.98 |
| 1:C:277:ASP:C | 1:C:334:LYS:HD2 | 1.84 | 0.98 |
| 1:C:278:CYS:CB | 1:C:333:VAL:O | 2.12 | 0.98 |
| 1:B:290:LEU:CD2 | 1:B:346:TRP:HB2 | 1.94 | 0.97 |
| 1:C:252:ASP:CG | 1:C:345:LYS:HG2 | 1.84 | 0.97 |
| 1:B:185:ILE:CD1 | 1:B:186:LEU:N | 2.05 | 0.97 |
| 1:B:269:LYS:HG2 | 1:B:270:GLY:N | 1.75 | 0.97 |
| 1:C:143:PRO:O | 1:C:146:THR:CG2 | 2.13 | 0.97 |
| 1:C:269:LYS:HG2 | 1:C:270:GLY:N | 1.75 | 0.97 |
| 1:C:278:CYS:N | 1:C:334:LYS:HE2 | 1.78 | 0.97 |
| 1:A:138:TYR:HB2 | 1:A:184:PHE:CE2 | 1.99 | 0.97 |
| 1:B:101:PRO:HG3 | 1:B:217:TYR:HE2 | 1.28 | 0.97 |
| 1:A:155:ASP:HB2 | 1:A:172:ILE:HD11 | 1.47 | 0.97 |
| 1:A:278:CYS:N | 1:A:334:LYS:HD3 | 1.72 | 0.97 |
| 1:B:315:ALA:O | 1:B:316:ALA:C | 2.00 | 0.97 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:101:PRO:HD2 | 1:C:166:LEU:HD12 | 1.37 | 0.97 |
| 1:A:278:CYS:H | 1:A:334:LYS:HE2 | 1.26 | 0.97 |
| 1:C:290:LEU:CD2 | 1:C:346:TRP:HB2 | 1.94 | 0.97 |
| 1:C:174:GLY:C | 1:C:175:CYS:SG | 2.42 | 0.97 |
| 1:A:278:CYS:CB | 1:A:333:VAL:O | 2.12 | 0.97 |
| 1:B:277:ASP:C | 1:B:334:LYS:HD2 | 1.84 | 0.97 |
| 1:B:278:CYS:CB | 1:B:333:VAL:O | 2.12 | 0.97 |
| 1:A:174:GLY:C | 1:A:175:CYS:SG | 2.42 | 0.97 |
| 1:A:269:LYS:HG2 | 1:A:270:GLY:N | 1.75 | 0.97 |
| 1:B:138:TYR:HB2 | 1:B:184:PHE:CE2 | 1.99 | 0.97 |
| 1:B:155:ASP:HB2 | 1:B:172:ILE:HD11 | 1.47 | 0.97 |
| 1:C:95:LYS:NZ | 1:C:221:ALA:HA | 1.80 | 0.97 |
| 1:C:150:VAL:O | 1:C:150:VAL:HG12 | 1.65 | 0.96 |
| 1:A:277:ASP:C | 1:A:334:LYS:HD2 | 1.84 | 0.96 |
| 1:C:185:ILE:CD1 | 1:C:186:LEU:N | 2.05 | 0.96 |
| 1:C:274:TRP:NE1 | 1:C:339:GLU:O | 1.98 | 0.96 |
| 1:A:154:PHE:CE1 | 1:A:155:ASP:C | 2.39 | 0.96 |
| 1:A:179:VAL:HG23 | 1:A:180:PRO:HD2 | 1.45 | 0.96 |
| 1:A:290:LEU:CD2 | 1:A:346:TRP:HB2 | 1.94 | 0.96 |
| 1:C:113:PRO:O | 1:C:115:THR:N | 1.99 | 0.96 |
| 1:C:278:CYS:H | 1:C:334:LYS:HD3 | 1.25 | 0.96 |
| 1:A:86:GLY:N | 1:A:234:TYR:HD1 | 1.62 | 0.96 |
| 1:A:101:PRO:HG3 | 1:A:217:TYR:HE2 | 1.28 | 0.96 |
| 1:A:350:ARG:C | 1:A:351:ILE:HG22 | 1.86 | 0.96 |
| 1:B:154:PHE:CE1 | 1:B:155:ASP:C | 2.39 | 0.96 |
| 1:C:154:PHE:CE1 | 1:C:155:ASP:C | 2.39 | 0.96 |
| 1:A:326:VAL:HG12 | 1:A:327:ALA:O | 1.65 | 0.96 |
| 1:C:138:TYR:HB2 | 1:C:184:PHE:CE2 | 2.00 | 0.96 |
| 1:B:350:ARG:O | 1:B:351:ILE:HG22 | 0.78 | 0.96 |
| 1:B:105:THR:HG1 | 1:B:211:LYS:CD | 1.70 | 0.96 |
| 1:C:159:ALA:CB | 1:C:328:GLU:CD | 2.33 | 0.96 |
| 1:C:206:LEU:O | 1:C:206:LEU:HD12 | 1.66 | 0.96 |
| 1:A:95:LYS:NZ | 1:A:221:ALA:HA | 1.80 | 0.96 |
| 1:B:119:LEU:HD22 | 1:B:234:TYR:HH | 1.21 | 0.96 |
| 1:A:285:ASN:O | 1:A:351:ILE:HG23 | 1.66 | 0.96 |
| 1:A:350:ARG:O | 1:A:351:ILE:HG22 | 0.78 | 0.96 |
| 1:C:296:PRO:HG2 | 1:C:337:THR:CB | 1.95 | 0.96 |
| 1:A:248:ALA:HB3 | 1:A:264:SER:CB | 1.96 | 0.95 |
| 1:B:95:LYS:NZ | 1:B:221:ALA:HA | 1.80 | 0.95 |
| 1:B:149:LYS:CB | 1:B:217:TYR:HE1 | 1.79 | 0.95 |
| 1:B:274:TRP:NE1 | 1:B:339:GLU:O | 1.98 | 0.95 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:285:ASN:O | 1:C:351:ILE:HG23 | 1.66 | 0.95 |
| 1:C:315:ALA:O | 1:C:316:ALA:C | 2.00 | 0.95 |
| 1:C:326:VAL:HG12 | 1:C:327:ALA:O | 1.65 | 0.95 |
| 1:A:143:PRO:O | 1:A:146:THR:CG2 | 2.13 | 0.95 |
| 1:A:149:LYS:CB | 1:A:217:TYR:HE1 | 1.79 | 0.95 |
| 1:A:206:LEU:HD12 | 1:A:206:LEU:O | 1.66 | 0.95 |
| 1:B:143:PRO:O | 1:B:146:THR:CG2 | 2.13 | 0.95 |
| 1:A:149:LYS:HB3 | 1:A:217:TYR:HE1 | 1.11 | 0.95 |
| 1:B:130:ARG:NH1 | 1:B:236:VAL:O | 2.00 | 0.95 |
| 1:B:149:LYS:HB3 | 1:B:217:TYR:HE1 | 1.11 | 0.95 |
| 1:C:207:VAL:CA | 1:C:329:ARG:HH22 | 1.79 | 0.95 |
| 1:B:206:LEU:HD12 | 1:B:206:LEU:O | 1.66 | 0.95 |
| 1:C:130:ARG:CB | 1:C:237:GLN:HB3 | 1.97 | 0.95 |
| 1:C:149:LYS:CB | 1:C:217:TYR:HE1 | 1.79 | 0.95 |
| 1:A:152:LEU:HD22 | 1:A:186:LEU:HD13 | 1.45 | 0.95 |
| 1:A:274:TRP:NE1 | 1:A:339:GLU:O | 1.98 | 0.95 |
| 1:B:326:VAL:HG12 | 1:B:327:ALA:O | 1.65 | 0.95 |
| 1:C:350:ARG:O | 1:C:351:ILE:HG22 | 0.78 | 0.95 |
| 1:B:291:PHE:HB2 | 1:B:346:TRP:HB3 | 1.48 | 0.95 |
| 1:C:291:PHE:HB2 | 1:C:346:TRP:HB3 | 1.48 | 0.95 |
| 1:A:130:ARG:NH1 | 1:A:236:VAL:O | 2.00 | 0.95 |
| 1:B:150:VAL:O | 1:B:150:VAL:HG12 | 1.65 | 0.95 |
| 1:A:150:VAL:O | 1:A:150:VAL:HG12 | 1.65 | 0.95 |
| 1:A:277:ASP:OD1 | 1:A:334:LYS:HE2 | 1.67 | 0.95 |
| 1:B:278:CYS:N | 1:B:334:LYS:HE2 | 1.78 | 0.95 |
| 1:C:155:ASP:HB2 | 1:C:172:ILE:HD11 | 1.47 | 0.95 |
| 1:A:130:ARG:CB | 1:A:237:GLN:HB3 | 1.96 | 0.94 |
| 1:B:277:ASP:OD1 | 1:B:334:LYS:HE2 | 1.67 | 0.94 |
| 1:A:113:PRO:O | 1:A:115:THR:N | 1.99 | 0.94 |
| 1:A:296:PRO:HG2 | 1:A:337:THR:CB | 1.95 | 0.94 |
| 1:B:248:ALA:C | 1:B:263:VAL:HG12 | 1.88 | 0.94 |
| 1:C:205:LYS:H | 1:C:329:ARG:CZ | 1.79 | 0.94 |
| 1:B:113:PRO:O | 1:B:115:THR:N | 1.99 | 0.94 |
| 1:B:141:MET:HG3 | 1:B:141:MET:O | 1.66 | 0.94 |
| 1:B:296:PRO:HG2 | 1:B:337:THR:CB | 1.95 | 0.94 |
| 1:B:350:ARG:C | 1:B:351:ILE:HG22 | 1.86 | 0.94 |
| 1:C:101:PRO:HG3 | 1:C:217:TYR:HE2 | 1.28 | 0.94 |
| 1:C:130:ARG:NH1 | 1:C:236:VAL:O | 2.00 | 0.94 |
| 1:A:119:LEU:HD22 | 1:A:234:TYR:HH | 1.21 | 0.94 |
| 1:A:269:LYS:O | 1:A:277:ASP:HB3 | 0.76 | 0.94 |
| 1:B:285:ASN:O | 1:B:351:ILE:HG23 | 1.66 | 0.94 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:179:VAL:HG23 | 1:C:180:PRO:HD2 | 1.46 | 0.94 |
| 1:C:350:ARG:C | 1:C:351:ILE:HG22 | 1.86 | 0.94 |
| 1:A:101:PRO:CG | 1:A:166:LEU:CD1 | 2.45 | 0.94 |
| 1:A:291:PHE:HB2 | 1:A:346:TRP:HB3 | 1.48 | 0.94 |
| 1:B:86:GLY:N | 1:B:234:TYR:HD1 | 1.63 | 0.94 |
| 1:B:101:PRO:CG | 1:B:166:LEU:CD1 | 2.46 | 0.94 |
| 1:B:130:ARG:CB | 1:B:237:GLN:HB3 | 1.96 | 0.94 |
| 1:C:277:ASP:OD1 | 1:C:334:LYS:HE2 | 1.67 | 0.94 |
| 1:A:289:THR:HG23 | 1:A:321:TRP:CE3 | 2.03 | 0.94 |
| 1:A:315:ALA:CB | 1:A:318:SER:CB | 2.46 | 0.94 |
| 1:C:204:PRO:HB3 | 1:C:329:ARG:HG3 | 1.47 | 0.94 |
| 1:B:326:VAL:CG1 | 1:B:327:ALA:N | 2.19 | 0.93 |
| 1:C:101:PRO:CG | 1:C:166:LEU:CD1 | 2.45 | 0.93 |
| 1:A:265:TRP:O | 1:A:281:LEU:N | 2.02 | 0.93 |
| 1:B:163:PRO:CA | 1:B:164:ASN:HD22 | 1.82 | 0.93 |
| 1:B:269:LYS:O | 1:B:277:ASP:HB3 | 0.76 | 0.93 |
| 1:B:289:THR:HG23 | 1:B:321:TRP:CE3 | 2.03 | 0.93 |
| 1:B:89:LEU:C | 1:B:89:LEU:CD2 | 2.37 | 0.93 |
| 1:C:112:GLU:HA | 1:C:284:GLY:HA3 | 1.50 | 0.93 |
| 1:C:141:MET:HG3 | 1:C:141:MET:O | 1.66 | 0.93 |
| 1:C:269:LYS:O | 1:C:277:ASP:HB3 | 0.76 | 0.93 |
| 1:A:141:MET:HG3 | 1:A:141:MET:O | 1.66 | 0.93 |
| 1:B:315:ALA:CB | 1:B:318:SER:CB | 2.46 | 0.93 |
| 1:C:89:LEU:C | 1:C:89:LEU:CD2 | 2.37 | 0.93 |
| 1:C:207:VAL:CG1 | 1:C:329:ARG:HH21 | 1.75 | 0.93 |
| 1:B:124:ALA:HB1 | 1:B:245:THR:HG22 | 1.51 | 0.93 |
| 1:C:265:TRP:O | 1:C:281:LEU:N | 2.02 | 0.93 |
| 1:C:86:GLY:N | 1:C:234:TYR:HD1 | 1.63 | 0.93 |
| 1:C:149:LYS:HB3 | 1:C:217:TYR:HE1 | 1.11 | 0.93 |
| 1:C:289:THR:HG23 | 1:C:321:TRP:CE3 | 2.03 | 0.93 |
| 1:B:82:ILE:HD11 | 1:B:122:GLU:OE2 | 1.69 | 0.93 |
| 1:B:154:PHE:HB2 | 1:B:212:LEU:CD1 | 1.99 | 0.93 |
| 1:A:124:ALA:HB1 | 1:A:245:THR:HG22 | 1.51 | 0.92 |
| 1:A:154:PHE:HB2 | 1:A:212:LEU:CD1 | 1.99 | 0.92 |
| 1:C:154:PHE:HB2 | 1:C:212:LEU:CD1 | 1.99 | 0.92 |
| 1:C:333:VAL:O | 1:C:334:LYS:CD | 2.18 | 0.92 |
| 1:A:130:ARG:HD3 | 1:A:237:GLN:N | 1.84 | 0.92 |
| 1:A:294:LYS:C | 1:A:296:PRO:HD3 | 1.90 | 0.92 |
| 1:A:333:VAL:O | 1:A:334:LYS:CD | 2.18 | 0.92 |
| 1:B:285:ASN:O | 1:B:351:ILE:CG2 | 2.17 | 0.92 |
| 1:C:159:ALA:HB1 | 1:C:328:GLU:HB3 | 1.50 | 0.92 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:C:315:ALA:CB | 1:C:318:SER:CB | 2.46 | 0.92 |
| 1:A:82:ILE:HD11 | 1:A:122:GLU:OE2 | 1.69 | 0.92 |
| 1:B:333:VAL:O | 1:B:334:LYS:CD | 2.18 | 0.92 |
| 1:B:338:THR:OG1 | 1:B:339:GLU:N | 1.94 | 0.92 |
| 1:C:204:PRO:CB | 1:C:329:ARG:HG3 | 1.60 | 0.92 |
| 1:A:163:PRO:CA | 1:A:164:ASN:HD22 | 1.82 | 0.92 |
| 1:C:294:LYS:C | 1:C:296:PRO:HD3 | 1.90 | 0.92 |
| 1:C:342:PRO:O | 1:C:343:LYS:HD3 | 1.70 | 0.92 |
| 1:A:278:CYS:N | 1:A:334:LYS:CE | 2.20 | 0.92 |
| 1:B:294:LYS:C | 1:B:296:PRO:HD3 | 1.90 | 0.92 |
| 1:C:82:ILE:HD11 | 1:C:122:GLU:OE2 | 1.69 | 0.92 |
| 1:B:265:TRP:O | 1:B:281:LEU:N | 2.02 | 0.92 |
| 1:A:248:ALA:HB2 | 1:A:264:SER:C | 1.89 | 0.91 |
| 1:B:308:PHE:HE2 | 1:B:310:VAL:HG21 | 1.34 | 0.91 |
| 1:C:83:THR:HG22 | 1:C:84:ARG:H | 1.34 | 0.91 |
| 1:C:163:PRO:C | 1:C:164:ASN:HD22 | 1.73 | 0.91 |
| 1:A:286:PHE:HA | 1:A:351:ILE:HG22 | 1.52 | 0.91 |
| 1:A:342:PRO:O | 1:A:343:LYS:HD3 | 1.70 | 0.91 |
| 1:C:126:TYR:HA | 1:C:242:THR:HG22 | 1.50 | 0.91 |
| 1:A:83:THR:HG22 | 1:A:84:ARG:H | 1.34 | 0.91 |
| 1:B:150:VAL:O | 1:B:150:VAL:CG1 | 2.18 | 0.91 |
| 1:B:163:PRO:C | 1:B:164:ASN:HD22 | 1.73 | 0.91 |
| 1:B:248:ALA:O | 1:B:263:VAL:HG12 | 1.70 | 0.91 |
| 1:C:163:PRO:CA | 1:C:164:ASN:HD22 | 1.82 | 0.91 |
| 1:A:143:PRO:O | 1:A:146:THR:HG23 | 1.71 | 0.91 |
| 1:A:296:PRO:CB | 1:A:337:THR:HG22 | 2.00 | 0.91 |
| 1:C:296:PRO:CB | 1:C:337:THR:HG22 | 2.00 | 0.91 |
| 1:A:313:GLU:CG | 1:A:318:SER:CB | 2.49 | 0.91 |
| 1:B:296:PRO:CB | 1:B:337:THR:HG22 | 2.00 | 0.91 |
| 1:A:130:ARG:HD3 | 1:A:237:GLN:HB2 | 0.97 | 0.91 |
| 1:A:296:PRO:CD | 1:A:337:THR:HG22 | 2.01 | 0.91 |
| 1:C:124:ALA:HB1 | 1:C:245:THR:HG22 | 1.51 | 0.91 |
| 1:C:338:THR:OG1 | 1:C:339:GLU:N | 1.94 | 0.91 |
| 1:B:164:ASN:ND2 | 1:B:164:ASN:H | 1.47 | 0.91 |
| 1:B:342:PRO:O | 1:B:343:LYS:HD3 | 1.70 | 0.91 |
| 1:C:113:PRO:C | 1:C:115:THR:H | 1.74 | 0.91 |
| 1:C:159:ALA:CB | 1:C:328:GLU:HG3 | 2.01 | 0.91 |
| 1:C:207:VAL:CB | 1:C:329:ARG:NH2 | 2.34 | 0.91 |
| 1:A:285:ASN:O | 1:A:351:ILE:CG2 | 2.17 | 0.91 |
| 1:B:83:THR:HG22 | 1:B:84:ARG:H | 1.34 | 0.91 |
| 1:B:130:ARG:HD3 | 1:B:237:GLN:N | 1.84 | 0.91 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:313:GLU:CG | 1:C:318:SER:CB | 2.49 | 0.91 |
| 1:C:134:LEU:HA | 1:C:233:GLU:O | 0.73 | 0.91 |
| 1:C:285:ASN:O | 1:C:351:ILE:CG2 | 2.17 | 0.91 |
| 1:B:286:PHE:HA | 1:B:351:ILE:HG22 | 1.52 | 0.90 |
| 1:B:300:LEU:HG | 1:B:308:PHE:CZ | 2.06 | 0.90 |
| 1:C:130:ARG:HH11 | 1:C:237:GLN:HA | 1.36 | 0.90 |
| 1:A:126:TYR:N | 1:A:242:THR:HG22 | 1.86 | 0.90 |
| 1:A:134:LEU:HA | 1:A:233:GLU:O | 0.73 | 0.90 |
| 1:A:150:VAL:O | 1:A:150:VAL:CG1 | 2.18 | 0.90 |
| 1:A:296:PRO:HG2 | 1:A:337:THR:HG21 | 1.51 | 0.90 |
| 1:C:130:ARG:HD3 | 1:C:237:GLN:N | 1.84 | 0.90 |
| 1:B:296:PRO:CD | 1:B:337:THR:HG22 | 2.01 | 0.90 |
| 1:A:163:PRO:C | 1:A:164:ASN:HD22 | 1.73 | 0.90 |
| 1:B:134:LEU:CD2 | 1:B:188:VAL:CG2 | 2.49 | 0.90 |
| 1:C:126:TYR:N | 1:C:242:THR:HG22 | 1.86 | 0.90 |
| 1:A:277:ASP:HA | 1:A:334:LYS:CD | 2.02 | 0.90 |
| 1:C:150:VAL:O | 1:C:150:VAL:CG1 | 2.18 | 0.90 |
| 1:C:264:SER:C | 1:C:265:TRP:CA | 2.40 | 0.90 |
| 1:A:186:LEU:HD23 | 1:A:187:THR:N | 1.87 | 0.90 |
| 1:B:130:ARG:HH11 | 1:B:237:GLN:HA | 1.36 | 0.90 |
| 1:B:134:LEU:HA | 1:B:233:GLU:O | 0.73 | 0.90 |
| 1:A:90:ILE:HD11 | 1:A:232:VAL:HG23 | 1.53 | 0.90 |
| 1:A:164:ASN:ND2 | 1:A:164:ASN:H | 1.47 | 0.90 |
| 1:B:89:LEU:CD2 | 1:B:89:LEU:O | 2.20 | 0.90 |
| 1:B:277:ASP:HA | 1:B:334:LYS:CD | 2.02 | 0.90 |
| 1:C:207:VAL:CG1 | 1:C:329:ARG:NE | 2.17 | 0.90 |
| 1:A:126:TYR:HA | 1:A:242:THR:HG22 | 1.50 | 0.90 |
| 1:B:126:TYR:HA | 1:B:242:THR:HG22 | 1.50 | 0.90 |
| 1:B:186:LEU:HD23 | 1:B:187:THR:N | 1.87 | 0.90 |
| 1:C:246:SER:O | 1:C:350:ARG:N | 2.05 | 0.90 |
| 1:C:300:LEU:HG | 1:C:308:PHE:CZ | 2.06 | 0.90 |
| 1:C:308:PHE:HE2 | 1:C:310:VAL:HG21 | 1.34 | 0.90 |
| 1:C:274:TRP:CD1 | 1:C:339:GLU:O | 2.25 | 0.89 |
| 1:C:115:THR:O | 1:C:116:PHE:HD1 | 1.48 | 0.89 |
| 1:C:134:LEU:CD2 | 1:C:188:VAL:CG2 | 2.49 | 0.89 |
| 1:C:143:PRO:O | 1:C:146:THR:HG23 | 1.71 | 0.89 |
| 1:A:89:LEU:C | 1:A:89:LEU:CD2 | 2.37 | 0.89 |
| 1:A:89:LEU:CD2 | 1:A:89:LEU:O | 2.20 | 0.89 |
| 1:A:95:LYS:NZ | 1:A:221:ALA:CA | 2.35 | 0.89 |
| 1:A:308:PHE:HE2 | 1:A:310:VAL:HG21 | 1.34 | 0.89 |
| 1:B:203:ASP:OD1 | 1:B:205:LYS:HD3 | 0.71 | 0.89 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:204:PRO:CB | 1:C:328:GLU:CG | 2.48 | 0.89 |
| 1:C:200:GLY:CA | 1:C:265:TRP:HD1 | 1.76 | 0.89 |
| 1:C:304:ASP:OD2 | 1:C:331:GLN:HA | 1.72 | 0.89 |
| 1:A:300:LEU:HG | 1:A:308:PHE:CZ | 2.07 | 0.89 |
| 1:B:90:ILE:HD11 | 1:B:232:VAL:HG23 | 1.53 | 0.89 |
| 1:B:143:PRO:O | 1:B:146:THR:HG23 | 1.71 | 0.89 |
| 1:B:304:ASP:OD2 | 1:B:331:GLN:HA | 1.73 | 0.89 |
| 1:C:164:ASN:ND2 | 1:C:164:ASN:H | 1.47 | 0.89 |
| 1:C:203:ASP:OD1 | 1:C:205:LYS:HD3 | 0.71 | 0.89 |
| 1:C:277:ASP:HA | 1:C:334:LYS:CD | 2.02 | 0.89 |
| 1:C:89:LEU:CD2 | 1:C:89:LEU:O | 2.20 | 0.89 |
| 1:C:244:SER:O | 1:C:245:THR:CG2 | 2.21 | 0.89 |
| 1:C:286:PHE:HA | 1:C:351:ILE:HG22 | 1.52 | 0.89 |
| 1:A:134:LEU:CD2 | 1:A:188:VAL:CG2 | 2.49 | 0.89 |
| 1:A:203:ASP:OD1 | 1:A:205:LYS:HD3 | 0.71 | 0.89 |
| 1:B:115:THR:O | 1:B:116:PHE:HD1 | 1.48 | 0.89 |
| 1:B:126:TYR:N | 1:B:242:THR:HG22 | 1.86 | 0.89 |
| 1:B:114:GLY:HA3 | 1:B:329:ARG:HE | 1.38 | 0.89 |
| 1:B:264:SER:C | 1:B:265:TRP:CA | 2.40 | 0.89 |
| 1:C:95:LYS:NZ | 1:C:221:ALA:CA | 2.35 | 0.89 |
| 1:A:264:SER:C | 1:A:265:TRP:CA | 2.40 | 0.88 |
| 1:A:274:TRP:CD1 | 1:A:339:GLU:O | 2.25 | 0.88 |
| 1:B:154:PHE:HB2 | 1:B:212:LEU:HD12 | 1.56 | 0.88 |
| 1:B:274:TRP:CD1 | 1:B:339:GLU:O | 2.26 | 0.88 |
| 1:C:130:ARG:HD3 | 1:C:237:GLN:HB2 | 0.97 | 0.88 |
| 1:B:249:GLN:CB | 1:B:265:TRP:CZ3 | 2.56 | 0.88 |
| 1:B:308:PHE:CE2 | 1:B:310:VAL:HG21 | 2.07 | 0.88 |
| 1:C:119:LEU:HD22 | 1:C:234:TYR:HH | 1.29 | 0.88 |
| 1:A:304:ASP:OD2 | 1:A:331:GLN:HA | 1.73 | 0.88 |
| 1:C:249:GLN:CB | 1:C:265:TRP:CZ3 | 2.56 | 0.88 |
| 1:C:296:PRO:CD | 1:C:337:THR:HG22 | 2.01 | 0.88 |
| 1:A:130:ARG:HH11 | 1:A:237:GLN:HA | 1.36 | 0.88 |
| 1:A:315:ALA:O | 1:A:316:ALA:C | 2.00 | 0.88 |
| 1:B:95:LYS:NZ | 1:B:221:ALA:CA | 2.35 | 0.88 |
| 1:B:326:VAL:HG12 | 1:B:327:ALA:H | 1.18 | 0.88 |
| 1:A:105:THR:HG1 | 1:A:211:LYS:CD | 1.74 | 0.88 |
| 1:A:138:TYR:HH | 1:A:227:LEU:HB3 | 1.37 | 0.88 |
| 1:A:249:GLN:CB | 1:A:265:TRP:CZ3 | 2.56 | 0.88 |
| 1:B:313:GLU:CG | 1:B:318:SER:CB | 2.49 | 0.88 |
| 1:A:113:PRO:C | 1:A:115:THR:H | 1.74 | 0.88 |
| 1:C:231:ARG:HG3 | 1:C:232:VAL:N | 1.87 | 0.88 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:154:PHE:HB2 | 1:C:212:LEU:HD12 | 1.56 | 0.88 |
| 1:C:186:LEU:HD23 | 1:C:187:THR:N | 1.87 | 0.88 |
| 1:A:154:PHE:HB2 | 1:A:212:LEU:HD12 | 1.56 | 0.88 |
| 1:A:244:SER:O | 1:A:245:THR:CG2 | 2.21 | 0.88 |
| 1:B:244:SER:O | 1:B:245:THR:CG2 | 2.21 | 0.88 |
| 1:C:296:PRO:HG2 | 1:C:337:THR:HG21 | 1.51 | 0.88 |
| 1:A:120:ILE:HD12 | 1:A:329:ARG:NH2 | 1.88 | 0.87 |
| 1:C:90:ILE:HD11 | 1:C:232:VAL:HG23 | 1.53 | 0.87 |
| 1:C:152:LEU:O | 1:C:186:LEU:HD12 | 1.74 | 0.87 |
| 1:A:149:LYS:HD3 | 1:A:170:TYR:OH | 1.43 | 0.87 |
| 1:B:109:ASN:OD1 | 1:B:110:PRO:HD2 | 1.74 | 0.87 |
| 1:C:308:PHE:CE2 | 1:C:310:VAL:HG21 | 2.07 | 0.87 |
| 1:C:56:THR:HG23 | 1:C:57:ARG:N | 1.89 | 0.87 |
| 1:A:82:ILE:HG21 | 1:A:238:LEU:HB2 | 1.56 | 0.87 |
| 1:B:113:PRO:C | 1:B:115:THR:H | 1.74 | 0.87 |
| 1:C:71:THR:HG21 | 1:C:87:SER:CB | 2.04 | 0.87 |
| 1:C:76:SER:C | 1:C:76:SER:CB | 2.43 | 0.87 |
| 1:C:134:LEU:HA | 1:C:233:GLU:C | 1.94 | 0.87 |
| 1:C:251:GLY:O | 1:C:346:TRP:CD2 | 2.28 | 0.87 |
| 1:B:130:ARG:HD3 | 1:B:237:GLN:HB2 | 0.97 | 0.87 |
| 1:B:251:GLY:O | 1:B:346:TRP:CD2 | 2.28 | 0.87 |
| 1:C:130:ARG:HH11 | 1:C:237:GLN:CA | 1.88 | 0.87 |
| 1:B:231:ARG:HG3 | 1:B:232:VAL:N | 1.87 | 0.87 |
| 1:C:109:ASN:OD1 | 1:C:110:PRO:HD2 | 1.74 | 0.87 |
| 1:A:130:ARG:HH11 | 1:A:237:GLN:CA | 1.88 | 0.87 |
| 1:B:82:ILE:HG21 | 1:B:238:LEU:HB2 | 1.56 | 0.87 |
| 1:C:278:CYS:N | 1:C:334:LYS:CE | 2.20 | 0.87 |
| 1:A:101:PRO:HD2 | 1:A:166:LEU:HD12 | 1.37 | 0.86 |
| 1:B:296:PRO:CG | 1:B:337:THR:CB | 2.52 | 0.86 |
| 1:C:264:SER:CA | 1:C:265:TRP:N | 2.38 | 0.86 |
| 1:B:134:LEU:HA | 1:B:233:GLU:C | 1.94 | 0.86 |
| 1:B:152:LEU:O | 1:B:186:LEU:HD12 | 1.74 | 0.86 |
| 1:C:130:ARG:NE | 1:C:237:GLN:HB2 | 1.90 | 0.86 |
| 1:C:59:SER:O | 1:C:61:PRO:HD3 | 1.74 | 0.86 |
| 1:C:105:THR:HG1 | 1:C:211:LYS:CD | 1.75 | 0.86 |
| 1:A:248:ALA:CB | 1:A:265:TRP:CA | 2.53 | 0.86 |
| 1:B:264:SER:CA | 1:B:265:TRP:N | 2.38 | 0.86 |
| 1:C:68:GLU:HG2 | 1:C:137:ARG:HH22 | 1.38 | 0.86 |
| 1:C:198:ALA:C | 1:C:200:GLY:H | 1.78 | 0.86 |
| 1:C:288:LEU:CD1 | 1:C:290:LEU:CD2 | 2.53 | 0.86 |
| 1:A:130:ARG:NE | 1:A:237:GLN:HB2 | 1.90 | 0.86 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:251:GLY:O | 1:A:346:TRP:CD2 | 2.28 | 0.86 |
| 1:A:288:LEU:HD11 | 1:A:290:LEU:HG | 1.58 | 0.86 |
| 1:B:130:ARG:HH11 | 1:B:237:GLN:CA | 1.88 | 0.86 |
| 1:C:89:LEU:O | 1:C:89:LEU:HD22 | 1.75 | 0.86 |
| 1:A:109:ASN:OD1 | 1:A:110:PRO:HD2 | 1.74 | 0.86 |
| 1:A:115:THR:O | 1:A:116:PHE:HD1 | 1.48 | 0.86 |
| 1:A:231:ARG:HG3 | 1:A:232:VAL:N | 1.87 | 0.86 |
| 1:C:72:GLN:HE21 | 1:C:72:GLN:HA | 1.39 | 0.86 |
| 1:B:101:PRO:CG | 1:B:166:LEU:HD11 | 2.06 | 0.86 |
| 1:C:318:SER:OG | 1:C:319:VAL:N | 2.07 | 0.86 |
| 1:A:101:PRO:CG | 1:A:166:LEU:HD11 | 2.06 | 0.86 |
| 1:C:77:THR:HG22 | 1:C:78:ALA:H | 1.37 | 0.85 |
| 1:C:154:PHE:HE1 | 1:C:155:ASP:O | 1.59 | 0.85 |
| 1:B:112:GLU:CG | 1:B:329:ARG:NH2 | 2.39 | 0.85 |
| 1:C:125:GLN:HA | 1:C:243:GLY:CA | 2.06 | 0.85 |
| 1:A:264:SER:CA | 1:A:265:TRP:N | 2.38 | 0.85 |
| 1:B:130:ARG:NE | 1:B:237:GLN:HB2 | 1.90 | 0.85 |
| 1:B:154:PHE:HE1 | 1:B:155:ASP:O | 1.59 | 0.85 |
| 1:B:296:PRO:HG2 | 1:B:337:THR:HG21 | 1.51 | 0.85 |
| 1:B:296:PRO:CG | 1:B:337:THR:HG21 | 2.06 | 0.85 |
| 1:C:90:ILE:HD11 | 1:C:232:VAL:HG21 | 1.58 | 0.85 |
| 1:C:200:GLY:N | 1:C:265:TRP:HD1 | 1.36 | 0.85 |
| 1:A:89:LEU:O | 1:A:89:LEU:HD22 | 1.75 | 0.85 |
| 1:A:136:PHE:CE1 | 1:A:232:VAL:HG22 | 2.12 | 0.85 |
| 1:B:89:LEU:O | 1:B:89:LEU:HD22 | 1.75 | 0.85 |
| 1:A:90:ILE:HD11 | 1:A:232:VAL:HG21 | 1.58 | 0.85 |
| 1:C:277:ASP:OD1 | 1:C:279:HIS:ND1 | 2.10 | 0.85 |
| 1:A:296:PRO:CG | 1:A:337:THR:CB | 2.52 | 0.85 |
| 1:A:308:PHE:CE2 | 1:A:310:VAL:HG21 | 2.07 | 0.85 |
| 1:C:101:PRO:CG | 1:C:166:LEU:HD11 | 2.06 | 0.85 |
| 1:A:125:GLN:HA | 1:A:243:GLY:CA | 2.06 | 0.85 |
| 1:A:130:ARG:HD2 | 1:A:237:GLN:HB2 | 0.85 | 0.85 |
| 1:A:152:LEU:O | 1:A:186:LEU:HD12 | 1.74 | 0.85 |
| 1:B:149:LYS:HD3 | 1:B:170:TYR:OH | 1.43 | 0.85 |
| 1:C:136:PHE:CE1 | 1:C:232:VAL:HG22 | 2.12 | 0.85 |
| 1:A:277:ASP:OD1 | 1:A:279:HIS:ND1 | 2.10 | 0.85 |
| 1:B:149:LYS:HG2 | 1:B:177:SER:HG | 1.37 | 0.85 |
| 1:B:315:ALA:HB1 | 1:B:318:SER:CB | 2.07 | 0.85 |
| 1:C:82:ILE:HG21 | 1:C:238:LEU:HB2 | 1.56 | 0.85 |
| 1:C:179:VAL:HG22 | 1:C:180:PRO:HD2 | 1.58 | 0.85 |
| 1:A:149:LYS:HG2 | 1:A:177:SER:HG | 1.37 | 0.84 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:318:SER:OG | 1:B:319:VAL:N | 2.07 | 0.84 |
| 1:A:119:LEU:CD2 | 1:A:234:TYR:CZ | 2.54 | 0.84 |
| 1:C:80:ASP:HA | 1:C:241:ARG:CZ | 2.07 | 0.84 |
| 1:C:149:LYS:HG2 | 1:C:177:SER:HG | 1.40 | 0.84 |
| 1:C:197:VAL:HG23 | 1:C:350:ARG:NH2 | 1.79 | 0.84 |
| 1:A:154:PHE:HE1 | 1:A:155:ASP:O | 1.59 | 0.84 |
| 1:B:119:LEU:CD2 | 1:B:234:TYR:CE2 | 2.60 | 0.84 |
| 1:C:204:PRO:CG | 1:C:328:GLU:C | 2.43 | 0.84 |
| 1:B:288:LEU:CD1 | 1:B:290:LEU:CD2 | 2.53 | 0.84 |
| 1:C:288:LEU:HD11 | 1:C:290:LEU:HG | 1.57 | 0.84 |
| 1:B:136:PHE:CE1 | 1:B:232:VAL:HG22 | 2.12 | 0.84 |
| 1:A:288:LEU:HD21 | 1:A:290:LEU:HD11 | 1.60 | 0.84 |
| 1:B:90:ILE:HD11 | 1:B:232:VAL:HG21 | 1.58 | 0.84 |
| 1:B:130:ARG:HD2 | 1:B:237:GLN:HB2 | 0.85 | 0.84 |
| 1:A:315:ALA:HB1 | 1:A:318:SER:CA | 2.08 | 0.84 |
| 1:B:277:ASP:OD1 | 1:B:279:HIS:ND1 | 2.10 | 0.84 |
| 1:C:119:LEU:CD2 | 1:C:234:TYR:CE2 | 2.60 | 0.84 |
| 1:C:133:SER:C | 1:C:234:TYR:HA | 1.99 | 0.84 |
| 1:C:149:LYS:HD3 | 1:C:217:TYR:OH | 1.78 | 0.84 |
| 1:C:207:VAL:H | 1:C:329:ARG:CZ | 1.90 | 0.84 |
| 1:A:291:PHE:O | 1:A:292:TYR:HB3 | 1.78 | 0.84 |
| 1:B:125:GLN:HA | 1:B:243:GLY:CA | 2.06 | 0.84 |
| 1:B:149:LYS:HD3 | 1:B:217:TYR:OH | 1.78 | 0.84 |
| 1:B:179:VAL:HG22 | 1:B:180:PRO:HD2 | 1.58 | 0.84 |
| 1:B:291:PHE:O | 1:B:292:TYR:HB3 | 1.78 | 0.84 |
| 1:C:95:LYS:HZ2 | 1:C:221:ALA:HA | 1.41 | 0.84 |
| 1:C:315:ALA:HB1 | 1:C:318:SER:CA | 2.08 | 0.84 |
| 1:C:327:ALA:CA | 1:C:331:GLN:OE1 | 2.26 | 0.84 |
| 1:A:119:LEU:CD2 | 1:A:234:TYR:CE2 | 2.60 | 0.83 |
| 1:B:328:GLU:C | 1:B:329:ARG:O | 2.14 | 0.83 |
| 1:C:130:ARG:HD2 | 1:C:237:GLN:HB2 | 0.85 | 0.83 |
| 1:C:288:LEU:CD1 | 1:C:290:LEU:HD21 | 2.08 | 0.83 |
| 1:C:296:PRO:CG | 1:C:337:THR:CB | 2.52 | 0.83 |
| 1:C:328:GLU:C | 1:C:329:ARG:O | 2.14 | 0.83 |
| 1:A:152:LEU:HD22 | 1:A:186:LEU:HD12 | 1.61 | 0.83 |
| 1:A:315:ALA:HB1 | 1:A:318:SER:CB | 2.07 | 0.83 |
| 1:C:338:THR:HG1 | 1:C:339:GLU:HB2 | 1.43 | 0.83 |
| 1:B:288:LEU:HD11 | 1:B:290:LEU:HG | 1.58 | 0.83 |
| 1:A:295:ALA:HB1 | 1:A:315:ALA:N | 1.93 | 0.83 |
| 1:B:327:ALA:CA | 1:B:331:GLN:OE1 | 2.26 | 0.83 |
| 1:C:295:ALA:HB1 | 1:C:315:ALA:N | 1.93 | 0.83 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:315:ALA:HB1 | 1:C:318:SER:CB | 2.08 | 0.83 |
| 1:A:134:LEU:HA | 1:A:233:GLU:C | 1.95 | 0.83 |
| 1:A:296:PRO:CG | 1:A:337:THR:HG21 | 2.06 | 0.83 |
| 1:C:251:GLY:O | 1:C:346:TRP:CE3 | 2.31 | 0.83 |
| 1:A:90:ILE:HG22 | 1:A:90:ILE:O | 1.78 | 0.83 |
| 1:A:288:LEU:CD1 | 1:A:290:LEU:HD21 | 2.08 | 0.83 |
| 1:B:251:GLY:O | 1:B:346:TRP:CE3 | 2.31 | 0.83 |
| 1:C:288:LEU:HG | 1:C:289:THR:N | 1.94 | 0.83 |
| 1:A:149:LYS:HD3 | 1:A:217:TYR:OH | 1.78 | 0.83 |
| 1:A:153:ALA:CB | 1:A:174:GLY:CA | 2.35 | 0.83 |
| 1:A:198:ALA:C | 1:A:200:GLY:H | 1.77 | 0.83 |
| 1:B:278:CYS:H | 1:B:334:LYS:HD3 | 1.25 | 0.83 |
| 1:C:55:VAL:HG22 | 1:C:56:THR:N | 1.93 | 0.83 |
| 1:C:249:GLN:HE22 | 1:C:265:TRP:N | 1.77 | 0.83 |
| 1:C:291:PHE:O | 1:C:292:TYR:HB3 | 1.78 | 0.83 |
| 1:A:133:SER:C | 1:A:234:TYR:HA | 1.99 | 0.83 |
| 1:A:179:VAL:HG22 | 1:A:180:PRO:HD2 | 1.58 | 0.83 |
| 1:A:269:LYS:HG2 | 1:A:270:GLY:H | 1.42 | 0.83 |
| 1:B:288:LEU:HG | 1:B:289:THR:N | 1.94 | 0.83 |
| 1:C:79:ARG:O | 1:C:80:ASP:CB | 2.27 | 0.83 |
| 1:C:201:ILE:HG22 | 1:C:265:TRP:CA | 2.09 | 0.83 |
| 1:C:207:VAL:HG13 | 1:C:329:ARG:HH21 | 1.44 | 0.83 |
| 1:A:288:LEU:HG | 1:A:289:THR:N | 1.94 | 0.82 |
| 1:B:295:ALA:HB1 | 1:B:315:ALA:N | 1.93 | 0.82 |
| 1:C:78:ALA:C | 1:C:80:ASP:H | 1.82 | 0.82 |
| 1:A:327:ALA:CB | 1:A:331:GLN:CD | 2.39 | 0.82 |
| 1:B:153:ALA:CB | 1:B:174:GLY:CA | 2.35 | 0.82 |
