



Full wwPDB EM Validation Report ⓘ

Nov 20, 2022 – 05:24 pm GMT

PDB ID : 3ZBJ
EMDB ID : EMD-2233
Title : Fitting results in the I-layer of the subnanometer structure of the bacterial pKM101 type IV secretion system core complex digested with elastase
Authors : Rivera-Calzada, A.; Fronzes, R.; Savva, C.G.; Chandran, V.; Lian, P.W.; Laeremans, T.; Pardon, E.; Steyaert, J.; Remaut, H.; Waksman, G.; Orlova, E.V.
Deposited on : 2012-11-10
Resolution : 8.50 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev43
MolProbity : 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

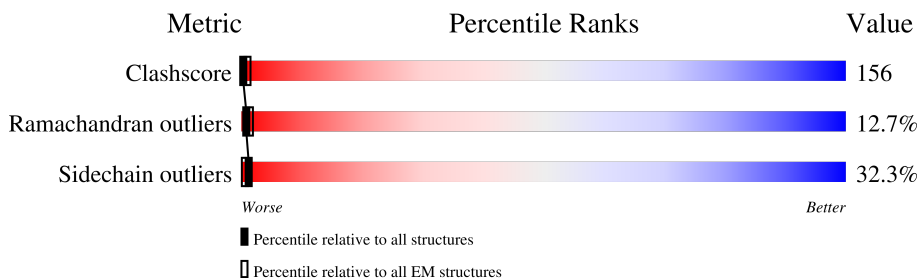
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 8.50 Å.

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



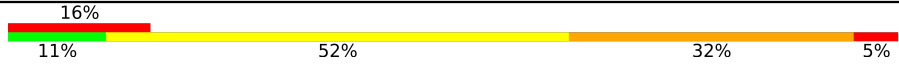
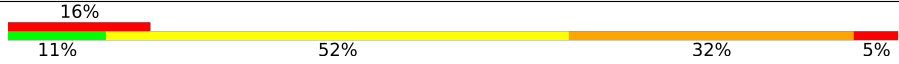



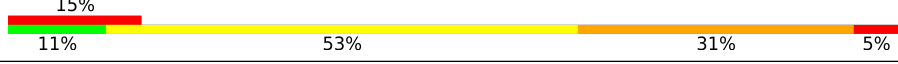
| Metric | Whole archive (#Entries) | EM structures (#Entries) |
|-----------------------|--------------------------|--------------------------|
| Clashscore | 158937 | 4297 |
| Ramachandran outliers | 154571 | 4023 |
| Sidechain outliers | 154315 | 3826 |

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

| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1 | A | 112 | |
| 1 | B | 112 | |
| 1 | C | 112 | |
| 1 | D | 112 | |
| 1 | E | 112 | |
| 1 | F | 112 | |
| 1 | G | 112 | |
| 1 | H | 112 | |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|--|
| 1 | I | 112 |  |
| 1 | J | 112 |  |
| 1 | K | 112 |  |
| 1 | L | 112 |  |
| 1 | M | 112 |  |
| 1 | N | 112 |  |

2 Entry composition [i](#)

There is only 1 type of molecule in this entry. The entry contains 12404 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.

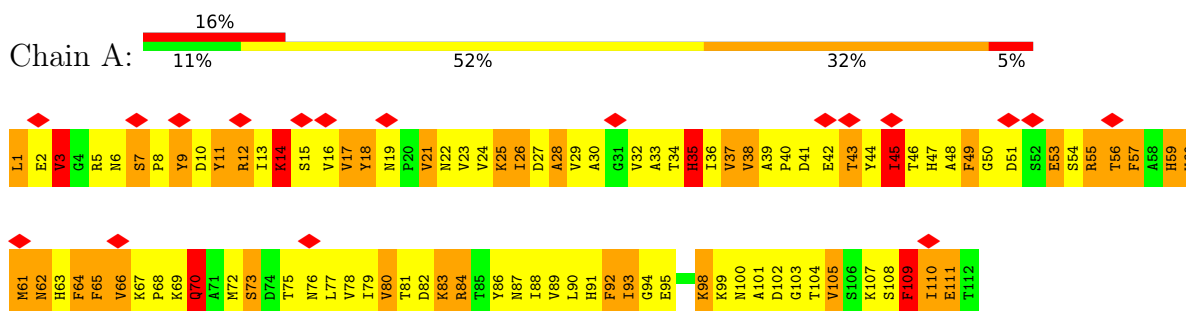
- Molecule 1 is a protein called TRAO PROTEIN.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 1 | A | 112 | 886 | 564 | 151 | 169 | 2 | 0 | 0 |
| 1 | B | 112 | 886 | 564 | 151 | 169 | 2 | 0 | 0 |
| 1 | C | 112 | 886 | 564 | 151 | 169 | 2 | 0 | 0 |
| 1 | D | 112 | 886 | 564 | 151 | 169 | 2 | 0 | 0 |
| 1 | E | 112 | 886 | 564 | 151 | 169 | 2 | 0 | 0 |
| 1 | F | 112 | 886 | 564 | 151 | 169 | 2 | 0 | 0 |
| 1 | G | 112 | 886 | 564 | 151 | 169 | 2 | 0 | 0 |
| 1 | H | 112 | 886 | 564 | 151 | 169 | 2 | 0 | 0 |
| 1 | I | 112 | 886 | 564 | 151 | 169 | 2 | 0 | 0 |
| 1 | J | 112 | 886 | 564 | 151 | 169 | 2 | 0 | 0 |
| 1 | K | 112 | 886 | 564 | 151 | 169 | 2 | 0 | 0 |
| 1 | L | 112 | 886 | 564 | 151 | 169 | 2 | 0 | 0 |
| 1 | M | 112 | 886 | 564 | 151 | 169 | 2 | 0 | 0 |
| 1 | N | 112 | 886 | 564 | 151 | 169 | 2 | 0 | 0 |

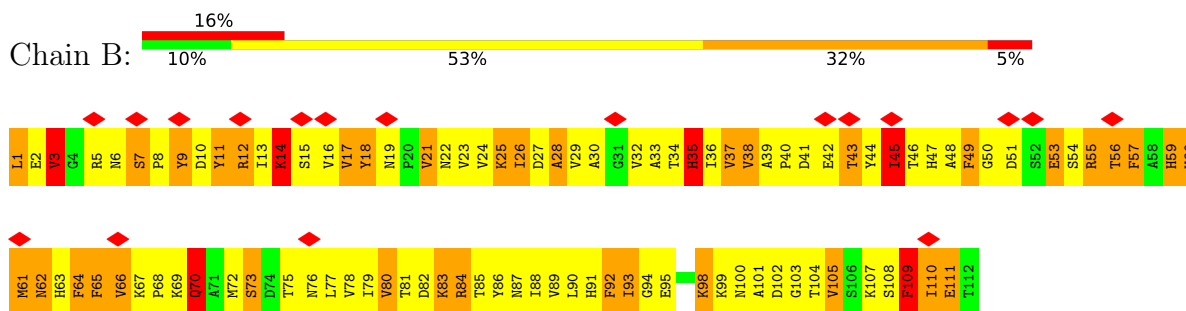
3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and 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.

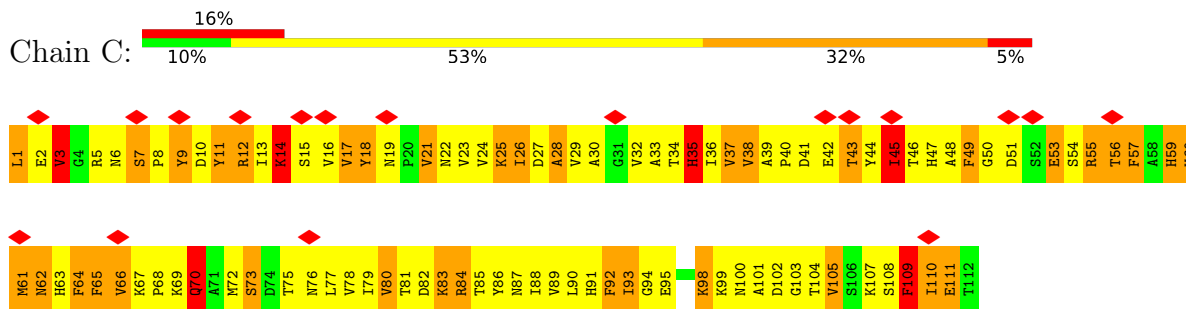
- Molecule 1: TRAO PROTEIN



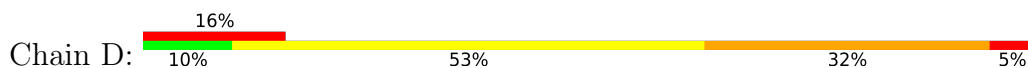
- Molecule 1: TRAO PROTEIN

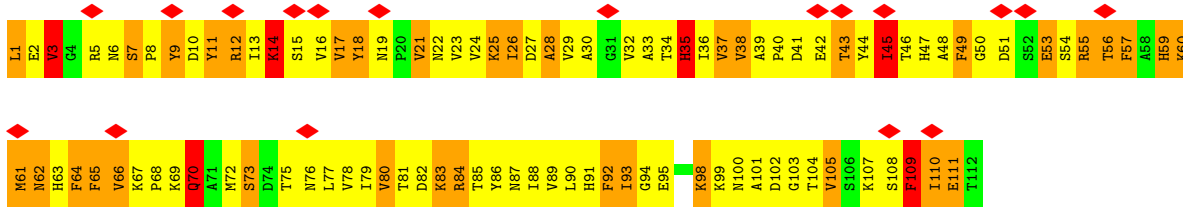


- Molecule 1: TRAO PROTEIN

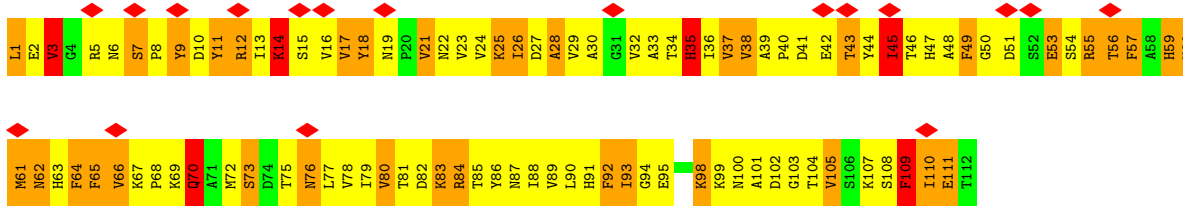
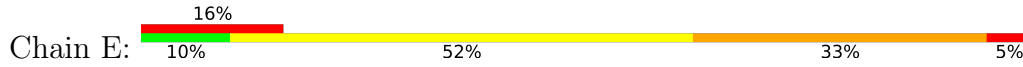


- Molecule 1: TRAO PROTEIN

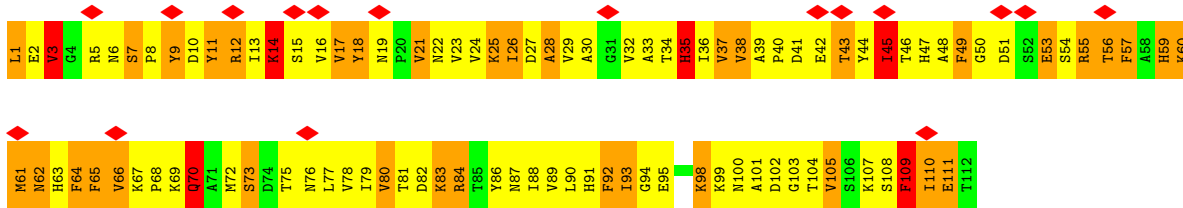
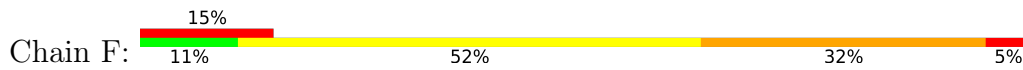




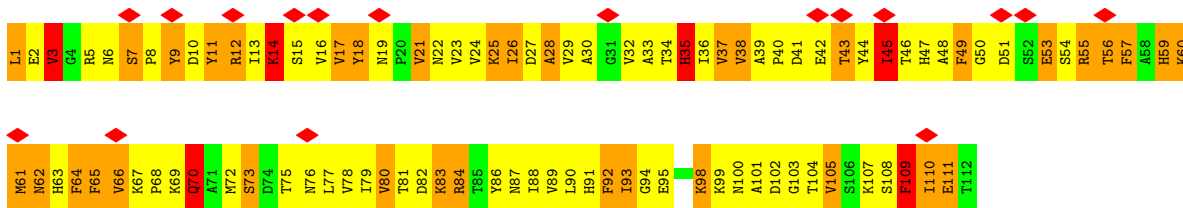
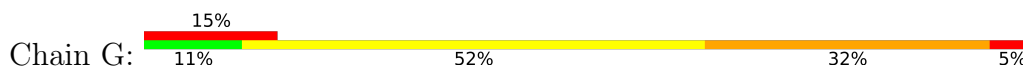
• Molecule 1: TRAO PROTEIN



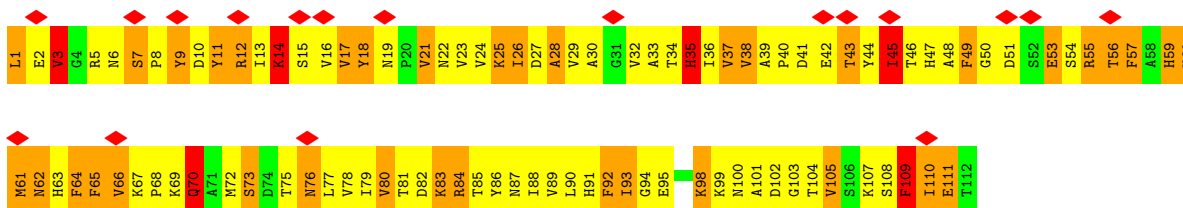
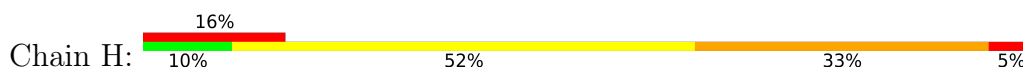
• Molecule 1: TRAO PROTEIN



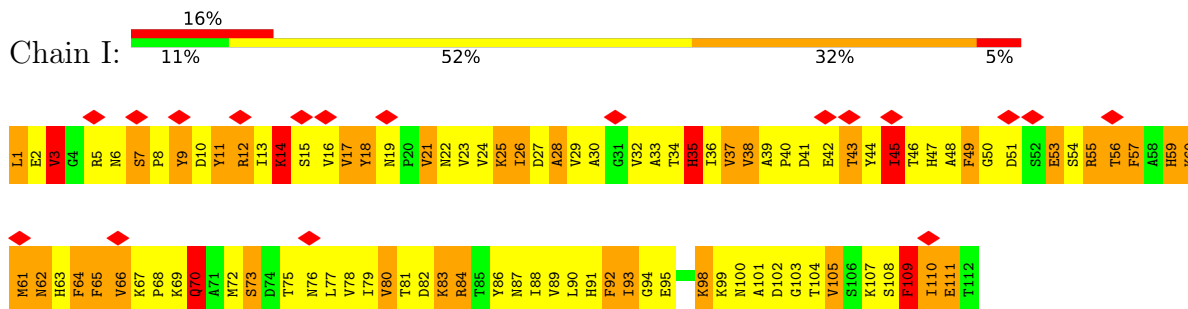
• Molecule 1: TRAO PROTEIN



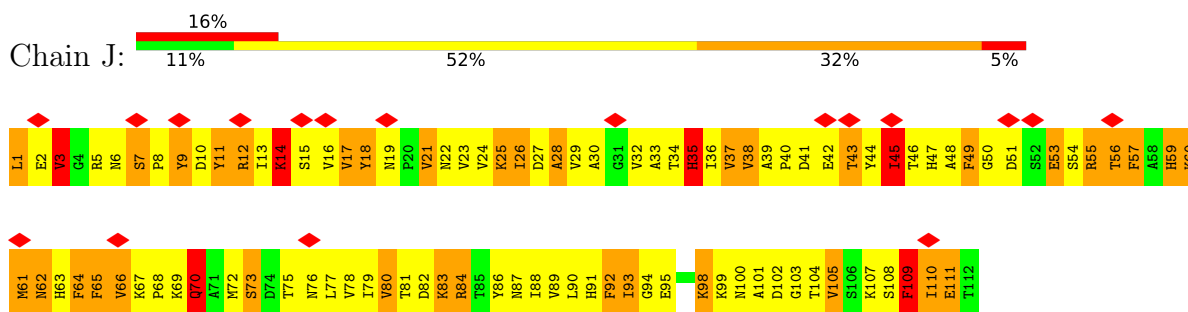
• Molecule 1: TRAO PROTEIN



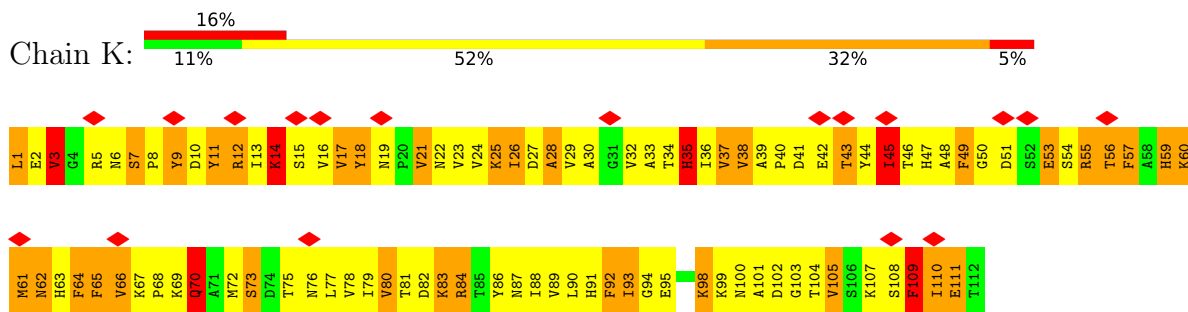
• Molecule 1: TRAO PROTEIN



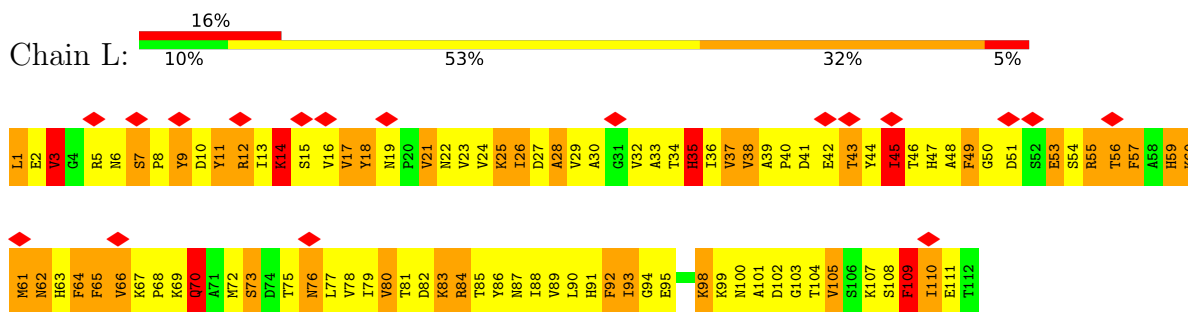
• Molecule 1: TRAO PROTEIN



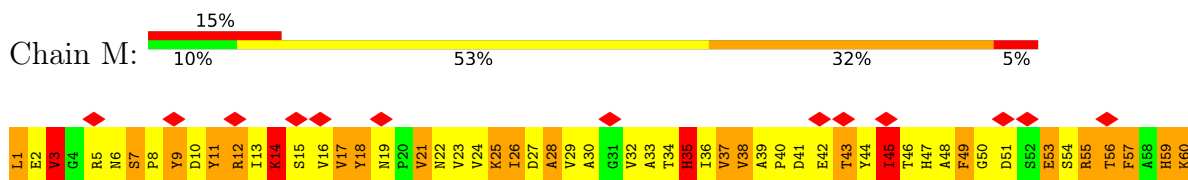
• Molecule 1: TRAO PROTEIN



• Molecule 1: TRAO PROTEIN

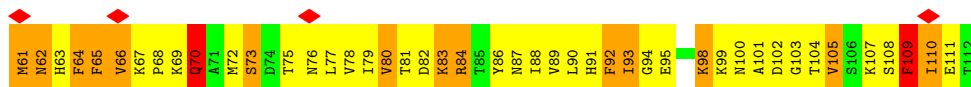
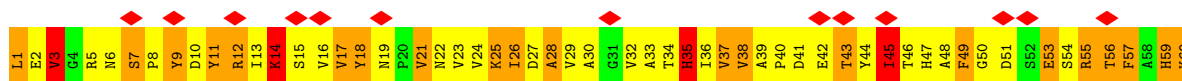
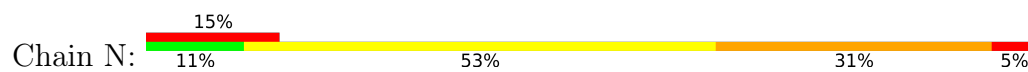


• Molecule 1: TRAO PROTEIN





• Molecule 1: TRAO PROTEIN



4 Experimental information

| Property | Value | Source |
|--------------------------------------|--------------------------------|-----------|
| EM reconstruction method | SINGLE PARTICLE | Depositor |
| Imposed symmetry | POINT, C14 | Depositor |
| Number of particles used | 5430 | Depositor |
| Resolution determination method | Not provided | |
| CTF correction method | PHASE FLIPPING, EACH CCD IMAGE | Depositor |
| Microscope | FEI TECNAI 12 | Depositor |
| Voltage (kV) | 200 | Depositor |
| Electron dose ($e^-/\text{\AA}^2$) | 20 | Depositor |
| Minimum defocus (nm) | 1500 | Depositor |
| Maximum defocus (nm) | 3500 | Depositor |
| Magnification | 68100 | Depositor |
| Image detector | GENERIC GATAN | Depositor |
| Maximum map value | 5.163 | Depositor |
| Minimum map value | -3.082 | Depositor |
| Average map value | 0.019 | Depositor |
| Map value standard deviation | 0.223 | Depositor |
| Recommended contour level | 0.23 | Depositor |
| Map size (\AA) | 332.8, 332.8, 332.8 | wwPDB |
| Map dimensions | 160, 160, 160 | wwPDB |
| Map angles ($^\circ$) | 90.0, 90.0, 90.0 | wwPDB |
| Pixel spacing (\AA) | 2.08, 2.08, 2.08 | 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 | 1.02 | 0/905 | 1.33 | 0/1227 |
| 1 | B | 1.02 | 0/905 | 1.33 | 0/1227 |
| 1 | C | 1.02 | 0/905 | 1.33 | 0/1227 |
| 1 | D | 1.02 | 0/905 | 1.33 | 0/1227 |
| 1 | E | 1.02 | 0/905 | 1.33 | 0/1227 |
| 1 | F | 1.02 | 0/905 | 1.33 | 0/1227 |
| 1 | G | 1.02 | 0/905 | 1.33 | 0/1227 |
| 1 | H | 1.02 | 0/905 | 1.33 | 0/1227 |
| 1 | I | 1.02 | 0/905 | 1.33 | 0/1227 |
| 1 | J | 1.02 | 0/905 | 1.33 | 0/1227 |
| 1 | K | 1.02 | 0/905 | 1.33 | 0/1227 |
| 1 | L | 1.02 | 0/905 | 1.33 | 0/1227 |
| 1 | M | 1.02 | 0/905 | 1.33 | 0/1227 |
| 1 | N | 1.02 | 0/905 | 1.33 | 0/1227 |
| All | All | 1.02 | 0/12670 | 1.33 | 0/17178 |

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 | 7 |
| 1 | B | 0 | 7 |
| 1 | C | 0 | 7 |
| 1 | D | 0 | 7 |
| 1 | E | 0 | 7 |
| 1 | F | 0 | 7 |
| 1 | G | 0 | 7 |
| 1 | H | 0 | 7 |
| 1 | I | 0 | 7 |
| 1 | J | 0 | 7 |
| 1 | K | 0 | 7 |

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| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 1 | L | 0 | 7 |
| 1 | M | 0 | 7 |
| 1 | N | 0 | 7 |
| All | All | 0 | 98 |

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (98) planarity outliers are listed below:

| Mol | Chain | Res | Type | Group |
|-----|-------|-----|------|-----------|
| 1 | A | 12 | ARG | Sidechain |
| 1 | A | 18 | TYR | Peptide |
| 1 | A | 45 | ILE | Peptide |
| 1 | A | 56 | THR | Peptide |
| 1 | A | 65 | PHE | Peptide |
| 1 | A | 7 | SER | Peptide |
| 1 | A | 99 | LYS | Peptide |
| 1 | B | 12 | ARG | Sidechain |
| 1 | B | 18 | TYR | Peptide |
| 1 | B | 45 | ILE | Peptide |
| 1 | B | 56 | THR | Peptide |
| 1 | B | 65 | PHE | Peptide |
| 1 | B | 7 | SER | Peptide |
| 1 | B | 99 | LYS | Peptide |
| 1 | C | 12 | ARG | Sidechain |
| 1 | C | 18 | TYR | Peptide |
| 1 | C | 45 | ILE | Peptide |
| 1 | C | 56 | THR | Peptide |
| 1 | C | 65 | PHE | Peptide |
| 1 | C | 7 | SER | Peptide |
| 1 | C | 99 | LYS | Peptide |
| 1 | D | 12 | ARG | Sidechain |
| 1 | D | 18 | TYR | Peptide |
| 1 | D | 45 | ILE | Peptide |
| 1 | D | 56 | THR | Peptide |
| 1 | D | 65 | PHE | Peptide |
| 1 | D | 7 | SER | Peptide |
| 1 | D | 99 | LYS | Peptide |
| 1 | E | 12 | ARG | Sidechain |
| 1 | E | 18 | TYR | Peptide |

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| Mol | Chain | Res | Type | Group |
|------------|--------------|------------|-------------|--------------|
| 1 | E | 45 | ILE | Peptide |
| 1 | E | 56 | THR | Peptide |
| 1 | E | 65 | PHE | Peptide |
| 1 | E | 7 | SER | Peptide |
| 1 | E | 99 | LYS | Peptide |
| 1 | F | 12 | ARG | Sidechain |
| 1 | F | 18 | TYR | Peptide |
| 1 | F | 45 | ILE | Peptide |
| 1 | F | 56 | THR | Peptide |
| 1 | F | 65 | PHE | Peptide |
| 1 | F | 7 | SER | Peptide |
| 1 | F | 99 | LYS | Peptide |
| 1 | G | 12 | ARG | Sidechain |
| 1 | G | 18 | TYR | Peptide |
| 1 | G | 45 | ILE | Peptide |
| 1 | G | 56 | THR | Peptide |
| 1 | G | 65 | PHE | Peptide |
| 1 | G | 7 | SER | Peptide |
| 1 | G | 99 | LYS | Peptide |
| 1 | H | 12 | ARG | Sidechain |
| 1 | H | 18 | TYR | Peptide |
| 1 | H | 45 | ILE | Peptide |
| 1 | H | 56 | THR | Peptide |
| 1 | H | 65 | PHE | Peptide |
| 1 | H | 7 | SER | Peptide |
| 1 | H | 99 | LYS | Peptide |
| 1 | I | 12 | ARG | Sidechain |
| 1 | I | 18 | TYR | Peptide |
| 1 | I | 45 | ILE | Peptide |
| 1 | I | 56 | THR | Peptide |
| 1 | I | 65 | PHE | Peptide |
| 1 | I | 7 | SER | Peptide |
| 1 | I | 99 | LYS | Peptide |
| 1 | J | 12 | ARG | Sidechain |
| 1 | J | 18 | TYR | Peptide |
| 1 | J | 45 | ILE | Peptide |
| 1 | J | 56 | THR | Peptide |
| 1 | J | 65 | PHE | Peptide |
| 1 | J | 7 | SER | Peptide |
| 1 | J | 99 | LYS | Peptide |
| 1 | K | 12 | ARG | Sidechain |
| 1 | K | 18 | TYR | Peptide |

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| Mol | Chain | Res | Type | Group |
|-----|-------|-----|------|-----------|
| 1 | K | 45 | ILE | Peptide |
| 1 | K | 56 | THR | Peptide |
| 1 | K | 65 | PHE | Peptide |
| 1 | K | 7 | SER | Peptide |
| 1 | K | 99 | LYS | Peptide |
| 1 | L | 12 | ARG | Sidechain |
| 1 | L | 18 | TYR | Peptide |
| 1 | L | 45 | ILE | Peptide |
| 1 | L | 56 | THR | Peptide |
| 1 | L | 65 | PHE | Peptide |
| 1 | L | 7 | SER | Peptide |
| 1 | L | 99 | LYS | Peptide |
| 1 | M | 12 | ARG | Sidechain |
| 1 | M | 18 | TYR | Peptide |
| 1 | M | 45 | ILE | Peptide |
| 1 | M | 56 | THR | Peptide |
| 1 | M | 65 | PHE | Peptide |
| 1 | M | 7 | SER | Peptide |
| 1 | M | 99 | LYS | Peptide |
| 1 | N | 12 | ARG | Sidechain |
| 1 | N | 18 | TYR | Peptide |
| 1 | N | 45 | ILE | Peptide |
| 1 | N | 56 | THR | Peptide |
| 1 | N | 65 | PHE | Peptide |
| 1 | N | 7 | SER | Peptide |
| 1 | N | 99 | LYS | Peptide |

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

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

| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1 | A | 886 | 0 | 881 | 302 | 0 |
| 1 | B | 886 | 0 | 881 | 307 | 0 |
| 1 | C | 886 | 0 | 881 | 307 | 0 |
| 1 | D | 886 | 0 | 881 | 304 | 0 |
| 1 | E | 886 | 0 | 881 | 305 | 0 |
| 1 | F | 886 | 0 | 881 | 305 | 0 |
| 1 | G | 886 | 0 | 881 | 306 | 0 |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1 | H | 886 | 0 | 881 | 308 | 0 |
| 1 | I | 886 | 0 | 881 | 308 | 0 |
| 1 | J | 886 | 0 | 881 | 301 | 0 |
| 1 | K | 886 | 0 | 881 | 302 | 0 |
| 1 | L | 886 | 0 | 881 | 309 | 0 |
| 1 | M | 886 | 0 | 881 | 308 | 0 |
| 1 | N | 886 | 0 | 881 | 306 | 0 |
| All | All | 12404 | 0 | 12334 | 3864 | 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 156.