| 1:B:152:LEU:HD22 | 1:B:186:LEU:HD12 | 1.60 | 0.82 |
| 1:C:69:VAL:CG1 | 1:C:70:SER:N | 2.38 | 0.82 |
| 1:C:200:GLY:CA | 1:C:265:TRP:HA | 2.09 | 0.82 |
| 1:C:277:ASP:OD1 | 1:C:334:LYS:CE | 2.27 | 0.82 |
| 1:A:277:ASP:OD1 | 1:A:334:LYS:CE | 2.27 | 0.82 |
| 1:A:138:TYR:C | 1:A:139:SER:O | 2.16 | 0.82 |
| 1:B:198:ALA:C | 1:B:200:GLY:H | 1.77 | 0.82 |
| 1:C:69:VAL:CG1 | 1:C:70:SER:H | 1.81 | 0.82 |
| 1:C:90:ILE:HG22 | 1:C:90:ILE:O | 1.78 | 0.82 |
| 1:C:249:GLN:NE2 | 1:C:265:TRP:HE3 | 1.78 | 0.82 |
| 1:A:251:GLY:O | 1:A:346:TRP:CE3 | 2.31 | 0.82 |
| 1:A:327:ALA:CA | 1:A:331:GLN:OE1 | 2.26 | 0.82 |
| 1:B:288:LEU:HD21 | 1:B:290:LEU:HD11 | 1.60 | 0.82 |
| 1:C:66:TYR:CE2 | 1:C:183:GLY:HA3 | 2.15 | 0.82 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:169:LEU:O | 1:A:172:ILE:HG22 | 1.80 | 0.82 |
| 1:A:340:GLU:O | 1:A:342:PRO:HD2 | 1.79 | 0.82 |
| 1:B:90:ILE:O | 1:B:90:ILE:HG22 | 1.78 | 0.82 |
| 1:B:169:LEU:O | 1:B:172:ILE:HG22 | 1.80 | 0.82 |
| 1:B:300:LEU:HD11 | 1:B:333:VAL:CG1 | 2.09 | 0.82 |
| 1:A:300:LEU:HD11 | 1:A:333:VAL:CG1 | 2.09 | 0.82 |
| 1:B:315:ALA:HB1 | 1:B:318:SER:CA | 2.08 | 0.82 |
| 1:C:170:TYR:CE1 | 1:C:217:TYR:OH | 2.32 | 0.82 |
| 1:A:126:TYR:N | 1:A:242:THR:CG2 | 2.43 | 0.82 |
| 1:A:318:SER:OG | 1:A:319:VAL:N | 2.07 | 0.82 |
| 1:B:277:ASP:OD1 | 1:B:334:LYS:CE | 2.27 | 0.82 |
| 1:C:288:LEU:HD21 | 1:C:290:LEU:HD11 | 1.60 | 0.82 |
| 1:C:300:LEU:HD11 | 1:C:333:VAL:CG1 | 2.09 | 0.82 |
| 1:A:128:LYS:HA | 1:A:195:ARG:O | 1.80 | 0.81 |
| 1:B:128:LYS:HA | 1:B:195:ARG:O | 1.80 | 0.81 |
| 1:B:138:TYR:C | 1:B:139:SER:O | 2.16 | 0.81 |
| 1:C:269:LYS:HG2 | 1:C:270:GLY:H | 1.42 | 0.81 |
| 1:B:285:ASN:ND2 | 1:B:324:VAL:O | 2.13 | 0.81 |
| 1:A:328:GLU:C | 1:A:329:ARG:O | 2.14 | 0.81 |
| 1:B:95:LYS:NZ | 1:B:225:ALA:N | 2.28 | 0.81 |
| 1:B:126:TYR:N | 1:B:242:THR:CG2 | 2.43 | 0.81 |
| 1:B:251:GLY:O | 1:B:346:TRP:CE2 | 2.34 | 0.81 |
| 1:C:101:PRO:CG | 1:C:166:LEU:HD12 | 2.10 | 0.81 |
| 1:C:169:LEU:O | 1:C:172:ILE:HG22 | 1.80 | 0.81 |
| 1:C:296:PRO:CG | 1:C:337:THR:HG21 | 2.06 | 0.81 |
| 1:B:164:ASN:HD22 | 1:B:164:ASN:H | 0.82 | 0.81 |
| 1:B:340:GLU:O | 1:B:342:PRO:HD2 | 1.80 | 0.81 |
| 1:A:95:LYS:NZ | 1:A:225:ALA:N | 2.28 | 0.81 |
| 1:A:112:GLU:O | 1:A:115:THR:HG22 | 1.81 | 0.81 |
| 1:B:133:SER:C | 1:B:234:TYR:HA | 1.99 | 0.81 |
| 1:B:315:ALA:CB | 1:B:318:SER:H | 1.94 | 0.81 |
| 1:C:130:ARG:HD2 | 1:C:237:GLN:HE21 | 1.46 | 0.81 |
| 1:A:288:LEU:CD1 | 1:A:290:LEU:CD2 | 2.53 | 0.81 |
| 1:C:206:LEU:H | 1:C:329:ARG:NH1 | 1.79 | 0.81 |
| 1:A:170:TYR:CE1 | 1:A:217:TYR:OH | 2.32 | 0.81 |
| 1:A:296:PRO:HG3 | 1:A:337:THR:CG2 | 2.07 | 0.81 |
| 1:C:249:GLN:HE22 | 1:C:265:TRP:H | 1.29 | 0.81 |
| 1:C:285:ASN:ND2 | 1:C:324:VAL:O | 2.13 | 0.81 |
| 1:A:251:GLY:O | 1:A:346:TRP:CE2 | 2.34 | 0.81 |
| 1:B:288:LEU:CD1 | 1:B:290:LEU:HD21 | 2.08 | 0.81 |
| 1:B:296:PRO:HG3 | 1:B:337:THR:CG2 | 2.07 | 0.81 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:107:VAL:O | 1:B:115:THR:HG21 | 1.81 | 0.81 |
| 1:B:170:TYR:CE1 | 1:B:217:TYR:OH | 2.32 | 0.81 |
| 1:B:278:CYS:N | 1:B:334:LYS:CE | 2.20 | 0.81 |
| 1:B:327:ALA:CB | 1:B:331:GLN:CD | 2.39 | 0.81 |
| 1:C:107:VAL:O | 1:C:115:THR:HG21 | 1.81 | 0.81 |
| 1:B:90:ILE:CD1 | 1:B:232:VAL:CG2 | 2.58 | 0.81 |
| 1:B:95:LYS:HZ2 | 1:B:221:ALA:HA | 1.42 | 0.81 |
| 1:B:119:LEU:CD2 | 1:B:234:TYR:CZ | 2.55 | 0.81 |
| 1:A:285:ASN:ND2 | 1:A:324:VAL:O | 2.13 | 0.80 |
| 1:B:286:PHE:HA | 1:B:351:ILE:HG21 | 1.61 | 0.80 |
| 1:C:340:GLU:O | 1:C:342:PRO:HD2 | 1.80 | 0.80 |
| 1:B:96:ASN:HD21 | 1:B:102:LYS:HD3 | 1.45 | 0.80 |
| 1:B:101:PRO:CG | 1:B:166:LEU:HD12 | 2.10 | 0.80 |
| 1:C:152:LEU:HD22 | 1:C:186:LEU:HD12 | 1.60 | 0.80 |
| 1:C:251:GLY:O | 1:C:346:TRP:CE2 | 2.34 | 0.80 |
| 1:C:300:LEU:HD11 | 1:C:333:VAL:HG12 | 1.63 | 0.80 |
| 1:A:96:ASN:HD21 | 1:A:102:LYS:HD3 | 1.45 | 0.80 |
| 1:A:101:PRO:HG3 | 1:A:217:TYR:CD2 | 2.17 | 0.80 |
| 1:A:300:LEU:HD11 | 1:A:333:VAL:HG12 | 1.63 | 0.80 |
| 1:C:96:ASN:HD21 | 1:C:102:LYS:HD3 | 1.45 | 0.80 |
| 1:C:315:ALA:CB | 1:C:318:SER:H | 1.94 | 0.80 |
| 1:A:90:ILE:CD1 | 1:A:232:VAL:CG2 | 2.58 | 0.80 |
| 1:A:248:ALA:HB1 | 1:A:265:TRP:HA | 1.60 | 0.80 |
| 1:C:95:LYS:NZ | 1:C:225:ALA:N | 2.28 | 0.80 |
| 1:C:128:LYS:HA | 1:C:195:ARG:O | 1.80 | 0.80 |
| 1:C:138:TYR:C | 1:C:139:SER:O | 2.16 | 0.80 |
| 1:C:201:ILE:CG2 | 1:C:265:TRP:O | 2.29 | 0.80 |
| 1:C:227:LEU:H | 1:C:227:LEU:HD12 | 1.47 | 0.80 |
| 1:A:164:ASN:HD22 | 1:A:164:ASN:H | 0.82 | 0.80 |
| 1:C:126:TYR:N | 1:C:242:THR:CG2 | 2.43 | 0.80 |
| 1:A:248:ALA:CB | 1:A:264:SER:CB | 2.54 | 0.80 |
| 1:B:112:GLU:O | 1:B:115:THR:HG22 | 1.81 | 0.80 |
| 1:B:130:ARG:HD2 | 1:B:237:GLN:HE21 | 1.46 | 0.80 |
| 1:B:174:GLY:C | 1:B:175:CYS:HG | 1.82 | 0.80 |
| 1:A:95:LYS:HZ1 | 1:A:225:ALA:N | 1.79 | 0.80 |
| 1:B:291:PHE:HB2 | 1:B:345:LYS:O | 1.82 | 0.80 |
| 1:B:300:LEU:HD11 | 1:B:333:VAL:HG12 | 1.63 | 0.80 |
| 1:B:326:VAL:HG12 | 1:B:327:ALA:C | 2.02 | 0.80 |
| 1:A:286:PHE:HA | 1:A:351:ILE:HG21 | 1.61 | 0.80 |
| 1:B:101:PRO:HD2 | 1:B:166:LEU:HD12 | 1.37 | 0.80 |
| 1:C:101:PRO:HG3 | 1:C:217:TYR:CD2 | 2.17 | 0.80 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:95:LYS:NZ | 1:B:225:ALA:H | 1.80 | 0.79 |
| 1:C:53:GLN:C | 1:C:53:GLN:N | 2.35 | 0.79 |
| 1:C:296:PRO:HG3 | 1:C:337:THR:CG2 | 2.07 | 0.79 |
| 1:A:121:LYS:NZ | 1:A:350:ARG:HH12 | 1.80 | 0.79 |
| 1:A:249:GLN:HB3 | 1:A:348:ALA:O | 1.83 | 0.79 |
| 1:C:164:ASN:HD22 | 1:C:164:ASN:H | 0.82 | 0.79 |
| 1:A:291:PHE:HB2 | 1:A:345:LYS:O | 1.82 | 0.79 |
| 1:C:112:GLU:O | 1:C:115:THR:HG22 | 1.81 | 0.79 |
| 1:C:153:ALA:CB | 1:C:174:GLY:CA | 2.35 | 0.79 |
| 1:C:199:ASP:HA | 1:C:265:TRP:HE1 | 1.47 | 0.79 |
| 1:C:201:ILE:CG2 | 1:C:265:TRP:C | 2.51 | 0.79 |
| 1:A:95:LYS:NZ | 1:A:225:ALA:H | 1.80 | 0.79 |
| 1:A:227:LEU:H | 1:A:227:LEU:HD12 | 1.47 | 0.79 |
| 1:C:119:LEU:CD2 | 1:C:234:TYR:CZ | 2.55 | 0.79 |
| 1:C:249:GLN:HB3 | 1:C:348:ALA:O | 1.83 | 0.79 |
| 1:A:95:LYS:HZ2 | 1:A:221:ALA:HA | 1.42 | 0.79 |
| 1:B:101:PRO:HG3 | 1:B:217:TYR:CD2 | 2.17 | 0.79 |
| 1:B:133:SER:HB3 | 1:B:235:THR:HG22 | 1.64 | 0.79 |
| 1:C:95:LYS:NZ | 1:C:225:ALA:H | 1.80 | 0.79 |
| 1:C:201:ILE:CD1 | 1:C:280:PHE:O | 2.10 | 0.79 |
| 1:A:315:ALA:CB | 1:A:318:SER:H | 1.94 | 0.79 |
| 1:B:95:LYS:HZ1 | 1:B:225:ALA:N | 1.80 | 0.79 |
| 1:A:133:SER:HB3 | 1:A:235:THR:HG22 | 1.64 | 0.79 |
| 1:C:293:GLU:O | 1:C:317:GLY:CA | 2.31 | 0.79 |
| 1:C:300:LEU:CD1 | 1:C:333:VAL:HG12 | 2.13 | 0.79 |
| 1:A:248:ALA:HB2 | 1:A:264:SER:O | 1.77 | 0.79 |
| 1:B:175:CYS:HB2 | 1:B:176:VAL:HB | 1.65 | 0.79 |
| 1:C:326:VAL:HG12 | 1:C:327:ALA:C | 2.02 | 0.79 |
| 1:A:101:PRO:CG | 1:A:166:LEU:HD12 | 2.10 | 0.79 |
| 1:B:300:LEU:CD1 | 1:B:333:VAL:HG12 | 2.13 | 0.79 |
| 1:B:339:GLU:C | 1:B:340:GLU:HA | 2.04 | 0.79 |
| 1:C:95:LYS:HZ3 | 1:C:225:ALA:H | 1.29 | 0.79 |
| 1:C:133:SER:HB3 | 1:C:235:THR:HG22 | 1.64 | 0.79 |
| 1:A:107:VAL:O | 1:A:115:THR:HG21 | 1.81 | 0.78 |
| 1:B:269:LYS:HG2 | 1:B:270:GLY:H | 1.42 | 0.78 |
| 1:C:291:PHE:HB2 | 1:C:345:LYS:O | 1.82 | 0.78 |
| 1:C:296:PRO:CD | 1:C:337:THR:CG2 | 2.60 | 0.78 |
| 1:C:90:ILE:CD1 | 1:C:232:VAL:CG2 | 2.58 | 0.78 |
| 1:A:121:LYS:HZ2 | 1:A:350:ARG:HH12 | 1.30 | 0.78 |
| 1:A:326:VAL:HG12 | 1:A:327:ALA:C | 2.02 | 0.78 |
| 1:A:134:LEU:O | 1:A:134:LEU:HG | 1.83 | 0.78 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:71:THR:HG21 | 1:C:87:SER:HG | 0.95 | 0.78 |
| 1:A:293:GLU:O | 1:A:317:GLY:CA | 2.31 | 0.78 |
| 1:B:134:LEU:HG | 1:B:134:LEU:O | 1.83 | 0.78 |
| 1:B:169:LEU:HD23 | 1:B:169:LEU:C | 2.04 | 0.78 |
| 1:B:227:LEU:H | 1:B:227:LEU:HD12 | 1.47 | 0.78 |
| 1:C:179:VAL:HG11 | 1:C:181:TRP:HE1 | 1.49 | 0.78 |
| 1:C:286:PHE:HA | 1:C:351:ILE:HG21 | 1.61 | 0.78 |
| 1:A:169:LEU:HD23 | 1:A:169:LEU:C | 2.04 | 0.78 |
| 1:B:249:GLN:HB3 | 1:B:348:ALA:O | 1.83 | 0.78 |
| 1:B:289:THR:O | 1:B:290:LEU:HB3 | 1.83 | 0.78 |
| 1:C:249:GLN:O | 1:C:348:ALA:N | 2.17 | 0.78 |
| 1:C:289:THR:O | 1:C:290:LEU:HB3 | 1.83 | 0.78 |
| 1:B:249:GLN:O | 1:B:348:ALA:N | 2.17 | 0.78 |
| 1:C:133:SER:N | 1:C:235:THR:HG22 | 1.99 | 0.78 |
| 1:C:339:GLU:C | 1:C:340:GLU:HA | 2.04 | 0.78 |
| 1:B:236:VAL:HG12 | 1:B:238:LEU:HD12 | 1.66 | 0.78 |
| 1:C:204:PRO:HG2 | 1:C:328:GLU:HG2 | 0.80 | 0.78 |
| 1:A:130:ARG:HD2 | 1:A:237:GLN:HE21 | 1.46 | 0.78 |
| 1:A:249:GLN:O | 1:A:348:ALA:N | 2.17 | 0.78 |
| 1:B:293:GLU:O | 1:B:317:GLY:CA | 2.31 | 0.78 |
| 1:C:97:THR:HA | 1:C:219:GLN:CA | 2.14 | 0.78 |
| 1:B:117:ASN:O | 1:B:117:ASN:ND2 | 2.17 | 0.78 |
| 1:C:179:VAL:CG2 | 1:C:180:PRO:CD | 2.62 | 0.78 |
| 1:B:248:ALA:C | 1:B:249:GLN:HB2 | 2.04 | 0.77 |
| 1:A:117:ASN:O | 1:A:117:ASN:ND2 | 2.17 | 0.77 |
| 1:B:276:HIS:CG | 1:B:277:ASP:H | 2.03 | 0.77 |
| 1:A:300:LEU:CD1 | 1:A:333:VAL:HG12 | 2.13 | 0.77 |
| 1:B:135:ARG:HB2 | 1:B:185:ILE:HD11 | 1.67 | 0.77 |
| 1:A:109:ASN:HD21 | 1:A:197:VAL:HG23 | 1.50 | 0.77 |
| 1:A:149:LYS:HE2 | 1:A:151:ALA:HA | 1.66 | 0.77 |
| 1:B:133:SER:N | 1:B:235:THR:HG22 | 1.99 | 0.77 |
| 1:C:205:LYS:H | 1:C:329:ARG:NH1 | 1.82 | 0.77 |
| 1:A:133:SER:N | 1:A:235:THR:HG22 | 1.99 | 0.77 |
| 1:A:149:LYS:CB | 1:A:217:TYR:CE1 | 2.60 | 0.77 |
| 1:A:296:PRO:CD | 1:A:337:THR:CG2 | 2.60 | 0.77 |
| 1:B:204:PRO:C | 1:B:205:LYS:HD2 | 2.05 | 0.77 |
| 1:C:124:ALA:O | 1:C:244:SER:N | 2.18 | 0.77 |
| 1:C:159:ALA:HB3 | 1:C:328:GLU:CG | 2.11 | 0.77 |
| 1:C:86:GLY:CA | 1:C:234:TYR:CE1 | 2.66 | 0.77 |
| 1:C:200:GLY:CA | 1:C:265:TRP:CB | 2.58 | 0.77 |
| 1:C:204:PRO:C | 1:C:205:LYS:HD2 | 2.05 | 0.77 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:236:VAL:HG12 | 1:A:238:LEU:HD12 | 1.66 | 0.77 |
| 1:B:296:PRO:CD | 1:B:337:THR:CG2 | 2.60 | 0.77 |
| 1:C:327:ALA:CB | 1:C:331:GLN:CD | 2.39 | 0.77 |
| 1:A:135:ARG:HB2 | 1:A:185:ILE:HD11 | 1.67 | 0.77 |
| 1:A:179:VAL:CG2 | 1:A:180:PRO:CD | 2.62 | 0.77 |
| 1:A:339:GLU:C | 1:A:340:GLU:HA | 2.04 | 0.77 |
| 1:A:175:CYS:HB2 | 1:A:176:VAL:HB | 1.65 | 0.77 |
| 1:B:95:LYS:HZ3 | 1:B:225:ALA:H | 1.33 | 0.77 |
| 1:C:169:LEU:C | 1:C:169:LEU:HD23 | 2.04 | 0.77 |
| 1:A:204:PRO:C | 1:A:205:LYS:HD2 | 2.05 | 0.76 |
| 1:B:185:ILE:HD12 | 1:B:186:LEU:CA | 2.16 | 0.76 |
| 1:B:315:ALA:O | 1:B:317:GLY:N | 2.18 | 0.76 |
| 1:C:134:LEU:HG | 1:C:134:LEU:O | 1.83 | 0.76 |
| 1:C:163:PRO:CA | 1:C:164:ASN:ND2 | 2.47 | 0.76 |
| 1:C:251:GLY:O | 1:C:346:TRP:CZ3 | 2.38 | 0.76 |
| 1:A:251:GLY:O | 1:A:346:TRP:CZ3 | 2.38 | 0.76 |
| 1:B:97:THR:HA | 1:B:219:GLN:CA | 2.15 | 0.76 |
| 1:C:97:THR:HA | 1:C:218:GLY:O | 1.85 | 0.76 |
| 1:C:207:VAL:HG13 | 1:C:329:ARG:NH2 | 1.94 | 0.76 |
| 1:C:236:VAL:HG12 | 1:C:238:LEU:HD12 | 1.66 | 0.76 |
| 1:C:313:GLU:HB2 | 1:C:315:ALA:N | 2.00 | 0.76 |
| 1:B:156:ARG:O | 1:B:158:ALA:N | 2.18 | 0.76 |
| 1:C:149:LYS:HE2 | 1:C:151:ALA:HA | 1.66 | 0.76 |
| 1:A:156:ARG:O | 1:A:158:ALA:N | 2.18 | 0.76 |
| 1:A:179:VAL:HG11 | 1:A:181:TRP:HE1 | 1.49 | 0.76 |
| 1:A:289:THR:O | 1:A:290:LEU:HB3 | 1.83 | 0.76 |
| 1:B:248:ALA:HB3 | 1:B:348:ALA:O | 1.86 | 0.76 |
| 1:A:313:GLU:HB2 | 1:A:315:ALA:N | 2.00 | 0.76 |
| 1:B:109:ASN:HD21 | 1:B:197:VAL:HG23 | 1.50 | 0.76 |
| 1:B:149:LYS:CB | 1:B:217:TYR:CE1 | 2.60 | 0.76 |
| 1:C:144:SER:C | 1:C:146:THR:H | 1.89 | 0.76 |
| 1:A:97:THR:HA | 1:A:218:GLY:O | 1.85 | 0.76 |
| 1:B:163:PRO:CA | 1:B:164:ASN:ND2 | 2.47 | 0.76 |
| 1:C:117:ASN:ND2 | 1:C:117:ASN:O | 2.17 | 0.76 |
| 1:C:156:ARG:O | 1:C:158:ALA:N | 2.18 | 0.76 |
| 1:C:175:CYS:HB2 | 1:C:176:VAL:HB | 1.65 | 0.76 |
| 1:A:97:THR:HA | 1:A:219:GLN:CA | 2.14 | 0.76 |
| 1:A:163:PRO:CA | 1:A:164:ASN:ND2 | 2.47 | 0.76 |
| 1:A:276:HIS:CG | 1:A:277:ASP:H | 2.03 | 0.76 |
| 1:A:300:LEU:CD1 | 1:A:333:VAL:CG1 | 2.64 | 0.76 |
| 1:B:149:LYS:HE2 | 1:B:151:ALA:HA | 1.66 | 0.76 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:315:ALA:O | 1:A:317:GLY:N | 2.18 | 0.76 |
| 1:C:135:ARG:HB2 | 1:C:185:ILE:HD11 | 1.67 | 0.76 |
| 1:C:248:ALA:CB | 1:C:287:SER:O | 2.32 | 0.76 |
| 1:A:185:ILE:HD12 | 1:A:186:LEU:CA | 2.16 | 0.76 |
| 1:A:314:ALA:O | 1:A:315:ALA:CB | 2.34 | 0.76 |
| 1:B:310:VAL:HA | 1:B:321:TRP:O | 1.86 | 0.76 |
| 1:C:59:SER:C | 1:C:61:PRO:HD3 | 2.06 | 0.76 |
| 1:C:95:LYS:HZ1 | 1:C:225:ALA:N | 1.83 | 0.76 |
| 1:C:138:TYR:O | 1:C:139:SER:C | 2.25 | 0.76 |
| 1:C:149:LYS:HB3 | 1:C:217:TYR:CD1 | 2.20 | 0.76 |
| 1:C:314:ALA:O | 1:C:315:ALA:CB | 2.34 | 0.76 |
| 1:A:95:LYS:HZ3 | 1:A:225:ALA:H | 1.34 | 0.75 |
| 1:C:276:HIS:CG | 1:C:277:ASP:H | 2.03 | 0.75 |
| 1:C:109:ASN:HD21 | 1:C:197:VAL:HG23 | 1.50 | 0.75 |
| 1:B:179:VAL:HG11 | 1:B:181:TRP:HE1 | 1.49 | 0.75 |
| 1:B:251:GLY:O | 1:B:346:TRP:CZ3 | 2.39 | 0.75 |
| 1:B:313:GLU:HB2 | 1:B:315:ALA:N | 2.00 | 0.75 |
| 1:C:83:THR:HG22 | 1:C:84:ARG:N | 2.01 | 0.75 |
| 1:C:279:HIS:CA | 1:C:280:PHE:N | 2.50 | 0.75 |
| 1:C:301:GLU:O | 1:C:333:VAL:CG1 | 2.34 | 0.75 |
| 1:A:83:THR:HG22 | 1:A:84:ARG:N | 2.01 | 0.75 |
| 1:B:179:VAL:CG2 | 1:B:180:PRO:CD | 2.62 | 0.75 |
| 1:B:300:LEU:CD1 | 1:B:333:VAL:CG1 | 2.64 | 0.75 |
| 1:C:306:SER:HB3 | 1:C:325:LYS:HB3 | 1.69 | 0.75 |
| 1:B:306:SER:HB3 | 1:B:325:LYS:HB3 | 1.69 | 0.75 |
| 1:C:115:THR:O | 1:C:116:PHE:CG | 2.40 | 0.75 |
| 1:C:136:PHE:CZ | 1:C:212:LEU:HD22 | 2.22 | 0.75 |
| 1:C:300:LEU:CD1 | 1:C:333:VAL:CG1 | 2.64 | 0.75 |
| 1:A:136:PHE:CZ | 1:A:212:LEU:HD22 | 2.22 | 0.75 |
| 1:A:292:TYR:HB2 | 1:A:318:SER:O | 1.86 | 0.75 |
| 1:B:326:VAL:CG1 | 1:B:331:GLN:HG3 | 2.17 | 0.75 |
| 1:C:199:ASP:C | 1:C:265:TRP:NE1 | 2.40 | 0.75 |
| 1:C:277:ASP:OD1 | 1:C:334:LYS:NZ | 2.20 | 0.75 |
| 1:C:288:LEU:CD1 | 1:C:290:LEU:HG | 2.17 | 0.75 |
| 1:B:138:TYR:CG | 1:B:184:PHE:CZ | 2.62 | 0.75 |
| 1:B:277:ASP:OD1 | 1:B:334:LYS:NZ | 2.20 | 0.75 |
| 1:C:315:ALA:O | 1:C:317:GLY:N | 2.18 | 0.75 |
| 1:A:279:HIS:CA | 1:A:280:PHE:N | 2.50 | 0.74 |
| 1:B:279:HIS:CA | 1:B:280:PHE:N | 2.50 | 0.74 |
| 1:A:241:ARG:HD2 | 1:A:241:ARG:N | 2.03 | 0.74 |
| 1:B:289:THR:O | 1:B:290:LEU:CB | 2.35 | 0.74 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:301:GLU:O | 1:B:333:VAL:CG1 | 2.34 | 0.74 |
| 1:C:68:GLU:HG2 | 1:C:137:ARG:NH2 | 2.02 | 0.74 |
| 1:A:277:ASP:OD1 | 1:A:334:LYS:NZ | 2.20 | 0.74 |
| 1:B:97:THR:HA | 1:B:218:GLY:O | 1.85 | 0.74 |
| 1:B:241:ARG:N | 1:B:241:ARG:HD2 | 2.03 | 0.74 |
| 1:B:271:THR:HG21 | 1:B:275:GLU:OE2 | 1.87 | 0.74 |
| 1:C:310:VAL:HA | 1:C:321:TRP:O | 1.86 | 0.74 |
| 1:A:133:SER:CB | 1:A:235:THR:HG22 | 2.17 | 0.74 |
| 1:C:136:PHE:CD1 | 1:C:232:VAL:HG22 | 2.23 | 0.74 |
| 1:C:271:THR:HG21 | 1:C:275:GLU:OE2 | 1.87 | 0.74 |
| 1:A:126:TYR:CA | 1:A:242:THR:CG2 | 2.64 | 0.74 |
| 1:B:136:PHE:CZ | 1:B:212:LEU:HD22 | 2.22 | 0.74 |
| 1:B:292:TYR:HB2 | 1:B:318:SER:O | 1.86 | 0.74 |
| 1:B:314:ALA:O | 1:B:315:ALA:CB | 2.34 | 0.74 |
| 1:A:310:VAL:C | 1:A:311:LEU:HD12 | 2.08 | 0.74 |
| 1:B:138:TYR:O | 1:B:139:SER:C | 2.24 | 0.74 |
| 1:C:292:TYR:HB2 | 1:C:318:SER:O | 1.86 | 0.74 |
| 1:A:310:VAL:HA | 1:A:321:TRP:O | 1.86 | 0.74 |
| 1:A:313:GLU:HG3 | 1:A:318:SER:HB3 | 1.69 | 0.74 |
| 1:A:326:VAL:CG1 | 1:A:331:GLN:HG3 | 2.17 | 0.74 |
| 1:C:75:VAL:N | 1:C:75:VAL:CB | 2.51 | 0.74 |
| 1:C:174:GLY:O | 1:C:175:CYS:SG | 2.45 | 0.74 |
| 1:A:154:PHE:HD1 | 1:A:155:ASP:H | 0.75 | 0.74 |
| 1:B:83:THR:HG22 | 1:B:84:ARG:N | 2.01 | 0.74 |
| 1:B:133:SER:CB | 1:B:235:THR:HG22 | 2.17 | 0.74 |
| 1:C:85:SER:CA | 1:C:234:TYR:O | 2.36 | 0.74 |
| 1:A:124:ALA:O | 1:A:244:SER:N | 2.18 | 0.74 |
| 1:A:135:ARG:HB3 | 1:A:186:LEU:O | 1.88 | 0.74 |
| 1:A:248:ALA:HB2 | 1:A:265:TRP:CA | 2.13 | 0.74 |
| 1:B:130:ARG:HD2 | 1:B:237:GLN:HB3 | 1.64 | 0.74 |
| 1:B:149:LYS:HB3 | 1:B:217:TYR:CD1 | 2.20 | 0.74 |
| 1:B:174:GLY:O | 1:B:175:CYS:SG | 2.45 | 0.74 |
| 1:C:76:SER:N | 1:C:76:SER:HA | 2.01 | 0.74 |
| 1:C:109:ASN:HA | 1:C:129:TYR:OH | 1.88 | 0.74 |
| 1:C:197:VAL:HG22 | 1:C:350:ARG:NH2 | 2.01 | 0.74 |
| 1:A:94:LYS:O | 1:A:95:LYS:O | 2.06 | 0.73 |
| 1:A:130:ARG:HD2 | 1:A:237:GLN:HB3 | 1.63 | 0.73 |
| 1:A:138:TYR:O | 1:A:139:SER:C | 2.24 | 0.73 |
| 1:A:149:LYS:HB3 | 1:A:217:TYR:CD1 | 2.20 | 0.73 |
| 1:A:174:GLY:O | 1:A:175:CYS:SG | 2.45 | 0.73 |
| 1:A:288:LEU:CD1 | 1:A:290:LEU:HG | 2.17 | 0.73 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:288:LEU:CD1 | 1:B:290:LEU:HG | 2.18 | 0.73 |
| 1:C:71:THR:OG1 | 1:C:87:SER:HB2 | 1.87 | 0.73 |
| 1:C:78:ALA:C | 1:C:80:ASP:N | 2.32 | 0.73 |
| 1:A:136:PHE:CD1 | 1:A:232:VAL:HG22 | 2.23 | 0.73 |
| 1:A:271:THR:HG21 | 1:A:275:GLU:OE2 | 1.87 | 0.73 |
| 1:B:126:TYR:CA | 1:B:242:THR:CG2 | 2.64 | 0.73 |
| 1:C:76:SER:C | 1:C:76:SER:OG | 2.26 | 0.73 |
| 1:A:86:GLY:CA | 1:A:234:TYR:CE1 | 2.66 | 0.73 |
| 1:B:154:PHE:HD1 | 1:B:155:ASP:H | 0.75 | 0.73 |
| 1:B:94:LYS:O | 1:B:95:LYS:O | 2.06 | 0.73 |
| 1:B:136:PHE:CD1 | 1:B:232:VAL:HG22 | 2.23 | 0.73 |
| 1:B:149:LYS:HD3 | 1:B:217:TYR:CE1 | 2.23 | 0.73 |
| 1:C:326:VAL:CG1 | 1:C:331:GLN:HG3 | 2.17 | 0.73 |
| 1:B:115:THR:O | 1:B:116:PHE:CG | 2.40 | 0.73 |
| 1:C:94:LYS:O | 1:C:95:LYS:O | 2.06 | 0.73 |
| 1:C:149:LYS:HE2 | 1:C:151:ALA:CA | 2.19 | 0.73 |
| 1:C:154:PHE:CE1 | 1:C:155:ASP:O | 2.41 | 0.73 |
| 1:C:283:THR:OG1 | 1:C:329:ARG:HG2 | 1.89 | 0.73 |
| 1:A:253:PHE:CD2 | 1:A:346:TRP:HZ3 | 2.07 | 0.73 |
| 1:C:133:SER:CB | 1:C:235:THR:HG22 | 2.17 | 0.73 |
| 1:C:185:ILE:HD12 | 1:C:186:LEU:CA | 2.16 | 0.73 |
| 1:C:297:VAL:O | 1:C:298:SER:OG | 2.07 | 0.73 |
| 1:A:149:LYS:HD3 | 1:A:217:TYR:CE1 | 2.24 | 0.73 |
| 1:A:306:SER:HB3 | 1:A:325:LYS:HB3 | 1.69 | 0.73 |
| 1:B:283:THR:OG1 | 1:B:329:ARG:HG2 | 1.89 | 0.73 |
| 1:C:241:ARG:N | 1:C:241:ARG:HD2 | 2.03 | 0.73 |
| 1:B:135:ARG:HB3 | 1:B:186:LEU:O | 1.88 | 0.73 |
| 1:C:90:ILE:CD1 | 1:C:232:VAL:HG23 | 2.19 | 0.73 |
| 1:C:208:ASP:N | 1:C:329:ARG:HH21 | 1.85 | 0.73 |
| 1:C:310:VAL:C | 1:C:311:LEU:HD12 | 2.08 | 0.73 |
| 1:A:109:ASN:HA | 1:A:129:TYR:OH | 1.88 | 0.73 |
| 1:B:138:TYR:HH | 1:B:227:LEU:HB3 | 1.52 | 0.73 |
| 1:C:135:ARG:HB3 | 1:C:186:LEU:O | 1.88 | 0.73 |
| 1:A:101:PRO:C | 1:A:102:LYS:CG | 2.42 | 0.73 |
| 1:A:127:GLU:O | 1:A:128:LYS:HB2 | 1.89 | 0.73 |
| 1:B:144:SER:C | 1:B:146:THR:H | 1.89 | 0.73 |
| 1:C:205:LYS:N | 1:C:329:ARG:CZ | 2.51 | 0.73 |
| 1:A:90:ILE:CD1 | 1:A:232:VAL:HG23 | 2.19 | 0.72 |
| 1:A:288:LEU:CG | 1:A:289:THR:N | 2.50 | 0.72 |
| 1:B:241:ARG:HD2 | 1:B:241:ARG:H | 1.54 | 0.72 |
| 1:C:149:LYS:HD3 | 1:C:217:TYR:CE1 | 2.24 | 0.72 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:252:ASP:OD2 | 1:A:345:LYS:CE | 2.37 | 0.72 |
| 1:B:127:GLU:O | 1:B:128:LYS:HB2 | 1.89 | 0.72 |
| 1:C:313:GLU:HG3 | 1:C:318:SER:HB3 | 1.69 | 0.72 |
| 1:A:120:ILE:CD1 | 1:A:329:ARG:NH2 | 2.53 | 0.72 |
| 1:A:149:LYS:HE2 | 1:A:151:ALA:CA | 2.19 | 0.72 |
| 1:B:85:SER:CA | 1:B:234:TYR:O | 2.36 | 0.72 |
| 1:B:109:ASN:HA | 1:B:129:TYR:OH | 1.88 | 0.72 |
| 1:B:310:VAL:C | 1:B:311:LEU:HD12 | 2.08 | 0.72 |
| 1:A:115:THR:O | 1:A:116:PHE:CG | 2.40 | 0.72 |
| 1:A:241:ARG:HD2 | 1:A:241:ARG:H | 1.54 | 0.72 |
| 1:A:301:GLU:O | 1:A:333:VAL:CG1 | 2.34 | 0.72 |
| 1:B:90:ILE:CD1 | 1:B:232:VAL:HG23 | 2.19 | 0.72 |
| 1:A:144:SER:C | 1:A:146:THR:H | 1.89 | 0.72 |
| 1:A:326:VAL:HG13 | 1:A:331:GLN:CG | 2.20 | 0.72 |
| 1:B:113:PRO:HB2 | 1:B:283:THR:O | 1.88 | 0.72 |
| 1:B:124:ALA:O | 1:B:244:SER:N | 2.18 | 0.72 |
| 1:B:253:PHE:CD2 | 1:B:346:TRP:HZ3 | 2.07 | 0.72 |
| 1:B:308:PHE:HE2 | 1:B:310:VAL:CG2 | 1.92 | 0.72 |
| 1:A:283:THR:OG1 | 1:A:329:ARG:HG2 | 1.89 | 0.72 |
| 1:B:132:THR:HG22 | 1:B:235:THR:O | 1.89 | 0.72 |
| 1:C:126:TYR:CA | 1:C:242:THR:CG2 | 2.64 | 0.72 |
| 1:C:200:GLY:O | 1:C:282:GLY:CA | 2.38 | 0.72 |
| 1:C:201:ILE:HD11 | 1:C:280:PHE:O | 1.88 | 0.72 |
| 1:C:241:ARG:HD2 | 1:C:241:ARG:H | 1.54 | 0.72 |
| 1:A:339:GLU:CA | 1:A:340:GLU:N | 2.53 | 0.72 |
| 1:B:179:VAL:HG22 | 1:B:180:PRO:CD | 2.19 | 0.72 |
| 1:B:267:LYS:O | 1:B:279:HIS:HB2 | 1.90 | 0.72 |
| 1:B:339:GLU:CA | 1:B:340:GLU:N | 2.53 | 0.72 |
| 1:A:95:LYS:HZ2 | 1:A:221:ALA:CA | 2.01 | 0.72 |
| 1:C:200:GLY:O | 1:C:282:GLY:HA3 | 1.89 | 0.72 |
| 1:C:339:GLU:CA | 1:C:340:GLU:N | 2.53 | 0.72 |
| 1:A:169:LEU:O | 1:A:169:LEU:HD23 | 1.89 | 0.72 |
| 1:B:149:LYS:HE2 | 1:B:151:ALA:CA | 2.19 | 0.72 |
| 1:C:253:PHE:CD2 | 1:C:346:TRP:HZ3 | 2.07 | 0.72 |
| 1:A:132:THR:HG22 | 1:A:235:THR:O | 1.89 | 0.72 |
| 1:A:179:VAL:HG22 | 1:A:180:PRO:CD | 2.19 | 0.72 |
| 1:C:206:LEU:H | 1:C:329:ARG:HH12 | 1.37 | 0.72 |
| 1:C:208:ASP:N | 1:C:329:ARG:NH2 | 2.38 | 0.72 |
| 1:C:288:LEU:CG | 1:C:289:THR:N | 2.50 | 0.72 |
| 1:C:295:ALA:CB | 1:C:315:ALA:N | 2.53 | 0.72 |
| 1:C:326:VAL:HG13 | 1:C:331:GLN:CG | 2.20 | 0.72 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:112:GLU:HG3 | 1:B:329:ARG:HH22 | 1.53 | 0.71 |
| 1:C:55:VAL:CG2 | 1:C:56:THR:H | 2.03 | 0.71 |
| 1:C:138:TYR:CG | 1:C:184:PHE:CZ | 2.62 | 0.71 |
| 1:C:149:LYS:CB | 1:C:217:TYR:CE1 | 2.60 | 0.71 |
| 1:C:308:PHE:CD2 | 1:C:310:VAL:HG23 | 2.25 | 0.71 |
| 1:B:308:PHE:CD2 | 1:B:310:VAL:HG23 | 2.25 | 0.71 |
| 1:B:326:VAL:HG13 | 1:B:327:ALA:H | 1.54 | 0.71 |
| 1:C:132:THR:HG22 | 1:C:235:THR:O | 1.89 | 0.71 |
| 1:C:208:ASP:H | 1:C:329:ARG:NH2 | 1.87 | 0.71 |
| 1:C:290:LEU:HD22 | 1:C:346:TRP:CB | 2.20 | 0.71 |
| 1:A:297:VAL:O | 1:A:298:SER:OG | 2.07 | 0.71 |
| 1:A:308:PHE:CD2 | 1:A:310:VAL:HG23 | 2.25 | 0.71 |
| 1:B:179:VAL:HG21 | 1:B:181:TRP:HD1 | 1.55 | 0.71 |
| 1:B:326:VAL:HG13 | 1:B:331:GLN:CG | 2.20 | 0.71 |
| 1:A:242:THR:HG23 | 1:A:243:GLY:N | 2.05 | 0.71 |
| 1:B:242:THR:HG23 | 1:B:243:GLY:N | 2.05 | 0.71 |
| 1:B:252:ASP:OD2 | 1:B:345:LYS:CE | 2.37 | 0.71 |
| 1:C:112:GLU:HA | 1:C:284:GLY:CA | 2.19 | 0.71 |
| 1:C:267:LYS:O | 1:C:279:HIS:HB2 | 1.90 | 0.71 |
| 1:B:297:VAL:O | 1:B:298:SER:OG | 2.07 | 0.71 |
| 1:C:127:GLU:O | 1:C:128:LYS:HB2 | 1.89 | 0.71 |
| 1:B:179:VAL:CG2 | 1:B:181:TRP:HD1 | 2.03 | 0.71 |
| 1:B:242:THR:HG23 | 1:B:243:GLY:H | 1.56 | 0.71 |
| 1:B:276:HIS:ND1 | 1:B:277:ASP:N | 2.38 | 0.71 |
| 1:C:252:ASP:OD2 | 1:C:345:LYS:CE | 2.37 | 0.71 |
| 1:A:238:LEU:HD12 | 1:A:238:LEU:N | 2.05 | 0.71 |
| 1:B:169:LEU:O | 1:B:169:LEU:HD23 | 1.90 | 0.71 |
| 1:B:295:ALA:CB | 1:B:315:ALA:N | 2.53 | 0.71 |
| 1:C:56:THR:HG23 | 1:C:57:ARG:H | 1.56 | 0.71 |
| 1:C:238:LEU:HD12 | 1:C:238:LEU:N | 2.05 | 0.71 |
| 1:C:276:HIS:ND1 | 1:C:277:ASP:N | 2.38 | 0.71 |
| 1:A:295:ALA:CB | 1:A:315:ALA:N | 2.53 | 0.71 |
| 1:B:238:LEU:HD12 | 1:B:238:LEU:N | 2.05 | 0.71 |
| 1:C:179:VAL:CG2 | 1:C:181:TRP:HD1 | 2.03 | 0.71 |
| 1:C:286:PHE:HA | 1:C:350:ARG:O | 1.91 | 0.71 |
| 1:A:179:VAL:CG2 | 1:A:181:TRP:HD1 | 2.03 | 0.71 |
| 1:A:267:LYS:O | 1:A:279:HIS:HB2 | 1.90 | 0.71 |
| 1:C:169:LEU:O | 1:C:169:LEU:HD23 | 1.90 | 0.71 |
| 1:B:124:ALA:HB1 | 1:B:245:THR:CG2 | 2.20 | 0.71 |
| 1:C:200:GLY:CA | 1:C:265:TRP:CG | 2.58 | 0.71 |
| 1:C:236:VAL:HG12 | 1:C:237:GLN:N | 2.05 | 0.71 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:124:ALA:HB1 | 1:A:245:THR:CG2 | 2.20 | 0.70 |
| 1:A:252:ASP:OD1 | 1:A:253:PHE:N | 2.24 | 0.70 |
| 1:B:236:VAL:HG12 | 1:B:237:GLN:N | 2.05 | 0.70 |
| 1:C:116:PHE:O | 1:C:120:ILE:HG22 | 1.90 | 0.70 |
| 1:C:179:VAL:HG22 | 1:C:180:PRO:CD | 2.19 | 0.70 |
| 1:C:242:THR:HG23 | 1:C:243:GLY:N | 2.05 | 0.70 |
| 1:B:130:ARG:HD2 | 1:B:237:GLN:NE2 | 2.06 | 0.70 |
| 1:A:167:ALA:O | 1:A:171:ASN:CG | 2.30 | 0.70 |
| 1:B:86:GLY:CA | 1:B:234:TYR:CE1 | 2.66 | 0.70 |
| 1:B:101:PRO:CG | 1:B:217:TYR:CD2 | 2.75 | 0.70 |
| 1:C:130:ARG:HD2 | 1:C:237:GLN:NE2 | 2.06 | 0.70 |
| 1:B:286:PHE:HA | 1:B:350:ARG:O | 1.91 | 0.70 |
| 1:B:288:LEU:CG | 1:B:289:THR:N | 2.50 | 0.70 |
| 1:C:137:ARG:O | 1:C:230:VAL:HG13 | 1.91 | 0.70 |
| 1:A:130:ARG:HD2 | 1:A:237:GLN:NE2 | 2.06 | 0.70 |
| 1:C:242:THR:HG23 | 1:C:243:GLY:H | 1.56 | 0.70 |
| 1:A:85:SER:CA | 1:A:234:TYR:O | 2.36 | 0.70 |
| 1:A:236:VAL:HG12 | 1:A:237:GLN:N | 2.05 | 0.70 |
| 1:C:149:LYS:NZ | 1:C:170:TYR:CE1 | 2.52 | 0.70 |
| 1:A:242:THR:HG23 | 1:A:243:GLY:H | 1.56 | 0.70 |
| 1:C:124:ALA:HB1 | 1:C:245:THR:CG2 | 2.20 | 0.70 |
| 1:C:313:GLU:CG | 1:C:318:SER:OG | 2.40 | 0.70 |
| 1:A:138:TYR:CG | 1:A:184:PHE:CZ | 2.62 | 0.70 |
| 1:A:149:LYS:NZ | 1:A:170:TYR:CE1 | 2.52 | 0.70 |
| 1:A:338:THR:OG1 | 1:A:339:GLU:CB | 2.37 | 0.70 |
| 1:B:154:PHE:CE1 | 1:B:155:ASP:O | 2.41 | 0.70 |
| 1:B:167:ALA:O | 1:B:171:ASN:CG | 2.30 | 0.70 |
| 1:B:313:GLU:CG | 1:B:318:SER:OG | 2.40 | 0.70 |
| 1:B:326:VAL:HG13 | 1:B:331:GLN:HG3 | 1.74 | 0.70 |
| 1:C:101:PRO:CG | 1:C:217:TYR:CD2 | 2.75 | 0.70 |
| 1:C:156:ARG:O | 1:C:210:GLY:N | 2.25 | 0.70 |
| 1:C:167:ALA:O | 1:C:171:ASN:CG | 2.30 | 0.70 |
| 1:A:103:TYR:HE1 | 1:A:169:LEU:HD12 | 1.56 | 0.70 |
| 1:A:129:TYR:HA | 1:A:237:GLN:O | 1.92 | 0.70 |
| 1:C:55:VAL:CG2 | 1:C:56:THR:N | 2.52 | 0.70 |
| 1:C:159:ALA:HB1 | 1:C:328:GLU:OE1 | 1.90 | 0.69 |
| 1:C:200:GLY:H | 1:C:265:TRP:HD1 | 1.36 | 0.69 |
| 1:A:170:TYR:OH | 1:A:217:TYR:OH | 2.10 | 0.69 |
| 1:A:276:HIS:ND1 | 1:A:277:ASP:N | 2.38 | 0.69 |
| 1:A:295:ALA:H | 1:A:316:ALA:HA | 0.69 | 0.69 |
| 1:B:156:ARG:O | 1:B:210:GLY:N | 2.25 | 0.69 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:101:PRO:CG | 1:A:217:TYR:CD2 | 2.75 | 0.69 |
| 1:A:156:ARG:O | 1:A:210:GLY:N | 2.25 | 0.69 |
| 1:A:313:GLU:CG | 1:A:318:SER:OG | 2.40 | 0.69 |
| 1:B:122:GLU:O | 1:B:122:GLU:HG2 | 1.93 | 0.69 |
| 1:B:137:ARG:O | 1:B:230:VAL:HG13 | 1.92 | 0.69 |
| 1:C:244:SER:O | 1:C:245:THR:CB | 2.41 | 0.69 |
| 1:A:137:ARG:O | 1:A:230:VAL:HG13 | 1.91 | 0.69 |
| 1:A:154:PHE:CD1 | 1:A:154:PHE:C | 2.62 | 0.69 |
| 1:A:179:VAL:HG21 | 1:A:181:TRP:HD1 | 1.56 | 0.69 |
| 1:B:101:PRO:C | 1:B:102:LYS:CG | 2.42 | 0.69 |
| 1:B:129:TYR:HA | 1:B:237:GLN:O | 1.92 | 0.69 |
| 1:B:252:ASP:OD1 | 1:B:253:PHE:N | 2.24 | 0.69 |
| 1:C:66:TYR:CZ | 1:C:183:GLY:HA3 | 2.27 | 0.69 |
| 1:C:103:TYR:HE1 | 1:C:169:LEU:HD12 | 1.56 | 0.69 |
| 1:C:179:VAL:HG21 | 1:C:181:TRP:HD1 | 1.55 | 0.69 |
| 1:A:244:SER:O | 1:A:245:THR:CB | 2.41 | 0.69 |
| 1:B:170:TYR:OH | 1:B:217:TYR:OH | 2.11 | 0.69 |
| 1:C:72:GLN:HA | 1:C:72:GLN:NE2 | 2.04 | 0.69 |
| 1:C:173:GLU:HG3 | 1:C:174:GLY:N | 2.08 | 0.69 |
| 1:C:252:ASP:OD1 | 1:C:253:PHE:N | 2.24 | 0.69 |
| 1:C:326:VAL:HG13 | 1:C:331:GLN:HG3 | 1.74 | 0.69 |
| 1:A:286:PHE:HA | 1:A:350:ARG:O | 1.91 | 0.69 |
| 1:A:290:LEU:HD22 | 1:A:346:TRP:CB | 2.20 | 0.69 |
| 1:B:95:LYS:HZ2 | 1:B:221:ALA:CA | 2.01 | 0.69 |
| 1:C:101:PRO:C | 1:C:102:LYS:CG | 2.42 | 0.69 |
| 1:C:129:TYR:HA | 1:C:237:GLN:O | 1.92 | 0.69 |
| 1:C:326:VAL:HG13 | 1:C:327:ALA:H | 1.54 | 0.69 |
| 1:C:333:VAL:C | 1:C:334:LYS:HD3 | 2.12 | 0.69 |
| 1:A:289:THR:O | 1:A:290:LEU:CB | 2.35 | 0.69 |
| 1:B:103:TYR:HE1 | 1:B:169:LEU:HD12 | 1.56 | 0.69 |
| 1:B:244:SER:O | 1:B:245:THR:CB | 2.41 | 0.69 |
| 1:C:75:VAL:C | 1:C:75:VAL:CB | 2.59 | 0.69 |
| 1:B:112:GLU:CG | 1:B:329:ARG:HH22 | 2.05 | 0.69 |
| 1:B:155:ASP:CB | 1:B:172:ILE:HD11 | 2.23 | 0.69 |
| 1:B:290:LEU:HD12 | 1:B:290:LEU:O | 1.93 | 0.69 |
| 1:C:80:ASP:HA | 1:C:241:ARG:HH22 | 0.70 | 0.69 |
| 1:C:278:CYS:CA | 1:C:333:VAL:O | 2.41 | 0.69 |
| 1:C:327:ALA:HB3 | 1:C:331:GLN:NE2 | 2.07 | 0.69 |
| 1:C:338:THR:OG1 | 1:C:339:GLU:CB | 2.37 | 0.69 |
| 1:A:290:LEU:HD12 | 1:A:290:LEU:O | 1.93 | 0.69 |
| 1:B:333:VAL:C | 1:B:334:LYS:HD3 | 2.12 | 0.69 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:200:GLY:CA | 1:C:265:TRP:CA | 2.70 | 0.69 |
| 1:C:289:THR:O | 1:C:290:LEU:CB | 2.35 | 0.69 |
| 1:B:169:LEU:HD22 | 1:B:170:TYR:HD1 | 1.58 | 0.69 |
| 1:B:173:GLU:HG3 | 1:B:174:GLY:N | 2.08 | 0.69 |
| 1:B:338:THR:OG1 | 1:B:339:GLU:CB | 2.37 | 0.69 |
| 1:C:122:GLU:O | 1:C:122:GLU:HG2 | 1.93 | 0.69 |
| 1:C:143:PRO:O | 1:C:146:THR:HG22 | 1.93 | 0.68 |
| 1:C:154:PHE:HD1 | 1:C:155:ASP:H | 0.75 | 0.68 |
| 1:C:155:ASP:CB | 1:C:172:ILE:HD11 | 2.23 | 0.68 |
| 1:C:159:ALA:C | 1:C:328:GLU:OE1 | 2.31 | 0.68 |
| 1:A:154:PHE:CE1 | 1:A:155:ASP:O | 2.41 | 0.68 |
| 1:A:258:ASP:CG | 1:A:259:GLY:H | 1.95 | 0.68 |
| 1:B:327:ALA:HB3 | 1:B:331:GLN:NE2 | 2.08 | 0.68 |
| 1:C:151:ALA:CA | 1:C:177:SER:HB2 | 2.17 | 0.68 |
| 1:A:173:GLU:HG3 | 1:A:174:GLY:N | 2.08 | 0.68 |
| 1:B:170:TYR:CZ | 1:B:217:TYR:OH | 2.45 | 0.68 |
| 1:A:122:GLU:HG2 | 1:A:122:GLU:O | 1.92 | 0.68 |
| 1:B:124:ALA:O | 1:B:243:GLY:HA2 | 1.93 | 0.68 |
| 1:C:170:TYR:OH | 1:C:217:TYR:OH | 2.11 | 0.68 |
| 1:C:251:GLY:O | 1:C:346:TRP:CH2 | 2.47 | 0.68 |
| 1:A:124:ALA:O | 1:A:243:GLY:HA2 | 1.93 | 0.68 |
| 1:A:170:TYR:CZ | 1:A:217:TYR:OH | 2.45 | 0.68 |
| 1:A:251:GLY:O | 1:A:346:TRP:CH2 | 2.47 | 0.68 |
| 1:C:127:GLU:O | 1:C:128:LYS:CB | 2.41 | 0.68 |
| 1:C:154:PHE:CD1 | 1:C:154:PHE:C | 2.62 | 0.68 |
| 1:A:230:VAL:HG12 | 1:A:231:ARG:N | 2.09 | 0.68 |
| 1:B:258:ASP:CG | 1:B:259:GLY:H | 1.95 | 0.68 |
| 1:C:230:VAL:HG12 | 1:C:231:ARG:N | 2.09 | 0.68 |
| 1:A:254:ALA:N | 1:A:257:LYS:O | 2.27 | 0.68 |
| 1:A:278:CYS:CA | 1:A:333:VAL:O | 2.41 | 0.68 |
| 1:B:313:GLU:HG3 | 1:B:318:SER:HB3 | 1.69 | 0.68 |
| 1:C:83:THR:O | 1:C:84:ARG:HG2 | 1.94 | 0.68 |
| 1:B:143:PRO:O | 1:B:146:THR:HG22 | 1.92 | 0.68 |
| 1:C:124:ALA:O | 1:C:243:GLY:HA2 | 1.93 | 0.68 |
| 1:C:149:LYS:HD3 | 1:C:217:TYR:CZ | 2.29 | 0.68 |
| 1:C:159:ALA:HB3 | 1:C:328:GLU:CD | 2.11 | 0.68 |
| 1:A:261:ARG:HG3 | 1:A:261:ARG:O | 1.94 | 0.68 |
| 1:B:230:VAL:HG12 | 1:B:231:ARG:N | 2.09 | 0.68 |
| 1:B:251:GLY:O | 1:B:346:TRP:CH2 | 2.47 | 0.68 |
| 1:C:295:ALA:H | 1:C:316:ALA:HA | 0.69 | 0.68 |
| 1:A:127:GLU:O | 1:A:128:LYS:CB | 2.42 | 0.67 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:333:VAL:C | 1:A:334:LYS:HD3 | 2.12 | 0.67 |
| 1:B:251:GLY:O | 1:B:346:TRP:CZ2 | 2.48 | 0.67 |
| 1:C:290:LEU:HD12 | 1:C:290:LEU:O | 1.93 | 0.67 |
| 1:A:169:LEU:HD22 | 1:A:170:TYR:HD1 | 1.58 | 0.67 |
| 1:A:269:LYS:HE2 | 1:A:270:GLY:O | 1.94 | 0.67 |
| 1:B:127:GLU:O | 1:B:128:LYS:CB | 2.42 | 0.67 |
| 1:B:289:THR:C | 1:B:290:LEU:HG | 2.14 | 0.67 |
| 1:C:95:LYS:HZ2 | 1:C:221:ALA:CA | 2.03 | 0.67 |
| 1:C:169:LEU:HD22 | 1:C:170:TYR:HD1 | 1.58 | 0.67 |
| 1:A:289:THR:C | 1:A:290:LEU:HG | 2.14 | 0.67 |
| 1:B:340:GLU:O | 1:B:342:PRO:CD | 2.43 | 0.67 |
| 1:C:251:GLY:O | 1:C:346:TRP:CZ2 | 2.47 | 0.67 |
| 1:C:258:ASP:CG | 1:C:259:GLY:H | 1.95 | 0.67 |
| 1:B:104:THR:O | 1:B:105:THR:C | 2.33 | 0.67 |
| 1:B:107:VAL:HB | 1:B:329:ARG:HH12 | 1.58 | 0.67 |
| 1:B:253:PHE:CE2 | 1:B:346:TRP:CZ3 | 2.83 | 0.67 |
| 1:B:278:CYS:CA | 1:B:333:VAL:O | 2.41 | 0.67 |
| 1:C:340:GLU:O | 1:C:342:PRO:CD | 2.43 | 0.67 |
| 1:A:83:THR:O | 1:A:84:ARG:HG2 | 1.94 | 0.67 |
| 1:A:326:VAL:HG13 | 1:A:331:GLN:HG3 | 1.74 | 0.67 |
| 1:A:327:ALA:HB3 | 1:A:331:GLN:NE2 | 2.08 | 0.67 |
| 1:B:149:LYS:HD3 | 1:B:217:TYR:CZ | 2.29 | 0.67 |
| 1:B:286:PHE:CA | 1:B:351:ILE:HG21 | 2.25 | 0.67 |
| 1:C:104:THR:O | 1:C:105:THR:C | 2.33 | 0.67 |
| 1:A:143:PRO:O | 1:A:146:THR:HG22 | 1.93 | 0.67 |
| 1:C:95:LYS:O | 1:C:96:ASN:HB2 | 1.95 | 0.67 |
| 1:C:135:ARG:HG3 | 1:C:233:GLU:CB | 2.23 | 0.67 |
| 1:C:269:LYS:HE2 | 1:C:270:GLY:O | 1.94 | 0.67 |
| 1:A:340:GLU:O | 1:A:342:PRO:CD | 2.43 | 0.67 |
| 1:B:254:ALA:N | 1:B:257:LYS:O | 2.27 | 0.67 |
| 1:A:96:ASN:ND2 | 1:A:102:LYS:HD3 | 2.10 | 0.67 |
| 1:A:126:TYR:O | 1:A:242:THR:HG21 | 1.95 | 0.67 |
| 1:B:83:THR:O | 1:B:84:ARG:HG2 | 1.94 | 0.67 |
| 1:B:269:LYS:HE2 | 1:B:270:GLY:O | 1.94 | 0.67 |
| 1:C:163:PRO:HA | 1:C:164:ASN:ND2 | 2.10 | 0.67 |
| 1:A:121:LYS:HD3 | 1:A:350:ARG:HH22 | 1.61 | 0.66 |
| 1:A:149:LYS:HD3 | 1:A:217:TYR:CZ | 2.29 | 0.66 |
| 1:C:185:ILE:HD13 | 1:C:186:LEU:H | 1.53 | 0.66 |
| 1:C:253:PHE:CE2 | 1:C:346:TRP:CZ3 | 2.83 | 0.66 |
| 1:A:104:THR:O | 1:A:105:THR:C | 2.33 | 0.66 |
| 1:A:136:PHE:HE1 | 1:A:232:VAL:HG22 | 1.59 | 0.66 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:253:PHE:CE2 | 1:A:346:TRP:CZ3 | 2.83 | 0.66 |
| 1:A:136:PHE:CE1 | 1:A:212:LEU:HD22 | 2.31 | 0.66 |
| 1:B:96:ASN:ND2 | 1:B:102:LYS:HD3 | 2.10 | 0.66 |
| 1:C:254:ALA:N | 1:C:257:LYS:O | 2.27 | 0.66 |
| 1:A:300:LEU:CG | 1:A:308:PHE:CZ | 2.78 | 0.66 |
| 1:B:109:ASN:HB2 | 1:B:208:ASP:HB3 | 1.77 | 0.66 |
| 1:B:136:PHE:CE1 | 1:B:212:LEU:HD22 | 2.31 | 0.66 |
| 1:B:290:LEU:HD22 | 1:B:346:TRP:CB | 2.20 | 0.66 |
| 1:A:268:THR:HG23 | 1:A:268:THR:O | 1.96 | 0.66 |
| 1:B:116:PHE:O | 1:B:120:ILE:HG22 | 1.89 | 0.66 |
| 1:C:64:LEU:HD12 | 1:C:65:ALA:H | 1.60 | 0.66 |
| 1:C:126:TYR:O | 1:C:242:THR:HG21 | 1.95 | 0.66 |
| 1:C:130:ARG:HD2 | 1:C:237:GLN:HB3 | 1.64 | 0.66 |
| 1:C:170:TYR:CZ | 1:C:217:TYR:OH | 2.45 | 0.66 |
| 1:B:163:PRO:HA | 1:B:164:ASN:ND2 | 2.10 | 0.66 |
| 1:C:113:PRO:C | 1:C:115:THR:N | 2.43 | 0.66 |
| 1:C:136:PHE:CE1 | 1:C:212:LEU:HD22 | 2.31 | 0.66 |
| 1:C:199:ASP:HA | 1:C:265:TRP:NE1 | 2.09 | 0.66 |
| 1:C:261:ARG:HG3 | 1:C:261:ARG:O | 1.94 | 0.66 |
| 1:C:286:PHE:CA | 1:C:351:ILE:HG21 | 2.25 | 0.66 |
| 1:C:308:PHE:HE2 | 1:C:310:VAL:CG2 | 1.92 | 0.66 |
| 1:A:109:ASN:HB2 | 1:A:208:ASP:HB3 | 1.77 | 0.66 |
| 1:B:261:ARG:O | 1:B:261:ARG:HG3 | 1.94 | 0.66 |
| 1:C:289:THR:C | 1:C:290:LEU:HG | 2.14 | 0.66 |
| 1:B:236:VAL:HG12 | 1:B:238:LEU:CD1 | 2.26 | 0.66 |
| 1:A:297:VAL:CB | 1:A:336:VAL:O | 2.36 | 0.66 |
| 1:A:326:VAL:HG13 | 1:A:327:ALA:H | 1.54 | 0.66 |
| 1:B:124:ALA:CB | 1:B:245:THR:CG2 | 2.74 | 0.66 |
| 1:A:116:PHE:O | 1:A:120:ILE:HG22 | 1.90 | 0.66 |
| 1:A:124:ALA:CB | 1:A:245:THR:CG2 | 2.74 | 0.66 |
| 1:A:251:GLY:O | 1:A:346:TRP:CZ2 | 2.47 | 0.66 |
| 1:B:126:TYR:O | 1:B:242:THR:HG21 | 1.95 | 0.66 |
| 1:C:236:VAL:HG12 | 1:C:238:LEU:CD1 | 2.26 | 0.66 |
| 1:C:268:THR:HG23 | 1:C:268:THR:O | 1.96 | 0.66 |
| 1:A:95:LYS:O | 1:A:96:ASN:HB2 | 1.95 | 0.65 |
| 1:A:249:GLN:HB2 | 1:A:265:TRP:CZ3 | 2.30 | 0.65 |
| 1:B:312:GLY:HA3 | 1:B:320:GLN:HG2 | 1.78 | 0.65 |
| 1:C:124:ALA:CB | 1:C:245:THR:CG2 | 2.74 | 0.65 |
| 1:C:297:VAL:CB | 1:C:336:VAL:O | 2.36 | 0.65 |
| 1:A:163:PRO:HA | 1:A:164:ASN:ND2 | 2.10 | 0.65 |
| 1:B:82:ILE:O | 1:B:83:THR:N | 2.29 | 0.65 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:295:ALA:H | 1:B:316:ALA:HA | 0.69 | 0.65 |
| 1:C:68:GLU:CG | 1:C:137:ARG:NH2 | 2.59 | 0.65 |
| 1:A:286:PHE:CA | 1:A:351:ILE:HG21 | 2.25 | 0.65 |
| 1:C:326:VAL:HG12 | 1:C:327:ALA:CA | 2.27 | 0.65 |
| 1:A:300:LEU:C | 1:A:308:PHE:HZ | 2.00 | 0.65 |
| 1:B:113:PRO:C | 1:B:115:THR:N | 2.43 | 0.65 |
| 1:B:119:LEU:CD2 | 1:B:234:TYR:HE2 | 2.10 | 0.65 |
| 1:B:249:GLN:HB2 | 1:B:265:TRP:CZ3 | 2.31 | 0.65 |
| 1:C:66:TYR:OH | 1:C:183:GLY:HA3 | 1.97 | 0.65 |
| 1:C:118:GLN:O | 1:C:119:LEU:HB2 | 1.97 | 0.65 |
| 1:C:138:TYR:HH | 1:C:227:LEU:HB3 | 1.61 | 0.65 |
| 1:A:121:LYS:NZ | 1:A:350:ARG:NH1 | 2.44 | 0.65 |
| 1:A:205:LYS:HD2 | 1:A:205:LYS:N | 2.12 | 0.65 |
| 1:B:130:ARG:NH1 | 1:B:237:GLN:HA | 2.10 | 0.65 |
| 1:B:149:LYS:NZ | 1:B:170:TYR:CE1 | 2.52 | 0.65 |
| 1:B:205:LYS:HD2 | 1:B:205:LYS:N | 2.12 | 0.65 |
| 1:C:120:ILE:HD12 | 1:C:351:ILE:C | 2.17 | 0.65 |
| 1:A:236:VAL:HG12 | 1:A:238:LEU:CD1 | 2.26 | 0.65 |
| 1:C:306:SER:O | 1:C:307:ASP:O | 2.14 | 0.65 |
| 1:A:119:LEU:CD2 | 1:A:234:TYR:HE2 | 2.10 | 0.65 |
| 1:A:130:ARG:HD2 | 1:A:237:GLN:CG | 2.27 | 0.65 |
| 1:B:268:THR:HG23 | 1:B:268:THR:O | 1.96 | 0.65 |
| 1:C:96:ASN:ND2 | 1:C:102:LYS:HD3 | 2.10 | 0.65 |
| 1:C:200:GLY:HA2 | 1:C:265:TRP:CA | 2.26 | 0.65 |
| 1:C:309:SER:O | 1:C:321:TRP:O | 2.15 | 0.65 |
| 1:A:312:GLY:HA3 | 1:A:320:GLN:HG2 | 1.78 | 0.65 |
| 1:B:296:PRO:HG3 | 1:B:337:THR:CB | 2.27 | 0.65 |
| 1:B:300:LEU:CG | 1:B:308:PHE:CZ | 2.78 | 0.65 |
| 1:B:309:SER:O | 1:B:321:TRP:O | 2.15 | 0.65 |
| 1:C:109:ASN:HB2 | 1:C:208:ASP:HB3 | 1.77 | 0.65 |
| 1:C:153:ALA:HA | 1:C:186:LEU:HD11 | 1.78 | 0.65 |
| 1:A:306:SER:O | 1:A:307:ASP:O | 2.14 | 0.64 |
| 1:A:326:VAL:HG12 | 1:A:327:ALA:CA | 2.27 | 0.64 |
| 1:B:196:PHE:O | 1:B:207:VAL:HG23 | 1.97 | 0.64 |
| 1:B:306:SER:O | 1:B:307:ASP:O | 2.14 | 0.64 |
| 1:C:207:VAL:HG13 | 1:C:208:ASP:CG | 2.18 | 0.64 |
| 1:C:300:LEU:C | 1:C:308:PHE:HZ | 2.00 | 0.64 |
| 1:C:166:LEU:O | 1:C:167:ALA:C | 2.36 | 0.64 |
| 1:C:300:LEU:CG | 1:C:308:PHE:CZ | 2.78 | 0.64 |
| 1:C:306:SER:HB3 | 1:C:325:LYS:CB | 2.27 | 0.64 |
| 1:A:253:PHE:CD2 | 1:A:346:TRP:CZ3 | 2.85 | 0.64 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:274:TRP:NE1 | 1:A:340:GLU:OE1 | 2.31 | 0.64 |
| 1:B:95:LYS:O | 1:B:96:ASN:HB2 | 1.95 | 0.64 |
| 1:C:68:GLU:OE2 | 1:C:139:SER:OG | 2.14 | 0.64 |
| 1:C:125:GLN:C | 1:C:242:THR:CG2 | 2.66 | 0.64 |
| 1:A:118:GLN:O | 1:A:119:LEU:HB2 | 1.97 | 0.64 |
| 1:A:125:GLN:C | 1:A:242:THR:CG2 | 2.66 | 0.64 |
| 1:B:118:GLN:O | 1:B:119:LEU:HB2 | 1.96 | 0.64 |
| 1:B:125:GLN:C | 1:B:242:THR:CG2 | 2.66 | 0.64 |
| 1:B:153:ALA:HA | 1:B:186:LEU:HD11 | 1.78 | 0.64 |
| 1:B:166:LEU:O | 1:B:167:ALA:C | 2.35 | 0.64 |
| 1:B:253:PHE:CD2 | 1:B:346:TRP:CZ3 | 2.85 | 0.64 |
| 1:B:297:VAL:CB | 1:B:336:VAL:O | 2.36 | 0.64 |
| 1:A:153:ALA:HA | 1:A:186:LEU:HD11 | 1.78 | 0.64 |
| 1:B:154:PHE:CD1 | 1:B:154:PHE:C | 2.62 | 0.64 |
| 1:B:172:ILE:O | 1:B:173:GLU:C | 2.36 | 0.64 |
| 1:B:300:LEU:C | 1:B:308:PHE:HZ | 2.00 | 0.64 |
| 1:C:196:PHE:O | 1:C:207:VAL:HG23 | 1.97 | 0.64 |
| 1:A:196:PHE:O | 1:A:207:VAL:HG23 | 1.97 | 0.64 |
| 1:A:135:ARG:HG3 | 1:A:233:GLU:CB | 2.23 | 0.64 |
| 1:A:166:LEU:O | 1:A:167:ALA:C | 2.36 | 0.64 |
| 1:A:172:ILE:O | 1:A:173:GLU:C | 2.36 | 0.64 |
| 1:B:136:PHE:HE1 | 1:B:232:VAL:HG22 | 1.59 | 0.64 |
| 1:B:309:SER:O | 1:B:322:ALA:CB | 2.46 | 0.64 |
| 1:C:112:GLU:OE2 | 1:C:283:THR:HG22 | 1.97 | 0.64 |
| 1:A:82:ILE:O | 1:A:83:THR:N | 2.29 | 0.64 |
| 1:B:306:SER:HB3 | 1:B:325:LYS:CB | 2.27 | 0.64 |
| 1:C:152:LEU:CD2 | 1:C:186:LEU:HD13 | 2.25 | 0.64 |
| 1:C:154:PHE:CZ | 1:C:156:ARG:HA | 2.33 | 0.64 |
| 1:C:309:SER:O | 1:C:322:ALA:CB | 2.46 | 0.64 |
| 1:A:152:LEU:CD2 | 1:A:186:LEU:HD13 | 2.25 | 0.64 |
| 1:B:207:VAL:HG13 | 1:B:208:ASP:CG | 2.18 | 0.64 |
| 1:C:138:TYR:O | 1:C:139:SER:O | 2.15 | 0.64 |
| 1:C:172:ILE:O | 1:C:173:GLU:C | 2.36 | 0.64 |
| 1:C:253:PHE:CD2 | 1:C:346:TRP:CZ3 | 2.85 | 0.64 |
| 1:C:327:ALA:HB2 | 1:C:331:GLN:OE1 | 1.96 | 0.64 |
| 1:B:248:ALA:HB3 | 1:B:249:GLN:CB | 2.28 | 0.64 |
| 1:C:163:PRO:HG3 | 1:C:168:SER:HB3 | 1.80 | 0.64 |
| 1:C:249:GLN:O | 1:C:347:GLN:HA | 1.98 | 0.64 |
| 1:A:138:TYR:O | 1:A:139:SER:O | 2.15 | 0.63 |
| 1:A:155:ASP:CB | 1:A:172:ILE:HD11 | 2.23 | 0.63 |
| 1:C:61:PRO:HD2 | 1:C:181:TRP:CZ3 | 2.33 | 0.63 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:199:ASP:CA | 1:C:265:TRP:NE1 | 2.61 | 0.63 |
| 1:C:205:LYS:HD2 | 1:C:205:LYS:N | 2.12 | 0.63 |
| 1:C:206:LEU:O | 1:C:206:LEU:CD1 | 2.45 | 0.63 |
| 1:C:249:GLN:HB2 | 1:C:265:TRP:CZ3 | 2.30 | 0.63 |
| 1:A:151:ALA:CA | 1:A:177:SER:HB2 | 2.17 | 0.63 |
| 1:C:136:PHE:HE1 | 1:C:232:VAL:HG22 | 1.59 | 0.63 |
| 1:C:246:SER:O | 1:C:349:LEU:CA | 2.42 | 0.63 |
| 1:B:138:TYR:O | 1:B:139:SER:O | 2.15 | 0.63 |
| 1:B:155:ASP:O | 1:B:156:ARG:C | 2.36 | 0.63 |
| 1:C:312:GLY:HA3 | 1:C:320:GLN:HG2 | 1.78 | 0.63 |
| 1:A:154:PHE:CE1 | 1:A:156:ARG:N | 2.66 | 0.63 |
| 1:A:306:SER:HB3 | 1:A:325:LYS:CB | 2.27 | 0.63 |
| 1:A:309:SER:O | 1:A:321:TRP:O | 2.15 | 0.63 |
| 1:B:152:LEU:CD2 | 1:B:186:LEU:HD13 | 2.25 | 0.63 |
| 1:A:137:ARG:O | 1:A:230:VAL:HG22 | 1.98 | 0.63 |
| 1:A:249:GLN:O | 1:A:347:GLN:HA | 1.98 | 0.63 |
| 1:B:154:PHE:CE1 | 1:B:156:ARG:N | 2.66 | 0.63 |
| 1:B:156:ARG:O | 1:B:209:PHE:C | 2.37 | 0.63 |
| 1:B:249:GLN:O | 1:B:347:GLN:HA | 1.98 | 0.63 |
| 1:C:125:GLN:C | 1:C:242:THR:HG22 | 2.19 | 0.63 |
| 1:A:135:ARG:CB | 1:A:186:LEU:O | 2.47 | 0.63 |
| 1:A:154:PHE:CZ | 1:A:156:ARG:HA | 2.33 | 0.63 |
| 1:A:155:ASP:O | 1:A:156:ARG:C | 2.36 | 0.63 |
| 1:A:248:ALA:C | 1:A:264:SER:HB3 | 2.19 | 0.63 |
| 1:B:109:ASN:ND2 | 1:B:197:VAL:HG23 | 2.14 | 0.63 |
| 1:B:135:ARG:CB | 1:B:186:LEU:O | 2.47 | 0.63 |
| 1:B:206:LEU:O | 1:B:206:LEU:CD1 | 2.45 | 0.63 |
| 1:B:292:TYR:CB | 1:B:318:SER:O | 2.47 | 0.63 |
| 1:C:83:THR:CG2 | 1:C:84:ARG:H | 2.08 | 0.63 |
| 1:C:86:GLY:N | 1:C:234:TYR:O | 2.31 | 0.63 |
| 1:A:207:VAL:HG13 | 1:A:208:ASP:CG | 2.18 | 0.63 |
| 1:A:292:TYR:CB | 1:A:318:SER:O | 2.47 | 0.63 |
| 1:A:309:SER:O | 1:A:322:ALA:CB | 2.46 | 0.63 |
| 1:B:154:PHE:CZ | 1:B:156:ARG:HA | 2.33 | 0.63 |
| 1:C:68:GLU:CD | 1:C:137:ARG:NH2 | 2.51 | 0.63 |
| 1:C:207:VAL:CG1 | 1:C:329:ARG:HE | 2.12 | 0.63 |
| 1:A:156:ARG:O | 1:A:209:PHE:C | 2.37 | 0.63 |
| 1:B:86:GLY:N | 1:B:234:TYR:O | 2.31 | 0.63 |
| 1:B:137:ARG:O | 1:B:230:VAL:HG22 | 1.98 | 0.63 |
| 1:B:185:ILE:HD13 | 1:B:186:LEU:H | 1.53 | 0.63 |
| 1:C:154:PHE:CE1 | 1:C:156:ARG:N | 2.66 | 0.63 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:170:TYR:C | 1:C:171:ASN:HD22 | 2.02 | 0.63 |
| 1:A:206:LEU:O | 1:A:206:LEU:CD1 | 2.45 | 0.63 |
| 1:B:326:VAL:HG12 | 1:B:327:ALA:CA | 2.27 | 0.63 |
| 1:C:82:ILE:O | 1:C:83:THR:N | 2.29 | 0.63 |
| 1:C:119:LEU:CD2 | 1:C:234:TYR:HE2 | 2.10 | 0.63 |
| 1:C:156:ARG:O | 1:C:209:PHE:C | 2.37 | 0.63 |
| 1:A:125:GLN:C | 1:A:242:THR:HG22 | 2.19 | 0.62 |
| 1:B:166:LEU:O | 1:B:168:SER:N | 2.32 | 0.62 |
| 1:B:274:TRP:NE1 | 1:B:340:GLU:OE1 | 2.31 | 0.62 |
| 1:B:296:PRO:HG3 | 1:B:337:THR:HB | 1.81 | 0.62 |
| 1:C:135:ARG:CB | 1:C:186:LEU:O | 2.47 | 0.62 |
| 1:A:83:THR:CG2 | 1:A:84:ARG:H | 2.08 | 0.62 |
| 1:A:86:GLY:N | 1:A:234:TYR:O | 2.31 | 0.62 |
| 1:A:166:LEU:O | 1:A:168:SER:N | 2.32 | 0.62 |
| 1:B:83:THR:HG23 | 1:B:236:VAL:O | 2.00 | 0.62 |
| 1:B:163:PRO:HG3 | 1:B:168:SER:HB3 | 1.80 | 0.62 |
| 1:C:68:GLU:CG | 1:C:137:ARG:HH22 | 2.12 | 0.62 |
| 1:C:137:ARG:O | 1:C:230:VAL:HG22 | 1.98 | 0.62 |
| 1:C:155:ASP:O | 1:C:156:ARG:C | 2.36 | 0.62 |
| 1:C:166:LEU:O | 1:C:168:SER:N | 2.32 | 0.62 |
| 1:C:296:PRO:HG3 | 1:C:337:THR:HB | 1.81 | 0.62 |
| 1:B:83:THR:CG2 | 1:B:84:ARG:H | 2.08 | 0.62 |
| 1:C:55:VAL:HG22 | 1:C:56:THR:H | 1.60 | 0.62 |
| 1:C:82:ILE:HG23 | 1:C:83:THR:N | 2.15 | 0.62 |
| 1:C:130:ARG:NH1 | 1:C:237:GLN:HA | 2.10 | 0.62 |
| 1:C:206:LEU:N | 1:C:329:ARG:HH12 | 1.96 | 0.62 |
| 1:C:231:ARG:HG3 | 1:C:232:VAL:H | 1.63 | 0.62 |
| 1:A:83:THR:HG23 | 1:A:236:VAL:O | 2.00 | 0.62 |
| 1:B:213:ILE:O | 1:B:214:MET:HG3 | 2.00 | 0.62 |
| 1:C:292:TYR:CB | 1:C:318:SER:O | 2.47 | 0.62 |
| 1:A:170:TYR:C | 1:A:171:ASN:HD22 | 2.02 | 0.62 |
| 1:B:82:ILE:HG23 | 1:B:83:THR:N | 2.15 | 0.62 |
| 1:B:135:ARG:HG3 | 1:B:233:GLU:CB | 2.23 | 0.62 |
| 1:A:136:PHE:CE2 | 1:A:212:LEU:HD11 | 2.35 | 0.62 |
| 1:C:136:PHE:CE2 | 1:C:212:LEU:HD11 | 2.35 | 0.62 |
| 1:C:157:ASP:OD1 | 1:C:157:ASP:O | 2.18 | 0.62 |
| 1:A:124:ALA:HB1 | 1:A:244:SER:O | 2.00 | 0.62 |
| 1:A:157:ASP:OD1 | 1:A:157:ASP:O | 2.18 | 0.62 |
| 1:B:248:ALA:C | 1:B:263:VAL:O | 2.38 | 0.62 |
| 1:C:109:ASN:ND2 | 1:C:197:VAL:HG23 | 2.14 | 0.62 |
| 1:C:159:ALA:HB3 | 1:C:328:GLU:HG3 | 1.72 | 0.62 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:109:ASN:ND2 | 1:A:197:VAL:HG23 | 2.14 | 0.62 |
| 1:A:163:PRO:HG3 | 1:A:168:SER:HB3 | 1.80 | 0.62 |
| 1:A:248:ALA:HB1 | 1:A:264:SER:HG | 1.55 | 0.62 |
| 1:A:308:PHE:HE2 | 1:A:310:VAL:CG2 | 1.92 | 0.62 |
| 1:C:112:GLU:O | 1:C:114:GLY:N | 2.33 | 0.62 |
| 1:A:112:GLU:O | 1:A:114:GLY:N | 2.33 | 0.62 |
| 1:B:136:PHE:CE2 | 1:B:212:LEU:HD11 | 2.35 | 0.62 |
| 1:C:186:LEU:HD23 | 1:C:186:LEU:C | 2.20 | 0.62 |
| 1:B:112:GLU:O | 1:B:114:GLY:N | 2.33 | 0.61 |
| 1:C:83:THR:HG23 | 1:C:236:VAL:O | 2.00 | 0.61 |
| 1:C:124:ALA:HB1 | 1:C:244:SER:O | 2.00 | 0.61 |
| 1:C:201:ILE:HG21 | 1:C:265:TRP:C | 2.20 | 0.61 |
| 1:C:236:VAL:CG1 | 1:C:237:GLN:N | 2.62 | 0.61 |
| 1:A:124:ALA:HB2 | 1:A:245:THR:HG21 | 1.82 | 0.61 |
| 1:B:124:ALA:HB2 | 1:B:245:THR:HG21 | 1.82 | 0.61 |
| 1:B:188:VAL:HG23 | 1:B:188:VAL:O | 1.99 | 0.61 |
| 1:B:236:VAL:CG1 | 1:B:237:GLN:N | 2.62 | 0.61 |
| 1:B:237:GLN:C | 1:B:238:LEU:HD12 | 2.21 | 0.61 |
| 1:B:300:LEU:C | 1:B:308:PHE:CZ | 2.74 | 0.61 |
| 1:C:98:ASP:OD1 | 1:C:99:THR:N | 2.33 | 0.61 |
| 1:A:120:ILE:CD1 | 1:A:329:ARG:HH21 | 2.13 | 0.61 |
| 1:A:185:ILE:HD13 | 1:A:186:LEU:H | 1.53 | 0.61 |
| 1:B:124:ALA:HB1 | 1:B:244:SER:O | 2.00 | 0.61 |
| 1:B:125:GLN:C | 1:B:242:THR:HG22 | 2.19 | 0.61 |
| 1:B:157:ASP:O | 1:B:157:ASP:OD1 | 2.18 | 0.61 |
| 1:A:82:ILE:HG23 | 1:A:83:THR:N | 2.15 | 0.61 |
| 1:A:83:THR:HG23 | 1:A:130:ARG:NH1 | 2.15 | 0.61 |
| 1:A:130:ARG:NH1 | 1:A:237:GLN:HA | 2.10 | 0.61 |
| 1:A:236:VAL:CG1 | 1:A:237:GLN:N | 2.62 | 0.61 |
| 1:B:130:ARG:HB3 | 1:B:237:GLN:H | 1.66 | 0.61 |
| 1:C:111:SER:N | 1:C:350:ARG:NH2 | 2.45 | 0.61 |
| 1:A:136:PHE:CE2 | 1:A:212:LEU:CD1 | 2.84 | 0.61 |