All (3864) 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:M:91:HIS:HA | 1:M:104:THR:HB | 1.24 | 1.18 |
| 1:F:1:LEU:HD12 | 1:F:16:VAL:HG23 | 1.23 | 1.18 |
| 1:A:91:HIS:HA | 1:A:104:THR:HB | 1.24 | 1.17 |
| 1:E:1:LEU:HD12 | 1:E:16:VAL:HG23 | 1.24 | 1.16 |
| 1:G:1:LEU:HD12 | 1:G:16:VAL:HG23 | 1.24 | 1.16 |
| 1:H:1:LEU:HD12 | 1:H:16:VAL:HG23 | 1.24 | 1.16 |
| 1:I:1:LEU:HD12 | 1:I:16:VAL:HG23 | 1.23 | 1.16 |
| 1:B:91:HIS:HA | 1:B:104:THR:HB | 1.24 | 1.15 |
| 1:G:80:VAL:HG13 | 1:G:88:ILE:HG22 | 1.30 | 1.14 |
| 1:F:80:VAL:HG13 | 1:F:88:ILE:HG22 | 1.30 | 1.14 |
| 1:H:80:VAL:HG13 | 1:H:88:ILE:HG22 | 1.30 | 1.14 |
| 1:I:80:VAL:HG13 | 1:I:88:ILE:HG22 | 1.30 | 1.14 |
| 1:D:91:HIS:HA | 1:D:104:THR:HB | 1.24 | 1.13 |
| 1:J:80:VAL:HG13 | 1:J:88:ILE:HG22 | 1.30 | 1.13 |
| 1:L:91:HIS:HA | 1:L:104:THR:HB | 1.24 | 1.13 |
| 1:C:1:LEU:HD12 | 1:C:16:VAL:HG23 | 1.23 | 1.13 |
| 1:E:80:VAL:HG13 | 1:E:88:ILE:HG22 | 1.30 | 1.13 |
| 1:J:91:HIS:HA | 1:J:104:THR:HB | 1.24 | 1.13 |
| 1:D:1:LEU:HD12 | 1:D:16:VAL:HG23 | 1.24 | 1.12 |
| 1:K:91:HIS:HA | 1:K:104:THR:HB | 1.24 | 1.12 |
| 1:J:1:LEU:HD12 | 1:J:16:VAL:HG23 | 1.23 | 1.12 |
| 1:K:80:VAL:HG13 | 1:K:88:ILE:HG22 | 1.30 | 1.12 |
| 1:M:1:LEU:HD11 | 1:M:13:ILE:HD11 | 1.33 | 1.11 |
| 1:D:80:VAL:HG13 | 1:D:88:ILE:HG22 | 1.30 | 1.11 |
| 1:G:1:LEU:HD11 | 1:G:13:ILE:HD11 | 1.33 | 1.11 |
| 1:H:1:LEU:HD11 | 1:H:13:ILE:HD11 | 1.33 | 1.11 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:L:1:LEU:HD11 | 1:L:13:ILE:HD11 | 1.33 | 1.11 |
| 1:L:80:VAL:HG13 | 1:L:88:ILE:HG22 | 1.30 | 1.11 |
| 1:F:1:LEU:HD11 | 1:F:13:ILE:HD11 | 1.33 | 1.11 |
| 1:I:1:LEU:HD11 | 1:I:13:ILE:HD11 | 1.33 | 1.11 |
| 1:M:80:VAL:HG13 | 1:M:88:ILE:HG22 | 1.30 | 1.11 |
| 1:C:80:VAL:HG13 | 1:C:88:ILE:HG22 | 1.30 | 1.11 |
| 1:H:63:HIS:HA | 1:H:82:ASP:HB2 | 1.13 | 1.11 |
| 1:I:63:HIS:HA | 1:I:82:ASP:HB2 | 1.13 | 1.11 |
| 1:J:1:LEU:HD11 | 1:J:13:ILE:HD11 | 1.33 | 1.11 |
| 1:K:1:LEU:HD12 | 1:K:16:VAL:HG23 | 1.24 | 1.11 |
| 1:K:1:LEU:HD11 | 1:K:13:ILE:HD11 | 1.33 | 1.11 |
| 1:N:1:LEU:HD11 | 1:N:13:ILE:HD11 | 1.33 | 1.11 |
| 1:B:80:VAL:HG13 | 1:B:88:ILE:HG22 | 1.30 | 1.10 |
| 1:N:80:VAL:HG13 | 1:N:88:ILE:HG22 | 1.30 | 1.10 |
| 1:N:91:HIS:HA | 1:N:104:THR:HB | 1.24 | 1.10 |
| 1:A:80:VAL:HG13 | 1:A:88:ILE:HG22 | 1.30 | 1.10 |
| 1:G:63:HIS:HA | 1:G:82:ASP:HB2 | 1.13 | 1.10 |
| 1:C:91:HIS:HA | 1:C:104:THR:HB | 1.24 | 1.10 |
| 1:J:63:HIS:HA | 1:J:82:ASP:HB2 | 1.13 | 1.10 |
| 1:A:1:LEU:HD11 | 1:A:13:ILE:HD11 | 1.33 | 1.10 |
| 1:B:1:LEU:HD12 | 1:B:16:VAL:HG23 | 1.23 | 1.10 |
| 1:E:1:LEU:HD11 | 1:E:13:ILE:HD11 | 1.33 | 1.10 |
| 1:K:63:HIS:HA | 1:K:82:ASP:HB2 | 1.13 | 1.10 |
| 1:F:91:HIS:HA | 1:F:104:THR:HB | 1.24 | 1.09 |
| 1:H:91:HIS:HA | 1:H:104:THR:HB | 1.24 | 1.09 |
| 1:B:1:LEU:HD11 | 1:B:13:ILE:HD11 | 1.33 | 1.09 |
| 1:D:1:LEU:HD11 | 1:D:13:ILE:HD11 | 1.33 | 1.09 |
| 1:F:63:HIS:HA | 1:F:82:ASP:HB2 | 1.13 | 1.09 |
| 1:L:63:HIS:HA | 1:L:82:ASP:HB2 | 1.13 | 1.09 |
| 1:A:1:LEU:HD12 | 1:A:16:VAL:HG23 | 1.24 | 1.09 |
| 1:C:1:LEU:HD11 | 1:C:13:ILE:HD11 | 1.33 | 1.09 |
| 1:L:1:LEU:HD12 | 1:L:16:VAL:HG23 | 1.24 | 1.09 |
| 1:M:63:HIS:HA | 1:M:82:ASP:HB2 | 1.13 | 1.09 |
| 1:G:18:TYR:HE2 | 1:G:22:ASN:HB3 | 1.18 | 1.08 |
| 1:E:63:HIS:HA | 1:E:82:ASP:HB2 | 1.13 | 1.08 |
| 1:N:63:HIS:HA | 1:N:82:ASP:HB2 | 1.13 | 1.08 |
| 1:G:91:HIS:HA | 1:G:104:THR:HB | 1.24 | 1.08 |
| 1:K:18:TYR:HE2 | 1:K:22:ASN:HB3 | 1.18 | 1.08 |
| 1:M:1:LEU:HD12 | 1:M:16:VAL:HG23 | 1.23 | 1.08 |
| 1:A:63:HIS:HA | 1:A:82:ASP:HB2 | 1.13 | 1.07 |
| 1:D:63:HIS:HA | 1:D:82:ASP:HB2 | 1.13 | 1.07 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:J:18:TYR:HE2 | 1:J:22:ASN:HB3 | 1.18 | 1.07 |
| 1:B:63:HIS:HA | 1:B:82:ASP:HB2 | 1.13 | 1.07 |
| 1:I:91:HIS:HA | 1:I:104:THR:HB | 1.24 | 1.07 |
| 1:C:63:HIS:HA | 1:C:82:ASP:HB2 | 1.13 | 1.07 |
| 1:H:18:TYR:HE2 | 1:H:22:ASN:HB3 | 1.18 | 1.07 |
| 1:N:1:LEU:HD12 | 1:N:16:VAL:HG23 | 1.24 | 1.07 |
| 1:E:91:HIS:HA | 1:E:104:THR:HB | 1.24 | 1.06 |
| 1:F:18:TYR:HE2 | 1:F:22:ASN:HB3 | 1.18 | 1.06 |
| 1:D:18:TYR:HE2 | 1:D:22:ASN:HB3 | 1.18 | 1.05 |
| 1:H:86:TYR:HB3 | 1:H:109:PHE:HB3 | 1.39 | 1.05 |
| 1:I:86:TYR:HB3 | 1:I:109:PHE:HB3 | 1.39 | 1.05 |
| 1:G:86:TYR:HB3 | 1:G:109:PHE:HB3 | 1.39 | 1.05 |
| 1:N:18:TYR:HE2 | 1:N:22:ASN:HB3 | 1.18 | 1.05 |
| 1:L:18:TYR:HE2 | 1:L:22:ASN:HB3 | 1.18 | 1.04 |
| 1:J:86:TYR:HB3 | 1:J:109:PHE:HB3 | 1.39 | 1.04 |
| 1:C:18:TYR:HE2 | 1:C:22:ASN:HB3 | 1.18 | 1.04 |
| 1:F:86:TYR:HB3 | 1:F:109:PHE:HB3 | 1.39 | 1.04 |
| 1:K:86:TYR:HB3 | 1:K:109:PHE:HB3 | 1.39 | 1.04 |
| 1:L:86:TYR:HB3 | 1:L:109:PHE:HB3 | 1.39 | 1.04 |
| 1:I:18:TYR:HE2 | 1:I:22:ASN:HB3 | 1.18 | 1.03 |
| 1:A:18:TYR:HE2 | 1:A:22:ASN:HB3 | 1.18 | 1.03 |
| 1:M:18:TYR:HE2 | 1:M:22:ASN:HB3 | 1.18 | 1.03 |
| 1:M:86:TYR:HB3 | 1:M:109:PHE:HB3 | 1.39 | 1.03 |
| 1:E:18:TYR:HE2 | 1:E:22:ASN:HB3 | 1.18 | 1.03 |
| 1:E:86:TYR:HB3 | 1:E:109:PHE:HB3 | 1.39 | 1.02 |
| 1:N:86:TYR:HB3 | 1:N:109:PHE:HB3 | 1.39 | 1.02 |
| 1:D:41:ASP:HA | 1:D:83:LYS:HE3 | 1.42 | 1.01 |
| 1:E:60:LYS:H | 1:E:64:PHE:HB2 | 1.24 | 1.01 |
| 1:H:60:LYS:H | 1:H:64:PHE:HB2 | 1.24 | 1.01 |
| 1:B:18:TYR:HE2 | 1:B:22:ASN:HB3 | 1.18 | 1.01 |
| 1:A:46:THR:CB | 1:B:13:ILE:HG22 | 1.90 | 1.01 |
| 1:A:86:TYR:HB3 | 1:A:109:PHE:HB3 | 1.39 | 1.01 |
| 1:B:46:THR:CB | 1:C:13:ILE:HG22 | 1.90 | 1.01 |
| 1:F:41:ASP:HA | 1:F:83:LYS:HE3 | 1.42 | 1.01 |
| 1:A:13:ILE:HG22 | 1:N:46:THR:CB | 1.90 | 1.01 |
| 1:C:46:THR:CB | 1:D:13:ILE:HG22 | 1.90 | 1.01 |
| 1:C:60:LYS:H | 1:C:64:PHE:HB2 | 1.24 | 1.01 |
| 1:B:60:LYS:H | 1:B:64:PHE:HB2 | 1.24 | 1.01 |
| 1:D:86:TYR:HB3 | 1:D:109:PHE:HB3 | 1.39 | 1.01 |
| 1:E:41:ASP:HA | 1:E:83:LYS:HE3 | 1.42 | 1.01 |
| 1:G:60:LYS:H | 1:G:64:PHE:HB2 | 1.24 | 1.01 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|----------------|-----------------|--------------------------|-------------------|
| 1:B:41:ASP:HA | 1:B:83:LYS:HE3 | 1.42 | 1.00 |
| 1:D:46:THR:CB | 1:E:13:ILE:HG22 | 1.90 | 1.00 |
| 1:D:60:LYS:H | 1:D:64:PHE:HB2 | 1.24 | 1.00 |
| 1:B:86:TYR:HB3 | 1:B:109:PHE:HB3 | 1.39 | 1.00 |
| 1:C:26:ILE:HA | 1:C:107:LYS:HE2 | 1.43 | 1.00 |
| 1:C:41:ASP:HA | 1:C:83:LYS:HE3 | 1.42 | 1.00 |
| 1:G:41:ASP:HA | 1:G:83:LYS:HE3 | 1.42 | 1.00 |
| 1:I:46:THR:CB | 1:J:13:ILE:HG22 | 1.90 | 1.00 |
| 1:J:46:THR:CB | 1:K:13:ILE:HG22 | 1.90 | 1.00 |
| 1:M:46:THR:CB | 1:N:13:ILE:HG22 | 1.90 | 1.00 |
| 1:B:26:ILE:HA | 1:B:107:LYS:HE2 | 1.43 | 1.00 |
| 1:D:26:ILE:HA | 1:D:107:LYS:HE2 | 1.43 | 1.00 |
| 1:K:46:THR:CB | 1:L:13:ILE:HG22 | 1.90 | 1.00 |
| 1:H:46:THR:CB | 1:I:13:ILE:HG22 | 1.90 | 1.00 |
| 1:E:46:THR:CB | 1:F:13:ILE:HG22 | 1.90 | 1.00 |
| 1:L:46:THR:CB | 1:M:13:ILE:HG22 | 1.90 | 1.00 |
| 1:C:86:TYR:HB3 | 1:C:109:PHE:HB3 | 1.39 | 1.00 |
| 1:E:26:ILE:HA | 1:E:107:LYS:HE2 | 1.43 | 0.99 |
| 1:N:18:TYR:CE2 | 1:N:22:ASN:HB3 | 1.98 | 0.99 |
| 1:A:18:TYR:CE2 | 1:A:22:ASN:HB3 | 1.97 | 0.99 |
| 1:H:41:ASP:HA | 1:H:83:LYS:HE3 | 1.42 | 0.99 |
| 1:J:57:PHE:HB3 | 1:K:103:GLY:HA3 | 1.44 | 0.99 |
| 1:K:60:LYS:H | 1:K:64:PHE:HB2 | 1.24 | 0.99 |
| 1:M:18:TYR:CE2 | 1:M:22:ASN:HB3 | 1.98 | 0.99 |
| 1:A:60:LYS:H | 1:A:64:PHE:HB2 | 1.24 | 0.99 |
| 1:F:60:LYS:H | 1:F:64:PHE:HB2 | 1.24 | 0.99 |
| 1:L:18:TYR:CE2 | 1:L:22:ASN:HB3 | 1.97 | 0.99 |
| 1:A:26:ILE:HA | 1:A:107:LYS:HE2 | 1.43 | 0.99 |
| 1:B:18:TYR:CE2 | 1:B:22:ASN:HB3 | 1.98 | 0.99 |
| 1:C:18:TYR:CE2 | 1:C:22:ASN:HB3 | 1.97 | 0.99 |
| 1:N:60:LYS:H | 1:N:64:PHE:HB2 | 1.24 | 0.99 |
| 1:L:57:PHE:HB3 | 1:M:103:GLY:HA3 | 1.44 | 0.99 |
| 1:K:18:TYR:CE2 | 1:K:22:ASN:HB3 | 1.98 | 0.99 |
| 1:F:46:THR:CB | 1:G:13:ILE:HG22 | 1.90 | 0.99 |
| 1:A:41:ASP:HA | 1:A:83:LYS:HE3 | 1.42 | 0.99 |
| 1:D:18:TYR:CE2 | 1:D:22:ASN:HB3 | 1.98 | 0.99 |
| 1:G:46:THR:CB | 1:H:13:ILE:HG22 | 1.90 | 0.99 |
| 1:H:57:PHE:HB3 | 1:I:103:GLY:HA3 | 1.44 | 0.99 |
| 1:I:57:PHE:HB3 | 1:J:103:GLY:HA3 | 1.44 | 0.99 |
| 1:K:57:PHE:HB3 | 1:L:103:GLY:HA3 | 1.44 | 0.99 |
| 1:J:18:TYR:CE2 | 1:J:22:ASN:HB3 | 1.97 | 0.98 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:F:26:ILE:HA | 1:F:107:LYS:HE2 | 1.43 | 0.98 |
| 1:I:60:LYS:H | 1:I:64:PHE:HB2 | 1.24 | 0.98 |
| 1:L:60:LYS:H | 1:L:64:PHE:HB2 | 1.24 | 0.98 |
| 1:N:26:ILE:HA | 1:N:107:LYS:HE2 | 1.43 | 0.98 |
| 1:E:18:TYR:CE2 | 1:E:22:ASN:HB3 | 1.97 | 0.98 |
| 1:G:80:VAL:HG22 | 1:G:88:ILE:HG23 | 1.46 | 0.98 |
| 1:M:57:PHE:HB3 | 1:N:103:GLY:HA3 | 1.44 | 0.98 |
| 1:N:41:ASP:HA | 1:N:83:LYS:HE3 | 1.42 | 0.98 |
| 1:I:18:TYR:CE2 | 1:I:22:ASN:HB3 | 1.98 | 0.98 |
| 1:L:41:ASP:HA | 1:L:83:LYS:HE3 | 1.42 | 0.98 |
| 1:M:26:ILE:HA | 1:M:107:LYS:HE2 | 1.43 | 0.98 |
| 1:I:80:VAL:HG22 | 1:I:88:ILE:HG23 | 1.46 | 0.98 |
| 1:M:60:LYS:H | 1:M:64:PHE:HB2 | 1.24 | 0.98 |
| 1:A:103:GLY:HA3 | 1:N:57:PHE:HB3 | 1.44 | 0.98 |
| 1:D:80:VAL:HG22 | 1:D:88:ILE:HG23 | 1.46 | 0.97 |
| 1:J:41:ASP:HA | 1:J:83:LYS:HE3 | 1.42 | 0.97 |
| 1:F:18:TYR:CE2 | 1:F:22:ASN:HB3 | 1.98 | 0.97 |
| 1:H:18:TYR:CE2 | 1:H:22:ASN:HB3 | 1.97 | 0.97 |
| 1:I:41:ASP:HA | 1:I:83:LYS:HE3 | 1.42 | 0.97 |
| 1:J:60:LYS:H | 1:J:64:PHE:HB2 | 1.24 | 0.97 |
| 1:J:80:VAL:HG22 | 1:J:88:ILE:HG23 | 1.46 | 0.97 |
| 1:M:41:ASP:HA | 1:M:83:LYS:HE3 | 1.42 | 0.97 |
| 1:G:57:PHE:HB3 | 1:H:103:GLY:HA3 | 1.44 | 0.97 |
| 1:G:18:TYR:CE2 | 1:G:22:ASN:HB3 | 1.98 | 0.97 |
| 1:G:26:ILE:HA | 1:G:107:LYS:HE2 | 1.43 | 0.97 |
| 1:K:41:ASP:HA | 1:K:83:LYS:HE3 | 1.42 | 0.97 |
| 1:L:26:ILE:HA | 1:L:107:LYS:HE2 | 1.43 | 0.97 |
| 1:F:80:VAL:HG22 | 1:F:88:ILE:HG23 | 1.46 | 0.97 |
| 1:L:63:HIS:HA | 1:L:82:ASP:CB | 1.95 | 0.97 |
| 1:L:80:VAL:HG22 | 1:L:88:ILE:HG23 | 1.46 | 0.97 |
| 1:E:80:VAL:HG22 | 1:E:88:ILE:HG23 | 1.46 | 0.97 |
| 1:K:63:HIS:HA | 1:K:82:ASP:CB | 1.95 | 0.96 |
| 1:B:80:VAL:HG22 | 1:B:88:ILE:HG23 | 1.46 | 0.96 |
| 1:F:57:PHE:HB3 | 1:G:103:GLY:HA3 | 1.44 | 0.96 |
| 1:H:63:HIS:HA | 1:H:82:ASP:CB | 1.95 | 0.96 |
| 1:I:63:HIS:HA | 1:I:82:ASP:CB | 1.95 | 0.96 |
| 1:M:63:HIS:HA | 1:M:82:ASP:CB | 1.95 | 0.96 |
| 1:B:57:PHE:HB3 | 1:C:103:GLY:HA3 | 1.44 | 0.96 |
| 1:J:26:ILE:HA | 1:J:107:LYS:HE2 | 1.43 | 0.96 |
| 1:K:26:ILE:HA | 1:K:107:LYS:HE2 | 1.43 | 0.96 |
| 1:E:57:PHE:HB3 | 1:F:103:GLY:HA3 | 1.44 | 0.96 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:I:26:ILE:HA | 1:I:107:LYS:HE2 | 1.43 | 0.96 |
| 1:N:80:VAL:HG22 | 1:N:88:ILE:HG23 | 1.46 | 0.96 |
| 1:A:63:HIS:HA | 1:A:82:ASP:CB | 1.95 | 0.96 |
| 1:C:57:PHE:HB3 | 1:D:103:GLY:HA3 | 1.44 | 0.96 |
| 1:D:63:HIS:HA | 1:D:82:ASP:CB | 1.95 | 0.96 |
| 1:A:57:PHE:HB3 | 1:B:103:GLY:HA3 | 1.44 | 0.95 |
| 1:B:63:HIS:HA | 1:B:82:ASP:CB | 1.95 | 0.95 |
| 1:G:63:HIS:HA | 1:G:82:ASP:CB | 1.95 | 0.95 |
| 1:K:80:VAL:HG22 | 1:K:88:ILE:HG23 | 1.46 | 0.95 |
| 1:L:32:VAL:HB | 1:L:51:ASP:HA | 1.47 | 0.95 |
| 1:K:32:VAL:HB | 1:K:51:ASP:HA | 1.48 | 0.95 |
| 1:H:80:VAL:HG22 | 1:H:88:ILE:HG23 | 1.46 | 0.95 |
| 1:H:26:ILE:HA | 1:H:107:LYS:HE2 | 1.43 | 0.95 |
| 1:J:63:HIS:HA | 1:J:82:ASP:CB | 1.95 | 0.95 |
| 1:N:63:HIS:HA | 1:N:82:ASP:CB | 1.95 | 0.95 |
| 1:C:63:HIS:HA | 1:C:82:ASP:CB | 1.95 | 0.95 |
| 1:N:32:VAL:HB | 1:N:51:ASP:HA | 1.48 | 0.95 |
| 1:F:63:HIS:HA | 1:F:82:ASP:CB | 1.95 | 0.95 |
| 1:E:63:HIS:HA | 1:E:82:ASP:CB | 1.95 | 0.95 |
| 1:E:32:VAL:HB | 1:E:51:ASP:HA | 1.47 | 0.95 |
| 1:J:32:VAL:HB | 1:J:51:ASP:HA | 1.48 | 0.95 |
| 1:M:32:VAL:HB | 1:M:51:ASP:HA | 1.48 | 0.95 |
| 1:D:32:VAL:HB | 1:D:51:ASP:HA | 1.48 | 0.94 |
| 1:D:57:PHE:HB3 | 1:E:103:GLY:HA3 | 1.44 | 0.94 |
| 1:A:32:VAL:HB | 1:A:51:ASP:HA | 1.47 | 0.94 |
| 1:N:88:ILE:HD11 | 1:N:107:LYS:HG3 | 1.49 | 0.94 |
| 1:C:80:VAL:HG22 | 1:C:88:ILE:HG23 | 1.46 | 0.94 |
| 1:F:32:VAL:HB | 1:F:51:ASP:HA | 1.48 | 0.94 |
| 1:I:32:VAL:HB | 1:I:51:ASP:HA | 1.48 | 0.94 |
| 1:A:14:LYS:HE3 | 1:N:44:TYR:H | 1.33 | 0.94 |
| 1:C:44:TYR:H | 1:D:14:LYS:HE3 | 1.33 | 0.94 |
| 1:A:98:LYS:HE3 | 1:A:100:ASN:HA | 1.50 | 0.94 |
| 1:C:32:VAL:HB | 1:C:51:ASP:HA | 1.48 | 0.94 |
| 1:F:44:TYR:H | 1:G:14:LYS:HE3 | 1.33 | 0.94 |
| 1:C:88:ILE:HD11 | 1:C:107:LYS:HG3 | 1.49 | 0.94 |
| 1:D:98:LYS:HE3 | 1:D:100:ASN:HA | 1.50 | 0.94 |
| 1:B:88:ILE:HD11 | 1:B:107:LYS:HG3 | 1.49 | 0.93 |
| 1:D:46:THR:OG1 | 1:E:13:ILE:HG22 | 1.68 | 0.93 |
| 1:J:46:THR:OG1 | 1:K:13:ILE:HG22 | 1.69 | 0.93 |
| 1:M:80:VAL:HG22 | 1:M:88:ILE:HG23 | 1.46 | 0.93 |
| 1:A:46:THR:OG1 | 1:B:13:ILE:HG22 | 1.68 | 0.93 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:E:46:THR:OG1 | 1:F:13:ILE:HG22 | 1.69 | 0.93 |
| 1:F:98:LYS:HE3 | 1:F:100:ASN:HA | 1.50 | 0.93 |
| 1:G:88:ILE:HD11 | 1:G:107:LYS:HG3 | 1.49 | 0.93 |
| 1:A:13:ILE:HG22 | 1:N:46:THR:OG1 | 1.69 | 0.93 |
| 1:E:44:TYR:H | 1:F:14:LYS:HE3 | 1.33 | 0.93 |
| 1:G:44:TYR:H | 1:H:14:LYS:HE3 | 1.33 | 0.93 |
| 1:H:88:ILE:HD11 | 1:H:107:LYS:HG3 | 1.49 | 0.93 |
| 1:K:46:THR:OG1 | 1:L:13:ILE:HG22 | 1.68 | 0.93 |
| 1:L:59:HIS:HA | 1:L:64:PHE:HD2 | 1.34 | 0.93 |
| 1:M:98:LYS:HE3 | 1:M:100:ASN:HA | 1.50 | 0.93 |
| 1:A:49:PHE:HB2 | 1:A:55:ARG:HH22 | 1.34 | 0.93 |
| 1:D:44:TYR:H | 1:E:14:LYS:HE3 | 1.33 | 0.93 |
| 1:I:59:HIS:HA | 1:I:64:PHE:HD2 | 1.34 | 0.93 |
| 1:I:88:ILE:HD11 | 1:I:107:LYS:HG3 | 1.49 | 0.93 |
| 1:K:44:TYR:H | 1:L:14:LYS:HE3 | 1.33 | 0.93 |
| 1:L:49:PHE:HB2 | 1:L:55:ARG:HH22 | 1.34 | 0.93 |
| 1:B:46:THR:OG1 | 1:C:13:ILE:HG22 | 1.69 | 0.93 |
| 1:H:32:VAL:HB | 1:H:51:ASP:HA | 1.47 | 0.93 |
| 1:I:46:THR:OG1 | 1:J:13:ILE:HG22 | 1.69 | 0.93 |
| 1:B:32:VAL:HB | 1:B:51:ASP:HA | 1.48 | 0.93 |
| 1:F:88:ILE:HD11 | 1:F:107:LYS:HG3 | 1.49 | 0.93 |
| 1:G:32:VAL:HB | 1:G:51:ASP:HA | 1.48 | 0.93 |
| 1:J:18:TYR:CE2 | 1:J:23:VAL:HG13 | 2.04 | 0.93 |
| 1:M:44:TYR:H | 1:N:14:LYS:HE3 | 1.33 | 0.93 |
| 1:A:59:HIS:HA | 1:A:64:PHE:HD2 | 1.34 | 0.93 |
| 1:C:98:LYS:HE3 | 1:C:100:ASN:HA | 1.50 | 0.93 |
| 1:K:18:TYR:CE2 | 1:K:23:VAL:HG13 | 2.04 | 0.93 |
| 1:L:44:TYR:H | 1:M:14:LYS:HE3 | 1.33 | 0.93 |
| 1:A:80:VAL:HG22 | 1:A:88:ILE:HG23 | 1.46 | 0.92 |
| 1:D:49:PHE:HB2 | 1:D:55:ARG:HH22 | 1.34 | 0.92 |
| 1:J:88:ILE:HD11 | 1:J:107:LYS:HG3 | 1.49 | 0.92 |
| 1:L:88:ILE:HD11 | 1:L:107:LYS:HG3 | 1.49 | 0.92 |
| 1:A:88:ILE:HD11 | 1:A:107:LYS:HG3 | 1.49 | 0.92 |
| 1:C:46:THR:OG1 | 1:D:13:ILE:HG22 | 1.69 | 0.92 |
| 1:F:46:THR:OG1 | 1:G:13:ILE:HG22 | 1.68 | 0.92 |
| 1:J:44:TYR:H | 1:K:14:LYS:HE3 | 1.33 | 0.92 |
| 1:M:18:TYR:CE2 | 1:M:23:VAL:HG13 | 2.04 | 0.92 |
| 1:B:98:LYS:HE3 | 1:B:100:ASN:HA | 1.50 | 0.92 |
| 1:I:18:TYR:CE2 | 1:I:23:VAL:HG13 | 2.04 | 0.92 |
| 1:L:18:TYR:CE2 | 1:L:23:VAL:HG13 | 2.04 | 0.92 |
| 1:M:46:THR:OG1 | 1:N:13:ILE:HG22 | 1.68 | 0.92 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:F:59:HIS:HA | 1:F:64:PHE:HD2 | 1.34 | 0.92 |
| 1:H:59:HIS:HA | 1:H:64:PHE:HD2 | 1.34 | 0.92 |
| 1:K:49:PHE:HB2 | 1:K:55:ARG:HH22 | 1.34 | 0.92 |
| 1:B:59:HIS:HA | 1:B:64:PHE:HD2 | 1.34 | 0.92 |
| 1:E:59:HIS:HA | 1:E:64:PHE:HD2 | 1.34 | 0.92 |
| 1:H:44:TYR:H | 1:I:14:LYS:HE3 | 1.33 | 0.92 |
| 1:H:98:LYS:HE3 | 1:H:100:ASN:HA | 1.50 | 0.92 |
| 1:M:88:ILE:HD11 | 1:M:107:LYS:HG3 | 1.49 | 0.92 |
| 1:I:49:PHE:HB2 | 1:I:55:ARG:HH22 | 1.34 | 0.92 |
| 1:L:98:LYS:HE3 | 1:L:100:ASN:HA | 1.50 | 0.92 |
| 1:M:59:HIS:HA | 1:M:64:PHE:HD2 | 1.34 | 0.92 |
| 1:B:49:PHE:HB2 | 1:B:55:ARG:HH22 | 1.34 | 0.92 |
| 1:E:88:ILE:HD11 | 1:E:107:LYS:HG3 | 1.49 | 0.92 |
| 1:H:49:PHE:HB2 | 1:H:55:ARG:HH22 | 1.34 | 0.92 |
| 1:E:49:PHE:HB2 | 1:E:55:ARG:HH22 | 1.34 | 0.92 |
| 1:H:18:TYR:CE2 | 1:H:23:VAL:HG13 | 2.04 | 0.92 |
| 1:H:46:THR:OG1 | 1:I:13:ILE:HG22 | 1.68 | 0.92 |
| 1:K:98:LYS:HE3 | 1:K:100:ASN:HA | 1.50 | 0.92 |
| 1:L:46:THR:OG1 | 1:M:13:ILE:HG22 | 1.69 | 0.92 |
| 1:J:98:LYS:HE3 | 1:J:100:ASN:HA | 1.50 | 0.92 |
| 1:K:88:ILE:HD11 | 1:K:107:LYS:HG3 | 1.49 | 0.92 |
| 1:N:49:PHE:HB2 | 1:N:55:ARG:HH22 | 1.34 | 0.92 |
| 1:G:98:LYS:HE3 | 1:G:100:ASN:HA | 1.50 | 0.91 |
| 1:I:98:LYS:HE3 | 1:I:100:ASN:HA | 1.50 | 0.91 |
| 1:J:59:HIS:HA | 1:J:64:PHE:HD2 | 1.34 | 0.91 |
| 1:K:59:HIS:HA | 1:K:64:PHE:HD2 | 1.34 | 0.91 |
| 1:M:49:PHE:HB2 | 1:M:55:ARG:HH22 | 1.34 | 0.91 |
| 1:B:44:TYR:H | 1:C:14:LYS:HE3 | 1.33 | 0.91 |
| 1:N:98:LYS:HE3 | 1:N:100:ASN:HA | 1.50 | 0.91 |
| 1:A:44:TYR:H | 1:B:14:LYS:HE3 | 1.33 | 0.91 |
| 1:E:18:TYR:CE2 | 1:E:23:VAL:HG13 | 2.04 | 0.91 |
| 1:F:18:TYR:CE2 | 1:F:23:VAL:HG13 | 2.04 | 0.91 |
| 1:I:44:TYR:H | 1:J:14:LYS:HE3 | 1.33 | 0.91 |
| 1:N:18:TYR:CE2 | 1:N:23:VAL:HG13 | 2.04 | 0.91 |
| 1:E:98:LYS:HE3 | 1:E:100:ASN:HA | 1.50 | 0.91 |
| 1:G:46:THR:OG1 | 1:H:13:ILE:HG22 | 1.69 | 0.91 |
| 1:C:49:PHE:HB2 | 1:C:55:ARG:HH22 | 1.34 | 0.91 |
| 1:C:18:TYR:CE2 | 1:C:23:VAL:HG13 | 2.04 | 0.91 |
| 1:E:5:ARG:H | 1:E:36:ILE:HB | 1.36 | 0.91 |
| 1:G:18:TYR:CE2 | 1:G:23:VAL:HG13 | 2.04 | 0.91 |
| 1:H:91:HIS:HB3 | 1:H:104:THR:HG21 | 1.53 | 0.91 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:I:91:HIS:HB3 | 1:I:104:THR:HG21 | 1.53 | 0.91 |
| 1:K:5:ARG:H | 1:K:36:ILE:HB | 1.36 | 0.91 |
| 1:D:18:TYR:CE2 | 1:D:23:VAL:HG13 | 2.04 | 0.91 |
| 1:D:88:ILE:HD11 | 1:D:107:LYS:HG3 | 1.49 | 0.91 |
| 1:N:59:HIS:HA | 1:N:64:PHE:HD2 | 1.34 | 0.91 |
| 1:B:18:TYR:CE2 | 1:B:23:VAL:HG13 | 2.04 | 0.90 |
| 1:G:91:HIS:HB3 | 1:G:104:THR:HG21 | 1.53 | 0.90 |
| 1:J:5:ARG:H | 1:J:36:ILE:HB | 1.36 | 0.90 |
| 1:A:18:TYR:CE2 | 1:A:23:VAL:HG13 | 2.04 | 0.90 |
| 1:D:5:ARG:H | 1:D:36:ILE:HB | 1.36 | 0.90 |
| 1:D:59:HIS:HA | 1:D:64:PHE:HD2 | 1.34 | 0.90 |
| 1:F:5:ARG:H | 1:F:36:ILE:HB | 1.36 | 0.90 |
| 1:F:91:HIS:HB3 | 1:F:104:THR:HG21 | 1.53 | 0.90 |
| 1:G:49:PHE:HB2 | 1:G:55:ARG:HH22 | 1.34 | 0.90 |
| 1:J:91:HIS:HB3 | 1:J:104:THR:HG21 | 1.53 | 0.90 |
| 1:G:59:HIS:HA | 1:G:64:PHE:HD2 | 1.34 | 0.90 |
| 1:L:98:LYS:H | 1:L:98:LYS:HD3 | 1.37 | 0.90 |
| 1:C:59:HIS:HA | 1:C:64:PHE:HD2 | 1.34 | 0.90 |
| 1:J:49:PHE:HB2 | 1:J:55:ARG:HH22 | 1.34 | 0.90 |