| 1:A:237:GLN:C | 1:A:238:LEU:HD12 | 2.21 | 0.61 |
| 1:A:296:PRO:HG3 | 1:A:337:THR:HB | 1.81 | 0.61 |
| 1:B:134:LEU:HD23 | 1:B:188:VAL:CG2 | 2.31 | 0.61 |
| 1:B:169:LEU:HD22 | 1:B:170:TYR:CD1 | 2.36 | 0.61 |
| 1:B:186:LEU:HD23 | 1:B:186:LEU:C | 2.20 | 0.61 |
| 1:A:130:ARG:HB3 | 1:A:237:GLN:H | 1.66 | 0.61 |
| 1:A:144:SER:C | 1:A:146:THR:N | 2.54 | 0.61 |
| 1:A:300:LEU:C | 1:A:308:PHE:CZ | 2.74 | 0.61 |
| 1:C:188:VAL:HG23 | 1:C:188:VAL:O | 1.99 | 0.61 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:200:GLY:C | 1:C:282:GLY:HA2 | 2.16 | 0.61 |
| 1:C:213:ILE:O | 1:C:214:MET:HG3 | 2.00 | 0.61 |
| 1:C:300:LEU:C | 1:C:308:PHE:CZ | 2.74 | 0.61 |
| 1:A:188:VAL:HG23 | 1:A:188:VAL:O | 1.99 | 0.61 |
| 1:B:144:SER:C | 1:B:146:THR:N | 2.54 | 0.61 |
| 1:C:136:PHE:CE2 | 1:C:212:LEU:CD1 | 2.84 | 0.61 |
| 1:C:237:GLN:C | 1:C:238:LEU:HD12 | 2.21 | 0.61 |
| 1:B:83:THR:HG23 | 1:B:130:ARG:NH1 | 2.15 | 0.61 |
| 1:B:156:ARG:NH1 | 1:B:173:GLU:OE1 | 2.34 | 0.61 |
| 1:C:85:SER:C | 1:C:234:TYR:CE1 | 2.74 | 0.61 |
| 1:A:213:ILE:O | 1:A:214:MET:HG3 | 2.00 | 0.61 |
| 1:A:291:PHE:HB2 | 1:A:346:TRP:CB | 2.29 | 0.61 |
| 1:B:170:TYR:C | 1:B:171:ASN:HD22 | 2.02 | 0.61 |
| 1:B:311:LEU:HD12 | 1:B:311:LEU:N | 2.16 | 0.61 |
| 1:C:120:ILE:HD12 | 1:C:351:ILE:O | 2.01 | 0.61 |
| 1:C:130:ARG:HD2 | 1:C:237:GLN:CG | 2.27 | 0.61 |
| 1:C:264:SER:C | 1:C:265:TRP:HA | 2.21 | 0.61 |
| 1:A:85:SER:C | 1:A:234:TYR:CE1 | 2.74 | 0.61 |
| 1:A:198:ALA:HB1 | 1:A:200:GLY:C | 2.14 | 0.61 |
| 1:A:290:LEU:CD1 | 1:A:290:LEU:C | 2.69 | 0.61 |
| 1:A:311:LEU:HD12 | 1:A:311:LEU:N | 2.16 | 0.61 |
| 1:C:274:TRP:NE1 | 1:C:340:GLU:OE1 | 2.31 | 0.61 |
| 1:C:286:PHE:CD2 | 1:C:350:ARG:HA | 2.35 | 0.61 |
| 1:A:286:PHE:CD2 | 1:A:350:ARG:HA | 2.35 | 0.60 |
| 1:B:136:PHE:CE2 | 1:B:212:LEU:CD1 | 2.84 | 0.60 |
| 1:B:290:LEU:C | 1:B:290:LEU:CD1 | 2.69 | 0.60 |
| 1:C:95:LYS:NZ | 1:C:221:ALA:CB | 2.64 | 0.60 |
| 1:C:306:SER:O | 1:C:307:ASP:C | 2.40 | 0.60 |
| 1:A:105:THR:HG1 | 1:A:211:LYS:HD3 | 0.78 | 0.60 |
| 1:A:338:THR:HG1 | 1:A:339:GLU:HB2 | 1.64 | 0.60 |
| 1:B:85:SER:C | 1:B:234:TYR:CE1 | 2.74 | 0.60 |
| 1:B:231:ARG:HG3 | 1:B:232:VAL:H | 1.63 | 0.60 |
| 1:B:306:SER:O | 1:B:307:ASP:C | 2.40 | 0.60 |
| 1:B:314:ALA:O | 1:B:315:ALA:HB2 | 2.01 | 0.60 |
| 1:C:105:THR:HG1 | 1:C:211:LYS:HD3 | 0.79 | 0.60 |
| 1:C:109:ASN:ND2 | 1:C:350:ARG:HH21 | 1.99 | 0.60 |
| 1:C:124:ALA:HB2 | 1:C:245:THR:HG21 | 1.82 | 0.60 |
| 1:C:291:PHE:C | 1:C:292:TYR:CA | 2.67 | 0.60 |
| 1:C:311:LEU:HD12 | 1:C:311:LEU:N | 2.16 | 0.60 |
| 1:B:129:TYR:CB | 1:B:237:GLN:O | 2.49 | 0.60 |
| 1:C:314:ALA:O | 1:C:315:ALA:HB2 | 2.01 | 0.60 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:129:TYR:CB | 1:A:237:GLN:O | 2.49 | 0.60 |
| 1:A:217:TYR:CD1 | 1:A:217:TYR:N | 2.69 | 0.60 |
| 1:A:306:SER:O | 1:A:307:ASP:C | 2.40 | 0.60 |
| 1:B:130:ARG:CB | 1:B:237:GLN:CB | 2.68 | 0.60 |
| 1:B:136:PHE:CD2 | 1:B:212:LEU:HD21 | 2.36 | 0.60 |
| 1:B:286:PHE:CD2 | 1:B:350:ARG:HA | 2.35 | 0.60 |
| 1:C:156:ARG:NH1 | 1:C:173:GLU:OE1 | 2.34 | 0.60 |
| 1:C:201:ILE:CG2 | 1:C:265:TRP:CA | 2.80 | 0.60 |
| 1:C:290:LEU:CD1 | 1:C:290:LEU:C | 2.69 | 0.60 |
| 1:A:156:ARG:NH1 | 1:A:173:GLU:OE1 | 2.34 | 0.60 |
| 1:A:186:LEU:HD23 | 1:A:186:LEU:C | 2.20 | 0.60 |
| 1:A:120:ILE:O | 1:A:120:ILE:CG1 | 2.50 | 0.60 |
| 1:A:134:LEU:HD23 | 1:A:188:VAL:CG2 | 2.31 | 0.60 |
| 1:A:269:LYS:CG | 1:A:270:GLY:N | 2.58 | 0.60 |
| 1:B:130:ARG:HD2 | 1:B:237:GLN:CG | 2.27 | 0.60 |
| 1:B:327:ALA:HB2 | 1:B:331:GLN:OE1 | 1.96 | 0.60 |
| 1:C:200:GLY:HA3 | 1:C:201:ILE:HG22 | 1.83 | 0.60 |
| 1:A:136:PHE:CD2 | 1:A:212:LEU:HD21 | 2.37 | 0.60 |
| 1:B:95:LYS:NZ | 1:B:221:ALA:CB | 2.64 | 0.60 |
| 1:B:120:ILE:O | 1:B:120:ILE:CG1 | 2.50 | 0.60 |
| 1:B:179:VAL:HG21 | 1:B:181:TRP:CD1 | 2.36 | 0.60 |
| 1:B:217:TYR:CD1 | 1:B:217:TYR:N | 2.69 | 0.60 |
| 1:C:130:ARG:CB | 1:C:237:GLN:CB | 2.68 | 0.60 |
| 1:C:134:LEU:HD23 | 1:C:188:VAL:CG2 | 2.31 | 0.60 |
| 1:C:169:LEU:HD22 | 1:C:170:TYR:CD1 | 2.36 | 0.60 |
| 1:A:179:VAL:HG21 | 1:A:181:TRP:CD1 | 2.37 | 0.60 |
| 1:A:342:PRO:C | 1:A:343:LYS:HD3 | 2.23 | 0.60 |
| 1:B:149:LYS:CD | 1:B:177:SER:OG | 2.50 | 0.60 |
| 1:C:83:THR:HG23 | 1:C:130:ARG:NH1 | 2.15 | 0.60 |
| 1:C:144:SER:C | 1:C:146:THR:N | 2.54 | 0.60 |
| 1:A:95:LYS:NZ | 1:A:221:ALA:CB | 2.64 | 0.60 |
| 1:A:169:LEU:HD22 | 1:A:170:TYR:CD1 | 2.36 | 0.60 |
| 1:A:314:ALA:O | 1:A:315:ALA:HB2 | 2.01 | 0.59 |
| 1:B:98:ASP:OD1 | 1:B:99:THR:N | 2.33 | 0.59 |
| 1:C:136:PHE:CD2 | 1:C:212:LEU:HD21 | 2.37 | 0.59 |
| 1:B:163:PRO:CB | 1:B:164:ASN:HD22 | 2.15 | 0.59 |
| 1:C:138:TYR:HD2 | 1:C:184:PHE:CE1 | 2.16 | 0.59 |
| 1:A:277:ASP:HA | 1:A:334:LYS:CE | 2.32 | 0.59 |
| 1:C:97:THR:CA | 1:C:218:GLY:O | 2.50 | 0.59 |
| 1:C:129:TYR:CB | 1:C:237:GLN:O | 2.49 | 0.59 |
| 1:C:163:PRO:HB2 | 1:C:165:ASP:H | 1.67 | 0.59 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:277:ASP:HA | 1:C:334:LYS:CE | 2.32 | 0.59 |
| 1:A:97:THR:CA | 1:A:218:GLY:O | 2.50 | 0.59 |
| 1:A:130:ARG:CB | 1:A:237:GLN:CB | 2.68 | 0.59 |
| 1:A:163:PRO:CB | 1:A:164:ASN:HD22 | 2.15 | 0.59 |
| 1:A:327:ALA:HB2 | 1:A:331:GLN:OE1 | 1.96 | 0.59 |
| 1:A:163:PRO:HB2 | 1:A:165:ASP:H | 1.66 | 0.59 |
| 1:A:203:ASP:O | 1:A:205:LYS:N | 2.34 | 0.59 |
| 1:B:163:PRO:HB2 | 1:B:165:ASP:H | 1.67 | 0.59 |
| 1:C:203:ASP:O | 1:C:205:LYS:N | 2.35 | 0.59 |
| 1:C:206:LEU:N | 1:C:329:ARG:NH1 | 2.48 | 0.59 |
| 1:A:231:ARG:HG3 | 1:A:232:VAL:H | 1.63 | 0.59 |
| 1:A:248:ALA:N | 1:A:264:SER:O | 2.36 | 0.59 |
| 1:A:307:ASP:O | 1:A:323:GLY:O | 2.21 | 0.59 |
| 1:B:97:THR:CA | 1:B:218:GLY:O | 2.50 | 0.59 |
| 1:A:98:ASP:OD1 | 1:A:99:THR:N | 2.33 | 0.59 |
| 1:A:138:TYR:HE2 | 1:A:180:PRO:HA | 1.68 | 0.59 |
| 1:A:207:VAL:HG13 | 1:A:208:ASP:OD2 | 2.03 | 0.59 |
| 1:B:277:ASP:HA | 1:B:334:LYS:HZ2 | 1.68 | 0.59 |
| 1:B:336:VAL:HG13 | 1:B:336:VAL:O | 2.03 | 0.59 |
| 1:C:230:VAL:HG12 | 1:C:231:ARG:H | 1.68 | 0.59 |
| 1:B:169:LEU:C | 1:B:169:LEU:CD2 | 2.70 | 0.59 |
| 1:B:207:VAL:HG13 | 1:B:208:ASP:OD2 | 2.03 | 0.59 |
| 1:B:300:LEU:HB3 | 1:B:310:VAL:HG21 | 1.84 | 0.59 |
| 1:C:120:ILE:O | 1:C:120:ILE:CG1 | 2.50 | 0.59 |
| 1:C:246:SER:O | 1:C:349:LEU:C | 2.40 | 0.59 |
| 1:A:200:GLY:HA3 | 1:A:201:ILE:HG22 | 1.84 | 0.59 |
| 1:B:300:LEU:HD11 | 1:B:333:VAL:HG11 | 1.85 | 0.59 |
| 1:B:307:ASP:O | 1:B:323:GLY:O | 2.21 | 0.59 |
| 1:C:169:LEU:C | 1:C:169:LEU:CD2 | 2.70 | 0.59 |
| 1:C:163:PRO:CB | 1:C:164:ASN:HD22 | 2.15 | 0.59 |
| 1:A:265:TRP:CH2 | 1:A:348:ALA:O | 2.52 | 0.58 |
| 1:B:291:PHE:C | 1:B:292:TYR:CA | 2.67 | 0.58 |
| 1:C:307:ASP:O | 1:C:323:GLY:O | 2.21 | 0.58 |
| 1:B:113:PRO:CB | 1:B:283:THR:O | 2.51 | 0.58 |
| 1:B:179:VAL:HG13 | 1:B:181:TRP:CD1 | 2.38 | 0.58 |
| 1:B:200:GLY:HA3 | 1:B:201:ILE:HG22 | 1.83 | 0.58 |
| 1:B:203:ASP:O | 1:B:205:LYS:N | 2.34 | 0.58 |
| 1:C:130:ARG:HB3 | 1:C:237:GLN:H | 1.66 | 0.58 |
| 1:A:179:VAL:HG13 | 1:A:181:TRP:CD1 | 2.38 | 0.58 |
| 1:A:336:VAL:HG13 | 1:A:336:VAL:O | 2.03 | 0.58 |
| 1:B:264:SER:C | 1:B:265:TRP:HA | 2.22 | 0.58 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:202:SER:HA | 1:C:281:LEU:HG | 1.85 | 0.58 |
| 1:A:179:VAL:CG1 | 1:A:181:TRP:HD1 | 2.14 | 0.58 |
| 1:A:230:VAL:HG12 | 1:A:231:ARG:H | 1.68 | 0.58 |
| 1:A:300:LEU:HB3 | 1:A:310:VAL:HG21 | 1.84 | 0.58 |
| 1:B:172:ILE:O | 1:B:172:ILE:HG23 | 2.03 | 0.58 |
| 1:B:230:VAL:HG12 | 1:B:231:ARG:H | 1.68 | 0.58 |
| 1:C:95:LYS:HZ1 | 1:C:221:ALA:CA | 2.14 | 0.58 |
| 1:C:213:ILE:C | 1:C:214:MET:HG3 | 2.24 | 0.58 |
| 1:A:169:LEU:C | 1:A:169:LEU:CD2 | 2.70 | 0.58 |
| 1:A:172:ILE:O | 1:A:172:ILE:HG23 | 2.03 | 0.58 |
| 1:B:138:TYR:HE2 | 1:B:180:PRO:HA | 1.68 | 0.58 |
| 1:B:227:LEU:H | 1:B:227:LEU:CD1 | 2.17 | 0.58 |
| 1:B:277:ASP:HA | 1:B:334:LYS:CE | 2.32 | 0.58 |
| 1:B:315:ALA:HA | 1:B:318:SER:HB2 | 1.84 | 0.58 |
| 1:C:112:GLU:O | 1:C:113:PRO:C | 2.41 | 0.58 |
| 1:C:113:PRO:HD2 | 1:C:285:ASN:N | 2.19 | 0.58 |
| 1:C:179:VAL:HG21 | 1:C:181:TRP:CD1 | 2.36 | 0.58 |
| 1:C:291:PHE:HB2 | 1:C:346:TRP:CB | 2.29 | 0.58 |
| 1:C:300:LEU:HB3 | 1:C:310:VAL:HG21 | 1.84 | 0.58 |
| 1:B:342:PRO:C | 1:B:343:LYS:HD3 | 2.23 | 0.58 |
| 1:C:172:ILE:O | 1:C:172:ILE:HG23 | 2.03 | 0.58 |
| 1:C:207:VAL:HG13 | 1:C:208:ASP:OD2 | 2.03 | 0.58 |
| 1:C:217:TYR:CD1 | 1:C:217:TYR:N | 2.69 | 0.58 |
| 1:C:296:PRO:HG3 | 1:C:337:THR:CB | 2.27 | 0.58 |
| 1:A:296:PRO:HG3 | 1:A:337:THR:CB | 2.27 | 0.58 |
| 1:C:138:TYR:HE2 | 1:C:180:PRO:HA | 1.68 | 0.58 |
| 1:C:185:ILE:HD12 | 1:C:186:LEU:H | 0.65 | 0.58 |
| 1:B:83:THR:HA | 1:B:236:VAL:O | 2.04 | 0.58 |
| 1:B:105:THR:HG1 | 1:B:211:LYS:HD3 | 0.75 | 0.58 |
| 1:B:179:VAL:CG1 | 1:B:181:TRP:HD1 | 2.14 | 0.58 |
| 1:C:197:VAL:HG21 | 1:C:350:ARG:NH2 | 1.95 | 0.58 |
| 1:C:315:ALA:HA | 1:C:318:SER:HB2 | 1.84 | 0.58 |
| 1:C:342:PRO:C | 1:C:343:LYS:HD3 | 2.23 | 0.58 |
| 1:B:112:GLU:O | 1:B:113:PRO:C | 2.41 | 0.57 |
| 1:B:280:PHE:HD2 | 1:B:331:GLN:O | 1.86 | 0.57 |
| 1:C:113:PRO:HD2 | 1:C:285:ASN:O | 2.04 | 0.57 |
| 1:C:340:GLU:HA | 1:C:340:GLU:OE1 | 2.04 | 0.57 |
| 1:A:136:PHE:HB3 | 1:A:230:VAL:HG11 | 1.87 | 0.57 |
| 1:A:340:GLU:HA | 1:A:340:GLU:OE1 | 2.03 | 0.57 |
| 1:C:302:ASN:CB | 1:C:333:VAL:HG22 | 2.34 | 0.57 |
| 1:C:336:VAL:O | 1:C:336:VAL:HG13 | 2.03 | 0.57 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:83:THR:HA | 1:A:236:VAL:O | 2.04 | 0.57 |
| 1:A:250:ILE:HA | 1:A:347:GLN:HA | 1.87 | 0.57 |
| 1:B:302:ASN:CB | 1:B:333:VAL:HG22 | 2.34 | 0.57 |
| 1:C:163:PRO:C | 1:C:164:ASN:ND2 | 2.44 | 0.57 |
| 1:C:198:ALA:HB1 | 1:C:200:GLY:C | 2.14 | 0.57 |
| 1:B:138:TYR:HD2 | 1:B:184:PHE:CE1 | 2.16 | 0.57 |
| 1:B:313:GLU:CG | 1:B:318:SER:HB2 | 2.19 | 0.57 |
| 1:C:61:PRO:HD2 | 1:C:181:TRP:HZ3 | 1.67 | 0.57 |
| 1:C:83:THR:HA | 1:C:236:VAL:O | 2.03 | 0.57 |
| 1:A:138:TYR:HA | 1:A:230:VAL:HG22 | 1.86 | 0.57 |
| 1:A:315:ALA:HA | 1:A:318:SER:HB2 | 1.84 | 0.57 |
| 1:B:151:ALA:CA | 1:B:177:SER:HB2 | 2.17 | 0.57 |
| 1:B:238:LEU:N | 1:B:238:LEU:CD1 | 2.67 | 0.57 |
| 1:C:136:PHE:HB3 | 1:C:230:VAL:HG11 | 1.86 | 0.57 |
| 1:A:313:GLU:HG3 | 1:A:318:SER:OG | 2.01 | 0.57 |
| 1:B:340:GLU:HA | 1:B:340:GLU:OE1 | 2.04 | 0.57 |
| 1:C:238:LEU:N | 1:C:238:LEU:CD1 | 2.67 | 0.57 |
| 1:A:95:LYS:HZ2 | 1:A:221:ALA:CB | 2.17 | 0.57 |
| 1:B:291:PHE:HB2 | 1:B:346:TRP:CB | 2.29 | 0.57 |
| 1:C:78:ALA:O | 1:C:80:ASP:CA | 2.52 | 0.57 |
| 1:C:197:VAL:CG2 | 1:C:350:ARG:CZ | 2.80 | 0.57 |
| 1:C:280:PHE:HD2 | 1:C:331:GLN:O | 1.86 | 0.57 |
| 1:A:227:LEU:H | 1:A:227:LEU:CD1 | 2.17 | 0.57 |
| 1:A:258:ASP:CG | 1:A:259:GLY:N | 2.58 | 0.57 |
| 1:B:136:PHE:HB3 | 1:B:230:VAL:HG11 | 1.87 | 0.57 |
| 1:C:197:VAL:HG21 | 1:C:350:ARG:HH12 | 1.69 | 0.57 |
| 1:C:250:ILE:HA | 1:C:347:GLN:HA | 1.87 | 0.57 |
| 1:A:280:PHE:HD2 | 1:A:331:GLN:O | 1.86 | 0.57 |
| 1:A:302:ASN:CB | 1:A:333:VAL:HG22 | 2.34 | 0.57 |
| 1:B:124:ALA:CB | 1:B:245:THR:HG21 | 2.35 | 0.57 |
| 1:A:95:LYS:HZ1 | 1:A:221:ALA:CA | 2.16 | 0.57 |
| 1:A:124:ALA:CB | 1:A:245:THR:HG21 | 2.35 | 0.57 |
| 1:B:149:LYS:CE | 1:B:151:ALA:HA | 2.35 | 0.57 |
| 1:B:302:ASN:HB2 | 1:B:333:VAL:HG22 | 1.87 | 0.57 |
| 1:C:152:LEU:CD1 | 1:C:184:PHE:HE2 | 2.18 | 0.57 |
| 1:A:149:LYS:CE | 1:A:151:ALA:HA | 2.35 | 0.56 |
| 1:A:290:LEU:HD12 | 1:A:290:LEU:C | 2.26 | 0.56 |
| 1:B:290:LEU:HD12 | 1:B:290:LEU:C | 2.26 | 0.56 |
| 1:C:82:ILE:CG2 | 1:C:238:LEU:HB2 | 2.32 | 0.56 |
| 1:C:302:ASN:HB2 | 1:C:333:VAL:HG22 | 1.87 | 0.56 |
| 1:B:86:GLY:N | 1:B:234:TYR:CE1 | 2.74 | 0.56 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:152:LEU:HD12 | 1:B:184:PHE:HE2 | 1.70 | 0.56 |
| 1:C:154:PHE:CD1 | 1:C:155:ASP:C | 2.78 | 0.56 |
| 1:C:265:TRP:CH2 | 1:C:348:ALA:O | 2.52 | 0.56 |
| 1:A:112:GLU:O | 1:A:113:PRO:C | 2.41 | 0.56 |
| 1:A:138:TYR:HD2 | 1:A:184:PHE:CE1 | 2.16 | 0.56 |
| 1:A:154:PHE:CD1 | 1:A:155:ASP:C | 2.78 | 0.56 |
| 1:B:95:LYS:HZ1 | 1:B:221:ALA:CA | 2.16 | 0.56 |
| 1:B:120:ILE:O | 1:B:120:ILE:HG13 | 2.05 | 0.56 |
| 1:B:285:ASN:HD22 | 1:B:286:PHE:N | 2.03 | 0.56 |
| 1:C:138:TYR:HA | 1:C:230:VAL:HG22 | 1.86 | 0.56 |
| 1:C:198:ALA:CA | 1:C:200:GLY:O | 2.54 | 0.56 |
| 1:A:238:LEU:N | 1:A:238:LEU:CD1 | 2.67 | 0.56 |
| 1:A:264:SER:C | 1:A:265:TRP:HA | 2.22 | 0.56 |
| 1:A:291:PHE:C | 1:A:292:TYR:CA | 2.67 | 0.56 |
| 1:B:154:PHE:CD1 | 1:B:155:ASP:C | 2.78 | 0.56 |
| 1:B:250:ILE:HA | 1:B:347:GLN:HA | 1.87 | 0.56 |
| 1:B:300:LEU:HD12 | 1:B:333:VAL:CG1 | 2.36 | 0.56 |
| 1:C:77:THR:CG2 | 1:C:78:ALA:N | 2.49 | 0.56 |
| 1:A:300:LEU:HD11 | 1:A:333:VAL:HG11 | 1.85 | 0.56 |
| 1:A:326:VAL:CG1 | 1:A:327:ALA:O | 2.48 | 0.56 |
| 1:B:138:TYR:HA | 1:B:230:VAL:HG22 | 1.86 | 0.56 |
| 1:B:152:LEU:CD1 | 1:B:184:PHE:HE2 | 2.18 | 0.56 |
| 1:C:208:ASP:H | 1:C:329:ARG:HH21 | 1.46 | 0.56 |
| 1:C:285:ASN:HD22 | 1:C:286:PHE:N | 2.04 | 0.56 |
| 1:A:152:LEU:HD12 | 1:A:184:PHE:HE2 | 1.71 | 0.56 |
| 1:A:213:ILE:C | 1:A:214:MET:HG3 | 2.24 | 0.56 |
| 1:C:200:GLY:O | 1:C:282:GLY:HA2 | 2.06 | 0.56 |
| 1:A:145:THR:CG2 | 1:A:145:THR:O | 2.54 | 0.56 |
| 1:B:95:LYS:HZ2 | 1:B:221:ALA:CB | 2.18 | 0.56 |
| 1:A:152:LEU:CD1 | 1:A:184:PHE:HE2 | 2.18 | 0.56 |
| 1:A:82:ILE:CG2 | 1:A:238:LEU:HB2 | 2.32 | 0.56 |
| 1:A:300:LEU:CA | 1:A:308:PHE:HZ | 2.19 | 0.56 |
| 1:B:213:ILE:C | 1:B:214:MET:HG3 | 2.24 | 0.56 |
| 1:C:152:LEU:HD12 | 1:C:184:PHE:HE2 | 1.70 | 0.56 |
| 1:A:302:ASN:HB2 | 1:A:333:VAL:HG22 | 1.87 | 0.56 |
| 1:B:162:PRO:C | 1:B:163:PRO:O | 2.42 | 0.56 |
| 1:B:198:ALA:HB1 | 1:B:200:GLY:C | 2.14 | 0.56 |
| 1:C:162:PRO:C | 1:C:163:PRO:O | 2.42 | 0.56 |
| 1:A:120:ILE:O | 1:A:120:ILE:HG13 | 2.05 | 0.55 |
| 1:A:174:GLY:C | 1:A:175:CYS:HG | 2.06 | 0.55 |
| 1:B:104:THR:O | 1:B:105:THR:O | 2.24 | 0.55 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:120:ILE:O | 1:C:120:ILE:HG13 | 2.06 | 0.55 |
| 1:C:277:ASP:HA | 1:C:334:LYS:HZ2 | 1.71 | 0.55 |
| 1:C:277:ASP:HA | 1:C:334:LYS:NZ | 2.21 | 0.55 |
| 1:C:289:THR:HG23 | 1:C:321:TRP:CZ3 | 2.41 | 0.55 |
| 1:A:113:PRO:C | 1:A:115:THR:N | 2.43 | 0.55 |
| 1:A:162:PRO:C | 1:A:163:PRO:O | 2.42 | 0.55 |
| 1:A:274:TRP:CD1 | 1:A:339:GLU:C | 2.80 | 0.55 |
| 1:B:145:THR:O | 1:B:145:THR:CG2 | 2.54 | 0.55 |
| 1:B:149:LYS:CD | 1:B:170:TYR:HH | 1.67 | 0.55 |
| 1:B:170:TYR:HE1 | 1:B:217:TYR:OH | 1.86 | 0.55 |
| 1:B:326:VAL:CG1 | 1:B:327:ALA:O | 2.48 | 0.55 |
| 1:C:145:THR:CG2 | 1:C:145:THR:O | 2.54 | 0.55 |
| 1:B:82:ILE:CG2 | 1:B:238:LEU:HB2 | 2.32 | 0.55 |
| 1:B:163:PRO:C | 1:B:164:ASN:ND2 | 2.44 | 0.55 |
| 1:C:71:THR:CG2 | 1:C:87:SER:CB | 2.77 | 0.55 |
| 1:C:124:ALA:CB | 1:C:245:THR:HG21 | 2.35 | 0.55 |
| 1:C:300:LEU:HD11 | 1:C:333:VAL:HG11 | 1.85 | 0.55 |
| 1:A:121:LYS:HZ3 | 1:A:350:ARG:NH1 | 2.03 | 0.55 |
| 1:B:277:ASP:HA | 1:B:334:LYS:NZ | 2.21 | 0.55 |
| 1:C:149:LYS:CE | 1:C:151:ALA:HA | 2.35 | 0.55 |
| 1:C:153:ALA:HB1 | 1:C:174:GLY:HA3 | 0.62 | 0.55 |
| 1:C:300:LEU:CA | 1:C:308:PHE:HZ | 2.19 | 0.55 |
| 1:A:116:PHE:HE2 | 1:A:234:TYR:CE2 | 2.24 | 0.55 |
| 1:A:170:TYR:HE1 | 1:A:217:TYR:OH | 1.87 | 0.55 |
| 1:A:289:THR:HG23 | 1:A:321:TRP:CZ3 | 2.41 | 0.55 |
| 1:B:274:TRP:CD1 | 1:B:339:GLU:HA | 2.42 | 0.55 |
| 1:C:258:ASP:CG | 1:C:259:GLY:N | 2.58 | 0.55 |
| 1:A:86:GLY:N | 1:A:234:TYR:CE1 | 2.74 | 0.55 |
| 1:B:116:PHE:HE2 | 1:B:234:TYR:CE2 | 2.24 | 0.55 |
| 1:B:300:LEU:CA | 1:B:308:PHE:HZ | 2.19 | 0.55 |
| 1:C:179:VAL:CG1 | 1:C:181:TRP:HD1 | 2.14 | 0.55 |
| 1:A:274:TRP:CD1 | 1:A:339:GLU:HA | 2.42 | 0.55 |
| 1:A:313:GLU:CG | 1:A:318:SER:HB2 | 2.19 | 0.55 |
| 1:B:133:SER:HB3 | 1:B:235:THR:CG2 | 2.35 | 0.55 |
| 1:C:104:THR:O | 1:C:105:THR:O | 2.24 | 0.55 |
| 1:C:116:PHE:HE2 | 1:C:234:TYR:CE2 | 2.24 | 0.55 |
| 1:C:149:LYS:CD | 1:C:177:SER:OG | 2.50 | 0.55 |
| 1:C:274:TRP:CD1 | 1:C:339:GLU:C | 2.80 | 0.55 |
| 1:B:126:TYR:C | 1:B:242:THR:CG2 | 2.75 | 0.55 |
| 1:B:198:ALA:CA | 1:B:200:GLY:O | 2.54 | 0.55 |
| 1:C:96:ASN:C | 1:C:98:ASP:N | 2.55 | 0.55 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:227:LEU:H | 1:C:227:LEU:CD1 | 2.17 | 0.55 |
| 1:C:291:PHE:CE1 | 1:C:335:MET:CE | 2.90 | 0.55 |
| 1:C:297:VAL:HB | 1:C:336:VAL:CG1 | 1.98 | 0.55 |
| 1:A:104:THR:O | 1:A:105:THR:O | 2.24 | 0.55 |
| 1:A:126:TYR:C | 1:A:242:THR:CG2 | 2.75 | 0.55 |
| 1:A:291:PHE:CE1 | 1:A:335:MET:CE | 2.90 | 0.55 |
| 1:A:300:LEU:HD12 | 1:A:333:VAL:CG1 | 2.36 | 0.55 |
| 1:B:300:LEU:CB | 1:B:308:PHE:HZ | 2.20 | 0.55 |
| 1:C:197:VAL:HG22 | 1:C:198:ALA:H | 1.72 | 0.55 |
| 1:C:201:ILE:CG2 | 1:C:264:SER:OG | 2.55 | 0.55 |
| 1:C:300:LEU:CB | 1:C:308:PHE:HZ | 2.20 | 0.55 |
| 1:C:326:VAL:CG1 | 1:C:327:ALA:O | 2.48 | 0.55 |
| 1:A:154:PHE:CD1 | 1:A:155:ASP:CA | 2.90 | 0.55 |
| 1:A:198:ALA:CA | 1:A:200:GLY:O | 2.54 | 0.55 |
| 1:B:97:THR:O | 1:B:97:THR:OG1 | 2.25 | 0.55 |
| 1:B:304:ASP:CG | 1:B:332:GLY:H | 2.11 | 0.55 |
| 1:C:100:GLU:O | 1:C:101:PRO:O | 2.25 | 0.55 |
| 1:C:290:LEU:HD12 | 1:C:290:LEU:C | 2.26 | 0.55 |
| 1:A:109:ASN:CA | 1:A:129:TYR:OH | 2.55 | 0.54 |
| 1:A:197:VAL:HG22 | 1:A:198:ALA:H | 1.72 | 0.54 |
| 1:A:277:ASP:HA | 1:A:334:LYS:NZ | 2.21 | 0.54 |
| 1:B:291:PHE:CE1 | 1:B:335:MET:CE | 2.90 | 0.54 |
| 1:A:163:PRO:C | 1:A:164:ASN:ND2 | 2.44 | 0.54 |
| 1:B:197:VAL:HG22 | 1:B:198:ALA:N | 2.23 | 0.54 |
| 1:B:350:ARG:O | 1:B:351:ILE:CB | 2.53 | 0.54 |
| 1:C:113:PRO:HD2 | 1:C:285:ASN:H | 1.72 | 0.54 |
| 1:B:341:GLN:O | 1:B:343:LYS:HG2 | 2.07 | 0.54 |
| 1:C:274:TRP:CD1 | 1:C:339:GLU:HA | 2.42 | 0.54 |
| 1:A:197:VAL:HG22 | 1:A:198:ALA:N | 2.23 | 0.54 |
| 1:A:300:LEU:CB | 1:A:308:PHE:HZ | 2.20 | 0.54 |
| 1:C:113:PRO:HG3 | 1:C:351:ILE:HG13 | 1.90 | 0.54 |
| 1:C:156:ARG:O | 1:C:209:PHE:O | 2.26 | 0.54 |
| 1:C:191:ASP:OD1 | 1:C:209:PHE:CZ | 2.61 | 0.54 |
| 1:A:130:ARG:O | 1:A:131:PHE:HB2 | 2.08 | 0.54 |
| 1:A:191:ASP:OD1 | 1:A:209:PHE:CZ | 2.61 | 0.54 |
| 1:B:191:ASP:OD1 | 1:B:209:PHE:CZ | 2.61 | 0.54 |
| 1:B:274:TRP:CD1 | 1:B:339:GLU:C | 2.80 | 0.54 |
| 1:C:86:GLY:N | 1:C:234:TYR:CE1 | 2.74 | 0.54 |
| 1:C:179:VAL:CG1 | 1:C:181:TRP:NE1 | 2.54 | 0.54 |
| 1:C:197:VAL:HG22 | 1:C:198:ALA:N | 2.23 | 0.54 |
| 1:C:199:ASP:OD1 | 1:C:199:ASP:N | 2.40 | 0.54 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:304:ASP:CG | 1:C:332:GLY:H | 2.11 | 0.54 |
| 1:C:306:SER:HB2 | 1:C:325:LYS:H | 1.72 | 0.54 |
| 1:A:120:ILE:HD13 | 1:A:329:ARG:HH21 | 1.71 | 0.54 |
| 1:A:339:GLU:O | 1:A:340:GLU:HA | 2.08 | 0.54 |
| 1:A:149:LYS:CD | 1:A:177:SER:OG | 2.50 | 0.54 |
| 1:A:271:THR:CG2 | 1:A:275:GLU:OE2 | 2.56 | 0.54 |
| 1:A:306:SER:HB2 | 1:A:325:LYS:H | 1.72 | 0.54 |
| 1:B:258:ASP:CG | 1:B:259:GLY:N | 2.58 | 0.54 |
| 1:B:300:LEU:O | 1:B:308:PHE:CZ | 2.61 | 0.54 |
| 1:C:133:SER:HB3 | 1:C:235:THR:CG2 | 2.35 | 0.54 |
| 1:C:174:GLY:C | 1:C:175:CYS:HG | 2.04 | 0.54 |
| 1:A:300:LEU:O | 1:A:308:PHE:CZ | 2.61 | 0.54 |
| 1:A:304:ASP:CG | 1:A:332:GLY:H | 2.11 | 0.54 |
| 1:B:130:ARG:O | 1:B:131:PHE:HB2 | 2.08 | 0.54 |
| 1:B:289:THR:HG23 | 1:B:321:TRP:CZ3 | 2.41 | 0.54 |
| 1:B:306:SER:HB2 | 1:B:325:LYS:H | 1.72 | 0.54 |
| 1:C:95:LYS:NZ | 1:C:221:ALA:HB1 | 2.22 | 0.54 |
| 1:C:300:LEU:HD12 | 1:C:333:VAL:CG1 | 2.36 | 0.54 |
| 1:B:153:ALA:HB1 | 1:B:174:GLY:HA3 | 0.62 | 0.54 |
| 1:B:248:ALA:O | 1:B:263:VAL:O | 2.25 | 0.54 |
| 1:C:126:TYR:C | 1:C:242:THR:CG2 | 2.75 | 0.54 |
| 1:C:173:GLU:HG3 | 1:C:174:GLY:H | 1.73 | 0.54 |
| 1:C:213:ILE:O | 1:C:214:MET:CG | 2.56 | 0.54 |
| 1:A:153:ALA:HB1 | 1:A:174:GLY:HA3 | 0.62 | 0.54 |
| 1:A:156:ARG:O | 1:A:209:PHE:O | 2.26 | 0.54 |
| 1:A:285:ASN:HD22 | 1:A:286:PHE:N | 2.04 | 0.54 |
| 1:B:136:PHE:CZ | 1:B:212:LEU:CD2 | 2.91 | 0.54 |
| 1:C:85:SER:C | 1:C:234:TYR:CD1 | 2.82 | 0.54 |
| 1:C:339:GLU:O | 1:C:340:GLU:HA | 2.08 | 0.54 |
| 1:A:100:GLU:O | 1:A:101:PRO:O | 2.25 | 0.53 |
| 1:B:197:VAL:HG22 | 1:B:198:ALA:H | 1.72 | 0.53 |
| 1:C:231:ARG:CG | 1:C:232:VAL:N | 2.61 | 0.53 |
| 1:C:326:VAL:CG1 | 1:C:327:ALA:N | 2.19 | 0.53 |
| 1:A:179:VAL:HG13 | 1:A:182:THR:HG22 | 1.90 | 0.53 |
| 1:A:213:ILE:O | 1:A:214:MET:CG | 2.56 | 0.53 |
| 1:B:213:ILE:O | 1:B:214:MET:CG | 2.56 | 0.53 |
| 1:C:313:GLU:HB2 | 1:C:314:ALA:C | 2.29 | 0.53 |
| 1:A:136:PHE:CZ | 1:A:212:LEU:CD2 | 2.91 | 0.53 |
| 1:A:276:HIS:CG | 1:A:277:ASP:N | 2.74 | 0.53 |
| 1:B:154:PHE:CD1 | 1:B:155:ASP:CA | 2.90 | 0.53 |
| 1:B:179:VAL:HG22 | 1:B:180:PRO:N | 2.23 | 0.53 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:341:GLN:O | 1:C:343:LYS:HG2 | 2.08 | 0.53 |
| 1:A:248:ALA:CB | 1:A:265:TRP:N | 2.70 | 0.53 |
| 1:A:341:GLN:O | 1:A:343:LYS:HG2 | 2.07 | 0.53 |
| 1:B:95:LYS:NZ | 1:B:221:ALA:HB1 | 2.22 | 0.53 |
| 1:B:265:TRP:CH2 | 1:B:348:ALA:O | 2.52 | 0.53 |
| 1:C:244:SER:O | 1:C:245:THR:HB | 2.08 | 0.53 |
| 1:C:276:HIS:CG | 1:C:277:ASP:N | 2.74 | 0.53 |
| 1:B:109:ASN:CA | 1:B:129:TYR:OH | 2.55 | 0.53 |
| 1:B:156:ARG:O | 1:B:209:PHE:O | 2.26 | 0.53 |
| 1:B:293:GLU:O | 1:B:317:GLY:HA2 | 2.09 | 0.53 |
| 1:C:95:LYS:HZ2 | 1:C:221:ALA:CB | 2.21 | 0.53 |
| 1:C:109:ASN:CA | 1:C:129:TYR:OH | 2.55 | 0.53 |
| 1:C:130:ARG:O | 1:C:131:PHE:HB2 | 2.08 | 0.53 |
| 1:C:170:TYR:HE1 | 1:C:217:TYR:OH | 1.87 | 0.53 |
| 1:C:269:LYS:HB3 | 1:C:277:ASP:OD2 | 2.09 | 0.53 |
| 1:B:339:GLU:O | 1:B:340:GLU:HA | 2.08 | 0.53 |
| 1:C:90:ILE:O | 1:C:90:ILE:CG2 | 2.54 | 0.53 |
| 1:C:142:SER:HB3 | 1:C:227:LEU:O | 2.09 | 0.53 |
| 1:C:300:LEU:O | 1:C:308:PHE:CZ | 2.61 | 0.53 |
| 1:A:84:ARG:HG3 | 1:A:119:LEU:HD11 | 1.91 | 0.53 |
| 1:A:154:PHE:CB | 1:A:212:LEU:HD12 | 2.35 | 0.53 |
| 1:A:179:VAL:HG22 | 1:A:180:PRO:N | 2.23 | 0.53 |
| 1:A:293:GLU:HA | 1:A:317:GLY:HA2 | 1.91 | 0.53 |
| 1:B:142:SER:HB3 | 1:B:227:LEU:O | 2.09 | 0.53 |
| 1:C:113:PRO:HG3 | 1:C:120:ILE:CD1 | 2.39 | 0.53 |
| 1:C:269:LYS:CG | 1:C:270:GLY:N | 2.58 | 0.53 |
| 1:C:271:THR:CG2 | 1:C:275:GLU:OE2 | 2.56 | 0.53 |
| 1:B:179:VAL:HG13 | 1:B:182:THR:HG22 | 1.90 | 0.53 |
| 1:B:199:ASP:OD1 | 1:B:199:ASP:N | 2.40 | 0.53 |
| 1:B:339:GLU:O | 1:B:340:GLU:OE1 | 2.27 | 0.53 |
| 1:A:85:SER:C | 1:A:234:TYR:CD1 | 2.82 | 0.53 |
| 1:A:269:LYS:HB3 | 1:A:277:ASP:OD2 | 2.09 | 0.53 |
| 1:B:84:ARG:HG3 | 1:B:119:LEU:HD11 | 1.91 | 0.53 |
| 1:B:293:GLU:HA | 1:B:317:GLY:HA2 | 1.91 | 0.53 |
| 1:C:179:VAL:HG22 | 1:C:180:PRO:N | 2.23 | 0.53 |
| 1:A:133:SER:HB3 | 1:A:235:THR:CG2 | 2.35 | 0.53 |
| 1:A:179:VAL:CG1 | 1:A:182:THR:HG22 | 2.39 | 0.53 |
| 1:B:129:TYR:CA | 1:B:237:GLN:O | 2.57 | 0.53 |
| 1:B:173:GLU:HG3 | 1:B:174:GLY:H | 1.73 | 0.53 |
| 1:C:82:ILE:HG12 | 1:C:83:THR:N | 2.24 | 0.53 |
| 1:C:135:ARG:CB | 1:C:185:ILE:HD11 | 2.38 | 0.53 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:82:ILE:HD12 | 1:A:126:TYR:CE2 | 2.44 | 0.52 |
| 1:A:82:ILE:HG12 | 1:A:83:THR:N | 2.24 | 0.52 |
| 1:A:95:LYS:NZ | 1:A:221:ALA:HB1 | 2.22 | 0.52 |
| 1:A:129:TYR:CA | 1:A:237:GLN:O | 2.57 | 0.52 |
| 1:B:85:SER:C | 1:B:234:TYR:CD1 | 2.82 | 0.52 |
| 1:B:100:GLU:O | 1:B:101:PRO:O | 2.25 | 0.52 |
| 1:B:112:GLU:HB3 | 1:B:115:THR:CG2 | 2.40 | 0.52 |
| 1:B:113:PRO:HG3 | 1:B:120:ILE:CD1 | 2.39 | 0.52 |
| 1:B:244:SER:O | 1:B:245:THR:HB | 2.08 | 0.52 |
| 1:B:300:LEU:CG | 1:B:308:PHE:HZ | 2.20 | 0.52 |
| 1:C:107:VAL:O | 1:C:115:THR:CG2 | 2.56 | 0.52 |
| 1:C:136:PHE:CZ | 1:C:212:LEU:CD2 | 2.91 | 0.52 |
| 1:B:82:ILE:HD12 | 1:B:126:TYR:CE2 | 2.44 | 0.52 |
| 1:B:149:LYS:HE2 | 1:B:151:ALA:CB | 2.39 | 0.52 |
| 1:B:179:VAL:CG1 | 1:B:182:THR:HG22 | 2.39 | 0.52 |
| 1:B:295:ALA:HB1 | 1:B:314:ALA:C | 2.30 | 0.52 |
| 1:C:179:VAL:CG1 | 1:C:182:THR:HG22 | 2.39 | 0.52 |
| 1:A:152:LEU:HD12 | 1:A:184:PHE:CE2 | 2.45 | 0.52 |
| 1:B:152:LEU:HD12 | 1:B:184:PHE:CE2 | 2.44 | 0.52 |
| 1:B:185:ILE:CD1 | 1:B:186:LEU:O | 2.58 | 0.52 |
| 1:C:94:LYS:O | 1:C:95:LYS:C | 2.48 | 0.52 |
| 1:A:236:VAL:CG1 | 1:A:237:GLN:H | 2.23 | 0.52 |
| 1:A:350:ARG:O | 1:A:351:ILE:CB | 2.53 | 0.52 |
| 1:B:135:ARG:CB | 1:B:185:ILE:HD11 | 2.38 | 0.52 |
| 1:B:154:PHE:CB | 1:B:212:LEU:HD12 | 2.35 | 0.52 |
| 1:C:112:GLU:HB3 | 1:C:115:THR:CG2 | 2.39 | 0.52 |
| 1:C:126:TYR:C | 1:C:242:THR:HG22 | 2.30 | 0.52 |
| 1:C:293:GLU:HA | 1:C:317:GLY:HA2 | 1.91 | 0.52 |
| 1:C:339:GLU:O | 1:C:340:GLU:OE1 | 2.27 | 0.52 |
| 1:A:112:GLU:HB3 | 1:A:115:THR:CG2 | 2.39 | 0.52 |
| 1:A:304:ASP:OD2 | 1:A:332:GLY:N | 2.43 | 0.52 |
| 1:C:95:LYS:HZ1 | 1:C:221:ALA:HB1 | 1.74 | 0.52 |
| 1:C:128:LYS:O | 1:C:129:TYR:HB3 | 2.10 | 0.52 |
| 1:C:152:LEU:HD12 | 1:C:184:PHE:CE2 | 2.45 | 0.52 |
| 1:C:179:VAL:HG13 | 1:C:182:THR:HG22 | 1.90 | 0.52 |
| 1:A:142:SER:HB3 | 1:A:227:LEU:O | 2.09 | 0.52 |
| 1:A:244:SER:O | 1:A:245:THR:HB | 2.08 | 0.52 |
| 1:C:56:THR:CG2 | 1:C:57:ARG:N | 2.58 | 0.52 |
| 1:C:78:ALA:O | 1:C:81:GLY:N | 2.42 | 0.52 |
| 1:C:82:ILE:HD12 | 1:C:126:TYR:CE2 | 2.44 | 0.52 |
| 1:C:166:LEU:C | 1:C:168:SER:N | 2.61 | 0.52 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:350:ARG:O | 1:C:351:ILE:CB | 2.53 | 0.52 |
| 1:A:93:LEU:HD12 | 1:A:138:TYR:HE1 | 1.75 | 0.52 |
| 1:A:149:LYS:HE2 | 1:A:151:ALA:CB | 2.39 | 0.52 |
| 1:A:277:ASP:CG | 1:A:334:LYS:HZ3 | 2.13 | 0.52 |
| 1:A:300:LEU:CG | 1:A:308:PHE:HZ | 2.21 | 0.52 |
| 1:B:269:LYS:HB3 | 1:B:277:ASP:OD2 | 2.09 | 0.52 |
| 1:B:338:THR:HG1 | 1:B:339:GLU:HB2 | 1.69 | 0.52 |
| 1:C:54:LYS:O | 1:C:55:VAL:HB | 2.08 | 0.52 |
| 1:C:239:LYS:O | 1:C:240:ASN:O | 2.28 | 0.52 |
| 1:A:113:PRO:HG3 | 1:A:120:ILE:CD1 | 2.39 | 0.52 |
| 1:B:236:VAL:CG1 | 1:B:237:GLN:H | 2.23 | 0.52 |
| 1:B:313:GLU:HB2 | 1:B:314:ALA:C | 2.29 | 0.52 |
| 1:C:90:ILE:HD11 | 1:C:232:VAL:HG22 | 1.83 | 0.52 |
| 1:C:149:LYS:HE2 | 1:C:151:ALA:CB | 2.39 | 0.52 |
| 1:C:304:ASP:OD2 | 1:C:332:GLY:N | 2.43 | 0.52 |
| 1:A:339:GLU:O | 1:A:340:GLU:OE1 | 2.27 | 0.52 |
| 1:B:93:LEU:HD12 | 1:B:138:TYR:HE1 | 1.75 | 0.52 |
| 1:B:304:ASP:OD2 | 1:B:332:GLY:N | 2.43 | 0.52 |
| 1:C:125:GLN:C | 1:C:242:THR:HG23 | 2.30 | 0.52 |
| 1:C:149:LYS:HD3 | 1:C:217:TYR:HE1 | 1.73 | 0.52 |
| 1:A:125:GLN:C | 1:A:242:THR:HG23 | 2.30 | 0.52 |
| 1:A:295:ALA:HB2 | 1:A:315:ALA:CB | 2.37 | 0.52 |
| 1:C:138:TYR:CZ | 1:C:150:VAL:HG21 | 2.45 | 0.52 |
| 1:C:185:ILE:CD1 | 1:C:186:LEU:O | 2.58 | 0.52 |
| 1:A:185:ILE:CD1 | 1:A:186:LEU:O | 2.58 | 0.51 |
| 1:A:235:THR:O | 1:A:235:THR:HG23 | 2.09 | 0.51 |
| 1:A:295:ALA:HB1 | 1:A:314:ALA:C | 2.30 | 0.51 |
| 1:B:136:PHE:HB3 | 1:B:230:VAL:CG1 | 2.40 | 0.51 |
| 1:C:300:LEU:O | 1:C:308:PHE:CE2 | 2.63 | 0.51 |
| 1:A:138:TYR:CZ | 1:A:150:VAL:HG21 | 2.45 | 0.51 |
| 1:A:144:SER:O | 1:A:146:THR:N | 2.44 | 0.51 |
| 1:B:94:LYS:O | 1:B:95:LYS:C | 2.48 | 0.51 |
| 1:B:144:SER:O | 1:B:146:THR:N | 2.44 | 0.51 |
| 1:B:295:ALA:N | 1:B:316:ALA:CA | 2.40 | 0.51 |
| 1:C:84:ARG:HG3 | 1:C:119:LEU:HD11 | 1.91 | 0.51 |
| 1:C:179:VAL:HG13 | 1:C:181:TRP:CD1 | 2.38 | 0.51 |
| 1:C:236:VAL:CG1 | 1:C:237:GLN:H | 2.23 | 0.51 |
| 1:C:285:ASN:HD22 | 1:C:286:PHE:H | 1.58 | 0.51 |
| 1:A:103:TYR:CD1 | 1:A:215:ALA:HB2 | 2.45 | 0.51 |
| 1:A:103:TYR:CE1 | 1:A:169:LEU:HD12 | 2.43 | 0.51 |
| 1:A:293:GLU:O | 1:A:317:GLY:HA2 | 2.09 | 0.51 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:82:ILE:O | 1:B:83:THR:OG1 | 2.18 | 0.51 |
| 1:B:82:ILE:HG12 | 1:B:83:THR:N | 2.24 | 0.51 |
| 1:B:248:ALA:O | 1:B:263:VAL:C | 2.48 | 0.51 |
| 1:A:221:ALA:O | 1:A:225:ALA:HB2 | 2.10 | 0.51 |
| 1:B:153:ALA:CA | 1:B:174:GLY:HA3 | 2.33 | 0.51 |
| 1:B:239:LYS:O | 1:B:240:ASN:O | 2.28 | 0.51 |
| 1:C:83:THR:CB | 1:C:130:ARG:HH12 | 2.24 | 0.51 |
| 1:A:94:LYS:O | 1:A:95:LYS:C | 2.48 | 0.51 |
| 1:A:166:LEU:C | 1:A:168:SER:N | 2.61 | 0.51 |
| 1:A:230:VAL:CG1 | 1:A:231:ARG:N | 2.74 | 0.51 |
| 1:A:297:VAL:HB | 1:A:336:VAL:CG1 | 1.98 | 0.51 |
| 1:B:125:GLN:C | 1:B:242:THR:HG23 | 2.30 | 0.51 |
| 1:B:221:ALA:O | 1:B:225:ALA:HB2 | 2.10 | 0.51 |
| 1:C:295:ALA:HB1 | 1:C:314:ALA:C | 2.30 | 0.51 |
| 1:B:128:LYS:HG3 | 1:B:196:PHE:CD2 | 2.46 | 0.51 |
| 1:B:243:GLY:O | 1:B:244:SER:HB2 | 2.11 | 0.51 |
| 1:B:285:ASN:HD22 | 1:B:286:PHE:H | 1.58 | 0.51 |
| 1:C:230:VAL:CG1 | 1:C:231:ARG:N | 2.74 | 0.51 |
| 1:A:107:VAL:O | 1:A:115:THR:CG2 | 2.56 | 0.51 |
| 1:A:128:LYS:HG3 | 1:A:196:PHE:CD2 | 2.46 | 0.51 |
| 1:A:291:PHE:CG | 1:A:345:LYS:O | 2.64 | 0.51 |
| 1:B:83:THR:CB | 1:B:130:ARG:HH12 | 2.24 | 0.51 |
| 1:B:235:THR:O | 1:B:235:THR:HG23 | 2.09 | 0.51 |
| 1:C:113:PRO:HG2 | 1:C:285:ASN:HB3 | 1.91 | 0.51 |
| 1:C:221:ALA:O | 1:C:225:ALA:HB2 | 2.10 | 0.51 |
| 1:C:241:ARG:H | 1:C:241:ARG:CD | 2.22 | 0.51 |
| 1:C:313:GLU:CG | 1:C:318:SER:HB2 | 2.19 | 0.51 |
| 1:A:198:ALA:C | 1:A:200:GLY:N | 2.55 | 0.51 |
| 1:B:103:TYR:CE1 | 1:B:169:LEU:HD12 | 2.43 | 0.51 |
| 1:B:300:LEU:O | 1:B:308:PHE:CE2 | 2.63 | 0.51 |
| 1:C:129:TYR:CA | 1:C:237:GLN:O | 2.57 | 0.51 |
| 1:C:136:PHE:HB3 | 1:C:230:VAL:CG1 | 2.40 | 0.51 |
| 1:C:202:SER:N | 1:C:281:LEU:HG | 2.26 | 0.51 |
| 1:A:82:ILE:O | 1:A:83:THR:OG1 | 2.18 | 0.51 |
| 1:A:239:LYS:O | 1:A:240:ASN:O | 2.28 | 0.51 |
| 1:A:243:GLY:O | 1:A:244:SER:HB2 | 2.11 | 0.51 |
| 1:A:285:ASN:HD22 | 1:A:286:PHE:H | 1.58 | 0.51 |
| 1:A:300:LEU:O | 1:A:308:PHE:CE2 | 2.63 | 0.51 |
| 1:B:101:PRO:CB | 1:B:217:TYR:CD2 | 2.94 | 0.51 |
| 1:C:188:VAL:CG2 | 1:C:188:VAL:O | 2.59 | 0.51 |
| 1:A:136:PHE:HB3 | 1:A:230:VAL:CG1 | 2.40 | 0.51 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:296:PRO:CD | 1:A:337:THR:HG21 | 2.38 | 0.51 |
| 1:B:291:PHE:CG | 1:B:345:LYS:O | 2.64 | 0.51 |
| 1:C:243:GLY:O | 1:C:244:SER:HB2 | 2.11 | 0.51 |
| 1:C:295:ALA:HB2 | 1:C:315:ALA:CB | 2.37 | 0.51 |
| 1:A:101:PRO:CB | 1:A:217:TYR:CD2 | 2.94 | 0.50 |
| 1:A:107:VAL:HA | 1:A:211:LYS:HA | 1.93 | 0.50 |
| 1:A:313:GLU:HB2 | 1:A:314:ALA:C | 2.29 | 0.50 |
| 1:C:85:SER:O | 1:C:234:TYR:CE1 | 2.65 | 0.50 |
| 1:C:109:ASN:ND2 | 1:C:350:ARG:NH2 | 2.58 | 0.50 |
| 1:C:128:LYS:HG3 | 1:C:196:PHE:CD2 | 2.46 | 0.50 |
| 1:C:207:VAL:C | 1:C:329:ARG:NH2 | 2.64 | 0.50 |
| 1:C:235:THR:O | 1:C:235:THR:HG23 | 2.09 | 0.50 |
| 1:A:188:VAL:CG2 | 1:A:188:VAL:O | 2.59 | 0.50 |
| 1:A:314:ALA:O | 1:A:315:ALA:HB3 | 2.11 | 0.50 |
| 1:B:103:TYR:CD1 | 1:B:215:ALA:HB2 | 2.46 | 0.50 |
| 1:B:126:TYR:C | 1:B:242:THR:HG22 | 2.30 | 0.50 |
| 1:B:138:TYR:CZ | 1:B:150:VAL:HG21 | 2.45 | 0.50 |
| 1:B:241:ARG:H | 1:B:241:ARG:CD | 2.22 | 0.50 |
| 1:C:93:LEU:HD12 | 1:C:138:TYR:HE1 | 1.75 | 0.50 |
| 1:A:128:LYS:O | 1:A:129:TYR:HB3 | 2.10 | 0.50 |
| 1:B:230:VAL:CG1 | 1:B:231:ARG:N | 2.74 | 0.50 |
| 1:C:130:ARG:CB | 1:C:237:GLN:N | 2.74 | 0.50 |
| 1:C:153:ALA:CA | 1:C:174:GLY:HA3 | 2.33 | 0.50 |
| 1:C:154:PHE:CB | 1:C:212:LEU:HD12 | 2.35 | 0.50 |
| 1:C:314:ALA:O | 1:C:315:ALA:HB3 | 2.11 | 0.50 |
| 1:A:130:ARG:CB | 1:A:237:GLN:N | 2.74 | 0.50 |
| 1:A:157:ASP:OD1 | 1:A:157:ASP:C | 2.50 | 0.50 |
| 1:B:119:LEU:HD23 | 1:B:234:TYR:CE2 | 2.43 | 0.50 |
| 1:B:198:ALA:C | 1:B:200:GLY:N | 2.55 | 0.50 |
| 1:C:77:THR:CG2 | 1:C:78:ALA:H | 2.03 | 0.50 |
| 1:C:144:SER:O | 1:C:146:THR:N | 2.44 | 0.50 |
| 1:C:279:HIS:HB3 | 1:C:280:PHE:N | 2.26 | 0.50 |
| 1:C:300:LEU:CG | 1:C:308:PHE:HZ | 2.20 | 0.50 |
| 1:A:173:GLU:HG3 | 1:A:174:GLY:H | 1.73 | 0.50 |
| 1:A:242:THR:CG2 | 1:A:243:GLY:H | 2.22 | 0.50 |
| 1:B:314:ALA:O | 1:B:315:ALA:HB3 | 2.11 | 0.50 |
| 1:C:154:PHE:CD1 | 1:C:155:ASP:CA | 2.90 | 0.50 |
| 1:B:188:VAL:CG2 | 1:B:188:VAL:O | 2.59 | 0.50 |
| 1:A:83:THR:CB | 1:A:130:ARG:HH12 | 2.24 | 0.50 |
| 1:B:130:ARG:CB | 1:B:237:GLN:H | 2.25 | 0.50 |
| 1:B:151:ALA:HA | 1:B:177:SER:CB | 2.21 | 0.50 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:157:ASP:OD1 | 1:B:157:ASP:C | 2.50 | 0.50 |
| 1:C:103:TYR:CD1 | 1:C:215:ALA:HB2 | 2.46 | 0.50 |
| 1:B:107:VAL:HA | 1:B:211:LYS:HA | 1.93 | 0.50 |
| 1:B:128:LYS:O | 1:B:129:TYR:HB3 | 2.10 | 0.50 |
| 1:B:136:PHE:HD1 | 1:B:231:ARG:O | 1.95 | 0.50 |
| 1:B:271:THR:CG2 | 1:B:275:GLU:OE2 | 2.56 | 0.50 |
| 1:B:290:LEU:HD23 | 1:B:346:TRP:HB2 | 1.90 | 0.50 |
| 1:C:101:PRO:CB | 1:C:217:TYR:CD2 | 2.94 | 0.50 |
| 1:A:130:ARG:CB | 1:A:237:GLN:H | 2.25 | 0.50 |
| 1:A:135:ARG:CB | 1:A:185:ILE:HD11 | 2.38 | 0.50 |
| 1:B:116:PHE:CE2 | 1:B:234:TYR:CE2 | 3.00 | 0.50 |
| 1:B:130:ARG:CB | 1:B:237:GLN:N | 2.74 | 0.50 |
| 1:B:133:SER:N | 1:B:235:THR:CG2 | 2.74 | 0.50 |
| 1:B:279:HIS:HB3 | 1:B:280:PHE:N | 2.27 | 0.50 |
| 1:C:71:THR:OG1 | 1:C:87:SER:CB | 2.59 | 0.50 |
| 1:A:150:VAL:HG23 | 1:A:227:LEU:HD23 | 1.94 | 0.49 |
| 1:A:241:ARG:H | 1:A:241:ARG:CD | 2.22 | 0.49 |
| 1:B:107:VAL:O | 1:B:115:THR:CG2 | 2.56 | 0.49 |
| 1:B:133:SER:O | 1:B:234:TYR:CB | 2.60 | 0.49 |
| 1:B:242:THR:CG2 | 1:B:243:GLY:H | 2.22 | 0.49 |
| 1:B:300:LEU:CB | 1:B:308:PHE:CZ | 2.95 | 0.49 |
| 1:C:130:ARG:CB | 1:C:237:GLN:H | 2.25 | 0.49 |
| 1:C:293:GLU:O | 1:C:317:GLY:HA2 | 2.09 | 0.49 |
| 1:A:277:ASP:HA | 1:A:334:LYS:HZ2 | 1.75 | 0.49 |
| 1:B:85:SER:O | 1:B:234:TYR:CE1 | 2.65 | 0.49 |
| 1:B:150:VAL:HG23 | 1:B:227:LEU:HD23 | 1.94 | 0.49 |
| 1:C:107:VAL:HA | 1:C:211:LYS:HA | 1.93 | 0.49 |
| 1:C:157:ASP:OD1 | 1:C:157:ASP:C | 2.50 | 0.49 |
| 1:A:136:PHE:HD1 | 1:A:231:ARG:O | 1.95 | 0.49 |
| 1:A:300:LEU:CB | 1:A:308:PHE:CZ | 2.95 | 0.49 |
| 1:C:100:GLU:O | 1:C:101:PRO:C | 2.48 | 0.49 |
| 1:C:167:ALA:O | 1:C:171:ASN:ND2 | 2.45 | 0.49 |
| 1:A:116:PHE:CE2 | 1:A:234:TYR:CE2 | 3.00 | 0.49 |
| 1:A:126:TYR:C | 1:A:242:THR:HG22 | 2.30 | 0.49 |
| 1:A:163:PRO:HB2 | 1:A:165:ASP:N | 2.28 | 0.49 |
| 1:B:150:VAL:CG2 | 1:B:227:LEU:HD23 | 2.43 | 0.49 |
| 1:B:269:LYS:CG | 1:B:270:GLY:N | 2.58 | 0.49 |
| 1:C:151:ALA:HA | 1:C:177:SER:CB | 2.21 | 0.49 |
| 1:C:204:PRO:CB | 1:C:329:ARG:N | 2.75 | 0.49 |
| 1:A:85:SER:O | 1:A:234:TYR:CE1 | 2.65 | 0.49 |
| 1:A:133:SER:O | 1:A:234:TYR:CB | 2.60 | 0.49 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:167:ALA:O | 1:B:171:ASN:ND2 | 2.45 | 0.49 |
| 1:C:109:ASN:O | 1:C:110:PRO:C | 2.51 | 0.49 |
| 1:C:290:LEU:HD23 | 1:C:346:TRP:HB2 | 1.90 | 0.49 |
| 1:A:119:LEU:HD23 | 1:A:234:TYR:CE2 | 2.43 | 0.49 |
| 1:A:167:ALA:O | 1:A:171:ASN:ND2 | 2.45 | 0.49 |
| 1:B:85:SER:O | 1:B:234:TYR:HE1 | 1.96 | 0.49 |
| 1:C:107:VAL:HG11 | 1:C:283:THR:CG2 | 2.43 | 0.49 |
| 1:C:116:PHE:CE2 | 1:C:234:TYR:CE2 | 3.00 | 0.49 |
| 1:C:150:VAL:CG2 | 1:C:227:LEU:HD23 | 2.43 | 0.49 |
| 1:C:291:PHE:CG | 1:C:345:LYS:O | 2.64 | 0.49 |
| 1:A:264:SER:OG | 1:A:265:TRP:N | 2.45 | 0.49 |
| 1:A:295:ALA:N | 1:A:316:ALA:CA | 2.40 | 0.49 |
| 1:B:86:GLY:HA2 | 1:B:234:TYR:HE1 | 1.68 | 0.49 |
| 1:B:163:PRO:HB2 | 1:B:165:ASP:N | 2.28 | 0.49 |
| 1:B:244:SER:C | 1:B:245:THR:HG22 | 2.31 | 0.49 |
| 1:C:150:VAL:HG23 | 1:C:227:LEU:HD23 | 1.94 | 0.49 |
| 1:B:278:CYS:CA | 1:B:334:LYS:HD3 | 2.42 | 0.49 |
| 1:B:288:LEU:CD1 | 1:B:290:LEU:CG | 2.70 | 0.49 |
| 1:C:85:SER:O | 1:C:234:TYR:HE1 | 1.96 | 0.49 |
| 1:A:85:SER:O | 1:A:234:TYR:HE1 | 1.96 | 0.49 |
| 1:B:241:ARG:N | 1:B:241:ARG:CD | 2.75 | 0.49 |
| 1:B:244:SER:OG | 1:B:245:THR:N | 2.46 | 0.49 |
| 1:B:264:SER:OG | 1:B:265:TRP:N | 2.45 | 0.49 |
| 1:C:119:LEU:HD23 | 1:C:234:TYR:CE2 | 2.43 | 0.49 |
| 1:C:136:PHE:HD1 | 1:C:231:ARG:O | 1.95 | 0.49 |
| 1:C:201:ILE:CD1 | 1:C:281:LEU:CD1 | 2.90 | 0.49 |
| 1:A:88:GLU:OE2 | 1:A:118:GLN:HB3 | 2.13 | 0.48 |
| 1:A:150:VAL:CG2 | 1:A:227:LEU:HD23 | 2.43 | 0.48 |
| 1:A:244:SER:OG | 1:A:245:THR:N | 2.46 | 0.48 |
| 1:A:279:HIS:HB3 | 1:A:280:PHE:N | 2.27 | 0.48 |
| 1:B:92:THR:HG23 | 1:B:93:LEU:O | 2.13 | 0.48 |
| 1:C:241:ARG:N | 1:C:241:ARG:CD | 2.75 | 0.48 |
| 1:C:278:CYS:CA | 1:C:334:LYS:HD3 | 2.42 | 0.48 |
| 1:B:84:ARG:HD2 | 1:B:119:LEU:HD13 | 1.94 | 0.48 |
| 1:B:88:GLU:O | 1:B:231:ARG:HB3 | 2.05 | 0.48 |
| 1:B:88:GLU:OE2 | 1:B:118:GLN:HB3 | 2.13 | 0.48 |
| 1:C:133:SER:O | 1:C:234:TYR:CB | 2.60 | 0.48 |
| 1:C:249:GLN:NE2 | 1:C:265:TRP:N | 2.54 | 0.48 |
| 1:C:264:SER:OG | 1:C:265:TRP:N | 2.45 | 0.48 |
| 1:C:291:PHE:C | 1:C:292:TYR:HB3 | 2.33 | 0.48 |
| 1:A:89:LEU:HD23 | 1:A:90:ILE:N | 2.28 | 0.48 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:105:THR:O | 1:A:105:THR:HG23 | 2.14 | 0.48 |
| 1:A:152:LEU:O | 1:A:186:LEU:CD1 | 2.55 | 0.48 |
| 1:A:291:PHE:C | 1:A:292:TYR:HB3 | 2.33 | 0.48 |
| 1:A:333:VAL:C | 1:A:334:LYS:CD | 2.78 | 0.48 |
| 1:B:130:ARG:HH11 | 1:B:236:VAL:C | 2.16 | 0.48 |
| 1:B:204:PRO:N | 1:B:205:LYS:HD2 | 2.28 | 0.48 |
| 1:C:66:TYR:HE2 | 1:C:183:GLY:HA3 | 1.73 | 0.48 |
| 1:C:158:ALA:C | 1:C:211:LYS:H | 1.93 | 0.48 |
| 1:C:336:VAL:O | 1:C:337:THR:CG2 | 2.62 | 0.48 |
| 1:B:83:THR:HG23 | 1:B:130:ARG:CZ | 2.44 | 0.48 |
| 1:B:249:GLN:O | 1:B:347:GLN:CA | 2.61 | 0.48 |
| 1:C:163:PRO:CG | 1:C:168:SER:CB | 2.92 | 0.48 |
| 1:C:300:LEU:CB | 1:C:308:PHE:CZ | 2.95 | 0.48 |
| 1:C:339:GLU:O | 1:C:340:GLU:CA | 2.60 | 0.48 |
| 1:A:84:ARG:HD2 | 1:A:119:LEU:HD13 | 1.94 | 0.48 |
| 1:A:100:GLU:O | 1:A:101:PRO:C | 2.48 | 0.48 |
| 1:A:150:VAL:O | 1:A:151:ALA:C | 2.52 | 0.48 |
| 1:A:241:ARG:N | 1:A:241:ARG:CD | 2.75 | 0.48 |
| 1:B:150:VAL:O | 1:B:151:ALA:C | 2.52 | 0.48 |
| 1:B:336:VAL:O | 1:B:337:THR:HG23 | 2.14 | 0.48 |
| 1:C:86:GLY:HA2 | 1:C:234:TYR:HE1 | 1.68 | 0.48 |
| 1:C:150:VAL:O | 1:C:151:ALA:C | 2.52 | 0.48 |
| 1:C:336:VAL:O | 1:C:337:THR:HG23 | 2.14 | 0.48 |
| 1:A:83:THR:HG23 | 1:A:130:ARG:CZ | 2.44 | 0.48 |
| 1:B:166:LEU:C | 1:B:168:SER:N | 2.61 | 0.48 |
| 1:C:83:THR:HG23 | 1:C:130:ARG:CZ | 2.44 | 0.48 |
| 1:C:84:ARG:HD2 | 1:C:119:LEU:HD13 | 1.94 | 0.48 |
| 1:C:103:TYR:CE1 | 1:C:169:LEU:HD12 | 2.43 | 0.48 |
| 1:A:92:THR:HG23 | 1:A:93:LEU:O | 2.14 | 0.48 |
| 1:A:163:PRO:CG | 1:A:168:SER:CB | 2.92 | 0.48 |
| 1:A:249:GLN:O | 1:A:347:GLN:CA | 2.61 | 0.48 |
| 1:B:95:LYS:HZ1 | 1:B:221:ALA:HB1 | 1.78 | 0.48 |
| 1:C:159:ALA:HB1 | 1:C:328:GLU:HB2 | 1.18 | 0.48 |
| 1:A:130:ARG:HH11 | 1:A:236:VAL:C | 2.16 | 0.48 |
| 1:A:204:PRO:N | 1:A:205:LYS:HD2 | 2.29 | 0.48 |
| 1:A:339:GLU:O | 1:A:340:GLU:CA | 2.60 | 0.48 |
| 1:B:152:LEU:O | 1:B:186:LEU:CD1 | 2.55 | 0.48 |
| 1:C:101:PRO:CG | 1:C:217:TYR:CE2 | 2.74 | 0.48 |
| 1:C:204:PRO:N | 1:C:205:LYS:HD2 | 2.29 | 0.48 |
| 1:A:150:VAL:O | 1:A:151:ALA:O | 2.32 | 0.48 |
| 1:C:89:LEU:HD23 | 1:C:90:ILE:N | 2.28 | 0.48 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:109:ASN:OD1 | 1:A:129:TYR:OH | 2.32 | 0.48 |
| 1:A:248:ALA:CA | 1:A:264:SER:O | 2.58 | 0.48 |
| 1:A:288:LEU:C | 1:A:289:THR:OG1 | 2.49 | 0.48 |
| 1:A:290:LEU:HB2 | 1:A:346:TRP:HA | 1.96 | 0.48 |
| 1:A:336:VAL:O | 1:A:337:THR:CG2 | 2.62 | 0.48 |
| 1:B:163:PRO:CG | 1:B:168:SER:CB | 2.92 | 0.48 |
| 1:B:296:PRO:CD | 1:B:337:THR:HG21 | 2.38 | 0.48 |
| 1:C:88:GLU:OE2 | 1:C:118:GLN:HB3 | 2.14 | 0.48 |
| 1:C:101:PRO:CG | 1:C:217:TYR:HD2 | 2.26 | 0.48 |
| 1:C:163:PRO:HB2 | 1:C:165:ASP:N | 2.28 | 0.48 |
| 1:A:111:SER:HB3 | 1:A:197:VAL:CG2 | 2.44 | 0.47 |
| 1:B:105:THR:O | 1:B:105:THR:HG23 | 2.14 | 0.47 |
| 1:B:109:ASN:OD1 | 1:B:129:TYR:OH | 2.32 | 0.47 |
| 1:B:111:SER:HB3 | 1:B:197:VAL:CG2 | 2.44 | 0.47 |
| 1:B:141:MET:O | 1:B:141:MET:CG | 2.46 | 0.47 |
| 1:B:336:VAL:O | 1:B:337:THR:CG2 | 2.62 | 0.47 |
| 1:C:134:LEU:CD2 | 1:C:188:VAL:HG22 | 2.41 | 0.47 |
| 1:C:152:LEU:O | 1:C:186:LEU:CD1 | 2.56 | 0.47 |
| 1:A:95:LYS:HZ1 | 1:A:221:ALA:C | 2.18 | 0.47 |
| 1:B:179:VAL:CG1 | 1:B:181:TRP:NE1 | 2.54 | 0.47 |
| 1:C:92:THR:HG23 | 1:C:93:LEU:O | 2.14 | 0.47 |
| 1:C:244:SER:OG | 1:C:245:THR:N | 2.46 | 0.47 |
| 1:C:269:LYS:HG2 | 1:C:270:GLY:O | 2.14 | 0.47 |
| 1:A:163:PRO:CG | 1:A:168:SER:HB3 | 2.44 | 0.47 |
| 1:B:101:PRO:HG2 | 1:B:166:LEU:HD12 | 1.94 | 0.47 |
| 1:B:144:SER:HA | 1:B:181:TRP:HB3 | 1.96 | 0.47 |
| 1:B:163:PRO:CG | 1:B:168:SER:HB3 | 2.44 | 0.47 |
| 1:C:295:ALA:N | 1:C:316:ALA:CA | 2.40 | 0.47 |
| 1:C:343:LYS:HB2 | 1:C:344:GLY:H | 1.13 | 0.47 |
| 1:B:95:LYS:HZ1 | 1:B:221:ALA:C | 2.18 | 0.47 |
| 1:C:249:GLN:O | 1:C:347:GLN:CA | 2.61 | 0.47 |
| 1:A:278:CYS:N | 1:A:333:VAL:O | 2.48 | 0.47 |
| 1:B:149:LYS:HE2 | 1:B:151:ALA:HB2 | 1.96 | 0.47 |
| 1:B:150:VAL:O | 1:B:151:ALA:O | 2.32 | 0.47 |
| 1:B:185:ILE:HD11 | 1:B:186:LEU:O | 2.15 | 0.47 |
| 1:C:130:ARG:HH11 | 1:C:236:VAL:C | 2.16 | 0.47 |
| 1:C:130:ARG:HB3 | 1:C:237:GLN:N | 2.30 | 0.47 |
| 1:C:179:VAL:CG2 | 1:C:181:TRP:CD1 | 2.93 | 0.47 |
| 1:C:185:ILE:HD11 | 1:C:186:LEU:O | 2.15 | 0.47 |
| 1:C:278:CYS:N | 1:C:333:VAL:O | 2.48 | 0.47 |
| 1:A:149:LYS:HE2 | 1:A:151:ALA:HB2 | 1.96 | 0.47 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:179:VAL:CG1 | 1:A:181:TRP:NE1 | 2.54 | 0.47 |
| 1:B:203:ASP:OD1 | 1:B:205:LYS:CG | 2.56 | 0.47 |
| 1:A:136:PHE:CE2 | 1:A:212:LEU:CD2 | 2.98 | 0.47 |
| 1:A:185:ILE:HD11 | 1:A:186:LEU:O | 2.15 | 0.47 |
| 1:A:248:ALA:C | 1:A:264:SER:CB | 2.82 | 0.47 |
| 1:B:136:PHE:CE2 | 1:B:212:LEU:CD2 | 2.98 | 0.47 |
| 1:B:269:LYS:HG2 | 1:B:270:GLY:O | 2.14 | 0.47 |
| 1:B:278:CYS:N | 1:B:333:VAL:O | 2.48 | 0.47 |
| 1:B:290:LEU:HB2 | 1:B:346:TRP:HA | 1.96 | 0.47 |
| 1:B:291:PHE:C | 1:B:292:TYR:HB3 | 2.33 | 0.47 |
| 1:B:291:PHE:HD2 | 1:B:346:TRP:HE3 | 1.63 | 0.47 |
| 1:B:338:THR:OG1 | 1:B:339:GLU:CA | 2.63 | 0.47 |
| 1:C:136:PHE:CE2 | 1:C:212:LEU:CD2 | 2.98 | 0.47 |
| 1:C:144:SER:HA | 1:C:181:TRP:HB3 | 1.96 | 0.47 |
| 1:C:150:VAL:O | 1:C:151:ALA:O | 2.32 | 0.47 |
| 1:C:162:PRO:O | 1:C:163:PRO:O | 2.33 | 0.47 |
| 1:A:144:SER:HA | 1:A:181:TRP:HB3 | 1.96 | 0.47 |
| 1:A:273:GLY:O | 1:A:274:TRP:C | 2.53 | 0.47 |
| 1:C:313:GLU:HG3 | 1:C:315:ALA:HA | 1.97 | 0.47 |
| 1:A:269:LYS:HG2 | 1:A:270:GLY:O | 2.14 | 0.47 |
| 1:C:201:ILE:HD13 | 1:C:266:SER:HA | 1.97 | 0.47 |
| 1:C:277:ASP:CG | 1:C:334:LYS:HZ3 | 2.17 | 0.47 |
| 1:C:291:PHE:CD1 | 1:C:292:TYR:N | 2.83 | 0.47 |
| 1:C:296:PRO:CD | 1:C:337:THR:HG21 | 2.39 | 0.47 |
| 1:A:203:ASP:OD1 | 1:A:205:LYS:CG | 2.56 | 0.47 |
| 1:B:291:PHE:CD1 | 1:B:292:TYR:N | 2.83 | 0.47 |
| 1:B:300:LEU:HD12 | 1:B:300:LEU:HA | 1.28 | 0.47 |
| 1:C:105:THR:O | 1:C:105:THR:HG23 | 2.14 | 0.47 |
| 1:C:107:VAL:HG22 | 1:C:211:LYS:HB3 | 1.97 | 0.47 |
| 1:C:338:THR:OG1 | 1:C:339:GLU:CA | 2.63 | 0.47 |
| 1:A:153:ALA:CA | 1:A:174:GLY:HA3 | 2.33 | 0.46 |
| 1:A:291:PHE:CD1 | 1:A:292:TYR:N | 2.83 | 0.46 |
| 1:B:115:THR:C | 1:B:116:PHE:CD1 | 2.78 | 0.46 |
| 1:C:149:LYS:O | 1:C:216:THR:HA | 2.15 | 0.46 |
| 1:C:185:ILE:HD12 | 1:C:186:LEU:C | 2.36 | 0.46 |
| 1:A:336:VAL:O | 1:A:337:THR:HG23 | 2.14 | 0.46 |
| 1:B:90:ILE:O | 1:B:90:ILE:CG2 | 2.54 | 0.46 |
| 1:B:100:GLU:C | 1:B:101:PRO:O | 2.54 | 0.46 |
| 1:B:162:PRO:O | 1:B:163:PRO:O | 2.33 | 0.46 |
| 1:B:174:GLY:O | 1:B:175:CYS:CB | 2.64 | 0.46 |
| 1:B:280:PHE:HZ | 1:B:324:VAL:HG21 | 1.81 | 0.46 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:162:PRO:O | 1:C:163:PRO:C | 2.50 | 0.46 |
| 1:A:100:GLU:C | 1:A:101:PRO:O | 2.54 | 0.46 |
| 1:A:130:ARG:HB3 | 1:A:237:GLN:N | 2.30 | 0.46 |
| 1:A:289:THR:O | 1:A:290:LEU:HG | 2.14 | 0.46 |
| 1:B:101:PRO:CG | 1:B:217:TYR:HD2 | 2.26 | 0.46 |
| 1:B:279:HIS:CB | 1:B:280:PHE:N | 2.78 | 0.46 |
| 1:C:71:THR:HG23 | 1:C:71:THR:O | 2.16 | 0.46 |
| 1:C:174:GLY:O | 1:C:175:CYS:CB | 2.63 | 0.46 |
| 1:C:273:GLY:O | 1:C:274:TRP:C | 2.53 | 0.46 |
| 1:C:290:LEU:HB2 | 1:C:346:TRP:HA | 1.96 | 0.46 |
| 1:A:162:PRO:O | 1:A:163:PRO:O | 2.33 | 0.46 |
| 1:A:230:VAL:CG1 | 1:A:231:ARG:H | 2.28 | 0.46 |
| 1:A:280:PHE:HZ | 1:A:324:VAL:HG21 | 1.81 | 0.46 |
| 1:A:290:LEU:HD23 | 1:A:346:TRP:HB2 | 1.90 | 0.46 |
| 1:B:89:LEU:HD23 | 1:B:90:ILE:N | 2.28 | 0.46 |
| 1:B:230:VAL:CG1 | 1:B:231:ARG:H | 2.28 | 0.46 |
| 1:B:249:GLN:CG | 1:B:263:VAL:O | 2.64 | 0.46 |
| 1:B:295:ALA:HB2 | 1:B:315:ALA:CB | 2.38 | 0.46 |
| 1:C:125:GLN:CA | 1:C:243:GLY:HA2 | 2.27 | 0.46 |
| 1:C:234:TYR:CD2 | 1:C:236:VAL:HG23 | 2.51 | 0.46 |
| 1:A:291:PHE:HD2 | 1:A:346:TRP:HE3 | 1.63 | 0.46 |
| 1:B:112:GLU:HG3 | 1:B:112:GLU:O | 2.16 | 0.46 |
| 1:C:244:SER:C | 1:C:245:THR:HG22 | 2.31 | 0.46 |
| 1:C:289:THR:O | 1:C:290:LEU:HG | 2.14 | 0.46 |
| 1:A:112:GLU:O | 1:A:112:GLU:HG3 | 2.16 | 0.46 |
| 1:A:185:ILE:HD12 | 1:A:186:LEU:C | 2.36 | 0.46 |
| 1:B:96:ASN:C | 1:B:98:ASP:N | 2.55 | 0.46 |
| 1:B:290:LEU:HD13 | 1:B:291:PHE:HB3 | 1.98 | 0.46 |
| 1:B:297:VAL:HG12 | 1:B:336:VAL:HG11 | 0.97 | 0.46 |
| 1:C:89:LEU:HD23 | 1:C:89:LEU:O | 2.00 | 0.46 |
| 1:C:149:LYS:HE2 | 1:C:151:ALA:HB2 | 1.96 | 0.46 |
| 1:C:172:ILE:C | 1:C:173:GLU:O | 2.51 | 0.46 |
| 1:C:249:GLN:CG | 1:C:263:VAL:O | 2.64 | 0.46 |
| 1:A:249:GLN:CG | 1:A:263:VAL:O | 2.64 | 0.46 |
| 1:A:271:THR:HG23 | 1:A:275:GLU:HG2 | 1.97 | 0.46 |
| 1:B:130:ARG:HB3 | 1:B:237:GLN:N | 2.30 | 0.46 |
| 1:B:333:VAL:C | 1:B:334:LYS:CD | 2.78 | 0.46 |