| 1:K:98:LYS:HD3 | 1:K:98:LYS:H | 1.37 | 0.90 |
| 1:L:5:ARG:H | 1:L:36:ILE:HB | 1.36 | 0.90 |
| 1:C:5:ARG:H | 1:C:36:ILE:HB | 1.36 | 0.90 |
| 1:F:49:PHE:HB2 | 1:F:55:ARG:HH22 | 1.34 | 0.90 |
| 1:G:5:ARG:H | 1:G:36:ILE:HB | 1.36 | 0.90 |
| 1:K:91:HIS:HB3 | 1:K:104:THR:HG21 | 1.53 | 0.90 |
| 1:E:91:HIS:HB3 | 1:E:104:THR:HG21 | 1.53 | 0.89 |
| 1:B:98:LYS:H | 1:B:98:LYS:HD3 | 1.37 | 0.89 |
| 1:B:5:ARG:H | 1:B:36:ILE:HB | 1.36 | 0.89 |
| 1:E:98:LYS:HD3 | 1:E:98:LYS:H | 1.37 | 0.89 |
| 1:I:5:ARG:H | 1:I:36:ILE:HB | 1.36 | 0.89 |
| 1:G:98:LYS:H | 1:G:98:LYS:HD3 | 1.37 | 0.89 |
| 1:A:5:ARG:H | 1:A:36:ILE:HB | 1.36 | 0.89 |
| 1:D:91:HIS:HB3 | 1:D:104:THR:HG21 | 1.53 | 0.89 |
| 1:D:98:LYS:H | 1:D:98:LYS:HD3 | 1.37 | 0.89 |
| 1:L:2:GLU:HG2 | 1:L:3:VAL:H | 1.38 | 0.89 |
| 1:L:91:HIS:HB3 | 1:L:104:THR:HG21 | 1.53 | 0.89 |
| 1:D:91:HIS:HA | 1:D:104:THR:CB | 2.03 | 0.89 |
| 1:J:98:LYS:H | 1:J:98:LYS:HD3 | 1.37 | 0.89 |
| 1:C:91:HIS:HA | 1:C:104:THR:CB | 2.03 | 0.88 |
| 1:E:91:HIS:HA | 1:E:104:THR:CB | 2.03 | 0.88 |
| 1:K:2:GLU:HG2 | 1:K:3:VAL:H | 1.38 | 0.88 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|----------------|------------------|--------------------------|-------------------|
| 1:A:98:LYS:H | 1:A:98:LYS:HD3 | 1.37 | 0.88 |
| 1:B:91:HIS:HB3 | 1:B:104:THR:HG21 | 1.53 | 0.88 |
| 1:N:5:ARG:H | 1:N:36:ILE:HB | 1.36 | 0.88 |
| 1:F:91:HIS:HA | 1:F:104:THR:CB | 2.04 | 0.88 |
| 1:N:91:HIS:HB3 | 1:N:104:THR:HG21 | 1.53 | 0.88 |
| 1:B:46:THR:HB | 1:C:14:LYS:NZ | 1.89 | 0.88 |
| 1:B:91:HIS:HA | 1:B:104:THR:CB | 2.04 | 0.88 |
| 1:G:46:THR:HB | 1:H:14:LYS:NZ | 1.89 | 0.88 |
| 1:G:91:HIS:HA | 1:G:104:THR:CB | 2.03 | 0.88 |
| 1:J:91:HIS:HA | 1:J:104:THR:CB | 2.03 | 0.88 |
| 1:K:91:HIS:HA | 1:K:104:THR:CB | 2.03 | 0.88 |
| 1:M:98:LYS:H | 1:M:98:LYS:HD3 | 1.37 | 0.88 |
| 1:H:5:ARG:H | 1:H:36:ILE:HB | 1.36 | 0.88 |
| 1:H:91:HIS:HA | 1:H:104:THR:CB | 2.03 | 0.88 |
| 1:I:91:HIS:HA | 1:I:104:THR:CB | 2.04 | 0.88 |
| 1:L:46:THR:HB | 1:M:14:LYS:NZ | 1.89 | 0.88 |
| 1:M:5:ARG:H | 1:M:36:ILE:HB | 1.36 | 0.88 |
| 1:M:46:THR:HB | 1:N:14:LYS:NZ | 1.89 | 0.88 |
| 1:A:91:HIS:HA | 1:A:104:THR:CB | 2.03 | 0.88 |
| 1:C:91:HIS:HB3 | 1:C:104:THR:HG21 | 1.53 | 0.88 |
| 1:L:91:HIS:HA | 1:L:104:THR:CB | 2.03 | 0.88 |
| 1:M:91:HIS:HB3 | 1:M:104:THR:HG21 | 1.53 | 0.88 |
| 1:A:14:LYS:NZ | 1:N:46:THR:HB | 1.89 | 0.88 |
| 1:A:91:HIS:HB3 | 1:A:104:THR:HG21 | 1.53 | 0.88 |
| 1:H:2:GLU:HG2 | 1:H:3:VAL:H | 1.38 | 0.88 |
| 1:K:46:THR:HB | 1:L:14:LYS:NZ | 1.89 | 0.88 |
| 1:N:91:HIS:HA | 1:N:104:THR:CB | 2.03 | 0.88 |
| 1:M:91:HIS:HA | 1:M:104:THR:CB | 2.04 | 0.88 |
| 1:A:56:THR:H | 1:A:67:LYS:H | 1.21 | 0.88 |
| 1:F:98:LYS:HD3 | 1:F:98:LYS:H | 1.37 | 0.88 |
| 1:G:2:GLU:HG2 | 1:G:3:VAL:H | 1.38 | 0.88 |
| 1:C:46:THR:HB | 1:D:14:LYS:NZ | 1.89 | 0.87 |
| 1:F:46:THR:HB | 1:G:14:LYS:NZ | 1.89 | 0.87 |
| 1:H:98:LYS:HD3 | 1:H:98:LYS:H | 1.37 | 0.87 |
| 1:J:46:THR:HB | 1:K:14:LYS:NZ | 1.89 | 0.87 |
| 1:H:46:THR:HB | 1:I:14:LYS:NZ | 1.89 | 0.87 |
| 1:A:46:THR:HB | 1:B:14:LYS:NZ | 1.89 | 0.87 |
| 1:C:98:LYS:HD3 | 1:C:98:LYS:H | 1.37 | 0.87 |
| 1:M:2:GLU:HG2 | 1:M:3:VAL:H | 1.38 | 0.87 |
| 1:E:46:THR:HB | 1:F:13:ILE:HG22 | 1.57 | 0.87 |
| 1:M:46:THR:HB | 1:N:13:ILE:HG22 | 1.57 | 0.87 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:A:13:ILE:HG22 | 1:N:46:THR:HB | 1.57 | 0.87 |
| 1:F:46:THR:HB | 1:G:13:ILE:HG22 | 1.57 | 0.87 |
| 1:I:2:GLU:HG2 | 1:I:3:VAL:H | 1.38 | 0.87 |
| 1:I:46:THR:HB | 1:J:14:LYS:NZ | 1.89 | 0.87 |
| 1:I:98:LYS:H | 1:I:98:LYS:HD3 | 1.37 | 0.87 |
| 1:J:2:GLU:HG2 | 1:J:3:VAL:H | 1.38 | 0.87 |
| 1:B:2:GLU:HG2 | 1:B:3:VAL:H | 1.38 | 0.86 |
| 1:H:50:GLY:HA2 | 1:H:77:LEU:HD13 | 1.58 | 0.86 |
| 1:I:46:THR:HB | 1:J:13:ILE:HG22 | 1.57 | 0.86 |
| 1:I:50:GLY:HA2 | 1:I:77:LEU:HD13 | 1.57 | 0.86 |
| 1:G:50:GLY:HA2 | 1:G:77:LEU:HD13 | 1.57 | 0.86 |
| 1:L:56:THR:H | 1:L:67:LYS:H | 1.21 | 0.86 |
| 1:N:56:THR:H | 1:N:67:LYS:H | 1.21 | 0.86 |
| 1:N:98:LYS:HD3 | 1:N:98:LYS:H | 1.37 | 0.86 |
| 1:D:46:THR:HB | 1:E:13:ILE:HG22 | 1.57 | 0.86 |
| 1:J:46:THR:HB | 1:K:13:ILE:HG22 | 1.57 | 0.86 |
| 1:A:2:GLU:HG2 | 1:A:3:VAL:H | 1.38 | 0.86 |
| 1:E:46:THR:HB | 1:F:14:LYS:NZ | 1.89 | 0.86 |
| 1:J:50:GLY:HA2 | 1:J:77:LEU:HD13 | 1.57 | 0.86 |
| 1:N:63:HIS:CA | 1:N:82:ASP:HB2 | 2.04 | 0.86 |
| 1:C:2:GLU:HG2 | 1:C:3:VAL:H | 1.38 | 0.86 |
| 1:L:63:HIS:CA | 1:L:82:ASP:HB2 | 2.04 | 0.86 |
| 1:M:63:HIS:CA | 1:M:82:ASP:HB2 | 2.04 | 0.86 |
| 1:N:50:GLY:HA2 | 1:N:77:LEU:HD13 | 1.57 | 0.86 |
| 1:A:50:GLY:HA2 | 1:A:77:LEU:HD13 | 1.58 | 0.86 |
| 1:A:63:HIS:CA | 1:A:82:ASP:HB2 | 2.04 | 0.86 |
| 1:F:2:GLU:HG2 | 1:F:3:VAL:H | 1.38 | 0.86 |
| 1:K:50:GLY:HA2 | 1:K:77:LEU:HD13 | 1.58 | 0.86 |
| 1:F:50:GLY:HA2 | 1:F:77:LEU:HD13 | 1.57 | 0.86 |
| 1:M:50:GLY:HA2 | 1:M:77:LEU:HD13 | 1.57 | 0.86 |
| 1:A:46:THR:HB | 1:B:13:ILE:HG22 | 1.57 | 0.86 |
| 1:B:50:GLY:HA2 | 1:B:77:LEU:HD13 | 1.57 | 0.86 |
| 1:K:63:HIS:CA | 1:K:82:ASP:HB2 | 2.04 | 0.86 |
| 1:L:46:THR:HB | 1:M:13:ILE:HG22 | 1.57 | 0.86 |
| 1:D:46:THR:HB | 1:E:14:LYS:NZ | 1.89 | 0.86 |
| 1:L:50:GLY:HA2 | 1:L:77:LEU:HD13 | 1.58 | 0.86 |
| 1:B:63:HIS:CA | 1:B:82:ASP:HB2 | 2.04 | 0.86 |
| 1:H:46:THR:HB | 1:I:13:ILE:HG22 | 1.57 | 0.86 |
| 1:J:63:HIS:CA | 1:J:82:ASP:HB2 | 2.04 | 0.86 |
| 1:C:50:GLY:HA2 | 1:C:77:LEU:HD13 | 1.57 | 0.85 |
| 1:N:2:GLU:HG2 | 1:N:3:VAL:H | 1.38 | 0.85 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:D:56:THR:H | 1:D:67:LYS:H | 1.21 | 0.85 |
| 1:F:24:VAL:CG1 | 1:F:26:ILE:HD12 | 2.07 | 0.85 |
| 1:I:63:HIS:CA | 1:I:82:ASP:HB2 | 2.04 | 0.85 |
| 1:L:67:LYS:HE3 | 1:L:78:VAL:HG13 | 1.59 | 0.85 |
| 1:C:46:THR:HB | 1:D:13:ILE:HG22 | 1.57 | 0.85 |
| 1:D:50:GLY:HA2 | 1:D:77:LEU:HD13 | 1.58 | 0.85 |
| 1:C:63:HIS:CA | 1:C:82:ASP:HB2 | 2.04 | 0.85 |
| 1:E:2:GLU:HG2 | 1:E:3:VAL:H | 1.38 | 0.85 |
| 1:E:50:GLY:HA2 | 1:E:77:LEU:HD13 | 1.58 | 0.85 |
| 1:I:67:LYS:HE3 | 1:I:78:VAL:HG13 | 1.59 | 0.85 |
| 1:K:56:THR:H | 1:K:67:LYS:H | 1.21 | 0.85 |
| 1:K:67:LYS:HE3 | 1:K:78:VAL:HG13 | 1.59 | 0.85 |
| 1:B:24:VAL:CG1 | 1:B:26:ILE:HD12 | 2.07 | 0.85 |
| 1:D:2:GLU:HG2 | 1:D:3:VAL:H | 1.38 | 0.85 |
| 1:H:63:HIS:CA | 1:H:82:ASP:HB2 | 2.04 | 0.85 |
| 1:H:67:LYS:HE3 | 1:H:78:VAL:HG13 | 1.59 | 0.85 |
| 1:C:56:THR:H | 1:C:67:LYS:H | 1.21 | 0.85 |
| 1:M:67:LYS:HE3 | 1:M:78:VAL:HG13 | 1.59 | 0.85 |
| 1:D:63:HIS:CA | 1:D:82:ASP:HB2 | 2.04 | 0.85 |
| 1:G:63:HIS:CA | 1:G:82:ASP:HB2 | 2.04 | 0.85 |
| 1:B:56:THR:H | 1:B:67:LYS:H | 1.21 | 0.85 |
| 1:C:24:VAL:CG1 | 1:C:26:ILE:HD12 | 2.07 | 0.85 |
| 1:G:46:THR:HB | 1:H:13:ILE:HG22 | 1.57 | 0.85 |
| 1:G:56:THR:H | 1:G:67:LYS:H | 1.21 | 0.85 |
| 1:N:67:LYS:HE3 | 1:N:78:VAL:HG13 | 1.59 | 0.85 |
| 1:E:24:VAL:CG1 | 1:E:26:ILE:HD12 | 2.07 | 0.85 |
| 1:E:63:HIS:CA | 1:E:82:ASP:HB2 | 2.04 | 0.85 |
| 1:G:24:VAL:CG1 | 1:G:26:ILE:HD12 | 2.07 | 0.85 |
| 1:H:29:VAL:CG1 | 1:H:77:LEU:HD21 | 2.07 | 0.85 |
| 1:J:67:LYS:HE3 | 1:J:78:VAL:HG13 | 1.59 | 0.85 |
| 1:L:29:VAL:CG1 | 1:L:77:LEU:HD21 | 2.07 | 0.85 |
| 1:B:75:THR:HG22 | 1:B:92:PHE:CZ | 2.12 | 0.84 |
| 1:F:63:HIS:CA | 1:F:82:ASP:HB2 | 2.04 | 0.84 |
| 1:H:56:THR:H | 1:H:67:LYS:H | 1.21 | 0.84 |
| 1:N:66:VAL:HG13 | 1:N:79:ILE:O | 1.77 | 0.84 |
| 1:A:67:LYS:HE3 | 1:A:78:VAL:HG13 | 1.59 | 0.84 |
| 1:G:66:VAL:HG13 | 1:G:79:ILE:O | 1.77 | 0.84 |
| 1:L:24:VAL:CG1 | 1:L:26:ILE:HD12 | 2.07 | 0.84 |
| 1:A:75:THR:HG22 | 1:A:92:PHE:CZ | 2.12 | 0.84 |
| 1:D:24:VAL:CG1 | 1:D:26:ILE:HD12 | 2.07 | 0.84 |
| 1:F:56:THR:H | 1:F:67:LYS:H | 1.21 | 0.84 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:I:29:VAL:CG1 | 1:I:77:LEU:HD21 | 2.07 | 0.84 |
| 1:K:24:VAL:CG1 | 1:K:26:ILE:HD12 | 2.07 | 0.84 |
| 1:K:29:VAL:CG1 | 1:K:77:LEU:HD21 | 2.07 | 0.84 |
| 1:K:46:THR:HB | 1:L:13:ILE:HG22 | 1.57 | 0.84 |
| 1:C:29:VAL:CG1 | 1:C:77:LEU:HD21 | 2.07 | 0.84 |
| 1:G:67:LYS:HE3 | 1:G:78:VAL:HG13 | 1.59 | 0.84 |
| 1:B:29:VAL:CG1 | 1:B:77:LEU:HD21 | 2.07 | 0.84 |
| 1:G:29:VAL:CG1 | 1:G:77:LEU:HD21 | 2.07 | 0.84 |
| 1:K:75:THR:HG22 | 1:K:92:PHE:CZ | 2.12 | 0.84 |
| 1:M:56:THR:H | 1:M:67:LYS:H | 1.21 | 0.84 |
| 1:N:75:THR:HG22 | 1:N:92:PHE:CZ | 2.12 | 0.84 |
| 1:A:24:VAL:CG1 | 1:A:26:ILE:HD12 | 2.07 | 0.84 |
| 1:D:66:VAL:HG13 | 1:D:79:ILE:O | 1.77 | 0.84 |
| 1:D:75:THR:HG22 | 1:D:92:PHE:CZ | 2.12 | 0.84 |
| 1:I:24:VAL:CG1 | 1:I:26:ILE:HD12 | 2.07 | 0.84 |
| 1:J:24:VAL:CG1 | 1:J:26:ILE:HD12 | 2.07 | 0.84 |
| 1:M:75:THR:HG22 | 1:M:92:PHE:CZ | 2.12 | 0.84 |
| 1:B:46:THR:HB | 1:C:13:ILE:HG22 | 1.57 | 0.84 |
| 1:C:66:VAL:HG13 | 1:C:79:ILE:O | 1.77 | 0.84 |
| 1:D:29:VAL:CG1 | 1:D:77:LEU:HD21 | 2.07 | 0.84 |
| 1:E:66:VAL:HG13 | 1:E:79:ILE:O | 1.77 | 0.84 |
| 1:F:66:VAL:HG13 | 1:F:79:ILE:O | 1.77 | 0.84 |
| 1:F:67:LYS:HE3 | 1:F:78:VAL:HG13 | 1.59 | 0.84 |
| 1:I:56:THR:H | 1:I:67:LYS:H | 1.21 | 0.84 |
| 1:M:24:VAL:CG1 | 1:M:26:ILE:HD12 | 2.07 | 0.84 |
| 1:M:29:VAL:CG1 | 1:M:77:LEU:HD21 | 2.07 | 0.84 |
| 1:A:29:VAL:CG1 | 1:A:77:LEU:HD21 | 2.07 | 0.84 |
| 1:M:66:VAL:HG13 | 1:M:79:ILE:O | 1.77 | 0.84 |
| 1:A:66:VAL:HG13 | 1:A:79:ILE:O | 1.77 | 0.83 |
| 1:E:34:THR:HG23 | 1:E:47:HIS:HB3 | 1.60 | 0.83 |
| 1:B:66:VAL:HG13 | 1:B:79:ILE:O | 1.77 | 0.83 |
| 1:B:67:LYS:HE3 | 1:B:78:VAL:HG13 | 1.59 | 0.83 |
| 1:E:29:VAL:CG1 | 1:E:77:LEU:HD21 | 2.07 | 0.83 |
| 1:I:75:THR:HG22 | 1:I:92:PHE:CZ | 2.12 | 0.83 |
| 1:L:34:THR:HG23 | 1:L:47:HIS:HB3 | 1.60 | 0.83 |
| 1:L:75:THR:HG22 | 1:L:92:PHE:CZ | 2.12 | 0.83 |
| 1:C:67:LYS:HE3 | 1:C:78:VAL:HG13 | 1.59 | 0.83 |
| 1:E:75:THR:HG22 | 1:E:92:PHE:CZ | 2.12 | 0.83 |
| 1:F:34:THR:HG23 | 1:F:47:HIS:HB3 | 1.61 | 0.83 |
| 1:F:75:THR:HG22 | 1:F:92:PHE:CZ | 2.12 | 0.83 |
| 1:H:24:VAL:CG1 | 1:H:26:ILE:HD12 | 2.07 | 0.83 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:H:46:THR:HB | 1:I:14:LYS:HZ1 | 1.41 | 0.83 |
| 1:I:46:THR:HB | 1:J:14:LYS:HZ1 | 1.42 | 0.83 |
| 1:C:75:THR:HG22 | 1:C:92:PHE:CZ | 2.12 | 0.83 |
| 1:D:34:THR:HG23 | 1:D:47:HIS:HB3 | 1.61 | 0.83 |
| 1:H:66:VAL:HG13 | 1:H:79:ILE:O | 1.77 | 0.83 |
| 1:K:34:THR:HG23 | 1:K:47:HIS:HB3 | 1.61 | 0.83 |
| 1:K:66:VAL:HG13 | 1:K:79:ILE:O | 1.77 | 0.83 |
| 1:M:34:THR:HG23 | 1:M:47:HIS:HB3 | 1.61 | 0.83 |
| 1:D:67:LYS:HE3 | 1:D:78:VAL:HG13 | 1.59 | 0.83 |
| 1:E:56:THR:H | 1:E:67:LYS:H | 1.21 | 0.83 |
| 1:G:34:THR:HG23 | 1:G:47:HIS:HB3 | 1.61 | 0.83 |
| 1:A:14:LYS:HZ1 | 1:N:46:THR:HB | 1.44 | 0.83 |
| 1:A:26:ILE:HD11 | 1:A:37:VAL:HB | 1.61 | 0.83 |
| 1:E:67:LYS:HE3 | 1:E:78:VAL:HG13 | 1.59 | 0.83 |
| 1:J:29:VAL:CG1 | 1:J:77:LEU:HD21 | 2.07 | 0.83 |
| 1:J:66:VAL:HG13 | 1:J:79:ILE:O | 1.77 | 0.83 |
| 1:J:75:THR:HG22 | 1:J:92:PHE:CZ | 2.12 | 0.83 |
| 1:K:46:THR:HB | 1:L:14:LYS:HZ1 | 1.43 | 0.83 |
| 1:N:29:VAL:CG1 | 1:N:77:LEU:HD21 | 2.07 | 0.83 |
| 1:H:34:THR:HG23 | 1:H:47:HIS:HB3 | 1.61 | 0.83 |
| 1:I:66:VAL:HG13 | 1:I:79:ILE:O | 1.77 | 0.83 |
| 1:N:34:THR:HG23 | 1:N:47:HIS:HB3 | 1.61 | 0.83 |
| 1:N:50:GLY:CA | 1:N:77:LEU:HD13 | 2.09 | 0.83 |
| 1:C:26:ILE:HD11 | 1:C:37:VAL:HB | 1.61 | 0.83 |
| 1:F:29:VAL:CG1 | 1:F:77:LEU:HD21 | 2.07 | 0.83 |
| 1:G:75:THR:HG22 | 1:G:92:PHE:CZ | 2.12 | 0.83 |
| 1:H:50:GLY:CA | 1:H:77:LEU:HD13 | 2.09 | 0.83 |
| 1:H:75:THR:HG22 | 1:H:92:PHE:CZ | 2.12 | 0.83 |
| 1:J:34:THR:HG23 | 1:J:47:HIS:HB3 | 1.61 | 0.83 |
| 1:L:66:VAL:HG13 | 1:L:79:ILE:O | 1.77 | 0.83 |
| 1:N:24:VAL:CG1 | 1:N:26:ILE:HD12 | 2.07 | 0.83 |
| 1:N:26:ILE:HD11 | 1:N:37:VAL:HB | 1.61 | 0.83 |
| 1:C:34:THR:HG23 | 1:C:47:HIS:HB3 | 1.61 | 0.83 |
| 1:E:50:GLY:CA | 1:E:77:LEU:HD13 | 2.09 | 0.83 |
| 1:F:50:GLY:CA | 1:F:77:LEU:HD13 | 2.09 | 0.83 |
| 1:I:34:THR:HG23 | 1:I:47:HIS:HB3 | 1.61 | 0.83 |
| 1:L:46:THR:HB | 1:M:14:LYS:HZ1 | 1.43 | 0.83 |
| 1:M:50:GLY:CA | 1:M:77:LEU:HD13 | 2.09 | 0.83 |
| 1:D:26:ILE:HD11 | 1:D:37:VAL:HB | 1.61 | 0.83 |
| 1:D:50:GLY:CA | 1:D:77:LEU:HD13 | 2.09 | 0.83 |
| 1:G:50:GLY:CA | 1:G:77:LEU:HD13 | 2.09 | 0.83 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:I:92:PHE:O | 1:I:93:ILE:HG13 | 1.79 | 0.83 |
| 1:J:56:THR:H | 1:J:67:LYS:H | 1.21 | 0.83 |
| 1:A:34:THR:HG23 | 1:A:47:HIS:HB3 | 1.61 | 0.82 |
| 1:C:50:GLY:CA | 1:C:77:LEU:HD13 | 2.09 | 0.82 |
| 1:D:46:THR:HB | 1:E:14:LYS:HZ1 | 1.44 | 0.82 |
| 1:M:26:ILE:HD11 | 1:M:37:VAL:HB | 1.61 | 0.82 |
| 1:A:50:GLY:CA | 1:A:77:LEU:HD13 | 2.09 | 0.82 |
| 1:F:92:PHE:O | 1:F:93:ILE:HG13 | 1.79 | 0.82 |
| 1:I:50:GLY:CA | 1:I:77:LEU:HD13 | 2.09 | 0.82 |
| 1:J:18:TYR:HB3 | 1:J:19:ASN:O | 1.79 | 0.82 |
| 1:L:26:ILE:HD11 | 1:L:37:VAL:HB | 1.61 | 0.82 |
| 1:N:92:PHE:O | 1:N:93:ILE:HG13 | 1.79 | 0.82 |
| 1:B:26:ILE:HD11 | 1:B:37:VAL:HB | 1.61 | 0.82 |
| 1:B:50:GLY:CA | 1:B:77:LEU:HD13 | 2.09 | 0.82 |
| 1:B:92:PHE:O | 1:B:93:ILE:HG13 | 1.79 | 0.82 |
| 1:I:18:TYR:HB3 | 1:I:19:ASN:O | 1.79 | 0.82 |
| 1:K:18:TYR:HB3 | 1:K:19:ASN:O | 1.79 | 0.82 |
| 1:B:34:THR:HG23 | 1:B:47:HIS:HB3 | 1.61 | 0.82 |
| 1:I:32:VAL:HG22 | 1:I:48:ALA:HB3 | 1.61 | 0.82 |
| 1:K:32:VAL:HG22 | 1:K:48:ALA:HB3 | 1.61 | 0.82 |
| 1:K:92:PHE:O | 1:K:93:ILE:HG13 | 1.79 | 0.82 |
| 1:L:18:TYR:HB3 | 1:L:19:ASN:O | 1.79 | 0.82 |
| 1:C:92:PHE:O | 1:C:93:ILE:HG13 | 1.79 | 0.82 |
| 1:L:32:VAL:HG22 | 1:L:48:ALA:HB3 | 1.61 | 0.82 |
| 1:H:1:LEU:CD1 | 1:H:13:ILE:HD11 | 2.10 | 0.82 |
| 1:H:18:TYR:HB3 | 1:H:19:ASN:O | 1.79 | 0.82 |
| 1:H:32:VAL:HG22 | 1:H:48:ALA:HB3 | 1.61 | 0.82 |
| 1:K:49:PHE:HB2 | 1:K:55:ARG:NH2 | 1.94 | 0.82 |
| 1:M:1:LEU:CD1 | 1:M:13:ILE:HD11 | 2.10 | 0.82 |
| 1:M:92:PHE:O | 1:M:93:ILE:HG13 | 1.79 | 0.82 |
| 1:B:75:THR:HG22 | 1:B:92:PHE:HZ | 1.45 | 0.82 |
| 1:E:26:ILE:HD11 | 1:E:37:VAL:HB | 1.61 | 0.82 |
| 1:E:92:PHE:O | 1:E:93:ILE:HG13 | 1.79 | 0.82 |
| 1:G:1:LEU:CD1 | 1:G:13:ILE:HD11 | 2.10 | 0.82 |
| 1:L:49:PHE:HB2 | 1:L:55:ARG:NH2 | 1.94 | 0.82 |
| 1:G:92:PHE:O | 1:G:93:ILE:HG13 | 1.79 | 0.82 |
| 1:L:1:LEU:CD1 | 1:L:13:ILE:HD11 | 2.10 | 0.82 |
| 1:J:32:VAL:HG22 | 1:J:48:ALA:HB3 | 1.61 | 0.82 |
| 1:J:49:PHE:HB2 | 1:J:55:ARG:NH2 | 1.94 | 0.82 |
| 1:M:18:TYR:HB3 | 1:M:19:ASN:O | 1.79 | 0.82 |
| 1:M:49:PHE:HB2 | 1:M:55:ARG:NH2 | 1.94 | 0.82 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:F:26:ILE:HD11 | 1:F:37:VAL:HB | 1.61 | 0.81 |
| 1:G:18:TYR:HB3 | 1:G:19:ASN:O | 1.79 | 0.81 |
| 1:C:18:TYR:HB3 | 1:C:19:ASN:O | 1.79 | 0.81 |
| 1:F:1:LEU:CD1 | 1:F:13:ILE:HD11 | 2.10 | 0.81 |
| 1:F:46:THR:HB | 1:G:14:LYS:HZ1 | 1.45 | 0.81 |
| 1:I:1:LEU:CD1 | 1:I:13:ILE:HD11 | 2.10 | 0.81 |
| 1:J:26:ILE:HD11 | 1:J:37:VAL:HB | 1.61 | 0.81 |
| 1:N:49:PHE:HB2 | 1:N:55:ARG:NH2 | 1.94 | 0.81 |
| 1:A:49:PHE:HB2 | 1:A:55:ARG:NH2 | 1.94 | 0.81 |
| 1:B:49:PHE:HB2 | 1:B:55:ARG:NH2 | 1.94 | 0.81 |
| 1:C:1:LEU:CD1 | 1:C:13:ILE:HD11 | 2.10 | 0.81 |
| 1:D:92:PHE:O | 1:D:93:ILE:HG13 | 1.79 | 0.81 |
| 1:E:75:THR:HG22 | 1:E:92:PHE:HZ | 1.45 | 0.81 |
| 1:G:32:VAL:HG22 | 1:G:48:ALA:HB3 | 1.61 | 0.81 |
| 1:H:92:PHE:O | 1:H:93:ILE:HG13 | 1.79 | 0.81 |
| 1:I:49:PHE:HB2 | 1:I:55:ARG:NH2 | 1.94 | 0.81 |
| 1:K:26:ILE:HD11 | 1:K:37:VAL:HB | 1.61 | 0.81 |
| 1:L:92:PHE:O | 1:L:93:ILE:HG13 | 1.79 | 0.81 |
| 1:M:32:VAL:HG22 | 1:M:48:ALA:HB3 | 1.62 | 0.81 |
| 1:M:75:THR:HG22 | 1:M:92:PHE:HZ | 1.45 | 0.81 |
| 1:N:32:VAL:HG22 | 1:N:48:ALA:HB3 | 1.61 | 0.81 |
| 1:C:49:PHE:HB2 | 1:C:55:ARG:NH2 | 1.94 | 0.81 |
| 1:D:49:PHE:HB2 | 1:D:55:ARG:NH2 | 1.94 | 0.81 |
| 1:I:66:VAL:HG23 | 1:I:68:PRO:HD3 | 1.63 | 0.81 |
| 1:J:50:GLY:CA | 1:J:77:LEU:HD13 | 2.09 | 0.81 |
| 1:N:75:THR:HG22 | 1:N:92:PHE:HZ | 1.45 | 0.81 |
| 1:H:13:ILE:HD12 | 1:H:14:LYS:HG3 | 1.62 | 0.81 |
| 1:H:49:PHE:HB2 | 1:H:55:ARG:NH2 | 1.94 | 0.81 |
| 1:L:50:GLY:CA | 1:L:77:LEU:HD13 | 2.09 | 0.81 |
| 1:N:1:LEU:CD1 | 1:N:13:ILE:HD11 | 2.10 | 0.81 |
| 1:A:92:PHE:O | 1:A:93:ILE:HG13 | 1.79 | 0.81 |
| 1:B:1:LEU:CD1 | 1:B:13:ILE:HD11 | 2.10 | 0.81 |
| 1:D:1:LEU:CD1 | 1:D:13:ILE:HD11 | 2.10 | 0.81 |
| 1:E:49:PHE:HB2 | 1:E:55:ARG:NH2 | 1.94 | 0.81 |
| 1:F:49:PHE:HB2 | 1:F:55:ARG:NH2 | 1.94 | 0.81 |
| 1:I:13:ILE:HD12 | 1:I:14:LYS:HG3 | 1.62 | 0.81 |
| 1:L:66:VAL:HG23 | 1:L:68:PRO:HD3 | 1.63 | 0.81 |
| 1:C:46:THR:HB | 1:D:14:LYS:HZ1 | 1.44 | 0.81 |
| 1:G:13:ILE:HD12 | 1:G:14:LYS:HG3 | 1.62 | 0.81 |
| 1:G:24:VAL:CG1 | 1:G:107:LYS:HD3 | 2.11 | 0.81 |
| 1:G:49:PHE:HB2 | 1:G:55:ARG:NH2 | 1.94 | 0.81 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:H:26:ILE:HD11 | 1:H:37:VAL:HB | 1.61 | 0.81 |
| 1:M:24:VAL:CG1 | 1:M:107:LYS:HD3 | 2.11 | 0.81 |
| 1:N:18:TYR:HB3 | 1:N:19:ASN:O | 1.79 | 0.81 |
| 1:F:18:TYR:HB3 | 1:F:19:ASN:O | 1.79 | 0.81 |
| 1:F:32:VAL:HG22 | 1:F:48:ALA:HB3 | 1.62 | 0.81 |
| 1:F:66:VAL:HG23 | 1:F:68:PRO:HD3 | 1.63 | 0.81 |
| 1:G:75:THR:HG22 | 1:G:92:PHE:HZ | 1.45 | 0.81 |
| 1:I:24:VAL:CG1 | 1:I:107:LYS:HD3 | 2.11 | 0.81 |
| 1:K:24:VAL:CG1 | 1:K:107:LYS:HD3 | 2.11 | 0.81 |
| 1:K:50:GLY:CA | 1:K:77:LEU:HD13 | 2.09 | 0.81 |
| 1:K:75:THR:HG22 | 1:K:92:PHE:HZ | 1.45 | 0.81 |
| 1:G:66:VAL:HG23 | 1:G:68:PRO:HD3 | 1.63 | 0.81 |
| 1:I:26:ILE:HD11 | 1:I:37:VAL:HB | 1.61 | 0.81 |
| 1:J:13:ILE:HD12 | 1:J:14:LYS:HG3 | 1.62 | 0.81 |
| 1:K:66:VAL:HG23 | 1:K:68:PRO:HD3 | 1.63 | 0.81 |
| 1:D:75:THR:HG22 | 1:D:92:PHE:HZ | 1.45 | 0.81 |
| 1:J:1:LEU:CD1 | 1:J:13:ILE:HD11 | 2.10 | 0.81 |
| 1:B:13:ILE:HD12 | 1:B:14:LYS:HG3 | 1.62 | 0.80 |
| 1:B:24:VAL:CG1 | 1:B:107:LYS:HD3 | 2.11 | 0.80 |
| 1:C:24:VAL:CG1 | 1:C:107:LYS:HD3 | 2.11 | 0.80 |
| 1:E:24:VAL:CG1 | 1:E:107:LYS:HD3 | 2.11 | 0.80 |
| 1:F:13:ILE:HD12 | 1:F:14:LYS:HG3 | 1.62 | 0.80 |
| 1:I:75:THR:HG22 | 1:I:92:PHE:HZ | 1.45 | 0.80 |
| 1:J:24:VAL:CG1 | 1:J:107:LYS:HD3 | 2.11 | 0.80 |
| 1:J:92:PHE:O | 1:J:93:ILE:HG13 | 1.79 | 0.80 |
| 1:N:66:VAL:HG23 | 1:N:68:PRO:HD3 | 1.63 | 0.80 |
| 1:A:13:ILE:HD12 | 1:A:14:LYS:HG3 | 1.62 | 0.80 |
| 1:A:18:TYR:HB3 | 1:A:19:ASN:O | 1.79 | 0.80 |
| 1:C:75:THR:HG22 | 1:C:92:PHE:HZ | 1.45 | 0.80 |
| 1:G:26:ILE:HD11 | 1:G:37:VAL:HB | 1.61 | 0.80 |
| 1:G:86:TYR:CB | 1:G:109:PHE:HB3 | 2.12 | 0.80 |
| 1:K:13:ILE:HD12 | 1:K:14:LYS:HG3 | 1.62 | 0.80 |
| 1:N:24:VAL:CG1 | 1:N:107:LYS:HD3 | 2.11 | 0.80 |
| 1:D:24:VAL:CG1 | 1:D:107:LYS:HD3 | 2.11 | 0.80 |
| 1:D:66:VAL:HG23 | 1:D:68:PRO:HD3 | 1.63 | 0.80 |
| 1:F:86:TYR:CB | 1:F:109:PHE:HB3 | 2.12 | 0.80 |
| 1:H:86:TYR:CB | 1:H:109:PHE:HB3 | 2.12 | 0.80 |
| 1:B:18:TYR:HB3 | 1:B:19:ASN:O | 1.79 | 0.80 |
| 1:B:46:THR:HB | 1:C:14:LYS:HZ1 | 1.46 | 0.80 |
| 1:C:13:ILE:HD12 | 1:C:14:LYS:HG3 | 1.62 | 0.80 |
| 1:E:18:TYR:HB3 | 1:E:19:ASN:O | 1.79 | 0.80 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:E:86:TYR:CB | 1:E:109:PHE:HB3 | 2.12 | 0.80 |
| 1:I:86:TYR:CB | 1:I:109:PHE:HB3 | 2.12 | 0.80 |
| 1:K:86:TYR:CB | 1:K:109:PHE:HB3 | 2.12 | 0.80 |
| 1:A:24:VAL:CG1 | 1:A:107:LYS:HD3 | 2.11 | 0.80 |
| 1:A:32:VAL:HG22 | 1:A:48:ALA:HB3 | 1.61 | 0.80 |
| 1:E:1:LEU:CD1 | 1:E:13:ILE:HD11 | 2.10 | 0.80 |
| 1:H:66:VAL:HG23 | 1:H:68:PRO:HD3 | 1.63 | 0.80 |
| 1:J:86:TYR:CB | 1:J:109:PHE:HB3 | 2.12 | 0.80 |
| 1:A:75:THR:HG22 | 1:A:92:PHE:HZ | 1.45 | 0.80 |
| 1:B:32:VAL:HG22 | 1:B:48:ALA:HB3 | 1.61 | 0.80 |
| 1:D:86:TYR:CB | 1:D:109:PHE:HB3 | 2.12 | 0.80 |
| 1:G:46:THR:HB | 1:H:14:LYS:HZ1 | 1.42 | 0.80 |
| 1:L:24:VAL:CG1 | 1:L:107:LYS:HD3 | 2.11 | 0.80 |
| 1:L:86:TYR:CB | 1:L:109:PHE:HB3 | 2.12 | 0.80 |
| 1:B:66:VAL:HG23 | 1:B:68:PRO:HD3 | 1.63 | 0.80 |
| 1:D:32:VAL:HG22 | 1:D:48:ALA:HB3 | 1.61 | 0.80 |
| 1:E:13:ILE:HD12 | 1:E:14:LYS:HG3 | 1.62 | 0.80 |
| 1:F:24:VAL:CG1 | 1:F:107:LYS:HD3 | 2.11 | 0.80 |
| 1:J:66:VAL:HG23 | 1:J:68:PRO:HD3 | 1.63 | 0.80 |
| 1:N:13:ILE:HD12 | 1:N:14:LYS:HG3 | 1.62 | 0.80 |
| 1:D:18:TYR:HB3 | 1:D:19:ASN:O | 1.79 | 0.80 |
| 1:E:32:VAL:HG22 | 1:E:48:ALA:HB3 | 1.61 | 0.80 |
| 1:L:13:ILE:HD12 | 1:L:14:LYS:HG3 | 1.62 | 0.80 |
| 1:A:1:LEU:CD1 | 1:A:13:ILE:HD11 | 2.10 | 0.80 |
| 1:M:86:TYR:CB | 1:M:109:PHE:HB3 | 2.12 | 0.80 |
| 1:D:13:ILE:HD12 | 1:D:14:LYS:HG3 | 1.62 | 0.79 |
| 1:H:24:VAL:CG1 | 1:H:107:LYS:HD3 | 2.11 | 0.79 |
| 1:M:46:THR:HB | 1:N:14:LYS:HZ1 | 1.45 | 0.79 |
| 1:N:86:TYR:CB | 1:N:109:PHE:HB3 | 2.12 | 0.79 |
| 1:C:86:TYR:CB | 1:C:109:PHE:HB3 | 2.12 | 0.79 |
| 1:A:86:TYR:CB | 1:A:109:PHE:HB3 | 2.12 | 0.79 |
| 1:B:86:TYR:CB | 1:B:109:PHE:HB3 | 2.12 | 0.79 |
| 1:K:1:LEU:CD1 | 1:K:13:ILE:HD11 | 2.10 | 0.79 |
| 1:C:32:VAL:HG22 | 1:C:48:ALA:HB3 | 1.61 | 0.79 |
| 1:E:66:VAL:HG23 | 1:E:68:PRO:HD3 | 1.63 | 0.79 |
| 1:L:75:THR:HG22 | 1:L:92:PHE:HZ | 1.45 | 0.79 |
| 1:M:66:VAL:HG23 | 1:M:68:PRO:HD3 | 1.63 | 0.79 |
| 1:M:13:ILE:HD12 | 1:M:14:LYS:HG3 | 1.62 | 0.79 |
| 1:N:90:LEU:HB2 | 1:N:105:VAL:HG23 | 1.65 | 0.79 |
| 1:K:90:LEU:HB2 | 1:K:105:VAL:HG23 | 1.65 | 0.79 |
| 1:C:90:LEU:HB2 | 1:C:105:VAL:HG23 | 1.65 | 0.79 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:B:90:LEU:HB2 | 1:B:105:VAL:HG23 | 1.65 | 0.79 |
| 1:E:90:LEU:HB2 | 1:E:105:VAL:HG23 | 1.65 | 0.79 |
| 1:E:46:THR:HB | 1:F:14:LYS:HZ1 | 1.45 | 0.79 |
| 1:E:29:VAL:HG12 | 1:E:77:LEU:HD21 | 1.65 | 0.78 |
| 1:F:29:VAL:HG12 | 1:F:77:LEU:HD21 | 1.65 | 0.78 |
| 1:I:90:LEU:HB2 | 1:I:105:VAL:HG23 | 1.65 | 0.78 |
| 1:J:46:THR:HB | 1:K:14:LYS:HZ1 | 1.43 | 0.78 |
| 1:L:90:LEU:HB2 | 1:L:105:VAL:HG23 | 1.65 | 0.78 |
| 1:G:29:VAL:HG12 | 1:G:77:LEU:HD21 | 1.65 | 0.78 |
| 1:A:46:THR:HB | 1:B:14:LYS:HZ1 | 1.46 | 0.78 |
| 1:G:90:LEU:HB2 | 1:G:105:VAL:HG23 | 1.65 | 0.78 |
| 1:F:75:THR:HG22 | 1:F:92:PHE:HZ | 1.45 | 0.78 |
| 1:M:90:LEU:HB2 | 1:M:105:VAL:HG23 | 1.65 | 0.78 |
| 1:H:29:VAL:HG12 | 1:H:77:LEU:HD21 | 1.65 | 0.78 |
| 1:C:66:VAL:HG23 | 1:C:68:PRO:HD3 | 1.63 | 0.78 |
| 1:J:13:ILE:HB | 1:J:14:LYS:HG3 | 1.66 | 0.78 |
| 1:J:59:HIS:HA | 1:J:64:PHE:CD2 | 2.19 | 0.78 |
| 1:N:13:ILE:HB | 1:N:14:LYS:HG3 | 1.66 | 0.78 |
| 1:A:66:VAL:HG23 | 1:A:68:PRO:HD3 | 1.63 | 0.78 |
| 1:I:29:VAL:HG12 | 1:I:77:LEU:HD21 | 1.65 | 0.78 |
| 1:L:13:ILE:HB | 1:L:14:LYS:HG3 | 1.66 | 0.78 |
| 1:N:59:HIS:HA | 1:N:64:PHE:CD2 | 2.19 | 0.78 |
| 1:B:13:ILE:HB | 1:B:14:LYS:HG3 | 1.66 | 0.77 |
| 1:D:29:VAL:HG12 | 1:D:77:LEU:HD21 | 1.65 | 0.77 |
| 1:D:90:LEU:HB2 | 1:D:105:VAL:HG23 | 1.65 | 0.77 |
| 1:A:90:LEU:HB2 | 1:A:105:VAL:HG23 | 1.65 | 0.77 |
| 1:C:13:ILE:HB | 1:C:14:LYS:HG3 | 1.66 | 0.77 |
| 1:E:56:THR:HG22 | 1:E:57:PHE:H | 1.50 | 0.77 |
| 1:E:13:ILE:HB | 1:E:14:LYS:HG3 | 1.66 | 0.77 |
| 1:F:59:HIS:HA | 1:F:64:PHE:CD2 | 2.19 | 0.77 |
| 1:H:13:ILE:HB | 1:H:14:LYS:HG3 | 1.66 | 0.77 |
| 1:H:56:THR:HG22 | 1:H:57:PHE:H | 1.50 | 0.77 |
| 1:M:29:VAL:HG12 | 1:M:77:LEU:HD21 | 1.65 | 0.77 |
| 1:A:13:ILE:HB | 1:A:14:LYS:HG3 | 1.66 | 0.77 |
| 1:I:49:PHE:HB3 | 1:I:68:PRO:HG2 | 1.67 | 0.77 |
| 1:K:13:ILE:HB | 1:K:14:LYS:HG3 | 1.66 | 0.77 |
| 1:M:13:ILE:HB | 1:M:14:LYS:HG3 | 1.66 | 0.77 |
| 1:N:29:VAL:HG12 | 1:N:77:LEU:HD21 | 1.65 | 0.77 |
| 1:D:56:THR:HG22 | 1:D:57:PHE:H | 1.50 | 0.77 |
| 1:G:49:PHE:HB3 | 1:G:68:PRO:HG2 | 1.67 | 0.77 |
| 1:H:25:LYS:HD2 | 1:H:25:LYS:N | 1.99 | 0.77 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:I:25:LYS:HD2 | 1:I:25:LYS:N | 2.00 | 0.77 |
| 1:J:29:VAL:HG12 | 1:J:77:LEU:HD21 | 1.65 | 0.77 |
| 1:J:90:LEU:HB2 | 1:J:105:VAL:HG23 | 1.65 | 0.77 |
| 1:A:59:HIS:HA | 1:A:64:PHE:CD2 | 2.19 | 0.77 |
| 1:D:25:LYS:N | 1:D:25:LYS:HD2 | 1.99 | 0.77 |
| 1:F:25:LYS:HD2 | 1:F:25:LYS:N | 2.00 | 0.77 |
| 1:G:25:LYS:N | 1:G:25:LYS:HD2 | 1.99 | 0.77 |
| 1:J:25:LYS:N | 1:J:25:LYS:HD2 | 1.99 | 0.77 |
| 1:J:75:THR:HG22 | 1:J:92:PHE:HZ | 1.45 | 0.77 |
| 1:K:49:PHE:HB3 | 1:K:68:PRO:HG2 | 1.67 | 0.77 |
| 1:K:59:HIS:HA | 1:K:64:PHE:CD2 | 2.19 | 0.77 |
| 1:L:29:VAL:HG12 | 1:L:77:LEU:HD21 | 1.65 | 0.77 |
| 1:G:59:HIS:HA | 1:G:64:PHE:CD2 | 2.19 | 0.77 |
| 1:I:56:THR:HG22 | 1:I:57:PHE:H | 1.50 | 0.77 |
| 1:F:18:TYR:CD2 | 1:F:23:VAL:HG22 | 2.20 | 0.77 |
| 1:I:18:TYR:CD2 | 1:I:23:VAL:HG22 | 2.20 | 0.77 |
| 1:K:25:LYS:HD2 | 1:K:25:LYS:N | 1.99 | 0.77 |
| 1:L:18:TYR:CD2 | 1:L:23:VAL:HG22 | 2.20 | 0.77 |
| 1:N:25:LYS:HD2 | 1:N:25:LYS:N | 1.99 | 0.77 |
| 1:L:25:LYS:N | 1:L:25:LYS:HD2 | 2.00 | 0.76 |
| 1:N:18:TYR:CD2 | 1:N:23:VAL:HG22 | 2.20 | 0.76 |
| 1:F:44:TYR:H | 1:G:14:LYS:CE | 1.98 | 0.76 |
| 1:I:44:TYR:H | 1:J:14:LYS:CE | 1.98 | 0.76 |
| 1:L:80:VAL:CG1 | 1:L:88:ILE:HG22 | 2.14 | 0.76 |
| 1:A:25:LYS:HD2 | 1:A:25:LYS:N | 1.99 | 0.76 |
| 1:A:29:VAL:HG12 | 1:A:77:LEU:HD21 | 1.65 | 0.76 |
| 1:F:90:LEU:HB2 | 1:F:105:VAL:HG23 | 1.65 | 0.76 |
| 1:G:44:TYR:H | 1:H:14:LYS:CE | 1.98 | 0.76 |
| 1:H:75:THR:HG22 | 1:H:92:PHE:HZ | 1.45 | 0.76 |
| 1:K:18:TYR:CD2 | 1:K:23:VAL:HG22 | 2.20 | 0.76 |
| 1:M:49:PHE:HB3 | 1:M:68:PRO:HG2 | 1.67 | 0.76 |
| 1:A:56:THR:HG22 | 1:A:57:PHE:H | 1.50 | 0.76 |
| 1:B:25:LYS:N | 1:B:25:LYS:HD2 | 2.00 | 0.76 |
| 1:C:25:LYS:HD2 | 1:C:25:LYS:N | 1.99 | 0.76 |
| 1:F:56:THR:HG22 | 1:F:57:PHE:H | 1.50 | 0.76 |
| 1:H:18:TYR:CD2 | 1:H:23:VAL:HG22 | 2.20 | 0.76 |
| 1:J:44:TYR:H | 1:K:14:LYS:CE | 1.98 | 0.76 |
| 1:F:49:PHE:HB3 | 1:F:68:PRO:HG2 | 1.67 | 0.76 |
| 1:G:13:ILE:HB | 1:G:14:LYS:HG3 | 1.66 | 0.76 |
| 1:G:56:THR:HG22 | 1:G:57:PHE:H | 1.50 | 0.76 |
| 1:K:29:VAL:HG12 | 1:K:77:LEU:HD21 | 1.65 | 0.76 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:L:56:THR:HG22 | 1:L:57:PHE:H | 1.50 | 0.76 |
| 1:M:25:LYS:N | 1:M:25:LYS:HD2 | 2.00 | 0.76 |
| 1:A:44:TYR:H | 1:B:14:LYS:CE | 1.98 | 0.76 |
| 1:C:29:VAL:HG12 | 1:C:77:LEU:HD21 | 1.65 | 0.76 |
| 1:D:18:TYR:CD2 | 1:D:23:VAL:HG22 | 2.20 | 0.76 |
| 1:E:49:PHE:HB3 | 1:E:68:PRO:HG2 | 1.67 | 0.76 |
| 1:H:49:PHE:HB3 | 1:H:68:PRO:HG2 | 1.67 | 0.76 |
| 1:A:18:TYR:CD2 | 1:A:23:VAL:HG22 | 2.20 | 0.76 |
| 1:B:56:THR:HG22 | 1:B:57:PHE:H | 1.50 | 0.76 |
| 1:H:90:LEU:HB2 | 1:H:105:VAL:HG23 | 1.65 | 0.76 |
| 1:J:18:TYR:CD2 | 1:J:23:VAL:HG22 | 2.20 | 0.76 |
| 1:M:44:TYR:H | 1:N:14:LYS:CE | 1.98 | 0.76 |
| 1:M:80:VAL:CG1 | 1:M:88:ILE:HG22 | 2.14 | 0.76 |
| 1:B:18:TYR:CD2 | 1:B:23:VAL:HG22 | 2.20 | 0.76 |
| 1:B:59:HIS:HA | 1:B:64:PHE:CD2 | 2.19 | 0.76 |
| 1:G:18:TYR:CD2 | 1:G:23:VAL:HG22 | 2.20 | 0.76 |
| 1:J:49:PHE:HB3 | 1:J:68:PRO:HG2 | 1.67 | 0.76 |
| 1:D:13:ILE:HB | 1:D:14:LYS:HG3 | 1.66 | 0.76 |
| 1:D:49:PHE:HB3 | 1:D:68:PRO:HG2 | 1.67 | 0.76 |
| 1:K:56:THR:HG22 | 1:K:57:PHE:H | 1.50 | 0.76 |
| 1:M:18:TYR:CD2 | 1:M:23:VAL:HG22 | 2.20 | 0.76 |
| 1:B:29:VAL:HG12 | 1:B:77:LEU:HD21 | 1.65 | 0.75 |
| 1:H:59:HIS:HA | 1:H:64:PHE:CD2 | 2.19 | 0.75 |
| 1:C:18:TYR:CD2 | 1:C:23:VAL:HG22 | 2.20 | 0.75 |
| 1:C:44:TYR:H | 1:D:14:LYS:CE | 1.98 | 0.75 |
| 1:E:25:LYS:N | 1:E:25:LYS:HD2 | 2.00 | 0.75 |
| 1:F:13:ILE:HB | 1:F:14:LYS:HG3 | 1.66 | 0.75 |
| 1:J:56:THR:HG22 | 1:J:57:PHE:H | 1.50 | 0.75 |
| 1:L:59:HIS:HA | 1:L:64:PHE:CD2 | 2.19 | 0.75 |
| 1:B:44:TYR:H | 1:C:14:LYS:CE | 1.98 | 0.75 |
| 1:D:44:TYR:H | 1:E:14:LYS:CE | 1.98 | 0.75 |
| 1:H:44:TYR:H | 1:I:14:LYS:CE | 1.98 | 0.75 |
| 1:A:44:TYR:N | 1:A:45:ILE:HA | 2.02 | 0.75 |
| 1:B:49:PHE:HB3 | 1:B:68:PRO:HG2 | 1.67 | 0.75 |
| 1:E:59:HIS:HA | 1:E:64:PHE:CD2 | 2.19 | 0.75 |
| 1:I:13:ILE:HB | 1:I:14:LYS:HG3 | 1.66 | 0.75 |
| 1:N:80:VAL:CG1 | 1:N:88:ILE:HG22 | 2.14 | 0.75 |
| 1:C:59:HIS:HA | 1:C:64:PHE:CD2 | 2.19 | 0.75 |
| 1:E:44:TYR:H | 1:F:14:LYS:CE | 1.98 | 0.75 |
| 1:G:44:TYR:N | 1:G:45:ILE:HA | 2.02 | 0.75 |
| 1:I:98:LYS:HD3 | 1:I:98:LYS:N | 2.02 | 0.75 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:K:36:ILE:HG22 | 1:K:44:TYR:HB3 | 1.69 | 0.75 |
| 1:L:44:TYR:H | 1:M:14:LYS:CE | 1.98 | 0.75 |
| 1:N:98:LYS:HD3 | 1:N:98:LYS:N | 2.02 | 0.75 |
| 1:A:14:LYS:CE | 1:N:44:TYR:H | 1.98 | 0.75 |
| 1:B:44:TYR:N | 1:B:45:ILE:HA | 2.02 | 0.75 |
| 1:C:56:THR:HG22 | 1:C:57:PHE:H | 1.50 | 0.75 |
| 1:E:18:TYR:CD2 | 1:E:23:VAL:HG22 | 2.20 | 0.75 |
| 1:L:36:ILE:HG22 | 1:L:44:TYR:HB3 | 1.69 | 0.75 |
| 1:H:44:TYR:N | 1:H:45:ILE:HA | 2.02 | 0.75 |
| 1:H:98:LYS:HD3 | 1:H:98:LYS:N | 2.02 | 0.75 |
| 1:J:36:ILE:HG22 | 1:J:44:TYR:HB3 | 1.69 | 0.75 |
| 1:M:24:VAL:HG11 | 1:M:107:LYS:HD3 | 1.69 | 0.75 |
| 1:F:44:TYR:N | 1:F:45:ILE:HA | 2.02 | 0.75 |
| 1:I:36:ILE:HG22 | 1:I:44:TYR:HB3 | 1.69 | 0.75 |
| 1:J:98:LYS:HD3 | 1:J:98:LYS:N | 2.02 | 0.75 |
| 1:K:24:VAL:HG11 | 1:K:107:LYS:HD3 | 1.69 | 0.75 |
| 1:L:49:PHE:HB3 | 1:L:68:PRO:HG2 | 1.67 | 0.75 |
| 1:M:36:ILE:HG22 | 1:M:44:TYR:HB3 | 1.69 | 0.75 |
| 1:A:49:PHE:HB3 | 1:A:68:PRO:HG2 | 1.67 | 0.74 |
| 1:A:98:LYS:HD3 | 1:A:98:LYS:N | 2.02 | 0.74 |
| 1:K:44:TYR:H | 1:L:14:LYS:CE | 1.98 | 0.74 |
| 1:K:44:TYR:N | 1:K:45:ILE:HA | 2.02 | 0.74 |
| 1:M:98:LYS:HD3 | 1:M:98:LYS:N | 2.02 | 0.74 |
| 1:N:49:PHE:HB3 | 1:N:68:PRO:HG2 | 1.67 | 0.74 |
| 1:N:56:THR:HG22 | 1:N:57:PHE:H | 1.50 | 0.74 |
| 1:A:24:VAL:HG11 | 1:A:107:LYS:HD3 | 1.69 | 0.74 |
| 1:A:80:VAL:CG1 | 1:A:88:ILE:HG22 | 2.14 | 0.74 |
| 1:D:59:HIS:HA | 1:D:64:PHE:CD2 | 2.19 | 0.74 |
| 1:E:44:TYR:N | 1:E:45:ILE:HA | 2.02 | 0.74 |
| 1:H:36:ILE:HG22 | 1:H:44:TYR:HB3 | 1.69 | 0.74 |
| 1:I:24:VAL:HG11 | 1:I:107:LYS:HD3 | 1.69 | 0.74 |
| 1:M:56:THR:HG22 | 1:M:57:PHE:H | 1.50 | 0.74 |
| 1:D:36:ILE:HG22 | 1:D:44:TYR:HB3 | 1.69 | 0.74 |
| 1:E:36:ILE:HG22 | 1:E:44:TYR:HB3 | 1.69 | 0.74 |
| 1:F:36:ILE:HG22 | 1:F:44:TYR:HB3 | 1.69 | 0.74 |
| 1:F:57:PHE:HE1 | 1:G:105:VAL:HG13 | 1.53 | 0.74 |
| 1:B:36:ILE:HG22 | 1:B:44:TYR:HB3 | 1.69 | 0.74 |
| 1:H:80:VAL:CG1 | 1:H:88:ILE:HG22 | 2.14 | 0.74 |
| 1:I:65:PHE:HD1 | 1:I:80:VAL:HG12 | 1.53 | 0.74 |
| 1:I:80:VAL:CG1 | 1:I:88:ILE:HG22 | 2.14 | 0.74 |
| 1:K:57:PHE:HE1 | 1:L:105:VAL:HG13 | 1.53 | 0.74 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:L:44:TYR:N | 1:L:45:ILE:HA | 2.02 | 0.74 |
| 1:N:36:ILE:HG22 | 1:N:44:TYR:HB3 | 1.69 | 0.74 |
| 1:A:36:ILE:HG22 | 1:A:44:TYR:HB3 | 1.69 | 0.74 |
| 1:C:36:ILE:HG22 | 1:C:44:TYR:HB3 | 1.69 | 0.74 |
| 1:G:36:ILE:HG22 | 1:G:44:TYR:HB3 | 1.69 | 0.74 |
| 1:N:44:TYR:N | 1:N:45:ILE:HA | 2.02 | 0.74 |
| 1:D:98:LYS:HD3 | 1:D:98:LYS:N | 2.02 | 0.74 |
| 1:A:105:VAL:HG13 | 1:N:57:PHE:HE1 | 1.53 | 0.74 |
| 1:E:98:LYS:HD3 | 1:E:98:LYS:N | 2.02 | 0.74 |
| 1:J:65:PHE:HD1 | 1:J:80:VAL:HG12 | 1.53 | 0.74 |
| 1:K:98:LYS:HD3 | 1:K:98:LYS:N | 2.02 | 0.74 |
| 1:B:80:VAL:CG1 | 1:B:88:ILE:HG22 | 2.14 | 0.74 |
| 1:G:80:VAL:CG1 | 1:G:88:ILE:HG22 | 2.14 | 0.74 |
| 1:H:57:PHE:HE1 | 1:I:105:VAL:HG13 | 1.53 | 0.74 |
| 1:J:80:VAL:CG1 | 1:J:88:ILE:HG22 | 2.14 | 0.74 |
| 1:C:49:PHE:HB3 | 1:C:68:PRO:HG2 | 1.67 | 0.74 |
| 1:E:65:PHE:HD1 | 1:E:80:VAL:HG12 | 1.53 | 0.74 |
| 1:G:98:LYS:HD3 | 1:G:98:LYS:N | 2.02 | 0.74 |
| 1:M:80:VAL:HG22 | 1:M:88:ILE:CG2 | 2.18 | 0.74 |
| 1:C:44:TYR:N | 1:C:45:ILE:HA | 2.02 | 0.74 |
| 1:D:65:PHE:HD1 | 1:D:80:VAL:HG12 | 1.53 | 0.74 |
| 1:I:44:TYR:N | 1:I:45:ILE:HA | 2.02 | 0.74 |
| 1:J:44:TYR:N | 1:J:45:ILE:HA | 2.02 | 0.74 |
| 1:B:57:PHE:HE1 | 1:C:105:VAL:HG13 | 1.53 | 0.73 |
| 1:D:57:PHE:HE1 | 1:E:105:VAL:HG13 | 1.53 | 0.73 |
| 1:F:24:VAL:HG11 | 1:F:107:LYS:HD3 | 1.69 | 0.73 |
| 1:H:24:VAL:HG11 | 1:H:107:LYS:HD3 | 1.69 | 0.73 |
| 1:I:57:PHE:HE1 | 1:J:105:VAL:HG13 | 1.53 | 0.73 |
| 1:M:57:PHE:HE1 | 1:N:105:VAL:HG13 | 1.53 | 0.73 |
| 1:N:80:VAL:HG22 | 1:N:88:ILE:CG2 | 2.18 | 0.73 |
| 1:J:24:VAL:HG11 | 1:J:107:LYS:HD3 | 1.69 | 0.73 |
| 1:L:27:ASP:OD1 | 1:L:105:VAL:HG11 | 1.88 | 0.73 |
| 1:B:98:LYS:HD3 | 1:B:98:LYS:N | 2.02 | 0.73 |
| 1:C:80:VAL:CG1 | 1:C:88:ILE:HG22 | 2.14 | 0.73 |
| 1:C:98:LYS:HD3 | 1:C:98:LYS:N | 2.02 | 0.73 |
| 1:F:65:PHE:HD1 | 1:F:80:VAL:HG12 | 1.53 | 0.73 |
| 1:G:24:VAL:HG11 | 1:G:107:LYS:HD3 | 1.69 | 0.73 |
| 1:I:59:HIS:HA | 1:I:64:PHE:CD2 | 2.19 | 0.73 |
| 1:A:80:VAL:HG22 | 1:A:88:ILE:CG2 | 2.18 | 0.73 |
| 1:C:24:VAL:HG11 | 1:C:107:LYS:HD3 | 1.69 | 0.73 |
| 1:C:65:PHE:HD1 | 1:C:80:VAL:HG12 | 1.53 | 0.73 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:F:80:VAL:CG1 | 1:F:88:ILE:HG22 | 2.14 | 0.73 |
| 1:F:98:LYS:HD3 | 1:F:98:LYS:N | 2.02 | 0.73 |
| 1:H:65:PHE:HD1 | 1:H:80:VAL:HG12 | 1.53 | 0.73 |
| 1:I:49:PHE:H | 1:I:55:ARG:HH12 | 1.37 | 0.73 |
| 1:K:27:ASP:OD1 | 1:K:105:VAL:HG11 | 1.89 | 0.73 |
| 1:K:80:VAL:CG1 | 1:K:88:ILE:HG22 | 2.14 | 0.73 |
| 1:L:24:VAL:HG11 | 1:L:107:LYS:HD3 | 1.69 | 0.73 |
| 1:M:27:ASP:OD1 | 1:M:105:VAL:HG11 | 1.89 | 0.73 |
| 1:M:59:HIS:HA | 1:M:64:PHE:CD2 | 2.19 | 0.73 |
| 1:J:57:PHE:HE1 | 1:K:105:VAL:HG13 | 1.53 | 0.73 |
| 1:N:65:PHE:HD1 | 1:N:80:VAL:HG12 | 1.53 | 0.73 |
| 1:D:24:VAL:HG11 | 1:D:107:LYS:HD3 | 1.69 | 0.73 |
| 1:F:49:PHE:H | 1:F:55:ARG:HH12 | 1.37 | 0.73 |
| 1:J:27:ASP:OD1 | 1:J:105:VAL:HG11 | 1.89 | 0.73 |
| 1:N:27:ASP:OD1 | 1:N:105:VAL:HG11 | 1.88 | 0.73 |
| 1:A:65:PHE:HD1 | 1:A:80:VAL:HG12 | 1.53 | 0.73 |
| 1:B:65:PHE:HD1 | 1:B:80:VAL:HG12 | 1.53 | 0.73 |
| 1:L:57:PHE:HE1 | 1:M:105:VAL:HG13 | 1.53 | 0.73 |
| 1:M:65:PHE:HD1 | 1:M:80:VAL:HG12 | 1.53 | 0.73 |
| 1:C:57:PHE:HE1 | 1:D:105:VAL:HG13 | 1.53 | 0.73 |
| 1:K:65:PHE:HD1 | 1:K:80:VAL:HG12 | 1.53 | 0.73 |
| 1:M:44:TYR:N | 1:M:45:ILE:HA | 2.02 | 0.73 |
| 1:D:80:VAL:CG1 | 1:D:88:ILE:HG22 | 2.14 | 0.73 |
| 1:E:5:ARG:HH22 | 1:E:24:VAL:H | 1.37 | 0.73 |
| 1:E:27:ASP:OD1 | 1:E:105:VAL:HG11 | 1.88 | 0.73 |
| 1:N:24:VAL:HG11 | 1:N:107:LYS:HD3 | 1.69 | 0.73 |
| 1:A:57:PHE:HE1 | 1:B:105:VAL:HG13 | 1.53 | 0.72 |
| 1:B:80:VAL:HG22 | 1:B:88:ILE:CG2 | 2.18 | 0.72 |
| 1:D:44:TYR:N | 1:D:45:ILE:HA | 2.02 | 0.72 |
| 1:H:80:VAL:HG22 | 1:H:88:ILE:CG2 | 2.18 | 0.72 |
| 1:J:49:PHE:H | 1:J:55:ARG:HH12 | 1.37 | 0.72 |
| 1:A:27:ASP:OD1 | 1:A:105:VAL:HG11 | 1.88 | 0.72 |
| 1:B:24:VAL:HG11 | 1:B:107:LYS:HD3 | 1.69 | 0.72 |
| 1:C:5:ARG:HH22 | 1:C:24:VAL:H | 1.37 | 0.72 |
| 1:E:49:PHE:H | 1:E:55:ARG:HH12 | 1.37 | 0.72 |
| 1:F:80:VAL:HG22 | 1:F:88:ILE:CG2 | 2.18 | 0.72 |
| 1:G:80:VAL:HG22 | 1:G:88:ILE:CG2 | 2.18 | 0.72 |
| 1:I:27:ASP:OD1 | 1:I:105:VAL:HG11 | 1.89 | 0.72 |
| 1:I:80:VAL:HG22 | 1:I:88:ILE:CG2 | 2.18 | 0.72 |
| 1:D:27:ASP:OD1 | 1:D:105:VAL:HG11 | 1.89 | 0.72 |
| 1:D:5:ARG:HH22 | 1:D:24:VAL:H | 1.37 | 0.72 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:G:5:ARG:HH22 | 1:G:24:VAL:H | 1.37 | 0.72 |
| 1:E:80:VAL:CG1 | 1:E:88:ILE:HG22 | 2.14 | 0.72 |
| 1:A:38:VAL:HA | 1:A:109:PHE:HE2 | 1.55 | 0.72 |
| 1:B:27:ASP:OD1 | 1:B:105:VAL:HG11 | 1.89 | 0.72 |
| 1:D:38:VAL:HA | 1:D:109:PHE:HE2 | 1.55 | 0.72 |
| 1:B:5:ARG:HH22 | 1:B:24:VAL:H | 1.37 | 0.72 |
| 1:C:67:LYS:HA | 1:C:77:LEU:O | 1.90 | 0.72 |
| 1:G:57:PHE:HE1 | 1:H:105:VAL:HG13 | 1.53 | 0.72 |
| 1:G:65:PHE:HD1 | 1:G:80:VAL:HG12 | 1.53 | 0.72 |
| 1:A:67:LYS:HA | 1:A:77:LEU:O | 1.90 | 0.72 |
| 1:E:60:LYS:N | 1:E:64:PHE:HB2 | 2.04 | 0.72 |
| 1:G:27:ASP:OD1 | 1:G:105:VAL:HG11 | 1.88 | 0.72 |
| 1:H:27:ASP:OD1 | 1:H:105:VAL:HG11 | 1.88 | 0.72 |
| 1:L:67:LYS:HA | 1:L:77:LEU:O | 1.90 | 0.72 |
| 1:B:49:PHE:HE2 | 1:B:79:ILE:HD11 | 1.55 | 0.72 |
| 1:C:27:ASP:OD1 | 1:C:105:VAL:HG11 | 1.89 | 0.72 |
| 1:E:38:VAL:HA | 1:E:109:PHE:HE2 | 1.55 | 0.72 |
| 1:E:57:PHE:HE1 | 1:F:105:VAL:HG13 | 1.53 | 0.72 |
| 1:H:49:PHE:HE2 | 1:H:79:ILE:HD11 | 1.55 | 0.72 |
| 1:J:80:VAL:HG22 | 1:J:88:ILE:CG2 | 2.18 | 0.72 |
| 1:A:29:VAL:CG1 | 1:A:77:LEU:HD11 | 2.20 | 0.72 |
| 1:A:57:PHE:HB3 | 1:B:103:GLY:CA | 2.20 | 0.72 |
| 1:B:38:VAL:HA | 1:B:109:PHE:HE2 | 1.55 | 0.72 |
| 1:D:67:LYS:HA | 1:D:77:LEU:O | 1.90 | 0.72 |
| 1:F:5:ARG:HH22 | 1:F:24:VAL:H | 1.37 | 0.72 |
| 1:L:65:PHE:HD1 | 1:L:80:VAL:HG12 | 1.53 | 0.72 |
| 1:B:29:VAL:CG1 | 1:B:77:LEU:HD11 | 2.20 | 0.71 |
| 1:C:80:VAL:HG22 | 1:C:88:ILE:CG2 | 2.18 | 0.71 |
| 1:E:49:PHE:HE2 | 1:E:79:ILE:HD11 | 1.55 | 0.71 |
| 1:E:67:LYS:HA | 1:E:77:LEU:O | 1.90 | 0.71 |
| 1:F:27:ASP:OD1 | 1:F:105:VAL:HG11 | 1.89 | 0.71 |
| 1:G:49:PHE:H | 1:G:55:ARG:HH12 | 1.37 | 0.71 |
| 1:H:49:PHE:H | 1:H:55:ARG:HH12 | 1.37 | 0.71 |
| 1:I:49:PHE:HE2 | 1:I:79:ILE:HD11 | 1.55 | 0.71 |
| 1:L:49:PHE:HE2 | 1:L:79:ILE:HD11 | 1.55 | 0.71 |