| 1:C:160:LYS:N | 1:C:328:GLU:OE1 | 2.49 | 0.46 |
| 1:C:197:VAL:HG21 | 1:C:350:ARG:NH1 | 2.30 | 0.46 |
| 1:C:201:ILE:CD1 | 1:C:266:SER:HA | 2.46 | 0.46 |
| 1:C:230:VAL:CG1 | 1:C:231:ARG:H | 2.28 | 0.46 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:90:ILE:HD11 | 1:A:232:VAL:HG22 | 1.83 | 0.46 |
| 1:B:185:ILE:HD12 | 1:B:186:LEU:C | 2.36 | 0.46 |
| 1:B:269:LYS:CE | 1:B:270:GLY:O | 2.63 | 0.46 |
| 1:B:276:HIS:CG | 1:B:277:ASP:N | 2.74 | 0.46 |
| 1:C:136:PHE:CE2 | 1:C:212:LEU:HD21 | 2.51 | 0.46 |
| 1:C:333:VAL:C | 1:C:334:LYS:CD | 2.78 | 0.46 |
| 1:A:82:ILE:HG21 | 1:A:82:ILE:HD13 | 1.78 | 0.46 |
| 1:A:90:ILE:O | 1:A:90:ILE:CG2 | 2.54 | 0.46 |
| 1:A:174:GLY:O | 1:A:175:CYS:CB | 2.64 | 0.46 |
| 1:A:185:ILE:HD12 | 1:A:186:LEU:H | 0.65 | 0.46 |
| 1:A:279:HIS:CB | 1:A:280:PHE:N | 2.78 | 0.46 |
| 1:B:109:ASN:O | 1:B:110:PRO:C | 2.51 | 0.46 |
| 1:B:271:THR:HG23 | 1:B:275:GLU:HG2 | 1.97 | 0.46 |
| 1:B:288:LEU:C | 1:B:289:THR:OG1 | 2.49 | 0.46 |
| 1:B:313:GLU:HG3 | 1:B:315:ALA:HA | 1.97 | 0.46 |
| 1:C:74:ARG:C | 1:C:75:VAL:HG23 | 2.37 | 0.46 |
| 1:C:95:LYS:HZ1 | 1:C:221:ALA:CB | 2.29 | 0.46 |
| 1:C:127:GLU:O | 1:C:128:LYS:CG | 2.64 | 0.46 |
| 1:C:207:VAL:H | 1:C:329:ARG:NH1 | 2.13 | 0.46 |
| 1:A:97:THR:O | 1:A:97:THR:OG1 | 2.25 | 0.46 |
| 1:A:234:TYR:CD2 | 1:A:236:VAL:HG23 | 2.50 | 0.46 |
| 1:C:126:TYR:C | 1:C:242:THR:HG21 | 2.37 | 0.46 |
| 1:C:207:VAL:N | 1:C:329:ARG:CZ | 2.64 | 0.46 |
| 1:B:273:GLY:O | 1:B:274:TRP:C | 2.53 | 0.45 |
| 1:B:289:THR:O | 1:B:290:LEU:HG | 2.14 | 0.45 |
| 1:C:95:LYS:HZ1 | 1:C:221:ALA:C | 2.19 | 0.45 |
| 1:C:271:THR:HG23 | 1:C:275:GLU:HG2 | 1.97 | 0.45 |
| 1:C:279:HIS:CB | 1:C:280:PHE:N | 2.78 | 0.45 |
| 1:A:101:PRO:CG | 1:A:217:TYR:CE2 | 2.74 | 0.45 |
| 1:A:107:VAL:HG22 | 1:A:211:LYS:HB3 | 1.97 | 0.45 |
| 1:B:127:GLU:O | 1:B:128:LYS:CG | 2.64 | 0.45 |
| 1:B:149:LYS:O | 1:B:216:THR:HA | 2.15 | 0.45 |
| 1:C:89:LEU:HA | 1:C:230:VAL:O | 2.16 | 0.45 |
| 1:C:100:GLU:C | 1:C:101:PRO:O | 2.54 | 0.45 |
| 1:C:133:SER:CA | 1:C:235:THR:HG22 | 2.46 | 0.45 |
| 1:C:181:TRP:O | 1:C:181:TRP:CE3 | 2.69 | 0.45 |
| 1:A:95:LYS:HZ1 | 1:A:221:ALA:HB1 | 1.80 | 0.45 |
| 1:A:181:TRP:O | 1:A:181:TRP:CE3 | 2.69 | 0.45 |
| 1:A:253:PHE:HZ | 1:A:268:THR:HG21 | 1.82 | 0.45 |
| 1:C:201:ILE:HD12 | 1:C:280:PHE:CA | 1.90 | 0.45 |
| 1:C:201:ILE:HG23 | 1:C:281:LEU:HD23 | 1.93 | 0.45 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:338:THR:OG1 | 1:A:339:GLU:CA | 2.63 | 0.45 |
| 1:C:84:ARG:CD | 1:C:119:LEU:HD13 | 2.46 | 0.45 |
| 1:C:163:PRO:CG | 1:C:168:SER:HB3 | 2.44 | 0.45 |
| 1:C:280:PHE:HZ | 1:C:324:VAL:HG21 | 1.81 | 0.45 |
| 1:A:101:PRO:HG2 | 1:A:166:LEU:HD12 | 1.94 | 0.45 |
| 1:A:127:GLU:O | 1:A:128:LYS:CG | 2.64 | 0.45 |
| 1:A:290:LEU:HD13 | 1:A:291:PHE:HB3 | 1.98 | 0.45 |
| 1:A:295:ALA:HB2 | 1:A:315:ALA:HB3 | 1.99 | 0.45 |
| 1:A:313:GLU:HG3 | 1:A:315:ALA:HA | 1.97 | 0.45 |
| 1:A:326:VAL:HG13 | 1:A:331:GLN:OE1 | 2.17 | 0.45 |
| 1:B:84:ARG:CD | 1:B:119:LEU:HD13 | 2.46 | 0.45 |
| 1:B:234:TYR:CD2 | 1:B:236:VAL:HG23 | 2.51 | 0.45 |
| 1:B:295:ALA:HB2 | 1:B:315:ALA:HB3 | 1.99 | 0.45 |
| 1:C:60:ALA:HA | 1:C:61:PRO:HD2 | 1.81 | 0.45 |
| 1:C:204:PRO:CG | 1:C:328:GLU:HG3 | 2.05 | 0.45 |
| 1:C:288:LEU:C | 1:C:289:THR:OG1 | 2.49 | 0.45 |
| 1:A:236:VAL:CG1 | 1:A:238:LEU:CD1 | 2.94 | 0.45 |
| 1:A:269:LYS:CE | 1:A:270:GLY:O | 2.63 | 0.45 |
| 1:B:181:TRP:CE3 | 1:B:181:TRP:O | 2.69 | 0.45 |
| 1:C:109:ASN:OD1 | 1:C:129:TYR:OH | 2.32 | 0.45 |
| 1:A:136:PHE:CE2 | 1:A:212:LEU:HD21 | 2.51 | 0.45 |
| 1:A:149:LYS:O | 1:A:216:THR:HA | 2.15 | 0.45 |
| 1:B:248:ALA:C | 1:B:263:VAL:C | 2.75 | 0.45 |
| 1:C:153:ALA:HB2 | 1:C:175:CYS:N | 2.32 | 0.45 |
| 1:C:236:VAL:CG1 | 1:C:238:LEU:CD1 | 2.94 | 0.45 |
| 1:C:291:PHE:HD2 | 1:C:346:TRP:HE3 | 1.63 | 0.45 |
| 1:C:337:THR:HG1 | 1:C:343:LYS:HZ2 | 1.63 | 0.45 |
| 1:C:288:LEU:CD1 | 1:C:290:LEU:CG | 2.70 | 0.45 |
| 1:C:290:LEU:HD13 | 1:C:291:PHE:HB3 | 1.98 | 0.45 |
| 1:C:315:ALA:O | 1:C:318:SER:N | 2.50 | 0.45 |
| 1:A:89:LEU:HA | 1:A:230:VAL:O | 2.17 | 0.45 |
| 1:A:149:LYS:HD3 | 1:A:217:TYR:HE1 | 1.73 | 0.45 |
| 1:A:269:LYS:O | 1:A:277:ASP:CA | 2.57 | 0.45 |
| 1:A:278:CYS:CA | 1:A:334:LYS:HD3 | 2.42 | 0.45 |
| 1:A:315:ALA:O | 1:A:318:SER:N | 2.50 | 0.45 |
| 1:B:90:ILE:HD11 | 1:B:232:VAL:HG22 | 1.83 | 0.45 |
| 1:B:271:THR:CG2 | 1:B:275:GLU:HG2 | 2.47 | 0.45 |
| 1:B:293:GLU:O | 1:B:316:ALA:C | 2.52 | 0.45 |
| 1:B:336:VAL:C | 1:B:337:THR:HG23 | 2.37 | 0.45 |
| 1:C:112:GLU:O | 1:C:112:GLU:HG3 | 2.16 | 0.45 |
| 1:A:149:LYS:CG | 1:A:217:TYR:HE1 | 2.29 | 0.45 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:262:LEU:HA | 1:A:262:LEU:HD23 | 1.71 | 0.45 |
| 1:B:100:GLU:O | 1:B:101:PRO:C | 2.48 | 0.45 |
| 1:C:97:THR:O | 1:C:97:THR:OG1 | 2.25 | 0.45 |
| 1:C:113:PRO:CD | 1:C:285:ASN:O | 2.65 | 0.45 |
| 1:C:118:GLN:O | 1:C:118:GLN:HG2 | 2.17 | 0.45 |
| 1:A:84:ARG:CD | 1:A:119:LEU:HD13 | 2.46 | 0.44 |
| 1:A:271:THR:CG2 | 1:A:275:GLU:HG2 | 2.47 | 0.44 |
| 1:B:89:LEU:HA | 1:B:230:VAL:O | 2.17 | 0.44 |
| 1:B:107:VAL:HG22 | 1:B:211:LYS:HB3 | 1.98 | 0.44 |
| 1:B:133:SER:CA | 1:B:235:THR:HG22 | 2.47 | 0.44 |
| 1:B:213:ILE:HG23 | 1:B:214:MET:N | 2.32 | 0.44 |
| 1:B:277:ASP:CG | 1:B:334:LYS:HZ3 | 2.21 | 0.44 |
| 1:A:109:ASN:O | 1:A:110:PRO:C | 2.51 | 0.44 |
| 1:A:133:SER:N | 1:A:235:THR:CG2 | 2.74 | 0.44 |
| 1:B:82:ILE:HG21 | 1:B:82:ILE:HD13 | 1.78 | 0.44 |
| 1:B:118:GLN:O | 1:B:118:GLN:HG2 | 2.17 | 0.44 |
| 1:B:149:LYS:CG | 1:B:217:TYR:HE1 | 2.29 | 0.44 |
| 1:B:315:ALA:O | 1:B:318:SER:N | 2.50 | 0.44 |
| 1:C:101:PRO:CD | 1:C:217:TYR:HD2 | 2.30 | 0.44 |
| 1:C:253:PHE:HZ | 1:C:268:THR:HG21 | 1.82 | 0.44 |
| 1:A:96:ASN:C | 1:A:98:ASP:N | 2.55 | 0.44 |
| 1:A:105:THR:HA | 1:A:212:LEU:O | 2.18 | 0.44 |
| 1:A:122:GLU:O | 1:A:122:GLU:CG | 2.64 | 0.44 |
| 1:A:133:SER:CA | 1:A:235:THR:HG22 | 2.46 | 0.44 |
| 1:B:101:PRO:HD3 | 1:B:166:LEU:HD11 | 0.47 | 0.44 |
| 1:C:105:THR:HA | 1:C:212:LEU:O | 2.18 | 0.44 |
| 1:C:268:THR:O | 1:C:268:THR:CG2 | 2.66 | 0.44 |
| 1:C:326:VAL:HG13 | 1:C:331:GLN:OE1 | 2.17 | 0.44 |
| 1:A:101:PRO:CD | 1:A:217:TYR:HD2 | 2.30 | 0.44 |
| 1:B:136:PHE:CE2 | 1:B:212:LEU:HD21 | 2.51 | 0.44 |
| 1:C:111:SER:O | 1:C:350:ARG:NE | 2.48 | 0.44 |
| 1:A:199:ASP:OD1 | 1:A:199:ASP:N | 2.40 | 0.44 |
| 1:A:213:ILE:HG23 | 1:A:214:MET:N | 2.32 | 0.44 |
| 1:B:101:PRO:CD | 1:B:217:TYR:HD2 | 2.30 | 0.44 |
| 1:B:101:PRO:HB3 | 1:B:217:TYR:CD2 | 2.53 | 0.44 |
| 1:B:326:VAL:HG13 | 1:B:331:GLN:OE1 | 2.17 | 0.44 |
| 1:C:163:PRO:HG3 | 1:C:168:SER:CB | 2.48 | 0.44 |
| 1:A:126:TYR:C | 1:A:242:THR:HG21 | 2.37 | 0.44 |
| 1:C:56:THR:HG23 | 1:C:57:ARG:HB3 | 1.99 | 0.44 |
| 1:C:109:ASN:O | 1:C:111:SER:N | 2.50 | 0.44 |
| 1:C:133:SER:N | 1:C:235:THR:CG2 | 2.74 | 0.44 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:137:ARG:N | 1:C:230:VAL:HG13 | 2.33 | 0.44 |
| 1:C:295:ALA:HB2 | 1:C:315:ALA:HB3 | 1.98 | 0.44 |
| 1:A:153:ALA:HB2 | 1:A:175:CYS:N | 2.32 | 0.44 |
| 1:B:291:PHE:C | 1:B:292:TYR:CB | 2.86 | 0.44 |
| 1:B:291:PHE:CE1 | 1:B:335:MET:HE3 | 2.53 | 0.44 |
| 1:C:101:PRO:HD3 | 1:C:166:LEU:HD11 | 0.47 | 0.44 |
| 1:C:159:ALA:CB | 1:C:328:GLU:OE1 | 2.55 | 0.44 |
| 1:C:213:ILE:HG23 | 1:C:214:MET:N | 2.32 | 0.44 |
| 1:A:291:PHE:CE1 | 1:A:335:MET:HE3 | 2.51 | 0.44 |
| 1:B:84:ARG:NE | 1:B:119:LEU:CD1 | 2.81 | 0.44 |
| 1:B:105:THR:HA | 1:B:212:LEU:O | 2.18 | 0.44 |
| 1:B:158:ALA:C | 1:B:211:LYS:H | 1.93 | 0.44 |
| 1:B:248:ALA:HB3 | 1:B:249:GLN:HB3 | 1.87 | 0.44 |
| 1:C:72:GLN:HE21 | 1:C:73:PRO:HD2 | 1.83 | 0.44 |
| 1:C:134:LEU:N | 1:C:233:GLU:O | 2.44 | 0.44 |
| 1:C:291:PHE:C | 1:C:292:TYR:CB | 2.86 | 0.44 |
| 1:A:118:GLN:O | 1:A:118:GLN:HG2 | 2.17 | 0.44 |
| 1:A:158:ALA:C | 1:A:211:LYS:H | 1.93 | 0.44 |
| 1:A:252:ASP:OD2 | 1:A:345:LYS:HG2 | 2.16 | 0.44 |
| 1:A:300:LEU:HD12 | 1:A:300:LEU:HA | 1.28 | 0.44 |
| 1:A:336:VAL:C | 1:A:337:THR:HG23 | 2.37 | 0.44 |
| 1:B:304:ASP:OD2 | 1:B:331:GLN:CA | 2.57 | 0.44 |
| 1:C:262:LEU:HD23 | 1:C:262:LEU:HA | 1.71 | 0.44 |
| 1:C:336:VAL:C | 1:C:337:THR:HG23 | 2.37 | 0.44 |
| 1:A:96:ASN:O | 1:A:96:ASN:ND2 | 2.51 | 0.43 |
| 1:B:105:THR:OG1 | 1:B:211:LYS:HD2 | 2.03 | 0.43 |
| 1:B:109:ASN:O | 1:B:111:SER:N | 2.50 | 0.43 |
| 1:B:134:LEU:CD2 | 1:B:188:VAL:HG22 | 2.41 | 0.43 |
| 1:B:153:ALA:HB2 | 1:B:175:CYS:N | 2.32 | 0.43 |
| 1:B:172:ILE:C | 1:B:173:GLU:O | 2.51 | 0.43 |
| 1:B:236:VAL:CG1 | 1:B:238:LEU:CD1 | 2.94 | 0.43 |
| 1:C:76:SER:OG | 1:C:77:THR:N | 2.50 | 0.43 |
| 1:C:113:PRO:HD3 | 1:C:351:ILE:O | 2.18 | 0.43 |
| 1:C:154:PHE:CZ | 1:C:156:ARG:CA | 3.01 | 0.43 |
| 1:C:197:VAL:HG22 | 1:C:350:ARG:CZ | 2.48 | 0.43 |
| 1:C:271:THR:CG2 | 1:C:275:GLU:HG2 | 2.47 | 0.43 |
| 1:A:109:ASN:O | 1:A:111:SER:N | 2.50 | 0.43 |
| 1:A:326:VAL:CG1 | 1:A:327:ALA:N | 2.19 | 0.43 |
| 1:B:149:LYS:HD3 | 1:B:217:TYR:HE1 | 1.73 | 0.43 |
| 1:C:101:PRO:HB3 | 1:C:217:TYR:CD2 | 2.53 | 0.43 |
| 1:A:172:ILE:C | 1:A:173:GLU:O | 2.51 | 0.43 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:A:254:ALA:O | 1:A:257:LYS:N | 2.38 | 0.43 |
| 1:B:163:PRO:HG3 | 1:B:168:SER:CB | 2.47 | 0.43 |
| 1:B:253:PHE:HZ | 1:B:268:THR:HG21 | 1.82 | 0.43 |
| 1:B:269:LYS:O | 1:B:277:ASP:CA | 2.57 | 0.43 |
| 1:B:339:GLU:O | 1:B:340:GLU:CA | 2.60 | 0.43 |
| 1:C:149:LYS:CG | 1:C:217:TYR:HE1 | 2.29 | 0.43 |
| 1:C:243:GLY:O | 1:C:244:SER:CB | 2.67 | 0.43 |
| 1:A:137:ARG:N | 1:A:230:VAL:HG13 | 2.33 | 0.43 |
| 1:B:96:ASN:O | 1:B:96:ASN:ND2 | 2.51 | 0.43 |
| 1:C:121:LYS:HG3 | 1:C:121:LYS:O | 2.19 | 0.43 |
| 1:A:101:PRO:HB3 | 1:A:217:TYR:CD2 | 2.53 | 0.43 |
| 1:A:125:GLN:CA | 1:A:243:GLY:HA2 | 2.27 | 0.43 |
| 1:A:139:SER:HA | 1:A:140:PRO:HD3 | 1.13 | 0.43 |
| 1:A:216:THR:OG1 | 1:A:227:LEU:HD21 | 2.18 | 0.43 |
| 1:A:315:ALA:CA | 1:A:318:SER:HB2 | 2.49 | 0.43 |
| 1:A:325:LYS:HG2 | 1:A:325:LYS:O | 2.18 | 0.43 |
| 1:B:137:ARG:N | 1:B:230:VAL:HG13 | 2.33 | 0.43 |
| 1:C:84:ARG:NE | 1:C:119:LEU:CD1 | 2.81 | 0.43 |
| 1:C:126:TYR:O | 1:C:242:THR:CG2 | 2.66 | 0.43 |
| 1:C:293:GLU:O | 1:C:316:ALA:C | 2.52 | 0.43 |
| 1:B:112:GLU:HG2 | 1:B:329:ARG:HH22 | 1.83 | 0.43 |
| 1:B:121:LYS:O | 1:B:121:LYS:HG3 | 2.19 | 0.43 |
| 1:B:242:THR:CG2 | 1:B:243:GLY:N | 2.73 | 0.43 |
| 1:A:101:PRO:HD3 | 1:A:166:LEU:HD11 | 0.47 | 0.43 |
| 1:A:121:LYS:HG3 | 1:A:121:LYS:O | 2.19 | 0.43 |
| 1:A:291:PHE:C | 1:A:292:TYR:CB | 2.86 | 0.43 |
| 1:B:278:CYS:O | 1:B:333:VAL:O | 2.37 | 0.43 |
| 1:C:254:ALA:O | 1:C:257:LYS:N | 2.38 | 0.43 |
| 1:B:186:LEU:C | 1:B:186:LEU:CD2 | 2.87 | 0.43 |
| 1:A:84:ARG:NE | 1:A:119:LEU:CD1 | 2.81 | 0.43 |
| 1:B:216:THR:OG1 | 1:B:227:LEU:HD21 | 2.18 | 0.43 |
| 1:C:87:SER:HA | 1:C:231:ARG:HD2 | 2.01 | 0.43 |
| 1:A:186:LEU:C | 1:A:186:LEU:CD2 | 2.87 | 0.43 |
| 1:B:273:GLY:O | 1:B:275:GLU:HB3 | 2.19 | 0.43 |
| 1:B:288:LEU:O | 1:B:289:THR:OG1 | 2.37 | 0.43 |
| 1:B:311:LEU:N | 1:B:311:LEU:CD1 | 2.82 | 0.43 |
| 1:B:325:LYS:O | 1:B:325:LYS:HG2 | 2.18 | 0.43 |
| 1:C:154:PHE:CE1 | 1:C:156:ARG:CA | 3.02 | 0.43 |
| 1:C:325:LYS:O | 1:C:325:LYS:HG2 | 2.18 | 0.43 |
| 1:B:255:GLY:HA2 | 1:B:342:PRO:CB | 2.25 | 0.42 |
| 1:C:125:GLN:HA | 1:C:243:GLY:N | 2.34 | 0.42 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:125:GLN:HA | 1:A:243:GLY:N | 2.34 | 0.42 |
| 1:A:278:CYS:O | 1:A:333:VAL:O | 2.37 | 0.42 |
| 1:B:258:ASP:OD1 | 1:B:259:GLY:N | 2.52 | 0.42 |
| 1:C:96:ASN:O | 1:C:96:ASN:ND2 | 2.52 | 0.42 |
| 1:C:137:ARG:O | 1:C:230:VAL:HA | 2.19 | 0.42 |
| 1:C:266:SER:HA | 1:C:280:PHE:HA | 2.02 | 0.42 |
| 1:C:309:SER:C | 1:C:322:ALA:HA | 2.20 | 0.42 |
| 1:A:113:PRO:HB2 | 1:A:329:ARG:HG3 | 1.96 | 0.42 |
| 1:A:137:ARG:O | 1:A:230:VAL:HA | 2.19 | 0.42 |
| 1:A:242:THR:CG2 | 1:A:243:GLY:N | 2.73 | 0.42 |
| 1:A:293:GLU:CA | 1:A:317:GLY:HA2 | 2.50 | 0.42 |
| 1:B:111:SER:HB3 | 1:B:197:VAL:HG21 | 2.01 | 0.42 |
| 1:B:126:TYR:C | 1:B:242:THR:HG21 | 2.37 | 0.42 |
| 1:C:236:VAL:CG1 | 1:C:238:LEU:HD11 | 2.50 | 0.42 |
| 1:A:134:LEU:CD2 | 1:A:188:VAL:HG22 | 2.41 | 0.42 |
| 1:A:288:LEU:O | 1:A:289:THR:OG1 | 2.37 | 0.42 |
| 1:B:137:ARG:O | 1:B:230:VAL:HA | 2.19 | 0.42 |
| 1:B:259:GLY:C | 1:B:260:PRO:CD | 2.84 | 0.42 |
| 1:B:293:GLU:CA | 1:B:317:GLY:HA2 | 2.50 | 0.42 |
| 1:C:273:GLY:O | 1:C:275:GLU:HB3 | 2.19 | 0.42 |
| 1:C:302:ASN:HB3 | 1:C:308:PHE:CE1 | 2.55 | 0.42 |
| 1:C:304:ASP:OD2 | 1:C:331:GLN:CA | 2.57 | 0.42 |
| 1:C:341:GLN:O | 1:C:342:PRO:C | 2.58 | 0.42 |
| 1:A:154:PHE:CE1 | 1:A:156:ARG:CA | 3.02 | 0.42 |
| 1:A:293:GLU:O | 1:A:316:ALA:C | 2.52 | 0.42 |
| 1:B:302:ASN:HB3 | 1:B:308:PHE:CE1 | 2.55 | 0.42 |
| 1:C:169:LEU:C | 1:C:171:ASN:H | 2.23 | 0.42 |
| 1:C:293:GLU:CA | 1:C:317:GLY:HA2 | 2.50 | 0.42 |
| 1:A:169:LEU:C | 1:A:171:ASN:H | 2.22 | 0.42 |
| 1:A:243:GLY:O | 1:A:244:SER:CB | 2.67 | 0.42 |
| 1:A:266:SER:HA | 1:A:280:PHE:HA | 2.02 | 0.42 |
| 1:A:268:THR:O | 1:A:268:THR:CG2 | 2.66 | 0.42 |
| 1:B:170:TYR:C | 1:B:171:ASN:ND2 | 2.72 | 0.42 |
| 1:B:297:VAL:HB | 1:B:336:VAL:CG1 | 1.98 | 0.42 |
| 1:B:343:LYS:HB2 | 1:B:344:GLY:H | 1.13 | 0.42 |
| 1:C:112:GLU:CA | 1:C:284:GLY:CA | 2.96 | 0.42 |
| 1:C:201:ILE:HG22 | 1:C:264:SER:OG | 2.20 | 0.42 |
| 1:C:289:THR:CG2 | 1:C:321:TRP:CZ3 | 3.03 | 0.42 |
| 1:C:291:PHE:CE1 | 1:C:335:MET:HE3 | 2.54 | 0.42 |
| 1:C:315:ALA:CA | 1:C:318:SER:HB2 | 2.49 | 0.42 |
| 1:A:87:SER:HA | 1:A:231:ARG:HD2 | 2.01 | 0.42 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:170:TYR:C | 1:A:171:ASN:ND2 | 2.72 | 0.42 |
| 1:A:273:GLY:O | 1:A:275:GLU:HB3 | 2.19 | 0.42 |
| 1:B:154:PHE:CE1 | 1:B:156:ARG:CA | 3.02 | 0.42 |
| 1:C:101:PRO:HG2 | 1:C:166:LEU:HD12 | 1.94 | 0.42 |
| 1:C:163:PRO:CG | 1:C:168:SER:HB2 | 2.50 | 0.42 |
| 1:C:216:THR:OG1 | 1:C:227:LEU:HD21 | 2.18 | 0.42 |
| 1:C:258:ASP:OD1 | 1:C:259:GLY:N | 2.52 | 0.42 |
| 1:C:269:LYS:CG | 1:C:270:GLY:H | 2.23 | 0.42 |
| 1:A:296:PRO:HD2 | 1:A:337:THR:CG2 | 2.49 | 0.42 |
| 1:A:302:ASN:HB3 | 1:A:308:PHE:CE1 | 2.55 | 0.42 |
| 1:A:163:PRO:CG | 1:A:168:SER:HB2 | 2.50 | 0.42 |
| 1:A:258:ASP:OD1 | 1:A:259:GLY:N | 2.52 | 0.42 |
| 1:A:279:HIS:O | 1:A:280:PHE:N | 2.42 | 0.42 |
| 1:A:289:THR:CG2 | 1:A:321:TRP:CZ3 | 3.03 | 0.42 |
| 1:A:313:GLU:HB2 | 1:A:315:ALA:CA | 2.50 | 0.42 |
| 1:B:87:SER:HA | 1:B:231:ARG:HD2 | 2.01 | 0.42 |
| 1:B:93:LEU:HD12 | 1:B:138:TYR:CE1 | 2.54 | 0.42 |
| 1:B:133:SER:CB | 1:B:235:THR:CG2 | 2.94 | 0.42 |
| 1:B:169:LEU:C | 1:B:171:ASN:H | 2.23 | 0.42 |
| 1:B:185:ILE:HD12 | 1:B:186:LEU:O | 2.20 | 0.42 |
| 1:B:243:GLY:O | 1:B:244:SER:CB | 2.66 | 0.42 |
| 1:B:315:ALA:HB1 | 1:B:318:SER:HB3 | 1.72 | 0.42 |
| 1:B:315:ALA:CA | 1:B:318:SER:HB2 | 2.49 | 0.42 |
| 1:B:336:VAL:O | 1:B:336:VAL:CG1 | 2.67 | 0.42 |
| 1:C:75:VAL:HG12 | 1:C:76:SER:N | 2.35 | 0.42 |
| 1:A:93:LEU:HD12 | 1:A:138:TYR:CE1 | 2.54 | 0.42 |
| 1:A:101:PRO:CG | 1:A:217:TYR:HD2 | 2.26 | 0.42 |
| 1:A:134:LEU:N | 1:A:233:GLU:O | 2.44 | 0.42 |
| 1:A:185:ILE:HD12 | 1:A:186:LEU:O | 2.20 | 0.42 |
| 1:A:248:ALA:HB1 | 1:A:265:TRP:CA | 2.38 | 0.42 |
| 1:A:315:ALA:CA | 1:A:318:SER:CB | 2.97 | 0.42 |
| 1:B:95:LYS:HZ1 | 1:B:221:ALA:CB | 2.32 | 0.42 |
| 1:B:149:LYS:CD | 1:B:217:TYR:HE1 | 2.33 | 0.42 |
| 1:B:236:VAL:CG1 | 1:B:238:LEU:HD11 | 2.50 | 0.42 |
| 1:C:107:VAL:HG11 | 1:C:283:THR:HG22 | 2.02 | 0.42 |
| 1:C:130:ARG:NH1 | 1:C:236:VAL:C | 2.70 | 0.42 |
| 1:C:207:VAL:HG11 | 1:C:329:ARG:NE | 2.24 | 0.42 |
| 1:C:292:TYR:CD1 | 1:C:292:TYR:C | 2.93 | 0.42 |
| 1:C:336:VAL:O | 1:C:336:VAL:CG1 | 2.66 | 0.42 |
| 1:A:141:MET:O | 1:A:141:MET:CG | 2.46 | 0.41 |
| 1:A:244:SER:C | 1:A:245:THR:HG22 | 2.31 | 0.41 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:292:TYR:C | 1:B:292:TYR:CD1 | 2.94 | 0.41 |
| 1:C:186:LEU:C | 1:C:186:LEU:CD2 | 2.87 | 0.41 |
| 1:C:269:LYS:C | 1:C:277:ASP:CB | 2.63 | 0.41 |
| 1:A:130:ARG:HB2 | 1:A:237:GLN:CA | 2.49 | 0.41 |
| 1:A:236:VAL:CG1 | 1:A:238:LEU:HD11 | 2.49 | 0.41 |
| 1:B:254:ALA:O | 1:B:257:LYS:N | 2.38 | 0.41 |
| 1:B:289:THR:CG2 | 1:B:321:TRP:CZ3 | 3.03 | 0.41 |
| 1:B:315:ALA:CA | 1:B:318:SER:CB | 2.97 | 0.41 |
| 1:C:88:GLU:O | 1:C:231:ARG:HB3 | 2.05 | 0.41 |
| 1:C:264:SER:OG | 1:C:265:TRP:CA | 2.69 | 0.41 |
| 1:C:269:LYS:CE | 1:C:270:GLY:O | 2.63 | 0.41 |
| 1:A:149:LYS:CD | 1:A:217:TYR:HE1 | 2.34 | 0.41 |
| 1:A:154:PHE:CZ | 1:A:156:ARG:CA | 3.01 | 0.41 |
| 1:A:197:VAL:CG2 | 1:A:198:ALA:H | 2.34 | 0.41 |
| 1:B:125:GLN:HA | 1:B:243:GLY:N | 2.34 | 0.41 |
| 1:B:139:SER:HA | 1:B:140:PRO:HD3 | 1.13 | 0.41 |
| 1:C:93:LEU:CD1 | 1:C:138:TYR:HE1 | 2.33 | 0.41 |
| 1:C:141:MET:O | 1:C:141:MET:CG | 2.46 | 0.41 |
| 1:C:199:ASP:CA | 1:C:265:TRP:CD1 | 3.02 | 0.41 |
| 1:A:93:LEU:CD1 | 1:A:138:TYR:HE1 | 2.33 | 0.41 |
| 1:A:291:PHE:CD2 | 1:A:345:LYS:O | 2.73 | 0.41 |
| 1:B:264:SER:OG | 1:B:265:TRP:CA | 2.69 | 0.41 |
| 1:A:130:ARG:CG | 1:A:131:PHE:N | 2.79 | 0.41 |
| 1:A:151:ALA:HA | 1:A:177:SER:CB | 2.21 | 0.41 |
| 1:A:306:SER:HB2 | 1:A:325:LYS:N | 2.33 | 0.41 |
| 1:B:125:GLN:CA | 1:B:243:GLY:HA2 | 2.27 | 0.41 |
| 1:B:154:PHE:CZ | 1:B:156:ARG:CA | 3.02 | 0.41 |
| 1:B:197:VAL:CG2 | 1:B:198:ALA:H | 2.34 | 0.41 |
| 1:C:66:TYR:HE2 | 1:C:183:GLY:CA | 2.33 | 0.41 |
| 1:C:185:ILE:HD12 | 1:C:186:LEU:O | 2.20 | 0.41 |
| 1:C:278:CYS:O | 1:C:333:VAL:O | 2.37 | 0.41 |
| 1:A:126:TYR:O | 1:A:242:THR:CG2 | 2.66 | 0.41 |
| 1:A:128:LYS:O | 1:A:238:LEU:HA | 2.21 | 0.41 |
| 1:A:163:PRO:HG3 | 1:A:168:SER:CB | 2.47 | 0.41 |
| 1:A:341:GLN:O | 1:A:342:PRO:C | 2.58 | 0.41 |
| 1:B:136:PHE:CE2 | 1:B:212:LEU:HD13 | 2.56 | 0.41 |
| 1:B:289:THR:O | 1:B:290:LEU:CG | 2.69 | 0.41 |
| 1:C:135:ARG:N | 1:C:233:GLU:O | 2.54 | 0.41 |
| 1:A:249:GLN:HG3 | 1:A:263:VAL:O | 2.21 | 0.41 |
| 1:A:297:VAL:HG12 | 1:A:336:VAL:HG11 | 0.98 | 0.41 |
| 1:B:120:ILE:HG13 | 1:B:350:ARG:HH12 | 1.19 | 0.41 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:249:GLN:HG3 | 1:B:263:VAL:O | 2.21 | 0.41 |
| 1:B:337:THR:OG1 | 1:B:343:LYS:NZ | 2.42 | 0.41 |
| 1:C:269:LYS:O | 1:C:277:ASP:CA | 2.57 | 0.41 |
| 1:C:315:ALA:CA | 1:C:318:SER:CB | 2.97 | 0.41 |
| 1:A:253:PHE:CZ | 1:A:268:THR:HG21 | 2.56 | 0.41 |
| 1:A:264:SER:OG | 1:A:265:TRP:CA | 2.69 | 0.41 |
| 1:B:93:LEU:CD1 | 1:B:138:TYR:CE1 | 3.03 | 0.41 |
| 1:B:262:LEU:HA | 1:B:262:LEU:HD23 | 1.71 | 0.41 |
| 1:C:90:ILE:HG21 | 1:C:90:ILE:HD13 | 1.83 | 0.41 |
| 1:C:249:GLN:HG3 | 1:C:263:VAL:O | 2.21 | 0.41 |
| 1:C:289:THR:O | 1:C:290:LEU:CG | 2.69 | 0.41 |
| 1:A:93:LEU:CD1 | 1:A:138:TYR:CE1 | 3.03 | 0.41 |
| 1:A:111:SER:HB3 | 1:A:197:VAL:HG21 | 2.02 | 0.41 |
| 1:A:135:ARG:N | 1:A:233:GLU:O | 2.54 | 0.41 |
| 1:A:172:ILE:HD13 | 1:A:172:ILE:HG21 | 1.88 | 0.41 |
| 1:A:308:PHE:HE1 | 1:A:333:VAL:CG1 | 2.34 | 0.41 |
| 1:B:128:LYS:O | 1:B:238:LEU:HA | 2.21 | 0.41 |
| 1:B:130:ARG:CG | 1:B:131:PHE:N | 2.79 | 0.41 |
| 1:B:248:ALA:CB | 1:B:249:GLN:HB2 | 2.47 | 0.41 |
| 1:B:296:PRO:HB2 | 1:B:297:VAL:H | 0.85 | 0.41 |
| 1:B:313:GLU:HB2 | 1:B:315:ALA:CA | 2.50 | 0.41 |
| 1:C:55:VAL:O | 1:C:57:ARG:N | 2.52 | 0.41 |
| 1:C:86:GLY:O | 1:C:87:SER:CB | 2.69 | 0.41 |
| 1:C:93:LEU:CD1 | 1:C:138:TYR:CE1 | 3.03 | 0.41 |
| 1:C:95:LYS:HB3 | 1:C:96:ASN:H | 1.60 | 0.41 |
| 1:C:120:ILE:HG21 | 1:C:120:ILE:HD13 | 1.87 | 0.41 |
| 1:C:136:PHE:CG | 1:C:212:LEU:HD21 | 2.56 | 0.41 |
| 1:C:191:ASP:HB2 | 1:C:192:SER:H | 1.41 | 0.41 |
| 1:C:231:ARG:CG | 1:C:232:VAL:H | 2.27 | 0.41 |
| 1:C:252:ASP:OD2 | 1:C:345:LYS:HG2 | 2.16 | 0.41 |
| 1:C:252:ASP:OD1 | 1:C:345:LYS:HG2 | 2.20 | 0.41 |
| 1:C:253:PHE:CZ | 1:C:268:THR:HG21 | 2.56 | 0.41 |
| 1:C:291:PHE:CD2 | 1:C:345:LYS:O | 2.73 | 0.41 |
| 1:C:308:PHE:HE1 | 1:C:333:VAL:CG1 | 2.34 | 0.41 |
| 1:C:313:GLU:HB2 | 1:C:315:ALA:CA | 2.50 | 0.41 |
| 1:A:289:THR:O | 1:A:290:LEU:CG | 2.69 | 0.41 |
| 1:B:93:LEU:CD1 | 1:B:138:TYR:HE1 | 2.33 | 0.41 |
| 1:C:128:LYS:O | 1:C:238:LEU:HA | 2.21 | 0.41 |
| 1:C:130:ARG:HB2 | 1:C:237:GLN:CA | 2.49 | 0.41 |
| 1:C:176:VAL:O | 1:C:176:VAL:CG1 | 2.69 | 0.41 |
| 1:A:302:ASN:HB3 | 1:A:308:PHE:CD1 | 2.56 | 0.40 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:134:LEU:N | 1:B:233:GLU:O | 2.44 | 0.40 |
| 1:B:135:ARG:N | 1:B:233:GLU:O | 2.54 | 0.40 |
| 1:B:163:PRO:CG | 1:B:168:SER:HB2 | 2.50 | 0.40 |
| 1:B:291:PHE:CD2 | 1:B:345:LYS:O | 2.73 | 0.40 |
| 1:B:294:LYS:O | 1:B:296:PRO:CG | 2.65 | 0.40 |
| 1:B:302:ASN:HB3 | 1:B:308:PHE:CD1 | 2.56 | 0.40 |
| 1:C:197:VAL:CG2 | 1:C:198:ALA:H | 2.33 | 0.40 |
| 1:A:130:ARG:HB3 | 1:A:131:PHE:H | 1.46 | 0.40 |
| 1:A:176:VAL:O | 1:A:176:VAL:CG1 | 2.69 | 0.40 |
| 1:C:71:THR:HG23 | 1:C:87:SER:OG | 2.03 | 0.40 |
| 1:C:75:VAL:N | 1:C:75:VAL:CG2 | 2.84 | 0.40 |
| 1:C:82:ILE:HD13 | 1:C:238:LEU:HD22 | 2.03 | 0.40 |
| 1:C:296:PRO:HD2 | 1:C:337:THR:CG2 | 2.49 | 0.40 |
| 1:A:136:PHE:CG | 1:A:212:LEU:HD21 | 2.56 | 0.40 |
| 1:A:246:SER:CB | 1:A:263:VAL:HG13 | 2.52 | 0.40 |
| 1:B:136:PHE:CG | 1:B:212:LEU:HD21 | 2.56 | 0.40 |
| 1:B:299:GLY:HA2 | 1:B:335:MET:HG2 | 2.03 | 0.40 |
| 1:B:308:PHE:HE1 | 1:B:333:VAL:CG1 | 2.34 | 0.40 |
| 1:C:91:THR:HG23 | 1:C:92:THR:N | 2.36 | 0.40 |
| 1:C:278:CYS:HB3 | 1:C:333:VAL:C | 2.35 | 0.40 |
| 1:C:302:ASN:HB3 | 1:C:308:PHE:CD1 | 2.56 | 0.40 |
| 1:C:313:GLU:H | 1:C:313:GLU:HG2 | 1.62 | 0.40 |
| 1:C:341:GLN:HE21 | 1:C:341:GLN:HB2 | 1.72 | 0.40 |
| 1:A:86:GLY:O | 1:A:87:SER:CB | 2.69 | 0.40 |
| 1:A:190:THR:HG22 | 1:A:191:ASP:O | 2.22 | 0.40 |
| 1:B:149:LYS:HG2 | 1:B:150:VAL:H | 1.87 | 0.40 |
| 1:B:176:VAL:O | 1:B:176:VAL:CG1 | 2.69 | 0.40 |
| 1:B:190:THR:HG22 | 1:B:191:ASP:O | 2.22 | 0.40 |
| 1:C:93:LEU:HD12 | 1:C:138:TYR:CE1 | 2.54 | 0.40 |
| 1:C:149:LYS:CD | 1:C:217:TYR:HE1 | 2.33 | 0.40 |
| 1:C:297:VAL:HG12 | 1:C:336:VAL:HG11 | 0.98 | 0.40 |
| 1:A:91:THR:HG23 | 1:A:92:THR:N | 2.36 | 0.40 |
| 1:A:256:VAL:HG13 | 1:A:257:LYS:N | 2.37 | 0.40 |
| 1:A:336:VAL:O | 1:A:336:VAL:CG1 | 2.67 | 0.40 |
| 1:B:86:GLY:O | 1:B:87:SER:CB | 2.69 | 0.40 |
| 1:B:341:GLN:O | 1:B:342:PRO:C | 2.58 | 0.40 |
| 1:C:119:LEU:C | 1:C:121:LYS:H | 2.25 | 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 PDB entries followed by that with respect to all EM entries.