| 1:N:29:VAL:CG1 | 1:N:77:LEU:HD11 | 2.20 | 0.71 |
| 1:A:5:ARG:HH22 | 1:A:24:VAL:H | 1.37 | 0.71 |
| 1:B:67:LYS:HA | 1:B:77:LEU:O | 1.90 | 0.71 |
| 1:C:29:VAL:CG1 | 1:C:77:LEU:HD11 | 2.20 | 0.71 |
| 1:D:57:PHE:HB3 | 1:E:103:GLY:CA | 2.20 | 0.71 |
| 1:F:49:PHE:HE2 | 1:F:79:ILE:HD11 | 1.55 | 0.71 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:I:38:VAL:HA | 1:I:109:PHE:HE2 | 1.55 | 0.71 |
| 1:E:24:VAL:HG11 | 1:E:107:LYS:HD3 | 1.69 | 0.71 |
| 1:F:67:LYS:HA | 1:F:77:LEU:O | 1.90 | 0.71 |
| 1:H:5:ARG:HH22 | 1:H:24:VAL:H | 1.37 | 0.71 |
| 1:H:38:VAL:HA | 1:H:109:PHE:HE2 | 1.55 | 0.71 |
| 1:J:67:LYS:HA | 1:J:77:LEU:O | 1.90 | 0.71 |
| 1:M:49:PHE:HE2 | 1:M:79:ILE:HD11 | 1.55 | 0.71 |
| 1:M:57:PHE:HB3 | 1:N:103:GLY:CA | 2.20 | 0.71 |
| 1:A:49:PHE:HE2 | 1:A:79:ILE:HD11 | 1.55 | 0.71 |
| 1:D:29:VAL:CG1 | 1:D:77:LEU:HD11 | 2.20 | 0.71 |
| 1:G:49:PHE:HE2 | 1:G:79:ILE:HD11 | 1.55 | 0.71 |
| 1:G:67:LYS:HA | 1:G:77:LEU:O | 1.90 | 0.71 |
| 1:M:49:PHE:H | 1:M:55:ARG:HH12 | 1.37 | 0.71 |
| 1:N:67:LYS:HA | 1:N:77:LEU:O | 1.90 | 0.71 |
| 1:C:49:PHE:HE2 | 1:C:79:ILE:HD11 | 1.55 | 0.71 |
| 1:H:67:LYS:HA | 1:H:77:LEU:O | 1.90 | 0.71 |
| 1:I:5:ARG:HH22 | 1:I:24:VAL:H | 1.37 | 0.71 |
| 1:I:67:LYS:HA | 1:I:77:LEU:O | 1.90 | 0.71 |
| 1:L:49:PHE:H | 1:L:55:ARG:HH12 | 1.37 | 0.71 |
| 1:M:29:VAL:CG1 | 1:M:77:LEU:HD11 | 2.20 | 0.71 |
| 1:N:60:LYS:N | 1:N:64:PHE:HB2 | 2.04 | 0.71 |
| 1:D:49:PHE:HE2 | 1:D:79:ILE:HD11 | 1.55 | 0.71 |
| 1:E:9:TYR:HB2 | 1:E:10:ASP:C | 2.11 | 0.71 |
| 1:I:9:TYR:HB2 | 1:I:10:ASP:C | 2.11 | 0.71 |
| 1:L:9:TYR:HB2 | 1:L:10:ASP:C | 2.11 | 0.71 |
| 1:M:67:LYS:HA | 1:M:77:LEU:O | 1.90 | 0.71 |
| 1:B:49:PHE:H | 1:B:55:ARG:HH12 | 1.37 | 0.71 |
| 1:E:29:VAL:CG1 | 1:E:77:LEU:HD11 | 2.20 | 0.71 |
| 1:F:9:TYR:HB2 | 1:F:10:ASP:C | 2.11 | 0.71 |
| 1:I:9:TYR:HB2 | 1:I:11:TYR:N | 2.06 | 0.71 |
| 1:N:5:ARG:HH22 | 1:N:24:VAL:H | 1.37 | 0.71 |
| 1:E:80:VAL:HG22 | 1:E:88:ILE:CG2 | 2.18 | 0.71 |
| 1:H:83:LYS:HE2 | 1:H:109:PHE:HZ | 1.56 | 0.71 |
| 1:K:9:TYR:HB2 | 1:K:10:ASP:C | 2.11 | 0.71 |
| 1:K:57:PHE:HB3 | 1:L:103:GLY:CA | 2.20 | 0.71 |
| 1:K:80:VAL:HG22 | 1:K:88:ILE:CG2 | 2.18 | 0.71 |
| 1:L:29:VAL:CG1 | 1:L:77:LEU:HD11 | 2.20 | 0.71 |
| 1:L:38:VAL:HA | 1:L:109:PHE:HE2 | 1.55 | 0.71 |
| 1:C:49:PHE:H | 1:C:55:ARG:HH12 | 1.37 | 0.71 |
| 1:I:57:PHE:HB3 | 1:J:103:GLY:CA | 2.20 | 0.71 |
| 1:J:38:VAL:HA | 1:J:109:PHE:HE2 | 1.55 | 0.71 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:J:83:LYS:HE2 | 1:J:109:PHE:HZ | 1.56 | 0.71 |
| 1:A:9:TYR:HB2 | 1:A:10:ASP:C | 2.11 | 0.71 |
| 1:B:9:TYR:HB2 | 1:B:10:ASP:C | 2.11 | 0.71 |
| 1:K:67:LYS:HA | 1:K:77:LEU:O | 1.90 | 0.71 |
| 1:N:9:TYR:HB2 | 1:N:10:ASP:C | 2.11 | 0.71 |
| 1:F:60:LYS:N | 1:F:64:PHE:HB2 | 2.04 | 0.70 |
| 1:G:9:TYR:HB2 | 1:G:11:TYR:N | 2.06 | 0.70 |
| 1:G:38:VAL:HA | 1:G:109:PHE:HE2 | 1.55 | 0.70 |
| 1:G:57:PHE:HB3 | 1:H:103:GLY:CA | 2.20 | 0.70 |
| 1:K:49:PHE:HE2 | 1:K:79:ILE:HD11 | 1.55 | 0.70 |
| 1:L:9:TYR:HB2 | 1:L:11:TYR:N | 2.06 | 0.70 |
| 1:M:83:LYS:HE2 | 1:M:109:PHE:HZ | 1.56 | 0.70 |
| 1:F:83:LYS:HE2 | 1:F:109:PHE:HZ | 1.56 | 0.70 |
| 1:L:83:LYS:HE2 | 1:L:109:PHE:HZ | 1.56 | 0.70 |
| 1:M:38:VAL:HA | 1:M:109:PHE:HE2 | 1.55 | 0.70 |
| 1:B:57:PHE:HB3 | 1:C:103:GLY:CA | 2.20 | 0.70 |
| 1:C:9:TYR:HB2 | 1:C:11:TYR:N | 2.06 | 0.70 |
| 1:D:9:TYR:HB2 | 1:D:10:ASP:C | 2.11 | 0.70 |
| 1:D:9:TYR:HB2 | 1:D:11:TYR:N | 2.06 | 0.70 |
| 1:D:83:LYS:HE2 | 1:D:109:PHE:HZ | 1.56 | 0.70 |
| 1:K:9:TYR:HB2 | 1:K:11:TYR:N | 2.06 | 0.70 |
| 1:K:29:VAL:CG1 | 1:K:77:LEU:HD11 | 2.20 | 0.70 |
| 1:N:38:VAL:HA | 1:N:109:PHE:HE2 | 1.55 | 0.70 |
| 1:B:83:LYS:HE2 | 1:B:109:PHE:HZ | 1.56 | 0.70 |
| 1:F:29:VAL:CG1 | 1:F:77:LEU:HD11 | 2.20 | 0.70 |
| 1:J:5:ARG:HH22 | 1:J:24:VAL:H | 1.37 | 0.70 |
| 1:J:9:TYR:HB2 | 1:J:11:TYR:N | 2.06 | 0.70 |
| 1:N:83:LYS:HE2 | 1:N:109:PHE:HZ | 1.56 | 0.70 |
| 1:C:38:VAL:HA | 1:C:109:PHE:HE2 | 1.55 | 0.70 |
| 1:C:83:LYS:HE2 | 1:C:109:PHE:HZ | 1.56 | 0.70 |
| 1:F:9:TYR:HB2 | 1:F:11:TYR:N | 2.06 | 0.70 |
| 1:G:9:TYR:HB2 | 1:G:10:ASP:C | 2.11 | 0.70 |
| 1:H:9:TYR:HB2 | 1:H:11:TYR:N | 2.06 | 0.70 |
| 1:J:49:PHE:HE2 | 1:J:79:ILE:HD11 | 1.55 | 0.70 |
| 1:D:80:VAL:HG22 | 1:D:88:ILE:CG2 | 2.18 | 0.70 |
| 1:J:9:TYR:HB2 | 1:J:10:ASP:C | 2.11 | 0.70 |
| 1:J:56:THR:N | 1:J:67:LYS:H | 1.90 | 0.70 |
| 1:K:38:VAL:HA | 1:K:109:PHE:HE2 | 1.55 | 0.70 |
| 1:K:49:PHE:H | 1:K:55:ARG:HH12 | 1.37 | 0.70 |
| 1:L:5:ARG:HH22 | 1:L:24:VAL:H | 1.37 | 0.70 |
| 1:A:83:LYS:HE2 | 1:A:109:PHE:HZ | 1.56 | 0.70 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:E:56:THR:N | 1:E:67:LYS:H | 1.90 | 0.70 |
| 1:J:60:LYS:N | 1:J:64:PHE:HB2 | 2.04 | 0.70 |
| 1:B:9:TYR:HB2 | 1:B:11:TYR:N | 2.06 | 0.70 |
| 1:H:29:VAL:CG1 | 1:H:77:LEU:HD11 | 2.20 | 0.70 |
| 1:M:5:ARG:HH22 | 1:M:24:VAL:H | 1.37 | 0.70 |
| 1:A:56:THR:N | 1:A:67:LYS:H | 1.90 | 0.70 |
| 1:A:80:VAL:HG13 | 1:A:88:ILE:CG2 | 2.18 | 0.70 |
| 1:E:57:PHE:HB3 | 1:F:103:GLY:CA | 2.20 | 0.70 |
| 1:F:56:THR:N | 1:F:67:LYS:H | 1.90 | 0.70 |
| 1:N:9:TYR:HB2 | 1:N:11:TYR:N | 2.06 | 0.70 |
| 1:N:49:PHE:HE2 | 1:N:79:ILE:HD11 | 1.55 | 0.70 |
| 1:A:9:TYR:HB2 | 1:A:11:TYR:N | 2.06 | 0.70 |
| 1:D:49:PHE:H | 1:D:55:ARG:HH12 | 1.37 | 0.70 |
| 1:D:56:THR:N | 1:D:67:LYS:H | 1.90 | 0.70 |
| 1:E:83:LYS:HE2 | 1:E:109:PHE:HZ | 1.56 | 0.70 |
| 1:F:38:VAL:HA | 1:F:109:PHE:HE2 | 1.55 | 0.70 |
| 1:G:29:VAL:CG1 | 1:G:77:LEU:HD11 | 2.20 | 0.70 |
| 1:H:9:TYR:HB2 | 1:H:10:ASP:C | 2.11 | 0.70 |
| 1:I:56:THR:N | 1:I:67:LYS:H | 1.90 | 0.70 |
| 1:J:29:VAL:CG1 | 1:J:77:LEU:HD11 | 2.20 | 0.70 |
| 1:K:5:ARG:HH22 | 1:K:24:VAL:H | 1.37 | 0.70 |
| 1:K:56:THR:N | 1:K:67:LYS:H | 1.90 | 0.70 |
| 1:N:56:THR:N | 1:N:67:LYS:H | 1.90 | 0.70 |
| 1:A:49:PHE:H | 1:A:55:ARG:HH12 | 1.37 | 0.69 |
| 1:E:9:TYR:HB2 | 1:E:11:TYR:N | 2.06 | 0.69 |
| 1:A:60:LYS:N | 1:A:64:PHE:HB2 | 2.04 | 0.69 |
| 1:H:82:ASP:O | 1:H:83:LYS:HB2 | 1.93 | 0.69 |
| 1:I:29:VAL:CG1 | 1:I:77:LEU:HD11 | 2.20 | 0.69 |
| 1:M:9:TYR:HB2 | 1:M:10:ASP:C | 2.11 | 0.69 |
| 1:N:49:PHE:H | 1:N:55:ARG:HH12 | 1.37 | 0.69 |
| 1:C:9:TYR:HB2 | 1:C:10:ASP:C | 2.11 | 0.69 |
| 1:I:83:LYS:HE2 | 1:I:109:PHE:HZ | 1.56 | 0.69 |
| 1:L:80:VAL:HG22 | 1:L:88:ILE:CG2 | 2.18 | 0.69 |
| 1:G:82:ASP:O | 1:G:83:LYS:HB2 | 1.93 | 0.69 |
| 1:M:55:ARG:HD2 | 1:N:11:TYR:CD2 | 2.27 | 0.69 |
| 1:B:55:ARG:HD2 | 1:C:11:TYR:CD2 | 2.27 | 0.69 |
| 1:K:55:ARG:HD2 | 1:L:11:TYR:CD2 | 2.28 | 0.69 |
| 1:A:55:ARG:HD2 | 1:B:11:TYR:CD2 | 2.28 | 0.69 |
| 1:B:56:THR:N | 1:B:67:LYS:H | 1.90 | 0.69 |
| 1:G:83:LYS:HE2 | 1:G:109:PHE:HZ | 1.56 | 0.69 |
| 1:J:55:ARG:HD2 | 1:K:11:TYR:CD2 | 2.27 | 0.69 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:M:56:THR:N | 1:M:67:LYS:H | 1.90 | 0.69 |
| 1:M:9:TYR:HB2 | 1:M:11:TYR:N | 2.06 | 0.69 |
| 1:A:103:GLY:CA | 1:N:57:PHE:HB3 | 2.20 | 0.69 |
| 1:E:55:ARG:HD2 | 1:F:11:TYR:CD2 | 2.27 | 0.69 |
| 1:G:56:THR:N | 1:G:67:LYS:H | 1.90 | 0.69 |
| 1:H:56:THR:N | 1:H:67:LYS:H | 1.90 | 0.69 |
| 1:K:83:LYS:HE2 | 1:K:109:PHE:HZ | 1.56 | 0.69 |
| 1:L:55:ARG:HD2 | 1:M:11:TYR:CD2 | 2.27 | 0.69 |
| 1:L:82:ASP:O | 1:L:83:LYS:HB2 | 1.93 | 0.69 |
| 1:L:98:LYS:HD3 | 1:L:98:LYS:N | 2.02 | 0.69 |
| 1:N:38:VAL:HG12 | 1:N:109:PHE:HD2 | 1.58 | 0.69 |
| 1:A:11:TYR:CD2 | 1:N:55:ARG:HD2 | 2.27 | 0.69 |
| 1:C:56:THR:N | 1:C:67:LYS:H | 1.90 | 0.69 |
| 1:D:2:GLU:HG2 | 1:D:3:VAL:N | 2.08 | 0.69 |
| 1:G:44:TYR:HB2 | 1:G:45:ILE:O | 1.93 | 0.69 |
| 1:I:82:ASP:O | 1:I:83:LYS:HB2 | 1.93 | 0.69 |
| 1:K:82:ASP:O | 1:K:83:LYS:HB2 | 1.93 | 0.69 |
| 1:C:44:TYR:HB2 | 1:C:45:ILE:O | 1.93 | 0.69 |
| 1:E:2:GLU:HG2 | 1:E:3:VAL:N | 2.08 | 0.69 |
| 1:H:38:VAL:HG12 | 1:H:109:PHE:HD2 | 1.58 | 0.69 |
| 1:C:55:ARG:HD2 | 1:D:11:TYR:CD2 | 2.27 | 0.68 |
| 1:D:38:VAL:HG12 | 1:D:109:PHE:HD2 | 1.58 | 0.68 |
| 1:D:55:ARG:HD2 | 1:E:11:TYR:CD2 | 2.28 | 0.68 |
| 1:J:38:VAL:HG12 | 1:J:109:PHE:HD2 | 1.58 | 0.68 |
| 1:C:2:GLU:HG2 | 1:C:3:VAL:N | 2.08 | 0.68 |
| 1:L:56:THR:N | 1:L:67:LYS:H | 1.90 | 0.68 |
| 1:A:84:ARG:NH1 | 1:A:84:ARG:HA | 2.09 | 0.68 |
| 1:F:44:TYR:HB2 | 1:F:45:ILE:O | 1.93 | 0.68 |
| 1:F:55:ARG:HD2 | 1:G:11:TYR:CD2 | 2.27 | 0.68 |
| 1:L:88:ILE:HG12 | 1:L:107:LYS:HB2 | 1.76 | 0.68 |
| 1:M:44:TYR:HB2 | 1:M:45:ILE:O | 1.93 | 0.68 |
| 1:M:82:ASP:O | 1:M:83:LYS:HB2 | 1.93 | 0.68 |
| 1:N:80:VAL:HG13 | 1:N:88:ILE:CG2 | 2.18 | 0.68 |
| 1:D:44:TYR:HB2 | 1:D:45:ILE:O | 1.93 | 0.68 |
| 1:D:82:ASP:O | 1:D:83:LYS:HB2 | 1.93 | 0.68 |
| 1:F:82:ASP:O | 1:F:83:LYS:HB2 | 1.93 | 0.68 |
| 1:H:44:TYR:HB2 | 1:H:45:ILE:O | 1.93 | 0.68 |
| 1:M:38:VAL:HG12 | 1:M:109:PHE:HD2 | 1.58 | 0.68 |
| 1:B:44:TYR:HB2 | 1:B:45:ILE:O | 1.93 | 0.68 |
| 1:C:38:VAL:HG12 | 1:C:109:PHE:HD2 | 1.58 | 0.68 |
| 1:E:84:ARG:NH1 | 1:E:84:ARG:HA | 2.09 | 0.68 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:G:60:LYS:N | 1:G:64:PHE:HB2 | 2.04 | 0.68 |
| 1:H:55:ARG:HD2 | 1:I:11:TYR:CD2 | 2.28 | 0.68 |
| 1:I:55:ARG:HD2 | 1:J:11:TYR:CD2 | 2.27 | 0.68 |
| 1:N:2:GLU:HG2 | 1:N:3:VAL:N | 2.08 | 0.68 |
| 1:B:84:ARG:NH1 | 1:B:84:ARG:HA | 2.09 | 0.68 |
| 1:C:82:ASP:O | 1:C:83:LYS:HB2 | 1.93 | 0.68 |
| 1:C:88:ILE:HG12 | 1:C:107:LYS:HB2 | 1.76 | 0.68 |
| 1:F:2:GLU:HG2 | 1:F:3:VAL:N | 2.08 | 0.68 |
| 1:L:38:VAL:HG12 | 1:L:109:PHE:HD2 | 1.58 | 0.68 |
| 1:L:44:TYR:HB2 | 1:L:45:ILE:O | 1.93 | 0.68 |
| 1:M:2:GLU:HG2 | 1:M:3:VAL:N | 2.08 | 0.68 |
| 1:E:44:TYR:HB2 | 1:E:45:ILE:O | 1.93 | 0.68 |
| 1:F:38:VAL:HG12 | 1:F:109:PHE:HD2 | 1.58 | 0.68 |
| 1:F:84:ARG:NH1 | 1:F:84:ARG:HA | 2.09 | 0.68 |
| 1:F:88:ILE:HG12 | 1:F:107:LYS:HB2 | 1.76 | 0.68 |
| 1:I:2:GLU:HG2 | 1:I:3:VAL:N | 2.08 | 0.68 |
| 1:J:84:ARG:NH1 | 1:J:84:ARG:HA | 2.09 | 0.68 |
| 1:J:88:ILE:HG12 | 1:J:107:LYS:HB2 | 1.76 | 0.68 |
| 1:C:57:PHE:HB3 | 1:D:103:GLY:CA | 2.20 | 0.68 |
| 1:E:82:ASP:O | 1:E:83:LYS:HB2 | 1.93 | 0.68 |
| 1:E:88:ILE:HG12 | 1:E:107:LYS:HB2 | 1.76 | 0.68 |
| 1:G:38:VAL:HG12 | 1:G:109:PHE:HD2 | 1.58 | 0.68 |
| 1:G:46:THR:HB | 1:H:13:ILE:CG2 | 2.24 | 0.68 |
| 1:G:55:ARG:HD2 | 1:H:11:TYR:CD2 | 2.27 | 0.68 |
| 1:H:46:THR:HB | 1:I:13:ILE:CG2 | 2.24 | 0.68 |
| 1:H:84:ARG:HA | 1:H:84:ARG:NH1 | 2.09 | 0.68 |
| 1:H:88:ILE:HG12 | 1:H:107:LYS:HB2 | 1.76 | 0.68 |
| 1:N:44:TYR:HB2 | 1:N:45:ILE:O | 1.93 | 0.68 |
| 1:A:38:VAL:HG12 | 1:A:109:PHE:HD2 | 1.58 | 0.68 |
| 1:F:46:THR:HB | 1:G:13:ILE:CG2 | 2.24 | 0.68 |
| 1:H:2:GLU:HG2 | 1:H:3:VAL:N | 2.08 | 0.68 |
| 1:I:38:VAL:HG12 | 1:I:109:PHE:HD2 | 1.58 | 0.68 |
| 1:J:82:ASP:O | 1:J:83:LYS:HB2 | 1.93 | 0.68 |
| 1:K:80:VAL:HG13 | 1:K:88:ILE:CG2 | 2.18 | 0.68 |
| 1:L:57:PHE:HB3 | 1:M:103:GLY:CA | 2.20 | 0.68 |
| 1:N:82:ASP:O | 1:N:83:LYS:HB2 | 1.93 | 0.68 |
| 1:N:84:ARG:NH1 | 1:N:84:ARG:HA | 2.09 | 0.68 |
| 1:N:88:ILE:HG12 | 1:N:107:LYS:HB2 | 1.76 | 0.68 |
| 1:A:88:ILE:HG12 | 1:A:107:LYS:HB2 | 1.76 | 0.68 |
| 1:B:60:LYS:N | 1:B:64:PHE:HB2 | 2.04 | 0.68 |
| 1:B:82:ASP:O | 1:B:83:LYS:HB2 | 1.93 | 0.68 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:C:80:VAL:H | 1:C:88:ILE:HG21 | 1.59 | 0.68 |
| 1:E:38:VAL:HG12 | 1:E:109:PHE:HD2 | 1.58 | 0.68 |
| 1:K:38:VAL:HG12 | 1:K:109:PHE:HD2 | 1.58 | 0.68 |
| 1:K:60:LYS:N | 1:K:64:PHE:HB2 | 2.04 | 0.68 |
| 1:N:80:VAL:H | 1:N:88:ILE:HG21 | 1.59 | 0.68 |
| 1:A:2:GLU:HG2 | 1:A:3:VAL:N | 2.08 | 0.67 |
| 1:D:84:ARG:NH1 | 1:D:84:ARG:HA | 2.09 | 0.67 |
| 1:I:46:THR:HB | 1:J:13:ILE:CG2 | 2.24 | 0.67 |
| 1:J:2:GLU:HG2 | 1:J:3:VAL:N | 2.08 | 0.67 |
| 1:K:43:THR:HG22 | 1:K:45:ILE:HG23 | 1.77 | 0.67 |
| 1:K:44:TYR:HB2 | 1:K:45:ILE:O | 1.93 | 0.67 |
| 1:A:82:ASP:O | 1:A:83:LYS:HB2 | 1.93 | 0.67 |
| 1:B:2:GLU:HG2 | 1:B:3:VAL:N | 2.08 | 0.67 |
| 1:J:80:VAL:H | 1:J:88:ILE:HG21 | 1.59 | 0.67 |
| 1:K:80:VAL:H | 1:K:88:ILE:HG21 | 1.59 | 0.67 |
| 1:L:44:TYR:HB2 | 1:L:45:ILE:C | 2.15 | 0.67 |
| 1:M:44:TYR:HB2 | 1:M:45:ILE:C | 2.15 | 0.67 |
| 1:N:44:TYR:HB2 | 1:N:45:ILE:C | 2.15 | 0.67 |
| 1:D:88:ILE:HG12 | 1:D:107:LYS:HB2 | 1.76 | 0.67 |
| 1:E:46:THR:HB | 1:F:13:ILE:CG2 | 2.24 | 0.67 |
| 1:H:43:THR:HG22 | 1:H:45:ILE:HG23 | 1.77 | 0.67 |
| 1:J:44:TYR:HB2 | 1:J:45:ILE:O | 1.93 | 0.67 |
| 1:J:46:THR:HB | 1:K:13:ILE:CG2 | 2.24 | 0.67 |
| 1:M:80:VAL:H | 1:M:88:ILE:HG21 | 1.59 | 0.67 |
| 1:B:80:VAL:H | 1:B:88:ILE:HG21 | 1.59 | 0.67 |
| 1:D:44:TYR:HB2 | 1:D:45:ILE:C | 2.15 | 0.67 |
| 1:E:44:TYR:HB2 | 1:E:45:ILE:C | 2.15 | 0.67 |
| 1:F:43:THR:HG22 | 1:F:45:ILE:HG23 | 1.77 | 0.67 |
| 1:I:43:THR:HG22 | 1:I:45:ILE:HG23 | 1.77 | 0.67 |
| 1:J:80:VAL:HG13 | 1:J:88:ILE:CG2 | 2.18 | 0.67 |
| 1:K:44:TYR:HB2 | 1:K:45:ILE:C | 2.15 | 0.67 |
| 1:L:2:GLU:HG2 | 1:L:3:VAL:N | 2.08 | 0.67 |
| 1:C:60:LYS:N | 1:C:64:PHE:HB2 | 2.04 | 0.67 |
| 1:D:60:LYS:N | 1:D:64:PHE:HB2 | 2.04 | 0.67 |
| 1:G:84:ARG:NH1 | 1:G:84:ARG:HA | 2.09 | 0.67 |
| 1:I:44:TYR:HB2 | 1:I:45:ILE:O | 1.93 | 0.67 |
| 1:I:84:ARG:NH1 | 1:I:84:ARG:HA | 2.09 | 0.67 |
| 1:L:43:THR:HG22 | 1:L:45:ILE:HG23 | 1.77 | 0.67 |
| 1:L:84:ARG:NH1 | 1:L:84:ARG:HA | 2.09 | 0.67 |
| 1:A:44:TYR:HB2 | 1:A:45:ILE:C | 2.15 | 0.67 |
| 1:A:44:TYR:HB2 | 1:A:45:ILE:O | 1.93 | 0.67 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:A:80:VAL:H | 1:A:88:ILE:HG21 | 1.59 | 0.67 |
| 1:G:88:ILE:HG12 | 1:G:107:LYS:HB2 | 1.76 | 0.67 |
| 1:I:80:VAL:HG13 | 1:I:88:ILE:CG2 | 2.18 | 0.67 |
| 1:J:44:TYR:HB2 | 1:J:45:ILE:C | 2.15 | 0.67 |
| 1:J:57:PHE:HB3 | 1:K:103:GLY:CA | 2.20 | 0.67 |
| 1:L:80:VAL:H | 1:L:88:ILE:HG21 | 1.59 | 0.67 |
| 1:B:38:VAL:HG12 | 1:B:109:PHE:HD2 | 1.58 | 0.67 |
| 1:C:29:VAL:HG13 | 1:C:77:LEU:HD21 | 1.77 | 0.67 |
| 1:F:80:VAL:HG13 | 1:F:88:ILE:CG2 | 2.18 | 0.67 |
| 1:G:80:VAL:HG13 | 1:G:88:ILE:CG2 | 2.18 | 0.67 |
| 1:H:36:ILE:CG2 | 1:H:44:TYR:HB3 | 2.25 | 0.67 |
| 1:I:36:ILE:CG2 | 1:I:44:TYR:HB3 | 2.25 | 0.67 |
| 1:J:43:THR:HG22 | 1:J:45:ILE:HG23 | 1.77 | 0.67 |
| 1:K:84:ARG:NH1 | 1:K:84:ARG:HA | 2.09 | 0.67 |
| 1:M:43:THR:HG22 | 1:M:45:ILE:HG23 | 1.77 | 0.67 |
| 1:N:43:THR:HG22 | 1:N:45:ILE:HG23 | 1.77 | 0.67 |
| 1:D:43:THR:HG22 | 1:D:45:ILE:HG23 | 1.77 | 0.67 |
| 1:D:46:THR:HB | 1:E:13:ILE:CG2 | 2.24 | 0.67 |
| 1:G:43:THR:HG22 | 1:G:45:ILE:HG23 | 1.77 | 0.67 |
| 1:H:44:TYR:HB2 | 1:H:45:ILE:C | 2.15 | 0.67 |
| 1:I:88:ILE:HG12 | 1:I:107:LYS:HB2 | 1.76 | 0.67 |
| 1:L:92:PHE:C | 1:L:93:ILE:HG13 | 2.15 | 0.67 |
| 1:B:44:TYR:HB2 | 1:B:45:ILE:C | 2.15 | 0.67 |
| 1:E:43:THR:HG22 | 1:E:45:ILE:HG23 | 1.77 | 0.67 |
| 1:F:36:ILE:CG2 | 1:F:44:TYR:HB3 | 2.25 | 0.67 |
| 1:F:80:VAL:H | 1:F:88:ILE:HG21 | 1.59 | 0.67 |
| 1:G:2:GLU:HG2 | 1:G:3:VAL:N | 2.08 | 0.67 |
| 1:G:36:ILE:CG2 | 1:G:44:TYR:HB3 | 2.25 | 0.67 |
| 1:G:80:VAL:H | 1:G:88:ILE:HG21 | 1.59 | 0.67 |
| 1:H:57:PHE:HB3 | 1:I:103:GLY:CA | 2.20 | 0.67 |
| 1:K:46:THR:HB | 1:L:13:ILE:CG2 | 2.24 | 0.67 |
| 1:L:38:VAL:HA | 1:L:109:PHE:CE2 | 2.30 | 0.67 |
| 1:M:88:ILE:HG12 | 1:M:107:LYS:HB2 | 1.76 | 0.67 |
| 1:M:92:PHE:C | 1:M:93:ILE:HG13 | 2.15 | 0.67 |
| 1:C:84:ARG:NH1 | 1:C:84:ARG:HA | 2.09 | 0.67 |
| 1:D:80:VAL:H | 1:D:88:ILE:HG21 | 1.59 | 0.67 |
| 1:G:29:VAL:HG13 | 1:G:77:LEU:HD21 | 1.77 | 0.67 |
| 1:G:38:VAL:HA | 1:G:109:PHE:CE2 | 2.30 | 0.67 |
| 1:H:80:VAL:HG13 | 1:H:88:ILE:CG2 | 2.18 | 0.67 |
| 1:I:44:TYR:HB2 | 1:I:45:ILE:C | 2.15 | 0.67 |
| 1:K:88:ILE:HG12 | 1:K:107:LYS:HB2 | 1.76 | 0.67 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:M:38:VAL:HA | 1:M:109:PHE:CE2 | 2.30 | 0.67 |
| 1:M:84:ARG:NH1 | 1:M:84:ARG:HA | 2.09 | 0.67 |
| 1:N:56:THR:H | 1:N:67:LYS:N | 1.93 | 0.67 |
| 1:C:46:THR:HB | 1:D:13:ILE:CG2 | 2.24 | 0.66 |
| 1:F:44:TYR:HB2 | 1:F:45:ILE:C | 2.15 | 0.66 |
| 1:G:44:TYR:HB2 | 1:G:45:ILE:C | 2.15 | 0.66 |
| 1:H:38:VAL:HA | 1:H:109:PHE:CE2 | 2.30 | 0.66 |
| 1:J:36:ILE:CG2 | 1:J:44:TYR:HB3 | 2.25 | 0.66 |
| 1:A:43:THR:HG22 | 1:A:45:ILE:HG23 | 1.77 | 0.66 |
| 1:B:43:THR:HG22 | 1:B:45:ILE:HG23 | 1.77 | 0.66 |
| 1:D:29:VAL:HG13 | 1:D:77:LEU:HD21 | 1.77 | 0.66 |
| 1:E:80:VAL:HG13 | 1:E:88:ILE:CG2 | 2.18 | 0.66 |
| 1:F:57:PHE:HB3 | 1:G:103:GLY:CA | 2.20 | 0.66 |
| 1:A:43:THR:HA | 1:B:14:LYS:CD | 2.26 | 0.66 |
| 1:B:88:ILE:HG12 | 1:B:107:LYS:HB2 | 1.76 | 0.66 |
| 1:D:56:THR:H | 1:D:67:LYS:N | 1.93 | 0.66 |
| 1:E:36:ILE:CG2 | 1:E:44:TYR:HB3 | 2.25 | 0.66 |
| 1:E:43:THR:HA | 1:F:14:LYS:CD | 2.26 | 0.66 |
| 1:K:2:GLU:HG2 | 1:K:3:VAL:N | 2.08 | 0.66 |
| 1:K:38:VAL:HA | 1:K:109:PHE:CE2 | 2.30 | 0.66 |
| 1:K:98:LYS:HZ1 | 1:K:102:ASP:HB2 | 1.60 | 0.66 |
| 1:L:46:THR:HB | 1:M:13:ILE:CG2 | 2.24 | 0.66 |
| 1:M:46:THR:HB | 1:N:13:ILE:CG2 | 2.24 | 0.66 |
| 1:A:13:ILE:CG2 | 1:N:46:THR:HB | 2.24 | 0.66 |
| 1:B:36:ILE:CG2 | 1:B:44:TYR:HB3 | 2.25 | 0.66 |
| 1:C:44:TYR:HB2 | 1:C:45:ILE:C | 2.15 | 0.66 |
| 1:E:6:ASN:HA | 1:E:35:HIS:HB3 | 1.77 | 0.66 |
| 1:J:92:PHE:C | 1:J:93:ILE:HG13 | 2.15 | 0.66 |
| 1:K:36:ILE:CG2 | 1:K:44:TYR:HB3 | 2.25 | 0.66 |
| 1:M:50:GLY:HA2 | 1:M:77:LEU:CD1 | 2.24 | 0.66 |
| 1:N:50:GLY:HA2 | 1:N:77:LEU:CD1 | 2.24 | 0.66 |
| 1:A:46:THR:HB | 1:B:13:ILE:CG2 | 2.24 | 0.66 |
| 1:A:56:THR:H | 1:A:67:LYS:N | 1.93 | 0.66 |
| 1:B:46:THR:HB | 1:C:13:ILE:CG2 | 2.24 | 0.66 |
| 1:C:6:ASN:HA | 1:C:35:HIS:HB3 | 1.77 | 0.66 |
| 1:C:38:VAL:HA | 1:C:109:PHE:CE2 | 2.30 | 0.66 |
| 1:C:43:THR:HG22 | 1:C:45:ILE:HG23 | 1.77 | 0.66 |
| 1:C:56:THR:H | 1:C:67:LYS:N | 1.93 | 0.66 |
| 1:D:6:ASN:HA | 1:D:35:HIS:HB3 | 1.77 | 0.66 |
| 1:F:29:VAL:HG13 | 1:F:77:LEU:HD21 | 1.77 | 0.66 |
| 1:F:38:VAL:HA | 1:F:109:PHE:CE2 | 2.30 | 0.66 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:I:80:VAL:H | 1:I:88:ILE:HG21 | 1.59 | 0.66 |
| 1:J:56:THR:H | 1:J:67:LYS:N | 1.93 | 0.66 |
| 1:J:98:LYS:HZ1 | 1:J:102:ASP:HB2 | 1.61 | 0.66 |
| 1:A:26:ILE:HG12 | 1:A:37:VAL:HG23 | 1.77 | 0.66 |
| 1:A:92:PHE:C | 1:A:93:ILE:HG13 | 2.15 | 0.66 |
| 1:B:16:VAL:HG12 | 1:B:18:TYR:CE1 | 2.30 | 0.66 |