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

| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles |
|-----|-------|----------------|-----------|-----------|-----------|-------------|
| 1 | A | 263/347 (76%) | 144 (55%) | 60 (23%) | 59 (22%) | 0 1 |
| 1 | B | 263/347 (76%) | 144 (55%) | 60 (23%) | 59 (22%) | 0 1 |
| 1 | C | 291/347 (84%) | 161 (55%) | 64 (22%) | 66 (23%) | 0 2 |
| All | All | 817/1041 (78%) | 449 (55%) | 184 (22%) | 184 (22%) | 0 1 |

All (184) Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 83 | THR |
| 1 | A | 87 | SER |
| 1 | A | 90 | ILE |
| 1 | A | 95 | LYS |
| 1 | A | 96 | ASN |
| 1 | A | 97 | THR |
| 1 | A | 119 | LEU |
| 1 | A | 128 | LYS |
| 1 | A | 140 | PRO |
| 1 | A | 157 | ASP |
| 1 | A | 160 | LYS |
| 1 | A | 166 | LEU |
| 1 | A | 173 | GLU |
| 1 | A | 202 | SER |
| 1 | A | 209 | PHE |
| 1 | A | 227 | LEU |
| 1 | A | 240 | ASN |
| 1 | A | 244 | SER |
| 1 | A | 245 | THR |
| 1 | A | 246 | SER |
| 1 | A | 255 | GLY |
| 1 | A | 290 | LEU |
| 1 | A | 293 | GLU |
| 1 | A | 295 | ALA |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 307 | ASP |
| 1 | A | 316 | ALA |
| 1 | A | 329 | ARG |
| 1 | A | 339 | GLU |
| 1 | A | 341 | GLN |
| 1 | B | 83 | THR |
| 1 | B | 87 | SER |
| 1 | B | 90 | ILE |
| 1 | B | 95 | LYS |
| 1 | B | 96 | ASN |
| 1 | B | 97 | THR |
| 1 | B | 119 | LEU |
| 1 | B | 128 | LYS |
| 1 | B | 140 | PRO |
| 1 | B | 157 | ASP |
| 1 | B | 160 | LYS |
| 1 | B | 166 | LEU |
| 1 | B | 173 | GLU |
| 1 | B | 202 | SER |
| 1 | B | 209 | PHE |
| 1 | B | 227 | LEU |
| 1 | B | 240 | ASN |
| 1 | B | 244 | SER |
| 1 | B | 245 | THR |
| 1 | B | 246 | SER |
| 1 | B | 255 | GLY |
| 1 | B | 290 | LEU |
| 1 | B | 293 | GLU |
| 1 | B | 295 | ALA |
| 1 | B | 307 | ASP |
| 1 | B | 316 | ALA |
| 1 | B | 329 | ARG |
| 1 | B | 339 | GLU |
| 1 | B | 341 | GLN |
| 1 | C | 55 | VAL |
| 1 | C | 56 | THR |
| 1 | C | 77 | THR |
| 1 | C | 79 | ARG |
| 1 | C | 80 | ASP |
| 1 | C | 83 | THR |
| 1 | C | 87 | SER |
| 1 | C | 90 | ILE |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | C | 95 | LYS |
| 1 | C | 96 | ASN |
| 1 | C | 97 | THR |
| 1 | C | 119 | LEU |
| 1 | C | 128 | LYS |
| 1 | C | 140 | PRO |
| 1 | C | 157 | ASP |
| 1 | C | 160 | LYS |
| 1 | C | 166 | LEU |
| 1 | C | 173 | GLU |
| 1 | C | 202 | SER |
| 1 | C | 209 | PHE |
| 1 | C | 227 | LEU |
| 1 | C | 240 | ASN |
| 1 | C | 244 | SER |
| 1 | C | 245 | THR |
| 1 | C | 246 | SER |
| 1 | C | 255 | GLY |
| 1 | C | 290 | LEU |
| 1 | C | 293 | GLU |
| 1 | C | 295 | ALA |
| 1 | C | 307 | ASP |
| 1 | C | 316 | ALA |
| 1 | C | 329 | ARG |
| 1 | C | 339 | GLU |
| 1 | C | 341 | GLN |
| 1 | A | 101 | PRO |
| 1 | A | 105 | THR |
| 1 | A | 114 | GLY |
| 1 | A | 115 | THR |
| 1 | A | 116 | PHE |
| 1 | A | 151 | ALA |
| 1 | A | 156 | ARG |
| 1 | A | 158 | ALA |
| 1 | A | 167 | ALA |
| 1 | A | 291 | PHE |
| 1 | A | 292 | TYR |
| 1 | A | 296 | PRO |
| 1 | A | 315 | ALA |
| 1 | B | 101 | PRO |
| 1 | B | 105 | THR |
| 1 | B | 114 | GLY |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | B | 115 | THR |
| 1 | B | 116 | PHE |
| 1 | B | 151 | ALA |
| 1 | B | 156 | ARG |
| 1 | B | 158 | ALA |
| 1 | B | 167 | ALA |
| 1 | B | 291 | PHE |
| 1 | B | 292 | TYR |
| 1 | B | 296 | PRO |
| 1 | B | 315 | ALA |
| 1 | C | 69 | VAL |
| 1 | C | 101 | PRO |
| 1 | C | 105 | THR |
| 1 | C | 114 | GLY |
| 1 | C | 115 | THR |
| 1 | C | 116 | PHE |
| 1 | C | 151 | ALA |
| 1 | C | 156 | ARG |
| 1 | C | 158 | ALA |
| 1 | C | 167 | ALA |
| 1 | C | 291 | PHE |
| 1 | C | 292 | TYR |
| 1 | C | 296 | PRO |
| 1 | C | 315 | ALA |
| 1 | A | 145 | THR |
| 1 | A | 152 | LEU |
| 1 | A | 263 | VAL |
| 1 | B | 145 | THR |
| 1 | B | 152 | LEU |
| 1 | B | 263 | VAL |
| 1 | C | 145 | THR |
| 1 | C | 152 | LEU |
| 1 | C | 263 | VAL |
| 1 | A | 131 | PHE |
| 1 | A | 205 | LYS |
| 1 | A | 298 | SER |
| 1 | A | 343 | LYS |
| 1 | B | 131 | PHE |
| 1 | B | 205 | LYS |
| 1 | B | 298 | SER |
| 1 | B | 343 | LYS |
| 1 | C | 131 | PHE |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | C | 205 | LYS |
| 1 | C | 298 | SER |
| 1 | C | 343 | LYS |
| 1 | A | 134 | LEU |
| 1 | A | 163 | PRO |
| 1 | A | 201 | ILE |
| 1 | A | 260 | PRO |
| 1 | A | 300 | LEU |
| 1 | A | 314 | ALA |
| 1 | B | 82 | ILE |
| 1 | B | 134 | LEU |
| 1 | B | 163 | PRO |
| 1 | B | 201 | ILE |
| 1 | B | 260 | PRO |
| 1 | B | 300 | LEU |
| 1 | B | 314 | ALA |
| 1 | C | 163 | PRO |
| 1 | C | 201 | ILE |
| 1 | C | 260 | PRO |
| 1 | C | 300 | LEU |
| 1 | C | 314 | ALA |
| 1 | A | 82 | ILE |
| 1 | A | 313 | GLU |
| 1 | B | 313 | GLU |
| 1 | C | 71 | THR |
| 1 | C | 82 | ILE |
| 1 | C | 134 | LEU |
| 1 | C | 313 | GLU |
| 1 | A | 297 | VAL |
| 1 | B | 297 | VAL |
| 1 | C | 297 | VAL |
| 1 | A | 259 | GLY |
| 1 | B | 259 | GLY |
| 1 | C | 259 | GLY |