| 1:B:29:VAL:HG13 | 1:B:77:LEU:HD21 | 1.77 | 0.66 |
| 1:D:43:THR:HA | 1:E:14:LYS:CD | 2.26 | 0.66 |
| 1:E:80:VAL:H | 1:E:88:ILE:HG21 | 1.59 | 0.66 |
| 1:I:60:LYS:N | 1:I:64:PHE:HB2 | 2.04 | 0.66 |
| 1:K:92:PHE:C | 1:K:93:ILE:HG13 | 2.15 | 0.66 |
| 1:L:50:GLY:HA2 | 1:L:77:LEU:CD1 | 2.25 | 0.66 |
| 1:L:60:LYS:H | 1:L:64:PHE:CB | 2.06 | 0.66 |
| 1:N:26:ILE:HG12 | 1:N:37:VAL:HG23 | 1.77 | 0.66 |
| 1:N:38:VAL:HA | 1:N:109:PHE:CE2 | 2.30 | 0.66 |
| 1:N:92:PHE:C | 1:N:93:ILE:HG13 | 2.15 | 0.66 |
| 1:A:14:LYS:CD | 1:N:43:THR:HA | 2.26 | 0.66 |
| 1:A:36:ILE:CG2 | 1:A:44:TYR:HB3 | 2.25 | 0.66 |
| 1:A:50:GLY:HA2 | 1:A:77:LEU:CD1 | 2.25 | 0.66 |
| 1:B:38:VAL:HA | 1:B:109:PHE:CE2 | 2.30 | 0.66 |
| 1:B:43:THR:HA | 1:C:14:LYS:CD | 2.26 | 0.66 |
| 1:C:16:VAL:HG12 | 1:C:18:TYR:CE1 | 2.30 | 0.66 |
| 1:D:36:ILE:CG2 | 1:D:44:TYR:HB3 | 2.25 | 0.66 |
| 1:F:6:ASN:HA | 1:F:35:HIS:HB3 | 1.77 | 0.66 |
| 1:I:43:THR:HA | 1:J:14:LYS:CD | 2.26 | 0.66 |
| 1:I:56:THR:H | 1:I:67:LYS:N | 1.93 | 0.66 |
| 1:J:43:THR:HA | 1:K:14:LYS:CD | 2.26 | 0.66 |
| 1:L:98:LYS:HZ1 | 1:L:102:ASP:HB2 | 1.61 | 0.66 |
| 1:A:16:VAL:HG12 | 1:A:18:TYR:CE1 | 2.30 | 0.66 |
| 1:B:6:ASN:HA | 1:B:35:HIS:HB3 | 1.77 | 0.66 |
| 1:B:98:LYS:HZ1 | 1:B:102:ASP:HB2 | 1.61 | 0.66 |
| 1:C:36:ILE:CG2 | 1:C:44:TYR:HB3 | 2.25 | 0.66 |
| 1:E:16:VAL:HG12 | 1:E:18:TYR:CE1 | 2.30 | 0.66 |
| 1:E:56:THR:H | 1:E:67:LYS:N | 1.94 | 0.66 |
| 1:E:92:PHE:C | 1:E:93:ILE:HG13 | 2.15 | 0.66 |
| 1:F:98:LYS:HZ1 | 1:F:102:ASP:HB2 | 1.60 | 0.66 |
| 1:K:50:GLY:HA2 | 1:K:77:LEU:CD1 | 2.24 | 0.66 |
| 1:L:16:VAL:HG12 | 1:L:18:TYR:CE1 | 2.30 | 0.66 |
| 1:L:36:ILE:CG2 | 1:L:44:TYR:HB3 | 2.25 | 0.66 |
| 1:M:16:VAL:HG12 | 1:M:18:TYR:CE1 | 2.30 | 0.66 |
| 1:M:26:ILE:HG12 | 1:M:37:VAL:HG23 | 1.77 | 0.66 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:M:36:ILE:CG2 | 1:M:44:TYR:HB3 | 2.25 | 0.66 |
| 1:M:80:VAL:HG13 | 1:M:88:ILE:CG2 | 2.18 | 0.66 |
| 1:N:16:VAL:HG12 | 1:N:18:TYR:CE1 | 2.30 | 0.66 |
| 1:A:6:ASN:HA | 1:A:35:HIS:HB3 | 1.77 | 0.66 |
| 1:B:50:GLY:HA2 | 1:B:77:LEU:CD1 | 2.24 | 0.66 |
| 1:D:16:VAL:HG12 | 1:D:18:TYR:CE1 | 2.30 | 0.66 |
| 1:F:16:VAL:HG12 | 1:F:18:TYR:CE1 | 2.30 | 0.66 |
| 1:F:26:ILE:HG12 | 1:F:37:VAL:HG23 | 1.77 | 0.66 |
| 1:F:43:THR:HA | 1:G:14:LYS:CD | 2.26 | 0.66 |
| 1:G:16:VAL:HG12 | 1:G:18:TYR:CE1 | 2.30 | 0.66 |
| 1:G:26:ILE:HG12 | 1:G:37:VAL:HG23 | 1.77 | 0.66 |
| 1:H:29:VAL:HG13 | 1:H:77:LEU:HD21 | 1.77 | 0.66 |
| 1:H:43:THR:HA | 1:I:14:LYS:CD | 2.26 | 0.66 |
| 1:H:60:LYS:N | 1:H:64:PHE:HB2 | 2.04 | 0.66 |
| 1:H:80:VAL:H | 1:H:88:ILE:HG21 | 1.59 | 0.66 |
| 1:I:38:VAL:HA | 1:I:109:PHE:CE2 | 2.30 | 0.66 |
| 1:K:16:VAL:HG12 | 1:K:18:TYR:CE1 | 2.30 | 0.66 |
| 1:K:43:THR:HA | 1:L:14:LYS:CD | 2.26 | 0.66 |
| 1:A:98:LYS:HZ1 | 1:A:102:ASP:HB2 | 1.60 | 0.66 |
| 1:B:26:ILE:HG12 | 1:B:37:VAL:HG23 | 1.77 | 0.66 |
| 1:D:38:VAL:HA | 1:D:109:PHE:CE2 | 2.30 | 0.66 |
| 1:H:16:VAL:HG12 | 1:H:18:TYR:CE1 | 2.30 | 0.66 |
| 1:J:50:GLY:HA2 | 1:J:77:LEU:CD1 | 2.24 | 0.66 |
| 1:N:36:ILE:CG2 | 1:N:44:TYR:HB3 | 2.25 | 0.66 |
| 1:E:50:GLY:HA2 | 1:E:77:LEU:CD1 | 2.25 | 0.65 |
| 1:H:26:ILE:HG12 | 1:H:37:VAL:HG23 | 1.77 | 0.65 |
| 1:I:16:VAL:HG12 | 1:I:18:TYR:CE1 | 2.30 | 0.65 |
| 1:I:50:GLY:HA2 | 1:I:77:LEU:CD1 | 2.24 | 0.65 |
| 1:J:16:VAL:HG12 | 1:J:18:TYR:CE1 | 2.30 | 0.65 |
| 1:J:38:VAL:HA | 1:J:109:PHE:CE2 | 2.30 | 0.65 |
| 1:F:50:GLY:HA2 | 1:F:77:LEU:CD1 | 2.24 | 0.65 |
| 1:G:6:ASN:HA | 1:G:35:HIS:HB3 | 1.77 | 0.65 |
| 1:I:26:ILE:HG12 | 1:I:37:VAL:HG23 | 1.77 | 0.65 |
| 1:K:56:THR:H | 1:K:67:LYS:N | 1.93 | 0.65 |
| 1:L:43:THR:HA | 1:M:14:LYS:CD | 2.26 | 0.65 |
| 1:C:26:ILE:HG12 | 1:C:37:VAL:HG23 | 1.77 | 0.65 |
| 1:C:98:LYS:HZ1 | 1:C:102:ASP:HB2 | 1.61 | 0.65 |
| 1:D:80:VAL:HG13 | 1:D:88:ILE:CG2 | 2.18 | 0.65 |
| 1:H:56:THR:H | 1:H:67:LYS:N | 1.93 | 0.65 |
| 1:J:26:ILE:HG12 | 1:J:37:VAL:HG23 | 1.77 | 0.65 |
| 1:N:6:ASN:HA | 1:N:35:HIS:HB3 | 1.77 | 0.65 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:C:50:GLY:HA2 | 1:C:77:LEU:CD1 | 2.24 | 0.65 |
| 1:E:26:ILE:HG12 | 1:E:37:VAL:HG23 | 1.77 | 0.65 |
| 1:H:92:PHE:C | 1:H:93:ILE:HG13 | 2.15 | 0.65 |
| 1:M:6:ASN:HA | 1:M:35:HIS:HB3 | 1.77 | 0.65 |
| 1:N:29:VAL:HG13 | 1:N:77:LEU:HD21 | 1.77 | 0.65 |
| 1:A:38:VAL:HA | 1:A:109:PHE:CE2 | 2.30 | 0.65 |
| 1:G:43:THR:HA | 1:H:14:LYS:CD | 2.26 | 0.65 |
| 1:H:6:ASN:HA | 1:H:35:HIS:HB3 | 1.77 | 0.65 |
| 1:H:50:GLY:HA2 | 1:H:77:LEU:CD1 | 2.25 | 0.65 |
| 1:L:6:ASN:HA | 1:L:35:HIS:HB3 | 1.77 | 0.65 |
| 1:L:26:ILE:HG12 | 1:L:37:VAL:HG23 | 1.77 | 0.65 |
| 1:M:29:VAL:HG13 | 1:M:77:LEU:HD21 | 1.77 | 0.65 |
| 1:D:50:GLY:HA2 | 1:D:77:LEU:CD1 | 2.24 | 0.65 |
| 1:G:50:GLY:HA2 | 1:G:77:LEU:CD1 | 2.24 | 0.65 |
| 1:K:29:VAL:HG13 | 1:K:77:LEU:HD21 | 1.77 | 0.65 |
| 1:C:43:THR:HA | 1:D:14:LYS:CD | 2.26 | 0.65 |
| 1:E:38:VAL:HA | 1:E:109:PHE:CE2 | 2.30 | 0.65 |
| 1:F:5:ARG:HB2 | 1:F:36:ILE:HB | 1.79 | 0.65 |
| 1:F:56:THR:H | 1:F:67:LYS:N | 1.93 | 0.65 |
| 1:B:56:THR:H | 1:B:67:LYS:N | 1.93 | 0.65 |
| 1:F:35:HIS:HB2 | 1:F:45:ILE:O | 1.97 | 0.65 |
| 1:H:5:ARG:HB2 | 1:H:36:ILE:HB | 1.79 | 0.65 |
| 1:J:6:ASN:HA | 1:J:35:HIS:HB3 | 1.77 | 0.65 |
| 1:K:6:ASN:HA | 1:K:35:HIS:HB3 | 1.77 | 0.65 |
| 1:M:43:THR:HA | 1:N:14:LYS:CD | 2.26 | 0.65 |
| 1:E:5:ARG:HB2 | 1:E:36:ILE:HB | 1.79 | 0.65 |
| 1:G:5:ARG:HB2 | 1:G:36:ILE:HB | 1.79 | 0.65 |
| 1:G:98:LYS:HZ1 | 1:G:102:ASP:HB2 | 1.61 | 0.65 |
| 1:I:6:ASN:HA | 1:I:35:HIS:HB3 | 1.77 | 0.65 |
| 1:J:35:HIS:HB2 | 1:J:45:ILE:O | 1.97 | 0.65 |
| 1:L:29:VAL:HG13 | 1:L:77:LEU:HD21 | 1.77 | 0.65 |
| 1:D:26:ILE:HG12 | 1:D:37:VAL:HG23 | 1.77 | 0.65 |
| 1:F:80:VAL:CG2 | 1:F:88:ILE:HG23 | 2.26 | 0.65 |
| 1:H:35:HIS:HB2 | 1:H:45:ILE:O | 1.97 | 0.65 |
| 1:I:5:ARG:HB2 | 1:I:36:ILE:HB | 1.79 | 0.65 |
| 1:K:26:ILE:HG12 | 1:K:37:VAL:HG23 | 1.77 | 0.65 |
| 1:K:35:HIS:HB2 | 1:K:45:ILE:O | 1.97 | 0.65 |
| 1:E:29:VAL:HG13 | 1:E:77:LEU:HD21 | 1.77 | 0.64 |
| 1:L:60:LYS:N | 1:L:64:PHE:HB2 | 2.04 | 0.64 |
| 1:N:98:LYS:HZ1 | 1:N:102:ASP:HB2 | 1.60 | 0.64 |
| 1:A:80:VAL:CG2 | 1:A:88:ILE:HG23 | 2.26 | 0.64 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:I:35:HIS:HB2 | 1:I:45:ILE:O | 1.97 | 0.64 |
| 1:J:5:ARG:HB2 | 1:J:36:ILE:HB | 1.79 | 0.64 |
| 1:M:98:LYS:HZ1 | 1:M:102:ASP:HB2 | 1.60 | 0.64 |
| 1:A:29:VAL:HG13 | 1:A:77:LEU:HD21 | 1.77 | 0.64 |
| 1:C:92:PHE:C | 1:C:93:ILE:HG13 | 2.15 | 0.64 |
| 1:G:56:THR:H | 1:G:67:LYS:N | 1.93 | 0.64 |
| 1:I:92:PHE:C | 1:I:93:ILE:HG13 | 2.15 | 0.64 |
| 1:L:35:HIS:HB2 | 1:L:45:ILE:O | 1.97 | 0.64 |
| 1:G:92:PHE:C | 1:G:93:ILE:HG13 | 2.15 | 0.64 |
| 1:K:60:LYS:H | 1:K:64:PHE:CB | 2.06 | 0.64 |
| 1:K:80:VAL:CG2 | 1:K:88:ILE:HG23 | 2.26 | 0.64 |
| 1:D:5:ARG:HB2 | 1:D:36:ILE:HB | 1.79 | 0.64 |
| 1:D:35:HIS:HB2 | 1:D:45:ILE:O | 1.97 | 0.64 |
| 1:E:12:ARG:HG2 | 1:E:13:ILE:N | 2.12 | 0.64 |
| 1:I:29:VAL:HG13 | 1:I:77:LEU:HD21 | 1.77 | 0.64 |
| 1:I:98:LYS:HZ1 | 1:I:102:ASP:HB2 | 1.61 | 0.64 |
| 1:M:35:HIS:HB2 | 1:M:45:ILE:O | 1.97 | 0.64 |
| 1:J:24:VAL:CG2 | 1:J:107:LYS:HD3 | 2.28 | 0.64 |
| 1:K:5:ARG:HB2 | 1:K:36:ILE:HB | 1.79 | 0.64 |
| 1:L:56:THR:H | 1:L:67:LYS:N | 1.94 | 0.64 |
| 1:A:24:VAL:CG2 | 1:A:107:LYS:HD3 | 2.28 | 0.64 |
| 1:H:98:LYS:HZ1 | 1:H:102:ASP:HB2 | 1.61 | 0.64 |
| 1:L:12:ARG:HG2 | 1:L:13:ILE:N | 2.12 | 0.64 |
| 1:C:24:VAL:CG2 | 1:C:107:LYS:HD3 | 2.28 | 0.64 |
| 1:E:24:VAL:CG2 | 1:E:107:LYS:HD3 | 2.28 | 0.64 |
| 1:E:80:VAL:CG2 | 1:E:88:ILE:HG23 | 2.26 | 0.64 |
| 1:F:12:ARG:HG2 | 1:F:13:ILE:N | 2.13 | 0.64 |
| 1:J:29:VAL:HG13 | 1:J:77:LEU:HD21 | 1.77 | 0.64 |
| 1:K:12:ARG:HG2 | 1:K:13:ILE:N | 2.13 | 0.64 |
| 1:L:24:VAL:CG2 | 1:L:107:LYS:HD3 | 2.28 | 0.64 |
| 1:M:60:LYS:N | 1:M:64:PHE:HB2 | 2.04 | 0.64 |
| 1:D:24:VAL:CG2 | 1:D:107:LYS:HD3 | 2.28 | 0.64 |
| 1:D:92:PHE:C | 1:D:93:ILE:HG13 | 2.15 | 0.64 |
| 1:E:60:LYS:H | 1:E:64:PHE:CB | 2.06 | 0.64 |
| 1:G:35:HIS:HB2 | 1:G:45:ILE:O | 1.97 | 0.64 |
| 1:L:5:ARG:HB2 | 1:L:36:ILE:HB | 1.79 | 0.64 |
| 1:B:92:PHE:C | 1:B:93:ILE:HG13 | 2.15 | 0.64 |
| 1:C:5:ARG:HB2 | 1:C:36:ILE:HB | 1.79 | 0.64 |
| 1:C:80:VAL:HG13 | 1:C:88:ILE:CG2 | 2.18 | 0.64 |
| 1:D:60:LYS:H | 1:D:64:PHE:CB | 2.06 | 0.64 |
| 1:E:61:MET:HG2 | 1:E:62:ASN:H | 1.63 | 0.64 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:H:24:VAL:CG2 | 1:H:107:LYS:HD3 | 2.28 | 0.64 |
| 1:N:35:HIS:HB2 | 1:N:45:ILE:O | 1.97 | 0.64 |
| 1:A:79:ILE:HG22 | 1:A:81:THR:HG22 | 1.80 | 0.63 |
| 1:F:60:LYS:H | 1:F:64:PHE:CB | 2.05 | 0.63 |
| 1:N:24:VAL:HG11 | 1:N:38:VAL:CG1 | 2.28 | 0.63 |
| 1:B:79:ILE:HG22 | 1:B:81:THR:HG22 | 1.80 | 0.63 |
| 1:C:24:VAL:HG11 | 1:C:38:VAL:CG1 | 2.28 | 0.63 |
| 1:D:98:LYS:HZ1 | 1:D:102:ASP:HB2 | 1.61 | 0.63 |
| 1:F:13:ILE:HB | 1:F:14:LYS:CG | 2.29 | 0.63 |
| 1:G:24:VAL:CG2 | 1:G:107:LYS:HD3 | 2.28 | 0.63 |
| 1:M:24:VAL:CG2 | 1:M:107:LYS:HD3 | 2.28 | 0.63 |
| 1:M:79:ILE:HG22 | 1:M:81:THR:HG22 | 1.80 | 0.63 |
| 1:N:12:ARG:HG2 | 1:N:13:ILE:N | 2.13 | 0.63 |
| 1:N:79:ILE:HG22 | 1:N:81:THR:HG22 | 1.81 | 0.63 |
| 1:A:5:ARG:HB2 | 1:A:36:ILE:HB | 1.79 | 0.63 |
| 1:A:61:MET:HG2 | 1:A:62:ASN:H | 1.64 | 0.63 |
| 1:B:61:MET:HG2 | 1:B:62:ASN:H | 1.64 | 0.63 |
| 1:F:24:VAL:CG2 | 1:F:107:LYS:HD3 | 2.28 | 0.63 |
| 1:I:24:VAL:CG2 | 1:I:107:LYS:HD3 | 2.28 | 0.63 |
| 1:M:61:MET:HG2 | 1:M:62:ASN:H | 1.63 | 0.63 |
| 1:N:61:MET:HG2 | 1:N:62:ASN:H | 1.64 | 0.63 |
| 1:A:35:HIS:HB2 | 1:A:45:ILE:O | 1.97 | 0.63 |
| 1:B:12:ARG:HG2 | 1:B:13:ILE:N | 2.13 | 0.63 |
| 1:C:35:HIS:HB2 | 1:C:45:ILE:O | 1.97 | 0.63 |
| 1:F:61:MET:HG2 | 1:F:62:ASN:H | 1.63 | 0.63 |
| 1:G:13:ILE:HB | 1:G:14:LYS:CG | 2.29 | 0.63 |
| 1:I:12:ARG:HG2 | 1:I:13:ILE:N | 2.13 | 0.63 |
| 1:L:79:ILE:HG22 | 1:L:81:THR:HG22 | 1.80 | 0.63 |
| 1:M:5:ARG:HB2 | 1:M:36:ILE:HB | 1.79 | 0.63 |
| 1:M:24:VAL:HG11 | 1:M:38:VAL:CG1 | 2.28 | 0.63 |
| 1:B:24:VAL:CG2 | 1:B:107:LYS:HD3 | 2.28 | 0.63 |
| 1:B:35:HIS:HB2 | 1:B:45:ILE:O | 1.97 | 0.63 |
| 1:D:24:VAL:HG11 | 1:D:38:VAL:CG1 | 2.29 | 0.63 |
| 1:E:13:ILE:HB | 1:E:14:LYS:CG | 2.29 | 0.63 |
| 1:I:61:MET:HG2 | 1:I:62:ASN:H | 1.64 | 0.63 |
| 1:L:61:MET:HG2 | 1:L:62:ASN:H | 1.63 | 0.63 |
| 1:N:5:ARG:HB2 | 1:N:36:ILE:HB | 1.79 | 0.63 |
| 1:B:5:ARG:HB2 | 1:B:36:ILE:HB | 1.79 | 0.63 |
| 1:C:60:LYS:H | 1:C:64:PHE:CB | 2.05 | 0.63 |
| 1:E:35:HIS:HB2 | 1:E:45:ILE:O | 1.97 | 0.63 |
| 1:E:98:LYS:HZ1 | 1:E:102:ASP:HB2 | 1.62 | 0.63 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:K:61:MET:HG2 | 1:K:62:ASN:H | 1.63 | 0.63 |
| 1:N:24:VAL:CG2 | 1:N:107:LYS:HD3 | 2.28 | 0.63 |
| 1:C:79:ILE:HG22 | 1:C:81:THR:HG22 | 1.80 | 0.63 |
| 1:H:61:MET:HG2 | 1:H:62:ASN:H | 1.64 | 0.63 |
| 1:J:24:VAL:HG11 | 1:J:38:VAL:CG1 | 2.28 | 0.63 |
| 1:M:88:ILE:O | 1:M:88:ILE:HG13 | 1.99 | 0.63 |
| 1:B:24:VAL:HG11 | 1:B:38:VAL:CG1 | 2.28 | 0.63 |
| 1:C:12:ARG:HG2 | 1:C:13:ILE:N | 2.13 | 0.63 |
| 1:D:12:ARG:HG2 | 1:D:13:ILE:N | 2.13 | 0.63 |
| 1:D:61:MET:HG2 | 1:D:62:ASN:H | 1.63 | 0.63 |
| 1:H:13:ILE:HB | 1:H:14:LYS:CG | 2.29 | 0.63 |
| 1:J:61:MET:HG2 | 1:J:62:ASN:H | 1.64 | 0.63 |
| 1:A:24:VAL:HG11 | 1:A:38:VAL:CG1 | 2.29 | 0.63 |
| 1:F:24:VAL:HG11 | 1:F:38:VAL:CG1 | 2.28 | 0.63 |
| 1:K:13:ILE:HB | 1:K:14:LYS:CG | 2.29 | 0.63 |
| 1:L:13:ILE:HB | 1:L:14:LYS:CG | 2.29 | 0.63 |
| 1:C:61:MET:HG2 | 1:C:62:ASN:H | 1.64 | 0.62 |
| 1:F:92:PHE:C | 1:F:93:ILE:HG13 | 2.15 | 0.62 |
| 1:G:60:LYS:H | 1:G:64:PHE:CB | 2.05 | 0.62 |
| 1:G:61:MET:HG2 | 1:G:62:ASN:H | 1.64 | 0.62 |
| 1:J:80:VAL:CG2 | 1:J:88:ILE:HG23 | 2.26 | 0.62 |
| 1:K:24:VAL:HG11 | 1:K:38:VAL:CG1 | 2.29 | 0.62 |
| 1:K:24:VAL:CG2 | 1:K:107:LYS:HD3 | 2.28 | 0.62 |
| 1:G:24:VAL:HG11 | 1:G:38:VAL:CG1 | 2.28 | 0.62 |
| 1:H:24:VAL:HG11 | 1:H:38:VAL:CG1 | 2.29 | 0.62 |
| 1:I:24:VAL:HG11 | 1:I:38:VAL:CG1 | 2.28 | 0.62 |
| 1:K:79:ILE:HG22 | 1:K:81:THR:HG22 | 1.80 | 0.62 |
| 1:J:88:ILE:HG13 | 1:J:88:ILE:O | 1.99 | 0.62 |
| 1:K:88:ILE:O | 1:K:88:ILE:HG13 | 1.99 | 0.62 |
| 1:L:80:VAL:HG13 | 1:L:88:ILE:CG2 | 2.18 | 0.62 |
| 1:M:12:ARG:HG2 | 1:M:13:ILE:N | 2.13 | 0.62 |
| 1:N:80:VAL:CG2 | 1:N:88:ILE:HG23 | 2.26 | 0.62 |
| 1:A:12:ARG:HG2 | 1:A:13:ILE:N | 2.13 | 0.62 |
| 1:A:88:ILE:HG13 | 1:A:88:ILE:O | 1.99 | 0.62 |
| 1:D:13:ILE:HB | 1:D:14:LYS:CG | 2.29 | 0.62 |
| 1:D:80:VAL:CG2 | 1:D:88:ILE:HG23 | 2.26 | 0.62 |
| 1:E:24:VAL:HG11 | 1:E:38:VAL:CG1 | 2.29 | 0.62 |
| 1:J:5:ARG:N | 1:J:36:ILE:HB | 2.13 | 0.62 |
| 1:J:12:ARG:HG2 | 1:J:13:ILE:N | 2.13 | 0.62 |
| 1:J:13:ILE:HB | 1:J:14:LYS:CG | 2.29 | 0.62 |
| 1:J:60:LYS:H | 1:J:64:PHE:CB | 2.05 | 0.62 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:A:60:LYS:H | 1:A:64:PHE:CB | 2.06 | 0.62 |
| 1:B:13:ILE:HB | 1:B:14:LYS:CG | 2.29 | 0.62 |
| 1:B:60:LYS:H | 1:B:64:PHE:CB | 2.06 | 0.62 |
| 1:D:79:ILE:HG22 | 1:D:81:THR:HG22 | 1.80 | 0.62 |
| 1:G:12:ARG:HG2 | 1:G:13:ILE:N | 2.13 | 0.62 |
| 1:J:79:ILE:HG22 | 1:J:81:THR:HG22 | 1.80 | 0.62 |
| 1:I:13:ILE:HB | 1:I:14:LYS:CG | 2.29 | 0.62 |
| 1:M:67:LYS:HE3 | 1:M:78:VAL:CG1 | 2.30 | 0.62 |
| 1:N:67:LYS:HE3 | 1:N:78:VAL:CG1 | 2.30 | 0.62 |
| 1:A:13:ILE:HB | 1:A:14:LYS:CG | 2.29 | 0.62 |
| 1:A:67:LYS:HE3 | 1:A:78:VAL:CG1 | 2.30 | 0.62 |
| 1:M:56:THR:H | 1:M:67:LYS:N | 1.93 | 0.62 |
| 1:N:60:LYS:H | 1:N:64:PHE:CB | 2.05 | 0.62 |
| 1:H:88:ILE:O | 1:H:88:ILE:HG13 | 1.99 | 0.62 |
| 1:I:79:ILE:HG22 | 1:I:81:THR:HG22 | 1.80 | 0.62 |
| 1:L:88:ILE:HG13 | 1:L:88:ILE:O | 1.99 | 0.62 |
| 1:M:13:ILE:HB | 1:M:14:LYS:CG | 2.29 | 0.62 |
| 1:B:67:LYS:HE3 | 1:B:78:VAL:CG1 | 2.30 | 0.62 |
| 1:H:5:ARG:N | 1:H:36:ILE:HB | 2.13 | 0.62 |
| 1:I:5:ARG:N | 1:I:36:ILE:HB | 2.13 | 0.62 |
| 1:K:5:ARG:N | 1:K:36:ILE:HB | 2.13 | 0.62 |
| 1:L:24:VAL:HG11 | 1:L:38:VAL:CG1 | 2.29 | 0.62 |
| 1:L:5:ARG:N | 1:L:36:ILE:HB | 2.13 | 0.62 |
| 1:B:32:VAL:CG2 | 1:B:48:ALA:HB3 | 2.30 | 0.61 |
| 1:C:13:ILE:HB | 1:C:14:LYS:CG | 2.29 | 0.61 |
| 1:D:32:VAL:CG2 | 1:D:48:ALA:HB3 | 2.30 | 0.61 |
| 1:E:79:ILE:HG22 | 1:E:81:THR:HG22 | 1.80 | 0.61 |
| 1:G:17:VAL:O | 1:G:18:TYR:HD1 | 1.83 | 0.61 |
| 1:H:12:ARG:HG2 | 1:H:13:ILE:N | 2.13 | 0.61 |
| 1:H:79:ILE:HG22 | 1:H:81:THR:HG22 | 1.80 | 0.61 |
| 1:B:80:VAL:HG13 | 1:B:88:ILE:CG2 | 2.18 | 0.61 |
| 1:C:67:LYS:HE3 | 1:C:78:VAL:CG1 | 2.30 | 0.61 |
| 1:D:88:ILE:HG13 | 1:D:88:ILE:O | 1.99 | 0.61 |
| 1:F:79:ILE:HG22 | 1:F:81:THR:HG22 | 1.80 | 0.61 |
| 1:H:67:LYS:HE3 | 1:H:78:VAL:CG1 | 2.30 | 0.61 |
| 1:D:98:LYS:HE3 | 1:D:101:ALA:H | 1.66 | 0.61 |
| 1:F:17:VAL:O | 1:F:18:TYR:HD1 | 1.84 | 0.61 |
| 1:K:17:VAL:O | 1:K:18:TYR:HD1 | 1.84 | 0.61 |
| 1:L:17:VAL:O | 1:L:18:TYR:HD1 | 1.83 | 0.61 |
| 1:M:60:LYS:H | 1:M:64:PHE:CB | 2.05 | 0.61 |
| 1:D:17:VAL:O | 1:D:18:TYR:HD1 | 1.84 | 0.61 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:G:79:ILE:HG22 | 1:G:81:THR:HG22 | 1.81 | 0.61 |
| 1:H:17:VAL:O | 1:H:18:TYR:HD1 | 1.83 | 0.61 |
| 1:H:60:LYS:H | 1:H:64:PHE:CB | 2.06 | 0.61 |
| 1:I:88:ILE:HG13 | 1:I:88:ILE:O | 1.99 | 0.61 |
| 1:J:17:VAL:O | 1:J:18:TYR:HD1 | 1.84 | 0.61 |
| 1:N:13:ILE:HB | 1:N:14:LYS:CG | 2.29 | 0.61 |
| 1:B:17:VAL:O | 1:B:18:TYR:HD1 | 1.83 | 0.61 |
| 1:B:98:LYS:HE3 | 1:B:101:ALA:H | 1.66 | 0.61 |
| 1:C:17:VAL:O | 1:C:18:TYR:HD1 | 1.84 | 0.61 |
| 1:J:26:ILE:CG1 | 1:J:37:VAL:HG23 | 2.31 | 0.61 |
| 1:L:98:LYS:HE3 | 1:L:101:ALA:H | 1.66 | 0.61 |
| 1:M:17:VAL:O | 1:M:18:TYR:HD1 | 1.84 | 0.61 |
| 1:A:17:VAL:O | 1:A:18:TYR:HD1 | 1.83 | 0.61 |
| 1:A:26:ILE:CG1 | 1:A:37:VAL:HG23 | 2.31 | 0.61 |
| 1:B:26:ILE:CG1 | 1:B:37:VAL:HG23 | 2.31 | 0.61 |
| 1:C:26:ILE:CG1 | 1:C:37:VAL:HG23 | 2.31 | 0.61 |
| 1:C:46:THR:HG1 | 1:D:13:ILE:HG22 | 1.62 | 0.61 |
| 1:D:67:LYS:HE3 | 1:D:78:VAL:CG1 | 2.30 | 0.61 |
| 1:G:5:ARG:N | 1:G:36:ILE:HB | 2.13 | 0.61 |
| 1:K:26:ILE:CG1 | 1:K:37:VAL:HG23 | 2.31 | 0.61 |
| 1:L:26:ILE:CG1 | 1:L:37:VAL:HG23 | 2.31 | 0.61 |
| 1:M:26:ILE:CG1 | 1:M:37:VAL:HG23 | 2.31 | 0.61 |
| 1:N:26:ILE:CG1 | 1:N:37:VAL:HG23 | 2.30 | 0.61 |
| 1:N:98:LYS:HE3 | 1:N:101:ALA:H | 1.66 | 0.61 |
| 1:B:88:ILE:O | 1:B:88:ILE:HG13 | 1.99 | 0.61 |
| 1:F:88:ILE:HG13 | 1:F:88:ILE:O | 1.99 | 0.61 |
| 1:H:26:ILE:CG1 | 1:H:37:VAL:HG23 | 2.31 | 0.61 |
| 1:I:26:ILE:CG1 | 1:I:37:VAL:HG23 | 2.31 | 0.61 |
| 1:I:46:THR:HG1 | 1:J:13:ILE:HG22 | 1.64 | 0.61 |
| 1:D:26:ILE:CG1 | 1:D:37:VAL:HG23 | 2.31 | 0.61 |
| 1:I:80:VAL:CG2 | 1:I:88:ILE:HG23 | 2.26 | 0.61 |
| 1:M:73:SER:HB2 | 1:M:94:GLY:HA2 | 1.83 | 0.61 |
| 1:N:88:ILE:O | 1:N:88:ILE:HG13 | 1.99 | 0.61 |
| 1:A:73:SER:HB2 | 1:A:94:GLY:HA2 | 1.83 | 0.61 |
| 1:G:88:ILE:HG13 | 1:G:88:ILE:O | 1.99 | 0.61 |
| 1:I:67:LYS:HE3 | 1:I:78:VAL:CG1 | 2.30 | 0.61 |
| 1:I:98:LYS:HE3 | 1:I:101:ALA:H | 1.66 | 0.61 |
| 1:N:73:SER:HB2 | 1:N:94:GLY:HA2 | 1.83 | 0.61 |
| 1:C:88:ILE:O | 1:C:88:ILE:HG13 | 1.99 | 0.60 |
| 1:F:98:LYS:HE3 | 1:F:101:ALA:H | 1.66 | 0.60 |
| 1:G:26:ILE:CG1 | 1:G:37:VAL:HG23 | 2.30 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:I:43:THR:CG2 | 1:I:45:ILE:HG23 | 2.31 | 0.60 |
| 1:E:26:ILE:CG1 | 1:E:37:VAL:HG23 | 2.31 | 0.60 |
| 1:E:32:VAL:CG2 | 1:E:48:ALA:HB3 | 2.30 | 0.60 |
| 1:M:5:ARG:N | 1:M:36:ILE:HB | 2.13 | 0.60 |
| 1:C:32:VAL:CG2 | 1:C:48:ALA:HB3 | 2.30 | 0.60 |
| 1:E:17:VAL:O | 1:E:18:TYR:HD1 | 1.83 | 0.60 |
| 1:E:88:ILE:O | 1:E:88:ILE:HG13 | 1.99 | 0.60 |
| 1:G:98:LYS:HE3 | 1:G:101:ALA:H | 1.66 | 0.60 |
| 1:K:98:LYS:HE3 | 1:K:101:ALA:H | 1.66 | 0.60 |
| 1:L:73:SER:HB2 | 1:L:94:GLY:HA2 | 1.83 | 0.60 |
| 1:A:32:VAL:CG2 | 1:A:48:ALA:HB3 | 2.30 | 0.60 |
| 1:B:73:SER:HB2 | 1:B:94:GLY:HA2 | 1.83 | 0.60 |
| 1:D:2:GLU:HG2 | 1:D:3:VAL:HG22 | 1.84 | 0.60 |
| 1:F:5:ARG:N | 1:F:36:ILE:HB | 2.13 | 0.60 |
| 1:I:17:VAL:O | 1:I:18:TYR:HD1 | 1.83 | 0.60 |
| 1:N:5:ARG:N | 1:N:36:ILE:HB | 2.13 | 0.60 |
| 1:C:2:GLU:HG2 | 1:C:3:VAL:HG22 | 1.84 | 0.60 |
| 1:E:2:GLU:HG2 | 1:E:3:VAL:HG22 | 1.84 | 0.60 |
| 1:F:26:ILE:CG1 | 1:F:37:VAL:HG23 | 2.31 | 0.60 |
| 1:G:67:LYS:HE3 | 1:G:78:VAL:CG1 | 2.30 | 0.60 |
| 1:I:60:LYS:H | 1:I:64:PHE:CB | 2.06 | 0.60 |
| 1:J:43:THR:CG2 | 1:J:45:ILE:HG23 | 2.32 | 0.60 |
| 1:L:2:GLU:HG2 | 1:L:3:VAL:HG22 | 1.84 | 0.60 |
| 1:M:2:GLU:HG2 | 1:M:3:VAL:HG22 | 1.84 | 0.60 |
| 1:N:2:GLU:HG2 | 1:N:3:VAL:HG22 | 1.84 | 0.60 |
| 1:A:2:GLU:HG2 | 1:A:3:VAL:HG22 | 1.84 | 0.60 |
| 1:B:2:GLU:HG2 | 1:B:3:VAL:HG22 | 1.84 | 0.60 |
| 1:E:29:VAL:HG12 | 1:E:92:PHE:CE2 | 2.37 | 0.60 |
| 1:E:67:LYS:HE3 | 1:E:78:VAL:CG1 | 2.30 | 0.60 |
| 1:F:43:THR:CG2 | 1:F:45:ILE:HG23 | 2.31 | 0.60 |
| 1:G:2:GLU:HG2 | 1:G:3:VAL:HG22 | 1.84 | 0.60 |
| 1:J:98:LYS:HE3 | 1:J:101:ALA:H | 1.66 | 0.60 |
| 1:M:43:THR:CG2 | 1:M:45:ILE:HG23 | 2.31 | 0.60 |
| 1:C:73:SER:HB2 | 1:C:94:GLY:HA2 | 1.83 | 0.60 |
| 1:E:43:THR:CG2 | 1:E:45:ILE:HG23 | 2.31 | 0.60 |
| 1:E:98:LYS:HE3 | 1:E:101:ALA:H | 1.66 | 0.60 |
| 1:H:46:THR:CB | 1:I:14:LYS:HZ1 | 2.11 | 0.60 |
| 1:K:32:VAL:CG2 | 1:K:48:ALA:HB3 | 2.30 | 0.60 |
| 1:K:73:SER:HB2 | 1:K:94:GLY:HA2 | 1.83 | 0.60 |
| 1:L:43:THR:CG2 | 1:L:45:ILE:HG23 | 2.31 | 0.60 |
| 1:D:29:VAL:HG12 | 1:D:92:PHE:CE2 | 2.36 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:F:2:GLU:HG2 | 1:F:3:VAL:HG22 | 1.84 | 0.60 |
| 1:H:43:THR:CG2 | 1:H:45:ILE:HG23 | 2.31 | 0.60 |
| 1:H:98:LYS:HE3 | 1:H:101:ALA:H | 1.66 | 0.60 |
| 1:J:29:VAL:HG12 | 1:J:92:PHE:CE2 | 2.37 | 0.60 |
| 1:J:32:VAL:CG2 | 1:J:48:ALA:HB3 | 2.30 | 0.60 |
| 1:K:29:VAL:HG12 | 1:K:92:PHE:CE2 | 2.36 | 0.60 |
| 1:A:29:VAL:HG12 | 1:A:92:PHE:CE2 | 2.36 | 0.60 |
| 1:A:98:LYS:HE3 | 1:A:101:ALA:H | 1.66 | 0.60 |
| 1:B:29:VAL:HG12 | 1:B:92:PHE:CE2 | 2.36 | 0.60 |
| 1:C:80:VAL:CG2 | 1:C:88:ILE:HG23 | 2.26 | 0.60 |
| 1:D:73:SER:HB2 | 1:D:94:GLY:HA2 | 1.83 | 0.60 |
| 1:E:5:ARG:N | 1:E:36:ILE:HB | 2.13 | 0.60 |
| 1:H:29:VAL:HG12 | 1:H:92:PHE:CE2 | 2.36 | 0.60 |
| 1:J:2:GLU:HG2 | 1:J:3:VAL:HG22 | 1.84 | 0.60 |
| 1:K:46:THR:HG1 | 1:L:13:ILE:HG22 | 1.63 | 0.60 |
| 1:M:29:VAL:HG12 | 1:M:92:PHE:CE2 | 2.36 | 0.60 |
| 1:A:43:THR:CG2 | 1:A:45:ILE:HG23 | 2.31 | 0.60 |
| 1:C:29:VAL:HG12 | 1:C:92:PHE:CE2 | 2.37 | 0.60 |
| 1:I:2:GLU:HG2 | 1:I:3:VAL:HG22 | 1.84 | 0.60 |
| 1:N:29:VAL:HG12 | 1:N:92:PHE:CE2 | 2.36 | 0.60 |
| 1:N:43:THR:CG2 | 1:N:45:ILE:HG23 | 2.32 | 0.60 |
| 1:C:98:LYS:HE3 | 1:C:101:ALA:H | 1.66 | 0.59 |
| 1:G:46:THR:CB | 1:H:14:LYS:HZ1 | 2.13 | 0.59 |
| 1:H:2:GLU:HG2 | 1:H:3:VAL:HG22 | 1.84 | 0.59 |
| 1:K:2:GLU:HG2 | 1:K:3:VAL:HG22 | 1.84 | 0.59 |
| 1:L:29:VAL:HG12 | 1:L:92:PHE:CE2 | 2.37 | 0.59 |
| 1:L:67:LYS:HE3 | 1:L:78:VAL:CG1 | 2.30 | 0.59 |
| 1:B:92:PHE:HB3 | 1:B:101:ALA:HB1 | 1.84 | 0.59 |
| 1:D:43:THR:CG2 | 1:D:45:ILE:HG23 | 2.31 | 0.59 |
| 1:I:29:VAL:HG12 | 1:I:92:PHE:CE2 | 2.36 | 0.59 |
| 1:J:67:LYS:HE3 | 1:J:78:VAL:CG1 | 2.30 | 0.59 |
| 1:K:67:LYS:HE3 | 1:K:78:VAL:CG1 | 2.30 | 0.59 |
| 1:M:80:VAL:CG2 | 1:M:88:ILE:HG23 | 2.26 | 0.59 |
| 1:B:43:THR:CG2 | 1:B:45:ILE:HG23 | 2.31 | 0.59 |
| 1:F:29:VAL:HG12 | 1:F:92:PHE:CE2 | 2.36 | 0.59 |
| 1:F:67:LYS:HE3 | 1:F:78:VAL:CG1 | 2.30 | 0.59 |
| 1:G:43:THR:CG2 | 1:G:45:ILE:HG23 | 2.32 | 0.59 |
| 1:M:98:LYS:HE3 | 1:M:101:ALA:H | 1.66 | 0.59 |
| 1:C:92:PHE:HB3 | 1:C:101:ALA:HB1 | 1.84 | 0.59 |
| 1:E:73:SER:HB2 | 1:E:94:GLY:HA2 | 1.83 | 0.59 |
| 1:G:29:VAL:HG12 | 1:G:92:PHE:CE2 | 2.36 | 0.59 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:J:73:SER:HB2 | 1:J:94:GLY:HA2 | 1.83 | 0.59 |
| 1:M:32:VAL:CG2 | 1:M:48:ALA:HB3 | 2.31 | 0.59 |
| 1:A:13:ILE:CD1 | 1:A:14:LYS:HG3 | 2.33 | 0.59 |
| 1:A:92:PHE:HB3 | 1:A:101:ALA:HB1 | 1.84 | 0.59 |
| 1:B:13:ILE:CD1 | 1:B:14:LYS:HG3 | 2.33 | 0.59 |
| 1:C:13:ILE:CD1 | 1:C:14:LYS:HG3 | 2.33 | 0.59 |
| 1:D:92:PHE:HB3 | 1:D:101:ALA:HB1 | 1.84 | 0.59 |
| 1:G:73:SER:HB2 | 1:G:94:GLY:HA2 | 1.83 | 0.59 |
| 1:H:73:SER:HB2 | 1:H:94:GLY:HA2 | 1.83 | 0.59 |
| 1:D:13:ILE:CD1 | 1:D:14:LYS:HG3 | 2.33 | 0.59 |
| 1:E:92:PHE:HB3 | 1:E:101:ALA:HB1 | 1.84 | 0.59 |
| 1:F:73:SER:HB2 | 1:F:94:GLY:HA2 | 1.83 | 0.59 |
| 1:F:92:PHE:HB3 | 1:F:101:ALA:HB1 | 1.84 | 0.59 |
| 1:G:32:VAL:CG2 | 1:G:48:ALA:HB3 | 2.30 | 0.59 |
| 1:H:32:VAL:CG2 | 1:H:48:ALA:HB3 | 2.30 | 0.59 |
| 1:H:80:VAL:CG2 | 1:H:88:ILE:HG23 | 2.26 | 0.59 |
| 1:K:43:THR:CG2 | 1:K:45:ILE:HG23 | 2.31 | 0.59 |
| 1:N:17:VAL:O | 1:N:18:TYR:HD1 | 1.83 | 0.59 |
| 1:E:80:VAL:H | 1:E:88:ILE:CG2 | 2.16 | 0.59 |
| 1:N:13:ILE:CD1 | 1:N:14:LYS:HG3 | 2.33 | 0.59 |
| 1:N:92:PHE:HB3 | 1:N:101:ALA:HB1 | 1.84 | 0.59 |
| 1:G:92:PHE:HB3 | 1:G:101:ALA:HB1 | 1.84 | 0.59 |
| 1:B:32:VAL:HG13 | 1:B:32:VAL:O | 2.03 | 0.59 |
| 1:E:13:ILE:CD1 | 1:E:14:LYS:HG3 | 2.33 | 0.59 |
| 1:E:32:VAL:HG13 | 1:E:32:VAL:O | 2.03 | 0.59 |
| 1:I:73:SER:HB2 | 1:I:94:GLY:HA2 | 1.83 | 0.59 |
| 1:J:32:VAL:HG13 | 1:J:32:VAL:O | 2.03 | 0.59 |
| 1:L:32:VAL:CG2 | 1:L:48:ALA:HB3 | 2.30 | 0.59 |
| 1:B:5:ARG:N | 1:B:36:ILE:HB | 2.13 | 0.59 |
| 1:C:5:ARG:N | 1:C:36:ILE:HB | 2.13 | 0.59 |
| 1:C:43:THR:CG2 | 1:C:45:ILE:HG23 | 2.32 | 0.59 |
| 1:F:80:VAL:H | 1:F:88:ILE:CG2 | 2.16 | 0.59 |
| 1:I:32:VAL:CG2 | 1:I:48:ALA:HB3 | 2.30 | 0.59 |
| 1:L:32:VAL:HG13 | 1:L:32:VAL:O | 2.03 | 0.59 |
| 1:M:13:ILE:CD1 | 1:M:14:LYS:HG3 | 2.33 | 0.59 |
| 1:I:46:THR:CB | 1:J:14:LYS:HZ1 | 2.13 | 0.58 |
| 1:I:80:VAL:H | 1:I:88:ILE:CG2 | 2.16 | 0.58 |
| 1:A:32:VAL:O | 1:A:32:VAL:HG13 | 2.03 | 0.58 |
| 1:F:32:VAL:O | 1:F:32:VAL:HG13 | 2.03 | 0.58 |
| 1:G:39:ALA:HB1 | 1:G:40:PRO:HA | 1.85 | 0.58 |
| 1:A:5:ARG:N | 1:A:36:ILE:HB | 2.13 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:F:13:ILE:CD1 | 1:F:14:LYS:HG3 | 2.33 | 0.58 |
| 1:F:56:THR:HG22 | 1:F:57:PHE:N | 2.18 | 0.58 |
| 1:H:92:PHE:HB3 | 1:H:101:ALA:HB1 | 1.84 | 0.58 |
| 1:M:92:PHE:HB3 | 1:M:101:ALA:HB1 | 1.84 | 0.58 |
| 1:B:46:THR:CB | 1:C:14:LYS:NZ | 2.66 | 0.58 |
| 1:F:39:ALA:HB1 | 1:F:40:PRO:HA | 1.85 | 0.58 |
| 1:H:80:VAL:H | 1:H:88:ILE:CG2 | 2.16 | 0.58 |
| 1:B:80:VAL:H | 1:B:88:ILE:CG2 | 2.16 | 0.58 |
| 1:E:56:THR:HG22 | 1:E:57:PHE:N | 2.18 | 0.58 |
| 1:F:32:VAL:CG2 | 1:F:48:ALA:HB3 | 2.31 | 0.58 |
| 1:G:32:VAL:HG13 | 1:G:32:VAL:O | 2.03 | 0.58 |
| 1:H:32:VAL:O | 1:H:32:VAL:HG13 | 2.03 | 0.58 |
| 1:J:95:GLU:HG2 | 1:J:95:GLU:O | 2.04 | 0.58 |
| 1:L:56:THR:HG22 | 1:L:57:PHE:N | 2.18 | 0.58 |
| 1:M:56:THR:HG22 | 1:M:57:PHE:N | 2.18 | 0.58 |
| 1:H:39:ALA:HB1 | 1:H:40:PRO:HA | 1.85 | 0.58 |
| 1:I:32:VAL:O | 1:I:32:VAL:HG13 | 2.03 | 0.58 |
| 1:I:39:ALA:HB1 | 1:I:40:PRO:HA | 1.85 | 0.58 |
| 1:I:92:PHE:HB3 | 1:I:101:ALA:HB1 | 1.84 | 0.58 |
| 1:L:13:ILE:CD1 | 1:L:14:LYS:HG3 | 2.33 | 0.58 |
| 1:L:80:VAL:CG2 | 1:L:88:ILE:HG23 | 2.26 | 0.58 |
| 1:L:95:GLU:HG2 | 1:L:95:GLU:O | 2.04 | 0.58 |
| 1:C:32:VAL:O | 1:C:32:VAL:HG13 | 2.03 | 0.58 |
| 1:D:37:VAL:HG12 | 1:D:38:VAL:N | 2.19 | 0.58 |
| 1:D:80:VAL:H | 1:D:88:ILE:CG2 | 2.16 | 0.58 |
| 1:G:46:THR:CB | 1:H:14:LYS:NZ | 2.66 | 0.58 |
| 1:K:56:THR:HG22 | 1:K:57:PHE:N | 2.18 | 0.58 |
| 1:N:32:VAL:CG2 | 1:N:48:ALA:HB3 | 2.30 | 0.58 |
| 1:A:80:VAL:H | 1:A:88:ILE:CG2 | 2.16 | 0.58 |
| 1:A:95:GLU:HG2 | 1:A:95:GLU:O | 2.04 | 0.58 |
| 1:D:5:ARG:N | 1:D:36:ILE:HB | 2.13 | 0.58 |
| 1:E:37:VAL:HG12 | 1:E:38:VAL:N | 2.19 | 0.58 |
| 1:G:56:THR:HG22 | 1:G:57:PHE:N | 2.18 | 0.58 |
| 1:H:46:THR:CB | 1:I:14:LYS:NZ | 2.66 | 0.58 |
| 1:J:80:VAL:H | 1:J:88:ILE:CG2 | 2.16 | 0.58 |
| 1:N:56:THR:HG22 | 1:N:57:PHE:N | 2.18 | 0.58 |
| 1:C:80:VAL:H | 1:C:88:ILE:CG2 | 2.16 | 0.58 |
| 1:D:32:VAL:HG13 | 1:D:32:VAL:O | 2.03 | 0.58 |
| 1:G:13:ILE:CD1 | 1:G:14:LYS:HG3 | 2.33 | 0.58 |
| 1:I:46:THR:CB | 1:J:14:LYS:NZ | 2.66 | 0.58 |
| 1:J:92:PHE:HB3 | 1:J:101:ALA:HB1 | 1.84 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:K:92:PHE:HB3 | 1:K:101:ALA:HB1 | 1.84 | 0.58 |
| 1:L:92:PHE:HB3 | 1:L:101:ALA:HB1 | 1.84 | 0.58 |
| 1:M:54:SER:OG | 1:M:68:PRO:HA | 2.04 | 0.58 |
| 1:N:37:VAL:HG12 | 1:N:38:VAL:N | 2.19 | 0.58 |
| 1:N:54:SER:OG | 1:N:68:PRO:HA | 2.04 | 0.58 |
| 1:G:80:VAL:H | 1:G:88:ILE:CG2 | 2.16 | 0.58 |
| 1:J:37:VAL:HG12 | 1:J:38:VAL:N | 2.19 | 0.58 |
| 1:J:56:THR:HG22 | 1:J:57:PHE:N | 2.18 | 0.58 |
| 1:K:16:VAL:HG12 | 1:K:18:TYR:HE1 | 1.69 | 0.58 |
| 1:M:80:VAL:H | 1:M:88:ILE:CG2 | 2.16 | 0.58 |
| 1:A:38:VAL:HG23 | 1:A:39:ALA:N | 2.19 | 0.57 |
| 1:C:79:ILE:HG22 | 1:C:81:THR:CG2 | 2.34 | 0.57 |
| 1:F:16:VAL:HG12 | 1:F:18:TYR:HE1 | 1.69 | 0.57 |
| 1:G:37:VAL:HG12 | 1:G:38:VAL:N | 2.19 | 0.57 |
| 1:H:9:TYR:HB2 | 1:H:11:TYR:CA | 2.34 | 0.57 |
| 1:I:95:GLU:HG2 | 1:I:95:GLU:O | 2.04 | 0.57 |
| 1:J:46:THR:CB | 1:K:14:LYS:NZ | 2.66 | 0.57 |
| 1:J:54:SER:OG | 1:J:68:PRO:HA | 2.04 | 0.57 |
| 1:J:79:ILE:HG22 | 1:J:81:THR:CG2 | 2.34 | 0.57 |
| 1:K:13:ILE:CD1 | 1:K:14:LYS:HG3 | 2.33 | 0.57 |
| 1:K:32:VAL:O | 1:K:32:VAL:HG13 | 2.03 | 0.57 |
| 1:K:37:VAL:HG12 | 1:K:38:VAL:N | 2.19 | 0.57 |
| 1:K:79:ILE:HG22 | 1:K:81:THR:CG2 | 2.34 | 0.57 |
| 1:L:37:VAL:HG12 | 1:L:38:VAL:N | 2.19 | 0.57 |
| 1:L:80:VAL:H | 1:L:88:ILE:CG2 | 2.16 | 0.57 |
| 1:M:95:GLU:O | 1:M:95:GLU:HG2 | 2.04 | 0.57 |
| 1:N:79:ILE:HG22 | 1:N:81:THR:CG2 | 2.34 | 0.57 |
| 1:A:37:VAL:HG12 | 1:A:38:VAL:N | 2.19 | 0.57 |
| 1:B:38:VAL:HG23 | 1:B:39:ALA:N | 2.19 | 0.57 |
| 1:C:37:VAL:HG12 | 1:C:38:VAL:N | 2.19 | 0.57 |
| 1:D:39:ALA:HB1 | 1:D:40:PRO:HA | 1.85 | 0.57 |
| 1:D:79:ILE:HG22 | 1:D:81:THR:CG2 | 2.34 | 0.57 |
| 1:E:39:ALA:HB1 | 1:E:40:PRO:HA | 1.85 | 0.57 |
| 1:F:9:TYR:HB2 | 1:F:11:TYR:CA | 2.34 | 0.57 |
| 1:F:54:SER:OG | 1:F:68:PRO:HA | 2.04 | 0.57 |
| 1:H:13:ILE:CD1 | 1:H:14:LYS:HG3 | 2.33 | 0.57 |
| 1:I:9:TYR:HB2 | 1:I:11:TYR:CA | 2.35 | 0.57 |
| 1:I:66:VAL:HG23 | 1:I:67:LYS:N | 2.19 | 0.57 |
| 1:J:9:TYR:HB2 | 1:J:11:TYR:CA | 2.35 | 0.57 |
| 1:J:66:VAL:HG23 | 1:J:67:LYS:N | 2.19 | 0.57 |
| 1:K:66:VAL:HG23 | 1:K:67:LYS:N | 2.19 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:L:66:VAL:HG23 | 1:L:67:LYS:N | 2.19 | 0.57 |
| 1:M:32:VAL:HG13 | 1:M:32:VAL:O | 2.03 | 0.57 |
| 1:N:80:VAL:H | 1:N:88:ILE:CG2 | 2.16 | 0.57 |
| 1:A:56:THR:HG22 | 1:A:57:PHE:N | 2.18 | 0.57 |
| 1:A:62:ASN:HB2 | 1:A:84:ARG:HG3 | 1.86 | 0.57 |
| 1:A:79:ILE:HG22 | 1:A:81:THR:CG2 | 2.34 | 0.57 |
| 1:C:62:ASN:CB | 1:C:84:ARG:HG3 | 2.35 | 0.57 |
| 1:E:24:VAL:HG12 | 1:E:26:ILE:HD12 | 1.86 | 0.57 |
| 1:E:54:SER:OG | 1:E:68:PRO:HA | 2.04 | 0.57 |
| 1:E:79:ILE:HG22 | 1:E:81:THR:CG2 | 2.34 | 0.57 |
| 1:G:9:TYR:HB2 | 1:G:11:TYR:CA | 2.35 | 0.57 |
| 1:G:24:VAL:HG12 | 1:G:26:ILE:HD12 | 1.86 | 0.57 |
| 1:G:95:GLU:HG2 | 1:G:95:GLU:O | 2.04 | 0.57 |
| 1:I:37:VAL:HG12 | 1:I:38:VAL:N | 2.19 | 0.57 |
| 1:J:39:ALA:HB1 | 1:J:40:PRO:HA | 1.85 | 0.57 |
| 1:L:16:VAL:HG12 | 1:L:18:TYR:HE1 | 1.69 | 0.57 |
| 1:M:39:ALA:HB1 | 1:M:40:PRO:HA | 1.85 | 0.57 |
| 1:N:39:ALA:HB1 | 1:N:40:PRO:HA | 1.85 | 0.57 |
| 1:A:9:TYR:HB2 | 1:A:11:TYR:CA | 2.34 | 0.57 |
| 1:B:62:ASN:HB2 | 1:B:84:ARG:HG3 | 1.86 | 0.57 |
| 1:D:54:SER:OG | 1:D:68:PRO:HA | 2.04 | 0.57 |
| 1:E:9:TYR:HB2 | 1:E:11:TYR:CA | 2.34 | 0.57 |
| 1:E:16:VAL:HG12 | 1:E:18:TYR:HE1 | 1.69 | 0.57 |
| 1:G:54:SER:OG | 1:G:68:PRO:HA | 2.04 | 0.57 |
| 1:G:80:VAL:CG2 | 1:G:88:ILE:HG23 | 2.26 | 0.57 |
| 1:H:37:VAL:HG12 | 1:H:38:VAL:N | 2.19 | 0.57 |
| 1:K:46:THR:CB | 1:L:14:LYS:NZ | 2.66 | 0.57 |
| 1:M:62:ASN:CB | 1:M:84:ARG:HG3 | 2.35 | 0.57 |
| 1:M:66:VAL:HG23 | 1:M:67:LYS:N | 2.19 | 0.57 |
| 1:N:24:VAL:HG11 | 1:N:38:VAL:HG11 | 1.87 | 0.57 |
| 1:N:32:VAL:O | 1:N:32:VAL:HG13 | 2.03 | 0.57 |
| 1:N:38:VAL:HG23 | 1:N:39:ALA:N | 2.19 | 0.57 |
| 1:A:46:THR:CB | 1:B:14:LYS:NZ | 2.66 | 0.57 |
| 1:B:62:ASN:CB | 1:B:84:ARG:HG3 | 2.35 | 0.57 |
| 1:B:80:VAL:CG2 | 1:B:88:ILE:HG23 | 2.26 | 0.57 |
| 1:C:62:ASN:HB2 | 1:C:84:ARG:HG3 | 1.86 | 0.57 |
| 1:F:24:VAL:HG11 | 1:F:38:VAL:HG11 | 1.87 | 0.57 |
| 1:H:66:VAL:HG23 | 1:H:67:LYS:N | 2.19 | 0.57 |
| 1:I:54:SER:OG | 1:I:68:PRO:HA | 2.04 | 0.57 |
| 1:I:79:ILE:HG22 | 1:I:81:THR:CG2 | 2.34 | 0.57 |
| 1:L:39:ALA:HB1 | 1:L:40:PRO:HA | 1.85 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:M:37:VAL:HG12 | 1:M:38:VAL:N | 2.19 | 0.57 |
| 1:N:62:ASN:CB | 1:N:84:ARG:HG3 | 2.35 | 0.57 |
| 1:A:39:ALA:HB1 | 1:A:40:PRO:HA | 1.85 | 0.57 |
| 1:B:9:TYR:HB2 | 1:B:11:TYR:CA | 2.35 | 0.57 |
| 1:B:24:VAL:HG11 | 1:B:38:VAL:HG11 | 1.87 | 0.57 |
| 1:C:38:VAL:HG23 | 1:C:39:ALA:N | 2.20 | 0.57 |
| 1:C:54:SER:OG | 1:C:68:PRO:HA | 2.04 | 0.57 |
| 1:D:24:VAL:HG11 | 1:D:38:VAL:HG11 | 1.87 | 0.57 |
| 1:E:62:ASN:HB2 | 1:E:84:ARG:HG3 | 1.86 | 0.57 |
| 1:I:13:ILE:CD1 | 1:I:14:LYS:HG3 | 2.33 | 0.57 |
| 1:J:16:VAL:HG12 | 1:J:18:TYR:HE1 | 1.69 | 0.57 |
| 1:J:61:MET:CG | 1:J:62:ASN:H | 2.18 | 0.57 |
| 1:L:62:ASN:HB2 | 1:L:84:ARG:HG3 | 1.86 | 0.57 |
| 1:M:79:ILE:HG22 | 1:M:81:THR:CG2 | 2.34 | 0.57 |
| 1:N:9:TYR:HB2 | 1:N:11:TYR:CA | 2.35 | 0.57 |
| 1:N:62:ASN:HB2 | 1:N:84:ARG:HG3 | 1.86 | 0.57 |
| 1:N:95:GLU:O | 1:N:95:GLU:HG2 | 2.04 | 0.57 |
| 1:B:37:VAL:HG12 | 1:B:38:VAL:N | 2.19 | 0.57 |
| 1:B:61:MET:CG | 1:B:62:ASN:H | 2.18 | 0.57 |
| 1:D:9:TYR:HB2 | 1:D:11:TYR:CA | 2.34 | 0.57 |
| 1:D:79:ILE:HD12 | 1:D:107:LYS:NZ | 2.20 | 0.57 |
| 1:E:54:SER:C | 1:E:55:ARG:HG2 | 2.25 | 0.57 |
| 1:E:79:ILE:HD12 | 1:E:107:LYS:NZ | 2.20 | 0.57 |
| 1:G:16:VAL:HG12 | 1:G:18:TYR:HE1 | 1.69 | 0.57 |
| 1:I:54:SER:C | 1:I:55:ARG:HG2 | 2.25 | 0.57 |
| 1:K:39:ALA:HB1 | 1:K:40:PRO:HA | 1.85 | 0.57 |
| 1:K:54:SER:OG | 1:K:68:PRO:HA | 2.04 | 0.57 |
| 1:L:24:VAL:HG11 | 1:L:38:VAL:HG11 | 1.87 | 0.57 |
| 1:L:79:ILE:HD12 | 1:L:107:LYS:NZ | 2.20 | 0.57 |
| 1:M:61:MET:CG | 1:M:62:ASN:H | 2.18 | 0.57 |
| 1:M:62:ASN:HB2 | 1:M:84:ARG:HG3 | 1.86 | 0.57 |
| 1:N:66:VAL:HG23 | 1:N:67:LYS:N | 2.19 | 0.57 |
| 1:N:79:ILE:HD12 | 1:N:107:LYS:NZ | 2.20 | 0.57 |
| 1:C:54:SER:C | 1:C:55:ARG:HG2 | 2.25 | 0.57 |
| 1:D:62:ASN:CB | 1:D:84:ARG:HG3 | 2.35 | 0.57 |
| 1:D:62:ASN:HB2 | 1:D:84:ARG:HG3 | 1.86 | 0.57 |
| 1:E:24:VAL:HG11 | 1:E:38:VAL:HG11 | 1.87 | 0.57 |
| 1:F:38:VAL:HG23 | 1:F:39:ALA:N | 2.19 | 0.57 |
| 1:F:46:THR:CB | 1:G:14:LYS:NZ | 2.66 | 0.57 |
| 1:F:79:ILE:HG22 | 1:F:81:THR:CG2 | 2.34 | 0.57 |
| 1:G:54:SER:C | 1:G:55:ARG:HG2 | 2.25 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:H:54:SER:OG | 1:H:68:PRO:HA | 2.04 | 0.57 |
| 1:I:61:MET:CG | 1:I:62:ASN:H | 2.18 | 0.57 |
| 1:J:13:ILE:CD1 | 1:J:14:LYS:HG3 | 2.33 | 0.57 |
| 1:K:9:TYR:HB2 | 1:K:11:TYR:CA | 2.34 | 0.57 |
| 1:K:38:VAL:HG23 | 1:K:39:ALA:N | 2.19 | 0.57 |
| 1:L:46:THR:CB | 1:M:14:LYS:HZ1 | 2.16 | 0.57 |
| 1:L:54:SER:OG | 1:L:68:PRO:HA | 2.04 | 0.57 |
| 1:A:16:VAL:HG12 | 1:A:18:TYR:HE1 | 1.69 | 0.57 |
| 1:B:16:VAL:HG12 | 1:B:18:TYR:HE1 | 1.69 | 0.57 |
| 1:B:56:THR:HG22 | 1:B:57:PHE:N | 2.18 | 0.57 |
| 1:C:79:ILE:HD12 | 1:C:107:LYS:NZ | 2.20 | 0.57 |
| 1:D:95:GLU:HG2 | 1:D:95:GLU:O | 2.04 | 0.57 |
| 1:F:37:VAL:HG12 | 1:F:38:VAL:N | 2.19 | 0.57 |
| 1:G:66:VAL:HG23 | 1:G:67:LYS:N | 2.19 | 0.57 |
| 1:H:56:THR:HG22 | 1:H:57:PHE:N | 2.18 | 0.57 |
| 1:J:79:ILE:HD12 | 1:J:107:LYS:NZ | 2.20 | 0.57 |
| 1:K:80:VAL:H | 1:K:88:ILE:CG2 | 2.16 | 0.57 |
| 1:L:62:ASN:CB | 1:L:84:ARG:HG3 | 2.35 | 0.57 |
| 1:M:9:TYR:HB2 | 1:M:11:TYR:CA | 2.34 | 0.57 |
| 1:A:24:VAL:HG11 | 1:A:38:VAL:HG11 | 1.87 | 0.57 |
| 1:A:79:ILE:HD12 | 1:A:107:LYS:NZ | 2.20 | 0.57 |
| 1:B:79:ILE:HD12 | 1:B:107:LYS:NZ | 2.20 | 0.57 |
| 1:C:9:TYR:HB2 | 1:C:11:TYR:CA | 2.35 | 0.57 |
| 1:C:61:MET:CG | 1:C:62:ASN:H | 2.18 | 0.57 |
| 1:G:24:VAL:HG11 | 1:G:38:VAL:HG11 | 1.87 | 0.57 |
| 1:H:38:VAL:HG23 | 1:H:39:ALA:N | 2.19 | 0.57 |
| 1:H:62:ASN:CB | 1:H:84:ARG:HG3 | 2.35 | 0.57 |
| 1:H:80:VAL:HG23 | 1:H:86:TYR:CD2 | 2.40 | 0.57 |
| 1:H:95:GLU:O | 1:H:95:GLU:HG2 | 2.04 | 0.57 |
| 1:I:24:VAL:HG11 | 1:I:38:VAL:HG11 | 1.87 | 0.57 |
| 1:I:80:VAL:HG23 | 1:I:86:TYR:CD2 | 2.40 | 0.57 |
| 1:J:80:VAL:HG23 | 1:J:86:TYR:CD2 | 2.40 | 0.57 |
| 1:K:24:VAL:HG11 | 1:K:38:VAL:HG11 | 1.87 | 0.57 |
| 1:L:46:THR:CB | 1:M:14:LYS:NZ | 2.66 | 0.57 |
| 1:A:54:SER:OG | 1:A:68:PRO:HA | 2.04 | 0.56 |
| 1:A:66:VAL:HG23 | 1:A:67:LYS:N | 2.19 | 0.56 |
| 1:F:61:MET:CG | 1:F:62:ASN:H | 2.18 | 0.56 |
| 1:G:62:ASN:CB | 1:G:84:ARG:HG3 | 2.35 | 0.56 |
| 1:H:24:VAL:HG11 | 1:H:38:VAL:HG11 | 1.87 | 0.56 |
| 1:H:79:ILE:HG22 | 1:H:81:THR:CG2 | 2.34 | 0.56 |
| 1:I:62:ASN:CB | 1:I:84:ARG:HG3 | 2.35 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:J:38:VAL:HG23 | 1:J:39:ALA:N | 2.20 | 0.56 |
| 1:J:81:THR:HG23 | 1:J:81:THR:O | 2.06 | 0.56 |
| 1:K:80:VAL:HG23 | 1:K:86:TYR:CD2 | 2.40 | 0.56 |
| 1:L:79:ILE:HG22 | 1:L:81:THR:CG2 | 2.34 | 0.56 |
| 1:M:38:VAL:HG23 | 1:M:39:ALA:N | 2.19 | 0.56 |
| 1:N:54:SER:C | 1:N:55:ARG:HG2 | 2.25 | 0.56 |
| 1:A:80:VAL:HG23 | 1:A:86:TYR:CD2 | 2.40 | 0.56 |
| 1:B:39:ALA:HB1 | 1:B:40:PRO:HA | 1.85 | 0.56 |
| 1:B:54:SER:OG | 1:B:68:PRO:HA | 2.04 | 0.56 |
| 1:B:79:ILE:HG22 | 1:B:81:THR:CG2 | 2.34 | 0.56 |
| 1:B:95:GLU:HG2 | 1:B:95:GLU:O | 2.04 | 0.56 |
| 1:C:95:GLU:O | 1:C:95:GLU:HG2 | 2.04 | 0.56 |
| 1:D:80:VAL:HG23 | 1:D:86:TYR:CD2 | 2.40 | 0.56 |
| 1:E:38:VAL:HG23 | 1:E:39:ALA:N | 2.20 | 0.56 |
| 1:G:38:VAL:HG23 | 1:G:39:ALA:N | 2.19 | 0.56 |
| 1:G:80:VAL:HG23 | 1:G:86:TYR:CD2 | 2.40 | 0.56 |
| 1:J:62:ASN:HB2 | 1:J:84:ARG:HG3 | 1.86 | 0.56 |
| 1:K:54:SER:C | 1:K:55:ARG:HG2 | 2.25 | 0.56 |
| 1:L:38:VAL:HG23 | 1:L:39:ALA:N | 2.20 | 0.56 |
| 1:L:80:VAL:HG23 | 1:L:86:TYR:CD2 | 2.40 | 0.56 |
| 1:M:24:VAL:HG11 | 1:M:38:VAL:HG11 | 1.87 | 0.56 |
| 1:M:54:SER:C | 1:M:55:ARG:HG2 | 2.25 | 0.56 |
| 1:M:79:ILE:HD12 | 1:M:107:LYS:NZ | 2.20 | 0.56 |
| 1:B:66:VAL:HG23 | 1:B:67:LYS:N | 2.19 | 0.56 |
| 1:C:24:VAL:HG11 | 1:C:38:VAL:HG11 | 1.87 | 0.56 |
| 1:C:39:ALA:HB1 | 1:C:40:PRO:HA | 1.85 | 0.56 |
| 1:C:56:THR:HG22 | 1:C:57:PHE:N | 2.18 | 0.56 |
| 1:D:38:VAL:HG12 | 1:D:109:PHE:CD2 | 2.41 | 0.56 |