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

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

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

| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles |
|-----|-------|---------------|-----------|-----------|-------------|
| 1 | A | 215/282 (76%) | 178 (83%) | 37 (17%) | 2 11 |
| 1 | B | 215/282 (76%) | 179 (83%) | 36 (17%) | 2 12 |
| 1 | C | 238/282 (84%) | 200 (84%) | 38 (16%) | 2 13 |
| All | All | 668/846 (79%) | 557 (83%) | 111 (17%) | 5 12 |

All (111) residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 89 | LEU |
| 1 | A | 91 | THR |
| 1 | A | 96 | ASN |
| 1 | A | 97 | THR |
| 1 | A | 108 | LEU |
| 1 | A | 117 | ASN |
| 1 | A | 120 | ILE |
| 1 | A | 129 | TYR |
| 1 | A | 134 | LEU |
| 1 | A | 135 | ARG |
| 1 | A | 145 | THR |
| 1 | A | 146 | THR |
| 1 | A | 150 | VAL |
| 1 | A | 152 | LEU |
| 1 | A | 154 | PHE |
| 1 | A | 164 | ASN |
| 1 | A | 165 | ASP |
| 1 | A | 176 | VAL |
| 1 | A | 185 | ILE |
| 1 | A | 192 | SER |
| 1 | A | 199 | ASP |
| 1 | A | 205 | LYS |
| 1 | A | 206 | LEU |
| 1 | A | 208 | ASP |
| 1 | A | 213 | ILE |
| 1 | A | 217 | TYR |
| 1 | A | 234 | TYR |
| 1 | A | 260 | PRO |
| 1 | A | 264 | SER |
| 1 | A | 275 | GLU |
| 1 | A | 276 | HIS |
| 1 | A | 285 | ASN |
| 1 | A | 290 | LEU |
| 1 | A | 292 | TYR |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 300 | LEU |
| 1 | A | 313 | GLU |
| 1 | A | 339 | GLU |
| 1 | B | 89 | LEU |
| 1 | B | 91 | THR |
| 1 | B | 96 | ASN |
| 1 | B | 97 | THR |
| 1 | B | 108 | LEU |
| 1 | B | 117 | ASN |
| 1 | B | 120 | ILE |
| 1 | B | 129 | TYR |
| 1 | B | 134 | LEU |
| 1 | B | 135 | ARG |
| 1 | B | 145 | THR |
| 1 | B | 146 | THR |
| 1 | B | 150 | VAL |
| 1 | B | 152 | LEU |
| 1 | B | 154 | PHE |
| 1 | B | 164 | ASN |
| 1 | B | 165 | ASP |
| 1 | B | 176 | VAL |
| 1 | B | 185 | ILE |
| 1 | B | 192 | SER |
| 1 | B | 199 | ASP |
| 1 | B | 205 | LYS |
| 1 | B | 206 | LEU |
| 1 | B | 208 | ASP |
| 1 | B | 213 | ILE |
| 1 | B | 217 | TYR |
| 1 | B | 234 | TYR |
| 1 | B | 264 | SER |
| 1 | B | 275 | GLU |
| 1 | B | 276 | HIS |
| 1 | B | 285 | ASN |
| 1 | B | 290 | LEU |
| 1 | B | 292 | TYR |
| 1 | B | 300 | LEU |
| 1 | B | 313 | GLU |
| 1 | B | 339 | GLU |
| 1 | C | 58 | LEU |
| 1 | C | 79 | ARG |
| 1 | C | 89 | LEU |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | C | 91 | THR |
| 1 | C | 96 | ASN |
| 1 | C | 97 | THR |
| 1 | C | 108 | LEU |
| 1 | C | 117 | ASN |
| 1 | C | 120 | ILE |
| 1 | C | 129 | TYR |
| 1 | C | 134 | LEU |
| 1 | C | 135 | ARG |
| 1 | C | 145 | THR |
| 1 | C | 146 | THR |
| 1 | C | 150 | VAL |
| 1 | C | 152 | LEU |
| 1 | C | 154 | PHE |
| 1 | C | 164 | ASN |
| 1 | C | 165 | ASP |
| 1 | C | 176 | VAL |
| 1 | C | 185 | ILE |
| 1 | C | 192 | SER |
| 1 | C | 199 | ASP |
| 1 | C | 205 | LYS |
| 1 | C | 206 | LEU |
| 1 | C | 208 | ASP |
| 1 | C | 213 | ILE |
| 1 | C | 217 | TYR |
| 1 | C | 234 | TYR |
| 1 | C | 264 | SER |
| 1 | C | 275 | GLU |
| 1 | C | 276 | HIS |
| 1 | C | 285 | ASN |
| 1 | C | 290 | LEU |
| 1 | C | 292 | TYR |
| 1 | C | 300 | LEU |
| 1 | C | 313 | GLU |
| 1 | C | 339 | GLU |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (36) such sidechains are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 96 | ASN |
| 1 | A | 117 | ASN |
| 1 | A | 118 | GLN |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 125 | GLN |
| 1 | A | 164 | ASN |
| 1 | A | 171 | ASN |
| 1 | A | 226 | GLN |
| 1 | A | 237 | GLN |
| 1 | A | 240 | ASN |
| 1 | A | 285 | ASN |
| 1 | A | 341 | GLN |
| 1 | B | 96 | ASN |
| 1 | B | 109 | ASN |
| 1 | B | 117 | ASN |
| 1 | B | 118 | GLN |
| 1 | B | 125 | GLN |
| 1 | B | 164 | ASN |
| 1 | B | 171 | ASN |
| 1 | B | 226 | GLN |
| 1 | B | 237 | GLN |
| 1 | B | 240 | ASN |
| 1 | B | 285 | ASN |
| 1 | B | 341 | GLN |
| 1 | C | 72 | GLN |
| 1 | C | 96 | ASN |
| 1 | C | 109 | ASN |
| 1 | C | 118 | GLN |
| 1 | C | 125 | GLN |
| 1 | C | 164 | ASN |
| 1 | C | 171 | ASN |
| 1 | C | 226 | GLN |
| 1 | C | 237 | GLN |
| 1 | C | 240 | ASN |
| 1 | C | 249 | GLN |
| 1 | C | 285 | ASN |
| 1 | C | 341 | GLN |

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [\(i\)](#)

There are no monosaccharides in this entry.

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

There are no ligands in this entry.

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

There are no such residues in this entry.

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

The following chains have linkage breaks:

| Mol | Chain | Number of breaks |
|-----|-------|------------------|
| 1 | C | 22 |
| 1 | A | 21 |
| 1 | B | 21 |

All chain breaks are listed below:

| Model | Chain | Residue-1 | Atom-1 | Residue-2 | Atom-2 | Distance (Å) |
|-------|-------|-----------|--------|-----------|--------|--------------|
| 1 | A | 248:ALA | C | 249:GLN | N | 10.35 |
| 1 | C | 248:ALA | C | 249:GLN | N | 4.25 |
| 1 | B | 248:ALA | C | 249:GLN | N | 4.13 |
| 1 | A | 259:GLY | C | 260:PRO | N | 1.97 |
| 1 | B | 259:GLY | C | 260:PRO | N | 1.97 |
| 1 | C | 259:GLY | C | 260:PRO | N | 1.97 |
| 1 | A | 82:ILE | C | 83:THR | N | 1.81 |
| 1 | B | 82:ILE | C | 83:THR | N | 1.81 |
| 1 | C | 82:ILE | C | 83:THR | N | 1.81 |
| 1 | A | 279:HIS | C | 280:PHE | N | 1.74 |
| 1 | B | 279:HIS | C | 280:PHE | N | 1.74 |
| 1 | C | 279:HIS | C | 280:PHE | N | 1.74 |
| 1 | A | 291:PHE | C | 292:TYR | N | 1.71 |
| 1 | B | 291:PHE | C | 292:TYR | N | 1.71 |
| 1 | C | 291:PHE | C | 292:TYR | N | 1.71 |
| 1 | A | 264:SER | C | 265:TRP | N | 1.68 |
| 1 | A | 339:GLU | C | 340:GLU | N | 1.68 |
| 1 | B | 264:SER | C | 265:TRP | N | 1.68 |

Continued on next page...

Continued from previous page...

| Model | Chain | Residue-1 | Atom-1 | Residue-2 | Atom-2 | Distance (Å) |
|-------|-------|-----------|--------|-----------|--------|--------------|
| 1 | B | 339:GLU | C | 340:GLU | N | 1.68 |
| 1 | C | 264:SER | C | 265:TRP | N | 1.68 |
| 1 | C | 339:GLU | C | 340:GLU | N | 1.68 |
| 1 | C | 53:GLN | C | 54:LYS | N | 1.67 |
| 1 | A | 319:VAL | C | 320:GLN | N | 1.61 |
| 1 | B | 319:VAL | C | 320:GLN | N | 1.61 |
| 1 | C | 319:VAL | C | 320:GLN | N | 1.61 |
| 1 | A | 175:CYS | C | 176:VAL | N | 1.19 |
| 1 | B | 175:CYS | C | 176:VAL | N | 1.19 |
| 1 | C | 175:CYS | C | 176:VAL | N | 1.19 |
| 1 | A | 299:GLY | C | 300:LEU | N | 1.18 |
| 1 | B | 299:GLY | C | 300:LEU | N | 1.18 |
| 1 | C | 299:GLY | C | 300:LEU | N | 1.18 |
| 1 | A | 298:SER | C | 299:GLY | N | 1.16 |
| 1 | A | 323:GLY | C | 324:VAL | N | 1.16 |
| 1 | B | 298:SER | C | 299:GLY | N | 1.16 |
| 1 | B | 323:GLY | C | 324:VAL | N | 1.16 |
| 1 | C | 298:SER | C | 299:GLY | N | 1.16 |
| 1 | C | 323:GLY | C | 324:VAL | N | 1.16 |
| 1 | A | 260:PRO | C | 261:ARG | N | 1.15 |
| 1 | B | 260:PRO | C | 261:ARG | N | 1.15 |
| 1 | C | 260:PRO | C | 261:ARG | N | 1.15 |
| 1 | A | 315:ALA | C | 316:ALA | N | 1.14 |
| 1 | B | 315:ALA | C | 316:ALA | N | 1.14 |
| 1 | C | 315:ALA | C | 316:ALA | N | 1.14 |
| 1 | A | 139:SER | C | 140:PRO | N | 1.12 |
| 1 | A | 200:GLY | C | 201:ILE | N | 1.12 |
| 1 | A | 308:PHE | C | 309:SER | N | 1.12 |
| 1 | B | 139:SER | C | 140:PRO | N | 1.12 |
| 1 | B | 200:GLY | C | 201:ILE | N | 1.12 |
| 1 | B | 308:PHE | C | 309:SER | N | 1.12 |
| 1 | C | 139:SER | C | 140:PRO | N | 1.12 |
| 1 | C | 200:GLY | C | 201:ILE | N | 1.12 |
| 1 | C | 308:PHE | C | 309:SER | N | 1.12 |
| 1 | A | 177:SER | C | 178:SER | N | 1.04 |
| 1 | B | 177:SER | C | 178:SER | N | 1.04 |
| 1 | C | 177:SER | C | 178:SER | N | 1.04 |
| 1 | A | 297:VAL | C | 298:SER | N | 1.00 |
| 1 | B | 297:VAL | C | 298:SER | N | 1.00 |
| 1 | C | 297:VAL | C | 298:SER | N | 1.00 |
| 1 | A | 288:LEU | C | 289:THR | N | 0.94 |
| 1 | B | 288:LEU | C | 289:THR | N | 0.94 |

Continued on next page...

Continued from previous page...

| Model | Chain | Residue-1 | Atom-1 | Residue-2 | Atom-2 | Distance (Å) |
|-------|-------|-----------|--------|-----------|--------|--------------|
| 1 | C | 288:LEU | C | 289:THR | N | 0.94 |
| 1 | A | 201:ILE | C | 202:SER | N | 0.36 |
| 1 | B | 201:ILE | C | 202:SER | N | 0.36 |
| 1 | C | 201:ILE | C | 202:SER | N | 0.36 |

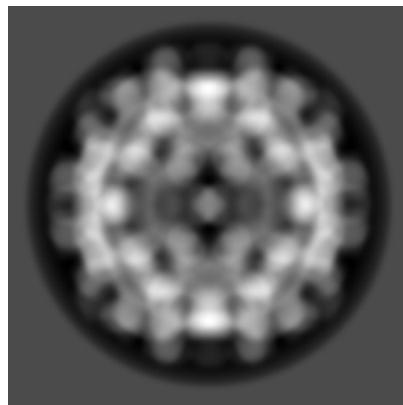
6 Map visualisation (i)

This section contains visualisations of the EMDB entry EMD-1864. These allow visual inspection of the internal detail of the map and identification of artifacts.

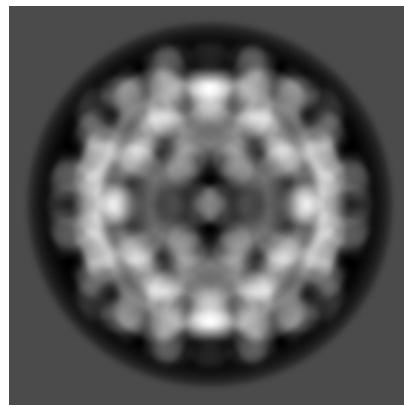
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections (i)

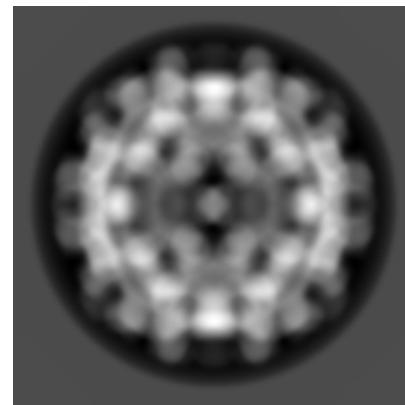
6.1.1 Primary map



X



Y



Z

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

6.2 Central slices (i)

6.2.1 Primary map



X Index: 120



Y Index: 120



Z Index: 120

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

6.3 Largest variance slices [\(i\)](#)

6.3.1 Primary map



X Index: 120



Y Index: 120

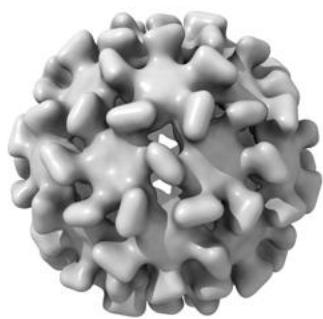


Z Index: 120

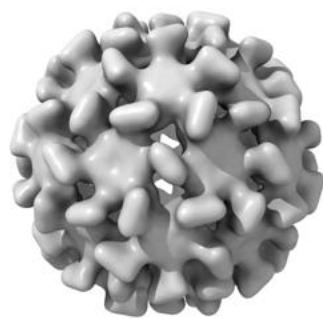
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal surface views [\(i\)](#)

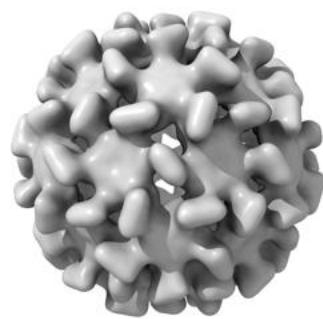
6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 3.2. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

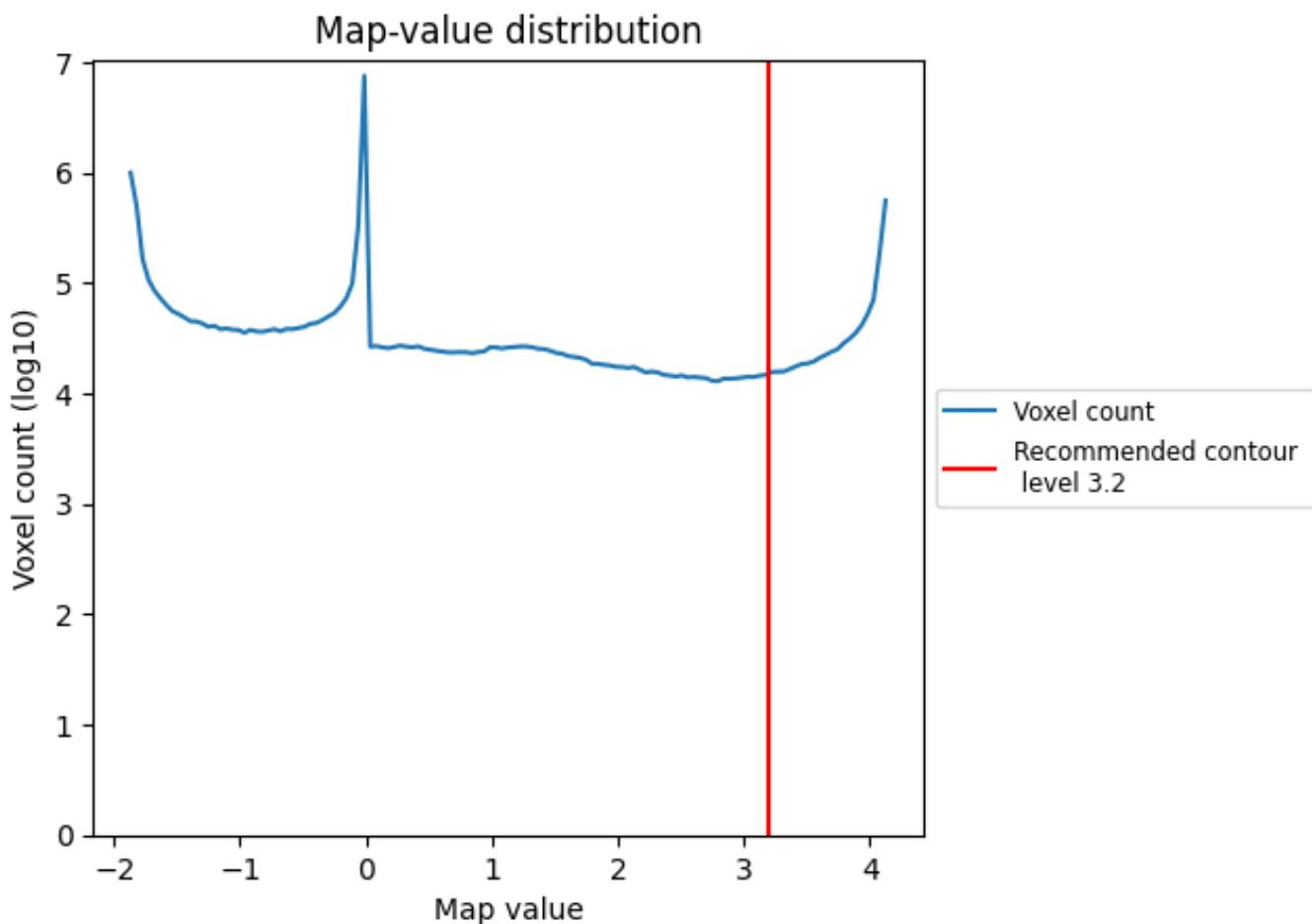
6.5 Mask visualisation

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

7 Map analysis (i)

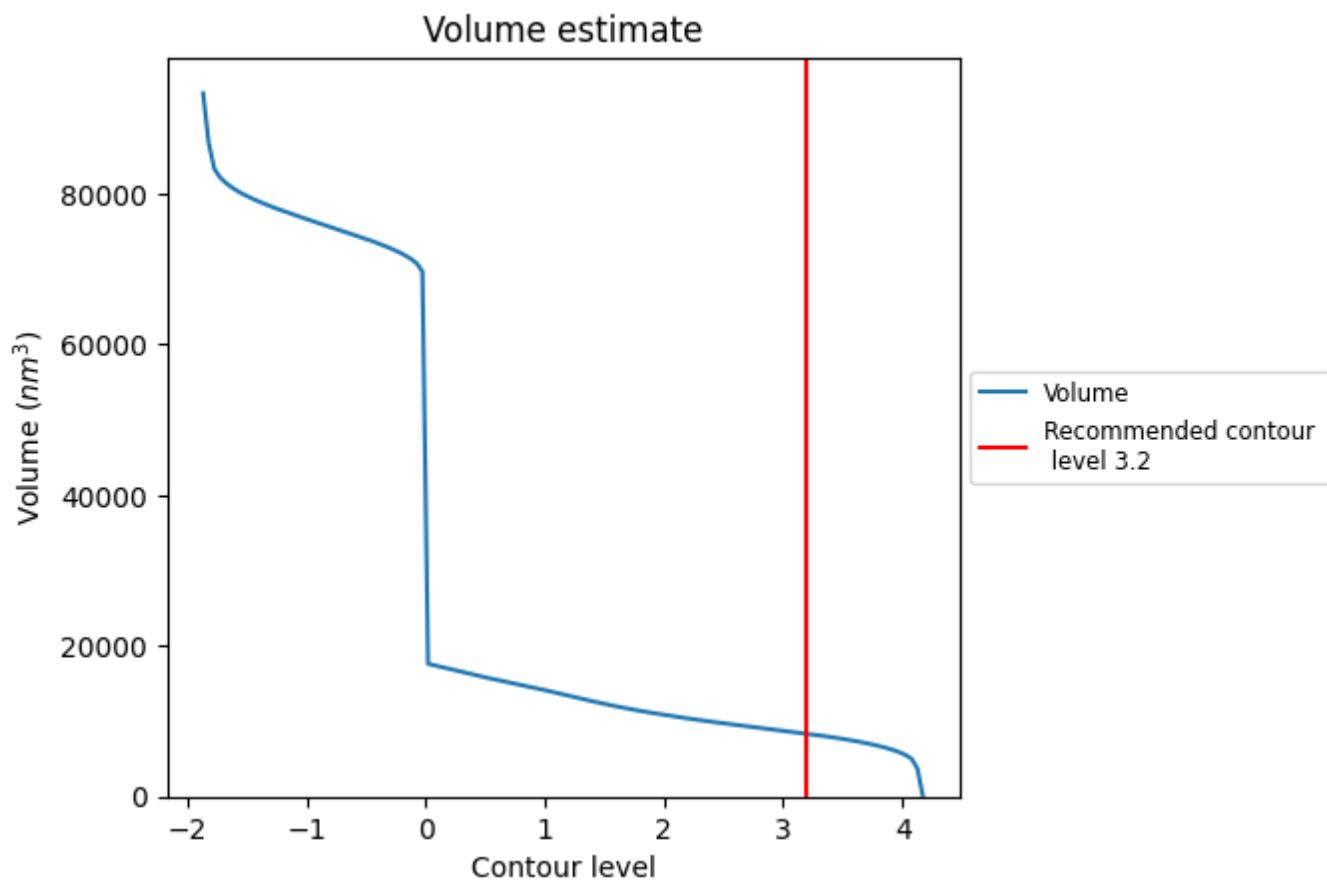
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution (i)



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

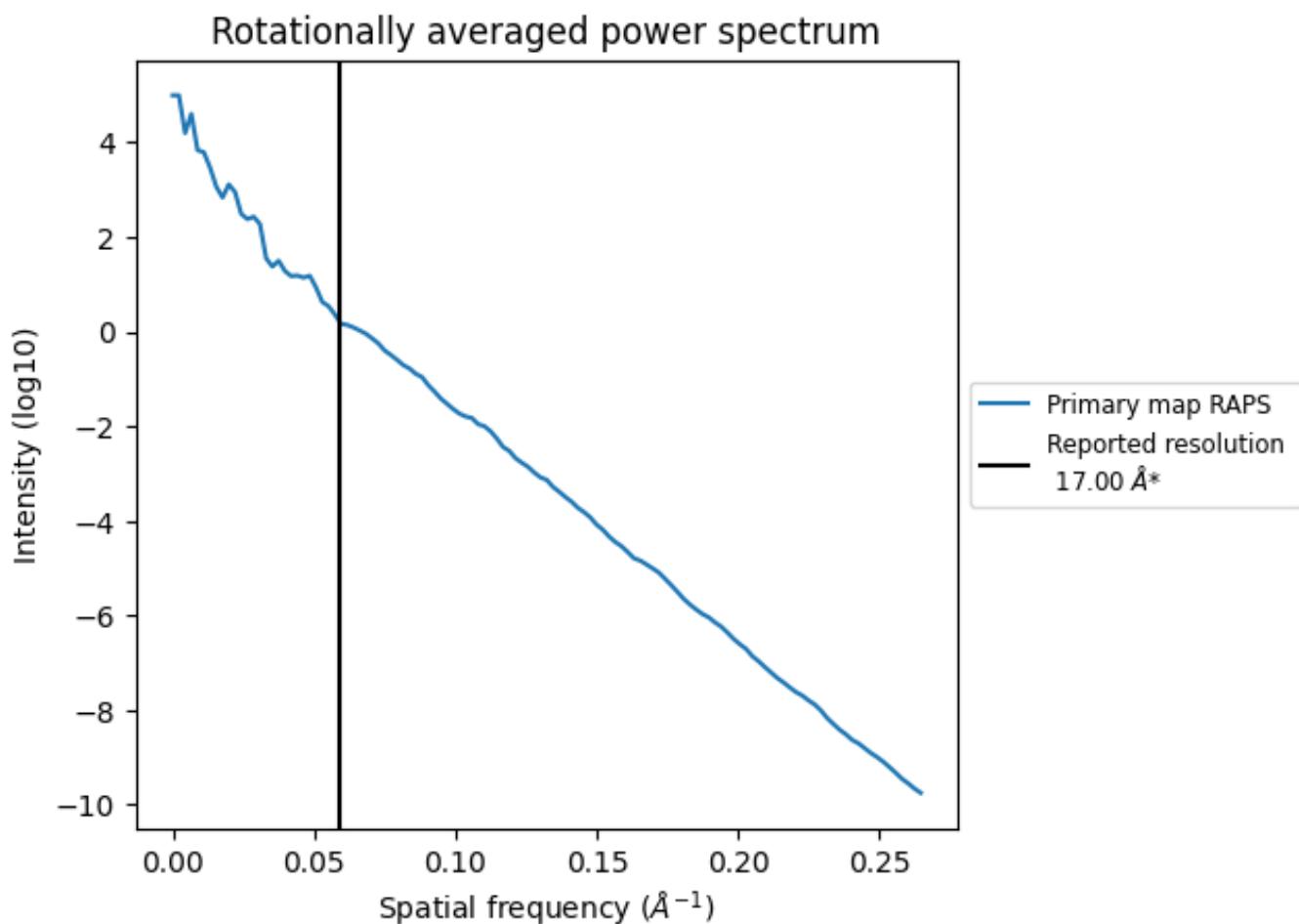
7.2 Volume estimate (i)



The volume at the recommended contour level is 8351 nm^3 ; this corresponds to an approximate mass of 7543 kDa.

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

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



*Reported resolution corresponds to spatial frequency of 0.059 \AA^{-1}

8 Fourier-Shell correlation

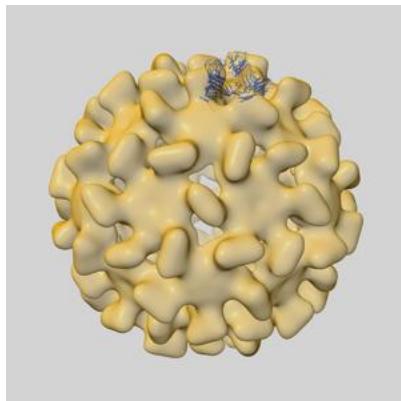
This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit (i)

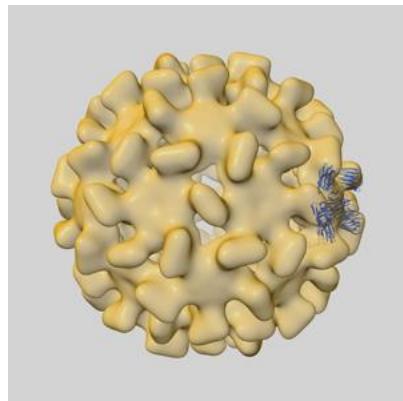
This section contains information regarding the fit between EMDB map EMD-1864 and PDB model 3ZX9. Per-residue inclusion information can be found in section 3 on page 4.

9.1 Map-model overlays

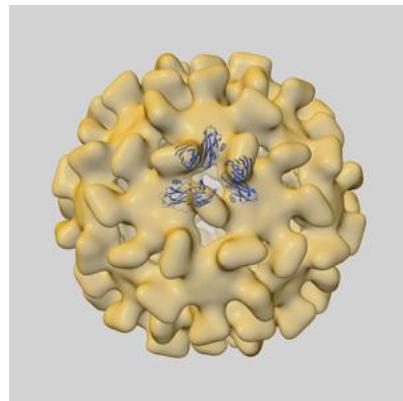
9.1.1 Map-model overlay (i)



X

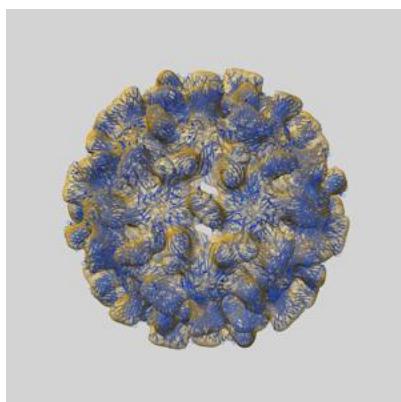


Y

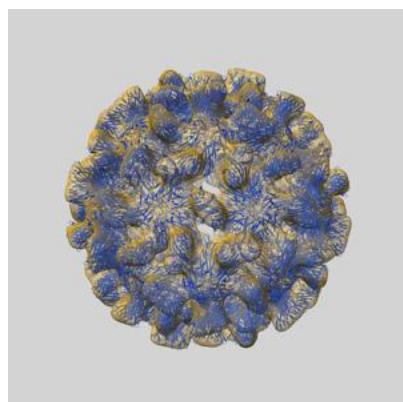


Z

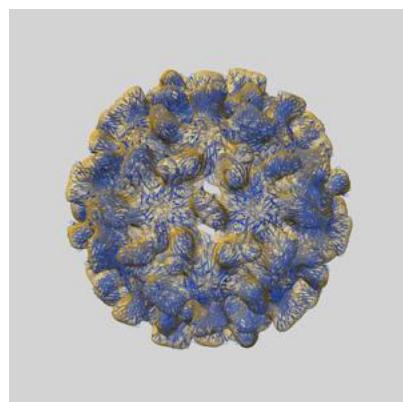
9.1.2 Map-model assembly overlay (i)



X



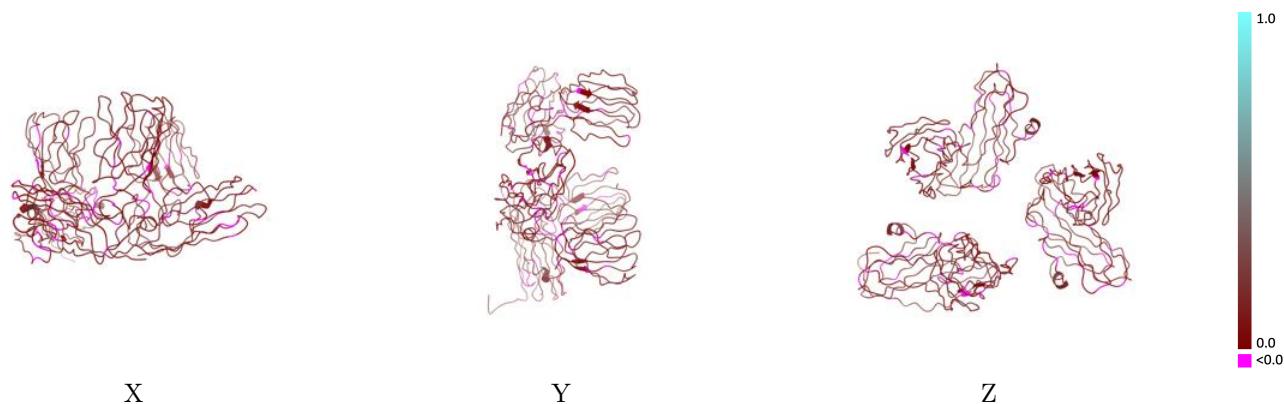
Y



Z

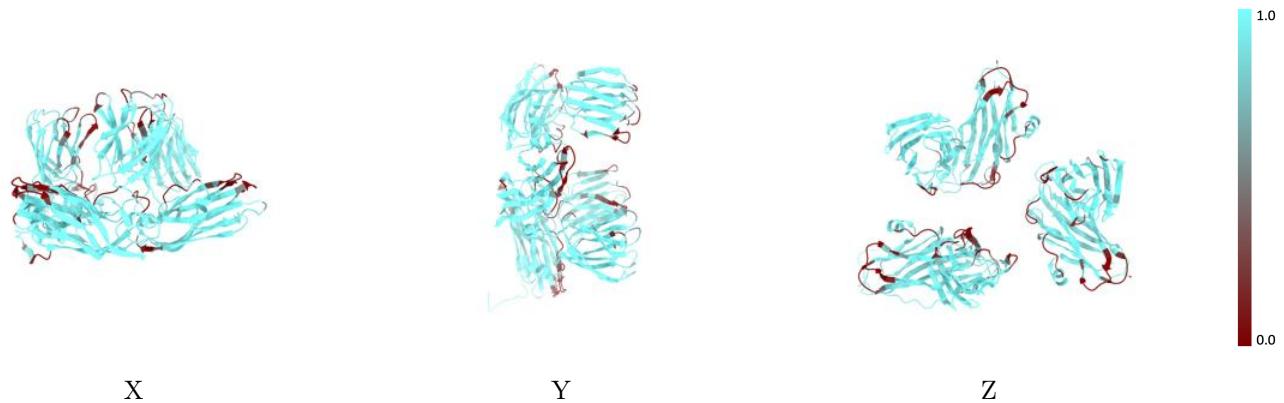
The images above show the 3D surface view of the map at the recommended contour level 3.2 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



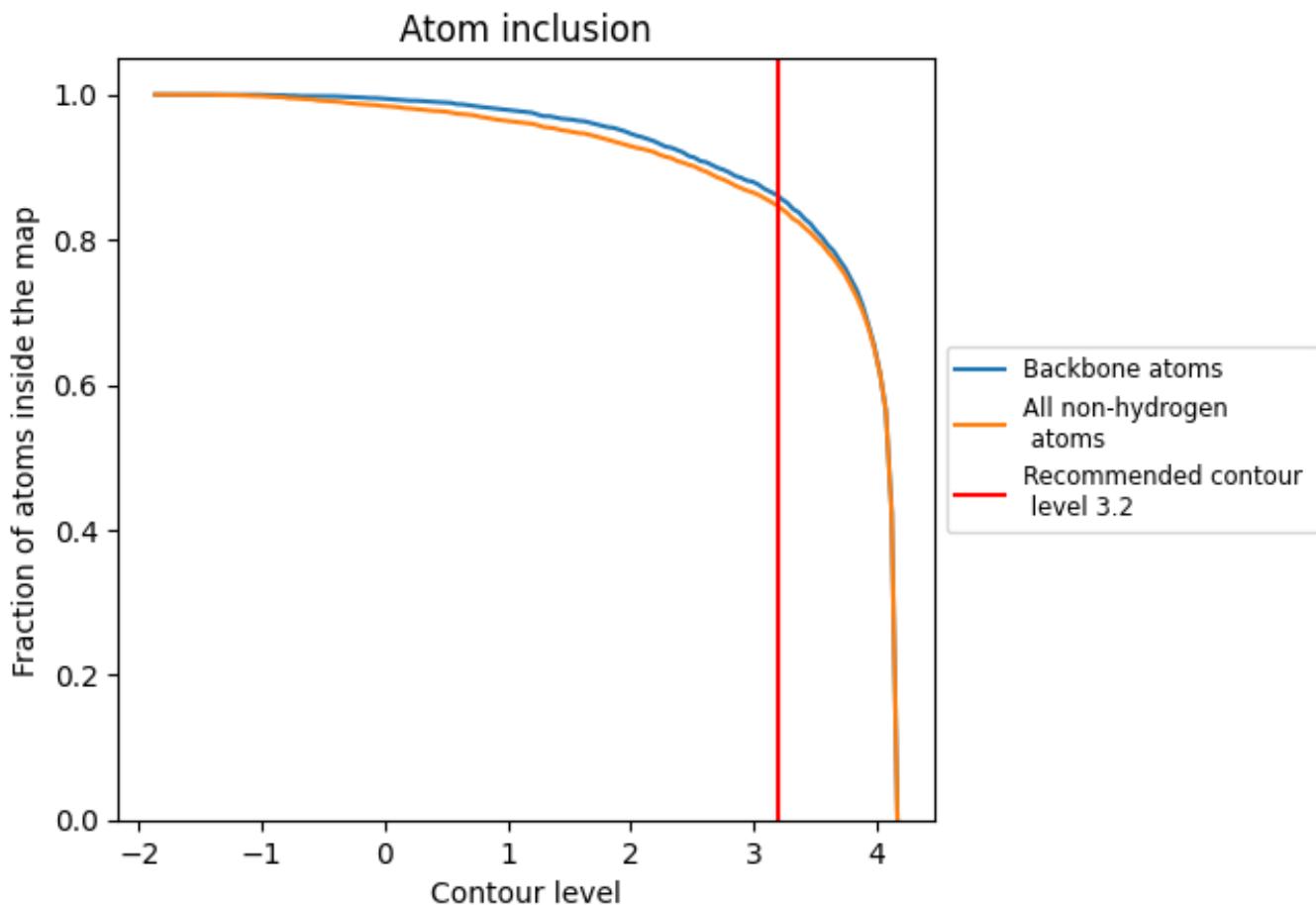
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (3.2).

9.4 Atom inclusion [\(i\)](#)



At the recommended contour level, 86% of all backbone atoms, 85% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (3.2) and Q-score for the entire model and for each chain.

| Chain | Atom inclusion | Q-score |
|-------|----------------|---------|
| All | 0.8462 | 0.1150 |
| A | 0.8612 | 0.1130 |
| B | 0.8537 | 0.1200 |
| C | 0.8257 | 0.1130 |