| 1:D:38:VAL:HG23 | 1:D:39:ALA:N | 2.19 | 0.56 |
| 1:E:80:VAL:HG23 | 1:E:86:TYR:CD2 | 2.40 | 0.56 |
| 1:F:62:ASN:CB | 1:F:84:ARG:HG3 | 2.35 | 0.56 |
| 1:F:66:VAL:HG23 | 1:F:67:LYS:N | 2.19 | 0.56 |
| 1:F:95:GLU:O | 1:F:95:GLU:HG2 | 2.04 | 0.56 |
| 1:G:56:THR:OG1 | 1:G:67:LYS:HB2 | 2.06 | 0.56 |
| 1:G:61:MET:CG | 1:G:62:ASN:H | 2.18 | 0.56 |
| 1:G:62:ASN:HB2 | 1:G:84:ARG:HG3 | 1.86 | 0.56 |
| 1:G:79:ILE:HD12 | 1:G:107:LYS:NZ | 2.20 | 0.56 |
| 1:G:81:THR:HG23 | 1:G:81:THR:O | 2.05 | 0.56 |
| 1:I:79:ILE:HD12 | 1:I:107:LYS:NZ | 2.20 | 0.56 |
| 1:J:24:VAL:HG11 | 1:J:38:VAL:HG11 | 1.87 | 0.56 |
| 1:J:46:THR:CB | 1:K:14:LYS:HZ1 | 2.16 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:K:79:ILE:HD12 | 1:K:107:LYS:NZ | 2.20 | 0.56 |
| 1:K:95:GLU:O | 1:K:95:GLU:HG2 | 2.04 | 0.56 |
| 1:N:38:VAL:HG12 | 1:N:109:PHE:CD2 | 2.41 | 0.56 |
| 1:N:61:MET:CG | 1:N:62:ASN:H | 2.18 | 0.56 |
| 1:A:62:ASN:CB | 1:A:84:ARG:HG3 | 2.35 | 0.56 |
| 1:D:56:THR:OG1 | 1:D:67:LYS:HB2 | 2.06 | 0.56 |
| 1:E:61:MET:CG | 1:E:62:ASN:H | 2.18 | 0.56 |
| 1:E:66:VAL:HG23 | 1:E:67:LYS:N | 2.19 | 0.56 |
| 1:H:81:THR:HG23 | 1:H:81:THR:O | 2.05 | 0.56 |
| 1:I:56:THR:OG1 | 1:I:67:LYS:HB2 | 2.06 | 0.56 |
| 1:J:54:SER:C | 1:J:55:ARG:HG2 | 2.25 | 0.56 |
| 1:J:62:ASN:CB | 1:J:84:ARG:HG3 | 2.35 | 0.56 |
| 1:K:61:MET:CG | 1:K:62:ASN:H | 2.18 | 0.56 |
| 1:L:9:TYR:HB2 | 1:L:11:TYR:CA | 2.34 | 0.56 |
| 1:M:80:VAL:HG23 | 1:M:86:TYR:CD2 | 2.40 | 0.56 |
| 1:M:81:THR:HG23 | 1:M:81:THR:O | 2.06 | 0.56 |
| 1:N:80:VAL:HG23 | 1:N:86:TYR:CD2 | 2.40 | 0.56 |
| 1:A:14:LYS:HZ1 | 1:N:46:THR:CB | 2.18 | 0.56 |
| 1:B:38:VAL:HG12 | 1:B:109:PHE:CD2 | 2.41 | 0.56 |
| 1:C:66:VAL:HG23 | 1:C:67:LYS:N | 2.19 | 0.56 |
| 1:D:66:VAL:HG23 | 1:D:67:LYS:N | 2.19 | 0.56 |
| 1:G:79:ILE:HG22 | 1:G:81:THR:CG2 | 2.34 | 0.56 |
| 1:L:24:VAL:HG12 | 1:L:26:ILE:HD12 | 1.86 | 0.56 |
| 1:L:81:THR:O | 1:L:81:THR:HG23 | 2.06 | 0.56 |
| 1:C:16:VAL:HG12 | 1:C:18:TYR:HE1 | 1.69 | 0.56 |
| 1:E:46:THR:CB | 1:F:14:LYS:NZ | 2.66 | 0.56 |
| 1:F:80:VAL:HG23 | 1:F:86:TYR:CD2 | 2.40 | 0.56 |
| 1:G:91:HIS:CB | 1:G:104:THR:HG21 | 2.33 | 0.56 |
| 1:H:79:ILE:HD12 | 1:H:107:LYS:NZ | 2.20 | 0.56 |
| 1:I:16:VAL:HG12 | 1:I:18:TYR:HE1 | 1.69 | 0.56 |
| 1:J:56:THR:OG1 | 1:J:67:LYS:HB2 | 2.06 | 0.56 |
| 1:L:54:SER:C | 1:L:55:ARG:HG2 | 2.25 | 0.56 |
| 1:L:56:THR:OG1 | 1:L:67:LYS:HB2 | 2.06 | 0.56 |
| 1:M:16:VAL:HG12 | 1:M:18:TYR:HE1 | 1.69 | 0.56 |
| 1:C:80:VAL:HG23 | 1:C:86:TYR:CD2 | 2.40 | 0.56 |
| 1:H:91:HIS:CB | 1:H:104:THR:HG21 | 2.32 | 0.56 |
| 1:K:46:THR:CB | 1:L:14:LYS:HZ1 | 2.16 | 0.56 |
| 1:A:54:SER:C | 1:A:55:ARG:HG2 | 2.25 | 0.56 |
| 1:B:80:VAL:HG23 | 1:B:86:TYR:CD2 | 2.40 | 0.56 |
| 1:D:16:VAL:HG12 | 1:D:18:TYR:HE1 | 1.69 | 0.56 |
| 1:D:56:THR:HG22 | 1:D:57:PHE:N | 2.18 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:E:95:GLU:O | 1:E:95:GLU:HG2 | 2.04 | 0.56 |
| 1:F:54:SER:C | 1:F:55:ARG:HG2 | 2.25 | 0.56 |
| 1:F:70:GLN:H | 1:F:75:THR:HB | 1.70 | 0.56 |
| 1:F:91:HIS:CB | 1:F:104:THR:HG21 | 2.32 | 0.56 |
| 1:H:24:VAL:HG21 | 1:H:107:LYS:HB3 | 1.88 | 0.56 |
| 1:C:46:THR:CB | 1:D:14:LYS:NZ | 2.66 | 0.56 |
| 1:D:61:MET:CG | 1:D:62:ASN:H | 2.18 | 0.56 |
| 1:E:62:ASN:CB | 1:E:84:ARG:HG3 | 2.35 | 0.56 |
| 1:F:79:ILE:HD12 | 1:F:107:LYS:NZ | 2.20 | 0.56 |
| 1:H:16:VAL:HG12 | 1:H:18:TYR:HE1 | 1.69 | 0.56 |
| 1:J:24:VAL:HG21 | 1:J:107:LYS:HB3 | 1.88 | 0.56 |
| 1:L:38:VAL:HG12 | 1:L:109:PHE:CD2 | 2.41 | 0.56 |
| 1:L:70:GLN:H | 1:L:75:THR:HB | 1.70 | 0.56 |
| 1:N:16:VAL:HG12 | 1:N:18:TYR:HE1 | 1.69 | 0.56 |
| 1:F:24:VAL:HG21 | 1:F:107:LYS:HB3 | 1.88 | 0.56 |
| 1:F:56:THR:OG1 | 1:F:67:LYS:HB2 | 2.06 | 0.56 |
| 1:I:38:VAL:HG23 | 1:I:39:ALA:N | 2.19 | 0.56 |
| 1:I:81:THR:HG23 | 1:I:81:THR:O | 2.05 | 0.56 |
| 1:K:62:ASN:CB | 1:K:84:ARG:HG3 | 2.35 | 0.56 |
| 1:L:24:VAL:HG21 | 1:L:107:LYS:HB3 | 1.88 | 0.56 |
| 1:M:46:THR:CB | 1:N:14:LYS:NZ | 2.66 | 0.56 |
| 1:A:81:THR:O | 1:A:81:THR:HG23 | 2.05 | 0.55 |
| 1:E:56:THR:OG1 | 1:E:67:LYS:HB2 | 2.06 | 0.55 |
| 1:F:84:ARG:HA | 1:F:84:ARG:CZ | 2.36 | 0.55 |
| 1:G:70:GLN:H | 1:G:75:THR:HB | 1.71 | 0.55 |
| 1:H:61:MET:CG | 1:H:62:ASN:H | 2.18 | 0.55 |
| 1:I:91:HIS:CB | 1:I:104:THR:HG21 | 2.32 | 0.55 |
| 1:K:70:GLN:H | 1:K:75:THR:HB | 1.70 | 0.55 |
| 1:M:24:VAL:HG21 | 1:M:107:LYS:HB3 | 1.88 | 0.55 |
| 1:M:24:VAL:HG12 | 1:M:26:ILE:HD12 | 1.86 | 0.55 |
| 1:M:70:GLN:H | 1:M:75:THR:HB | 1.70 | 0.55 |
| 1:A:14:LYS:NZ | 1:N:46:THR:CB | 2.66 | 0.55 |
| 1:A:24:VAL:HG21 | 1:A:107:LYS:HB3 | 1.88 | 0.55 |
| 1:A:56:THR:OG1 | 1:A:67:LYS:HB2 | 2.06 | 0.55 |
| 1:D:84:ARG:HA | 1:D:84:ARG:CZ | 2.36 | 0.55 |
| 1:E:81:THR:HG23 | 1:E:81:THR:O | 2.06 | 0.55 |
| 1:K:24:VAL:HG21 | 1:K:107:LYS:HB3 | 1.88 | 0.55 |
| 1:K:81:THR:HG23 | 1:K:81:THR:O | 2.06 | 0.55 |
| 1:A:24:VAL:HG12 | 1:A:26:ILE:HD12 | 1.86 | 0.55 |
| 1:B:84:ARG:HA | 1:B:84:ARG:CZ | 2.36 | 0.55 |
| 1:C:81:THR:HG23 | 1:C:81:THR:O | 2.06 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:D:54:SER:C | 1:D:55:ARG:HG2 | 2.25 | 0.55 |
| 1:H:62:ASN:HB2 | 1:H:84:ARG:HG3 | 1.86 | 0.55 |
| 1:H:84:ARG:HA | 1:H:84:ARG:CZ | 2.36 | 0.55 |
| 1:I:24:VAL:HG21 | 1:I:107:LYS:HB3 | 1.88 | 0.55 |
| 1:B:81:THR:HG23 | 1:B:81:THR:O | 2.05 | 0.55 |
| 1:E:70:GLN:H | 1:E:75:THR:HB | 1.70 | 0.55 |
| 1:G:38:VAL:HG12 | 1:G:109:PHE:CD2 | 2.41 | 0.55 |
| 1:G:84:ARG:HA | 1:G:84:ARG:CZ | 2.36 | 0.55 |
| 1:H:56:THR:OG1 | 1:H:67:LYS:HB2 | 2.06 | 0.55 |
| 1:I:6:ASN:HA | 1:I:35:HIS:CB | 2.37 | 0.55 |
| 1:I:62:ASN:HB2 | 1:I:84:ARG:HG3 | 1.86 | 0.55 |
| 1:I:84:ARG:HA | 1:I:84:ARG:CZ | 2.36 | 0.55 |
| 1:K:24:VAL:HG12 | 1:K:26:ILE:HD12 | 1.86 | 0.55 |
| 1:B:56:THR:OG1 | 1:B:67:LYS:HB2 | 2.06 | 0.55 |
| 1:D:81:THR:O | 1:D:81:THR:HG23 | 2.06 | 0.55 |
| 1:E:91:HIS:CB | 1:E:104:THR:HG21 | 2.32 | 0.55 |
| 1:H:6:ASN:HA | 1:H:35:HIS:CB | 2.37 | 0.55 |
| 1:N:24:VAL:HG21 | 1:N:107:LYS:HB3 | 1.88 | 0.55 |
| 1:A:70:GLN:H | 1:A:75:THR:HB | 1.70 | 0.55 |
| 1:E:2:GLU:HG2 | 1:E:3:VAL:CG2 | 2.37 | 0.55 |
| 1:H:54:SER:C | 1:H:55:ARG:HG2 | 2.25 | 0.55 |
| 1:K:26:ILE:HD11 | 1:K:37:VAL:CB | 2.34 | 0.55 |
| 1:K:56:THR:OG1 | 1:K:67:LYS:HB2 | 2.06 | 0.55 |
| 1:L:2:GLU:HG2 | 1:L:3:VAL:CG2 | 2.37 | 0.55 |
| 1:M:56:THR:OG1 | 1:M:67:LYS:HB2 | 2.06 | 0.55 |
| 1:N:70:GLN:H | 1:N:75:THR:HB | 1.71 | 0.55 |
| 1:N:84:ARG:HA | 1:N:84:ARG:CZ | 2.36 | 0.55 |
| 1:A:84:ARG:HA | 1:A:84:ARG:CZ | 2.36 | 0.55 |
| 1:B:24:VAL:HG12 | 1:B:26:ILE:HD12 | 1.86 | 0.55 |
| 1:B:70:GLN:H | 1:B:75:THR:HB | 1.70 | 0.55 |
| 1:C:56:THR:OG1 | 1:C:67:LYS:HB2 | 2.06 | 0.55 |
| 1:F:24:VAL:HG12 | 1:F:26:ILE:HD12 | 1.86 | 0.55 |
| 1:F:62:ASN:HB2 | 1:F:84:ARG:HG3 | 1.86 | 0.55 |
| 1:G:24:VAL:HG21 | 1:G:107:LYS:HB3 | 1.88 | 0.55 |
| 1:L:6:ASN:HA | 1:L:35:HIS:CB | 2.37 | 0.55 |
| 1:A:61:MET:CG | 1:A:62:ASN:H | 2.18 | 0.55 |
| 1:C:24:VAL:HG21 | 1:C:107:LYS:HB3 | 1.88 | 0.55 |
| 1:C:26:ILE:HD11 | 1:C:37:VAL:CB | 2.34 | 0.55 |
| 1:D:2:GLU:HG2 | 1:D:3:VAL:CG2 | 2.37 | 0.55 |
| 1:D:24:VAL:HG21 | 1:D:107:LYS:HB3 | 1.88 | 0.55 |
| 1:D:24:VAL:HG12 | 1:D:26:ILE:HD12 | 1.86 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:E:6:ASN:HA | 1:E:35:HIS:CB | 2.37 | 0.55 |
| 1:H:70:GLN:H | 1:H:75:THR:HB | 1.70 | 0.55 |
| 1:J:70:GLN:H | 1:J:75:THR:HB | 1.70 | 0.55 |
| 1:K:62:ASN:HB2 | 1:K:84:ARG:HG3 | 1.86 | 0.55 |
| 1:D:46:THR:CB | 1:E:14:LYS:NZ | 2.66 | 0.55 |
| 1:I:2:GLU:HG2 | 1:I:3:VAL:CG2 | 2.37 | 0.55 |
| 1:K:2:GLU:HG2 | 1:K:3:VAL:CG2 | 2.37 | 0.55 |
| 1:K:84:ARG:HA | 1:K:84:ARG:CZ | 2.36 | 0.55 |
| 1:L:84:ARG:HA | 1:L:84:ARG:CZ | 2.36 | 0.55 |
| 1:M:2:GLU:HG2 | 1:M:3:VAL:CG2 | 2.37 | 0.55 |
| 1:M:84:ARG:HA | 1:M:84:ARG:CZ | 2.36 | 0.55 |
| 1:C:84:ARG:HA | 1:C:84:ARG:CZ | 2.36 | 0.55 |
| 1:E:84:ARG:HA | 1:E:84:ARG:CZ | 2.36 | 0.55 |
| 1:G:2:GLU:HG2 | 1:G:3:VAL:CG2 | 2.37 | 0.55 |
| 1:H:2:GLU:HG2 | 1:H:3:VAL:CG2 | 2.37 | 0.55 |
| 1:I:70:GLN:H | 1:I:75:THR:HB | 1.70 | 0.55 |
| 1:J:2:GLU:HG2 | 1:J:3:VAL:CG2 | 2.37 | 0.55 |
| 1:J:91:HIS:CB | 1:J:104:THR:HG21 | 2.32 | 0.55 |
| 1:B:54:SER:C | 1:B:55:ARG:HG2 | 2.25 | 0.54 |
| 1:C:70:GLN:H | 1:C:75:THR:HB | 1.70 | 0.54 |
| 1:D:6:ASN:HA | 1:D:35:HIS:CB | 2.37 | 0.54 |
| 1:M:6:ASN:HA | 1:M:35:HIS:CB | 2.37 | 0.54 |
| 1:N:24:VAL:HG12 | 1:N:26:ILE:HD12 | 1.86 | 0.54 |
| 1:N:56:THR:OG1 | 1:N:67:LYS:HB2 | 2.06 | 0.54 |
| 1:E:38:VAL:HG12 | 1:E:109:PHE:CD2 | 2.41 | 0.54 |
| 1:F:26:ILE:HD11 | 1:F:37:VAL:CB | 2.34 | 0.54 |
| 1:F:81:THR:HG23 | 1:F:81:THR:O | 2.06 | 0.54 |
| 1:H:24:VAL:HG12 | 1:H:26:ILE:HD12 | 1.86 | 0.54 |
| 1:J:6:ASN:HA | 1:J:35:HIS:CB | 2.37 | 0.54 |
| 1:K:6:ASN:HA | 1:K:35:HIS:CB | 2.37 | 0.54 |
| 1:L:26:ILE:HD11 | 1:L:37:VAL:CB | 2.34 | 0.54 |
| 1:N:81:THR:HG23 | 1:N:81:THR:O | 2.05 | 0.54 |
| 1:A:24:VAL:HG21 | 1:A:107:LYS:HD3 | 1.90 | 0.54 |
| 1:D:91:HIS:CB | 1:D:104:THR:HG21 | 2.32 | 0.54 |
| 1:E:26:ILE:HD11 | 1:E:37:VAL:CB | 2.34 | 0.54 |
| 1:F:6:ASN:HA | 1:F:35:HIS:CB | 2.37 | 0.54 |
| 1:J:38:VAL:HG12 | 1:J:109:PHE:CD2 | 2.41 | 0.54 |
| 1:L:66:VAL:HB | 1:M:12:ARG:HH12 | 1.73 | 0.54 |
| 1:A:66:VAL:HB | 1:B:12:ARG:HH12 | 1.73 | 0.54 |
| 1:C:2:GLU:HG2 | 1:C:3:VAL:CG2 | 2.37 | 0.54 |
| 1:F:2:GLU:HG2 | 1:F:3:VAL:CG2 | 2.37 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:G:6:ASN:HA | 1:G:35:HIS:CB | 2.37 | 0.54 |
| 1:D:26:ILE:HD11 | 1:D:37:VAL:CB | 2.34 | 0.54 |
| 1:G:26:ILE:HD11 | 1:G:37:VAL:CB | 2.35 | 0.54 |
| 1:H:24:VAL:HG21 | 1:H:107:LYS:HD3 | 1.90 | 0.54 |
| 1:J:24:VAL:HG21 | 1:J:107:LYS:HD3 | 1.90 | 0.54 |
| 1:N:2:GLU:HG2 | 1:N:3:VAL:CG2 | 2.37 | 0.54 |
| 1:D:66:VAL:HB | 1:E:12:ARG:HH12 | 1.73 | 0.54 |
| 1:E:24:VAL:HG21 | 1:E:107:LYS:HB3 | 1.88 | 0.54 |
| 1:K:91:HIS:CB | 1:K:104:THR:HG21 | 2.32 | 0.54 |
| 1:M:24:VAL:HG21 | 1:M:107:LYS:HD3 | 1.90 | 0.54 |
| 1:B:2:GLU:HG2 | 1:B:3:VAL:CG2 | 2.37 | 0.54 |
| 1:C:24:VAL:HG21 | 1:C:107:LYS:HD3 | 1.90 | 0.54 |
| 1:C:38:VAL:HG12 | 1:C:109:PHE:CD2 | 2.41 | 0.54 |
| 1:G:24:VAL:HG21 | 1:G:107:LYS:HD3 | 1.90 | 0.54 |
| 1:H:26:ILE:HD11 | 1:H:37:VAL:CB | 2.34 | 0.54 |
| 1:B:6:ASN:HA | 1:B:35:HIS:CB | 2.37 | 0.54 |
| 1:E:24:VAL:HG21 | 1:E:107:LYS:HD3 | 1.90 | 0.54 |
| 1:J:84:ARG:HA | 1:J:84:ARG:CZ | 2.36 | 0.54 |
| 1:K:66:VAL:HB | 1:L:12:ARG:HH12 | 1.73 | 0.54 |
| 1:N:6:ASN:HA | 1:N:35:HIS:CB | 2.37 | 0.54 |
| 1:A:2:GLU:HG2 | 1:A:3:VAL:CG2 | 2.37 | 0.54 |
| 1:A:38:VAL:HG12 | 1:A:109:PHE:CD2 | 2.41 | 0.54 |
| 1:B:24:VAL:HG21 | 1:B:107:LYS:HB3 | 1.88 | 0.54 |
| 1:E:66:VAL:HB | 1:F:12:ARG:HH12 | 1.73 | 0.54 |
| 1:H:66:VAL:HB | 1:I:12:ARG:HH12 | 1.73 | 0.54 |
| 1:L:24:VAL:HG21 | 1:L:107:LYS:HD3 | 1.90 | 0.54 |
| 1:E:90:LEU:HB2 | 1:E:105:VAL:CG2 | 2.38 | 0.54 |
| 1:F:50:GLY:HA3 | 1:F:77:LEU:HD13 | 1.90 | 0.54 |
| 1:F:78:VAL:O | 1:F:79:ILE:HD13 | 2.08 | 0.54 |
| 1:I:66:VAL:HB | 1:J:12:ARG:HH12 | 1.73 | 0.54 |
| 1:B:66:VAL:HB | 1:C:12:ARG:HH12 | 1.73 | 0.53 |
| 1:D:26:ILE:CD1 | 1:D:37:VAL:HB | 2.37 | 0.53 |
| 1:D:70:GLN:H | 1:D:75:THR:HB | 1.70 | 0.53 |
| 1:D:78:VAL:O | 1:D:79:ILE:HD13 | 2.08 | 0.53 |
| 1:E:78:VAL:O | 1:E:79:ILE:HD13 | 2.08 | 0.53 |
| 1:F:24:VAL:HG21 | 1:F:107:LYS:HD3 | 1.90 | 0.53 |
| 1:G:50:GLY:HA3 | 1:G:77:LEU:HD13 | 1.90 | 0.53 |
| 1:I:26:ILE:HD11 | 1:I:37:VAL:CB | 2.34 | 0.53 |
| 1:A:12:ARG:HH12 | 1:N:66:VAL:HB | 1.73 | 0.53 |
| 1:B:24:VAL:HG21 | 1:B:107:LYS:HD3 | 1.90 | 0.53 |
| 1:C:91:HIS:CB | 1:C:104:THR:HG21 | 2.32 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:D:24:VAL:HG21 | 1:D:107:LYS:HD3 | 1.90 | 0.53 |
| 1:H:90:LEU:HB2 | 1:H:105:VAL:CG2 | 2.38 | 0.53 |
| 1:A:29:VAL:HG13 | 1:A:77:LEU:HD11 | 1.90 | 0.53 |
| 1:C:24:VAL:HG12 | 1:C:26:ILE:HD12 | 1.86 | 0.53 |
| 1:I:24:VAL:HG21 | 1:I:107:LYS:HD3 | 1.90 | 0.53 |
| 1:L:91:HIS:CB | 1:L:104:THR:HG21 | 2.32 | 0.53 |
| 1:M:26:ILE:HD11 | 1:M:37:VAL:CB | 2.34 | 0.53 |
| 1:B:26:ILE:HD11 | 1:B:37:VAL:CB | 2.34 | 0.53 |
| 1:H:50:GLY:HA3 | 1:H:77:LEU:HD13 | 1.91 | 0.53 |
| 1:J:26:ILE:HD11 | 1:J:37:VAL:CB | 2.34 | 0.53 |
| 1:M:38:VAL:HG12 | 1:M:109:PHE:CD2 | 2.41 | 0.53 |
| 1:C:66:VAL:HB | 1:D:12:ARG:HH12 | 1.73 | 0.53 |
| 1:C:78:VAL:O | 1:C:79:ILE:HD13 | 2.08 | 0.53 |
| 1:G:78:VAL:O | 1:G:79:ILE:HD13 | 2.08 | 0.53 |
| 1:K:24:VAL:HG21 | 1:K:107:LYS:HD3 | 1.90 | 0.53 |
| 1:M:66:VAL:HB | 1:N:12:ARG:HH12 | 1.73 | 0.53 |
| 1:A:6:ASN:HA | 1:A:35:HIS:CB | 2.37 | 0.53 |
| 1:B:49:PHE:N | 1:B:55:ARG:HH12 | 2.06 | 0.53 |
| 1:C:80:VAL:HG22 | 1:C:86:TYR:CZ | 2.44 | 0.53 |
| 1:E:46:THR:CB | 1:F:14:LYS:HZ1 | 2.21 | 0.53 |
| 1:E:80:VAL:HG22 | 1:E:86:TYR:CZ | 2.44 | 0.53 |
| 1:I:24:VAL:HG12 | 1:I:26:ILE:HD12 | 1.86 | 0.53 |
| 1:J:24:VAL:HG12 | 1:J:26:ILE:HD12 | 1.86 | 0.53 |
| 1:J:78:VAL:O | 1:J:79:ILE:HD13 | 2.08 | 0.53 |
| 1:K:78:VAL:O | 1:K:79:ILE:HD13 | 2.08 | 0.53 |
| 1:L:78:VAL:O | 1:L:79:ILE:HD13 | 2.08 | 0.53 |
| 1:N:29:VAL:HG13 | 1:N:77:LEU:HD11 | 1.90 | 0.53 |
| 1:N:80:VAL:HG22 | 1:N:86:TYR:CZ | 2.44 | 0.53 |
| 1:B:29:VAL:HG13 | 1:B:77:LEU:HD11 | 1.90 | 0.53 |
| 1:B:65:PHE:CD1 | 1:B:80:VAL:HG12 | 2.41 | 0.53 |
| 1:B:78:VAL:O | 1:B:79:ILE:HD13 | 2.08 | 0.53 |
| 1:C:6:ASN:HA | 1:C:35:HIS:CB | 2.37 | 0.53 |
| 1:C:49:PHE:N | 1:C:55:ARG:HH12 | 2.06 | 0.53 |
| 1:I:50:GLY:HA3 | 1:I:77:LEU:HD13 | 1.90 | 0.53 |
| 1:K:38:VAL:HG12 | 1:K:109:PHE:CD2 | 2.41 | 0.53 |
| 1:M:86:TYR:CG | 1:M:109:PHE:HB3 | 2.44 | 0.53 |
| 1:A:80:VAL:HG22 | 1:A:86:TYR:CZ | 2.44 | 0.53 |
| 1:D:80:VAL:HG22 | 1:D:86:TYR:CZ | 2.44 | 0.53 |
| 1:F:80:VAL:HG22 | 1:F:86:TYR:CZ | 2.44 | 0.53 |
| 1:M:49:PHE:N | 1:M:55:ARG:HH12 | 2.06 | 0.53 |
| 1:M:78:VAL:O | 1:M:79:ILE:HD13 | 2.08 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:M:90:LEU:HB2 | 1:M:105:VAL:CG2 | 2.38 | 0.53 |
| 1:M:91:HIS:CB | 1:M:104:THR:HG21 | 2.32 | 0.53 |
| 1:B:91:HIS:CB | 1:B:104:THR:HG21 | 2.32 | 0.53 |
| 1:C:26:ILE:CD1 | 1:C:37:VAL:HB | 2.37 | 0.53 |
| 1:D:90:LEU:HB2 | 1:D:105:VAL:CG2 | 2.38 | 0.53 |
| 1:G:66:VAL:HB | 1:H:12:ARG:HH12 | 1.73 | 0.53 |
| 1:H:42:GLU:HG2 | 1:H:43:THR:H | 1.74 | 0.53 |
| 1:L:49:PHE:N | 1:L:55:ARG:HH12 | 2.06 | 0.53 |
| 1:N:86:TYR:CG | 1:N:109:PHE:HB3 | 2.44 | 0.53 |
| 1:A:26:ILE:HD11 | 1:A:37:VAL:CB | 2.34 | 0.53 |
| 1:B:86:TYR:CG | 1:B:109:PHE:HB3 | 2.44 | 0.53 |
| 1:G:42:GLU:HG2 | 1:G:43:THR:H | 1.74 | 0.53 |
| 1:G:86:TYR:CG | 1:G:109:PHE:HB3 | 2.44 | 0.53 |
| 1:I:38:VAL:HG12 | 1:I:109:PHE:CD2 | 2.41 | 0.53 |
| 1:I:42:GLU:HG2 | 1:I:43:THR:H | 1.74 | 0.53 |
| 1:K:66:VAL:CG2 | 1:K:68:PRO:HD3 | 2.37 | 0.53 |
| 1:L:90:LEU:HB2 | 1:L:105:VAL:CG2 | 2.38 | 0.53 |
| 1:N:24:VAL:HG21 | 1:N:107:LYS:HD3 | 1.90 | 0.53 |
| 1:N:90:LEU:HB2 | 1:N:105:VAL:CG2 | 2.38 | 0.53 |
| 1:A:78:VAL:O | 1:A:79:ILE:HD13 | 2.08 | 0.52 |
| 1:C:86:TYR:CG | 1:C:109:PHE:HB3 | 2.44 | 0.52 |
| 1:I:78:VAL:O | 1:I:79:ILE:HD13 | 2.08 | 0.52 |
| 1:L:66:VAL:CG2 | 1:L:68:PRO:HD3 | 2.37 | 0.52 |
| 1:M:80:VAL:HG22 | 1:M:86:TYR:CZ | 2.44 | 0.52 |
| 1:F:42:GLU:HG2 | 1:F:43:THR:H | 1.74 | 0.52 |
| 1:H:38:VAL:HG12 | 1:H:109:PHE:CD2 | 2.41 | 0.52 |
| 1:I:86:TYR:CG | 1:I:109:PHE:HB3 | 2.44 | 0.52 |
| 1:J:42:GLU:HG2 | 1:J:43:THR:H | 1.74 | 0.52 |
| 1:J:50:GLY:HA3 | 1:J:77:LEU:HD13 | 1.91 | 0.52 |
| 1:J:66:VAL:CG2 | 1:J:68:PRO:HD3 | 2.37 | 0.52 |
| 1:J:66:VAL:HB | 1:K:12:ARG:HH12 | 1.73 | 0.52 |
| 1:A:91:HIS:CB | 1:A:104:THR:HG21 | 2.32 | 0.52 |
| 1:D:49:PHE:N | 1:D:55:ARG:HH12 | 2.06 | 0.52 |
| 1:J:80:VAL:HG22 | 1:J:86:TYR:CZ | 2.44 | 0.52 |
| 1:N:49:PHE:N | 1:N:55:ARG:HH12 | 2.06 | 0.52 |
| 1:N:91:HIS:CB | 1:N:104:THR:HG21 | 2.33 | 0.52 |
| 1:E:86:TYR:CG | 1:E:109:PHE:HB3 | 2.44 | 0.52 |
| 1:F:66:VAL:HB | 1:G:12:ARG:HH12 | 1.73 | 0.52 |
| 1:L:86:TYR:CG | 1:L:109:PHE:HB3 | 2.44 | 0.52 |
| 1:N:26:ILE:HD11 | 1:N:37:VAL:CB | 2.35 | 0.52 |
| 1:N:78:VAL:O | 1:N:79:ILE:HD13 | 2.08 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:A:49:PHE:N | 1:A:55:ARG:HH12 | 2.06 | 0.52 |
| 1:B:80:VAL:HG22 | 1:B:86:TYR:CZ | 2.44 | 0.52 |
| 1:E:57:PHE:CE1 | 1:F:105:VAL:HG13 | 2.41 | 0.52 |
| 1:G:80:VAL:HG22 | 1:G:86:TYR:CZ | 2.44 | 0.52 |
| 1:H:78:VAL:O | 1:H:79:ILE:HD13 | 2.08 | 0.52 |
| 1:I:80:VAL:HG22 | 1:I:86:TYR:CZ | 2.44 | 0.52 |
| 1:K:42:GLU:HG2 | 1:K:43:THR:H | 1.74 | 0.52 |
| 1:M:66:VAL:CG2 | 1:M:68:PRO:HD3 | 2.37 | 0.52 |
| 1:C:30:ALA:HB2 | 1:C:49:PHE:HE1 | 1.75 | 0.52 |
| 1:E:42:GLU:HG2 | 1:E:43:THR:H | 1.74 | 0.52 |
| 1:H:86:TYR:CG | 1:H:109:PHE:HB3 | 2.44 | 0.52 |
| 1:I:30:ALA:HB2 | 1:I:49:PHE:HE1 | 1.74 | 0.52 |
| 1:I:66:VAL:CG2 | 1:I:68:PRO:HD3 | 2.37 | 0.52 |
| 1:B:26:ILE:CD1 | 1:B:37:VAL:HB | 2.37 | 0.52 |
| 1:B:30:ALA:HB2 | 1:B:49:PHE:HE1 | 1.74 | 0.52 |
| 1:D:86:TYR:CG | 1:D:109:PHE:HB3 | 2.44 | 0.52 |
| 1:E:29:VAL:HG13 | 1:E:77:LEU:HD11 | 1.90 | 0.52 |
| 1:F:86:TYR:CG | 1:F:109:PHE:HB3 | 2.44 | 0.52 |
| 1:G:30:ALA:HB2 | 1:G:49:PHE:HE1 | 1.74 | 0.52 |
| 1:G:90:LEU:HB2 | 1:G:105:VAL:CG2 | 2.38 | 0.52 |
| 1:H:30:ALA:HB2 | 1:H:49:PHE:HE1 | 1.74 | 0.52 |
| 1:M:30:ALA:HB2 | 1:M:49:PHE:HE1 | 1.74 | 0.52 |
| 1:G:66:VAL:CG2 | 1:G:68:PRO:HD3 | 2.37 | 0.52 |
| 1:J:57:PHE:CE1 | 1:K:105:VAL:HG13 | 2.41 | 0.52 |
| 1:K:80:VAL:HG22 | 1:K:86:TYR:CZ | 2.44 | 0.52 |
| 1:K:86:TYR:CG | 1:K:109:PHE:HB3 | 2.44 | 0.52 |
| 1:K:90:LEU:HB2 | 1:K:105:VAL:CG2 | 2.38 | 0.52 |
| 1:L:42:GLU:HG2 | 1:L:43:THR:H | 1.74 | 0.52 |
| 1:C:29:VAL:HG13 | 1:C:77:LEU:HD11 | 1.90 | 0.52 |
| 1:D:29:VAL:HG13 | 1:D:77:LEU:HD11 | 1.90 | 0.52 |
| 1:D:30:ALA:HB2 | 1:D:49:PHE:HE1 | 1.74 | 0.52 |
| 1:D:42:GLU:HG2 | 1:D:43:THR:H | 1.74 | 0.52 |
| 1:F:66:VAL:CG2 | 1:F:68:PRO:HD3 | 2.37 | 0.52 |
| 1:H:66:VAL:CG2 | 1:H:68:PRO:HD3 | 2.37 | 0.52 |
| 1:J:29:VAL:HG13 | 1:J:77:LEU:HD11 | 1.90 | 0.52 |
| 1:K:49:PHE:N | 1:K:55:ARG:HH12 | 2.06 | 0.52 |
| 1:K:50:GLY:HA3 | 1:K:77:LEU:HD13 | 1.91 | 0.52 |
| 1:L:83:LYS:CE | 1:L:109:PHE:HZ | 2.23 | 0.52 |
| 1:N:30:ALA:HB2 | 1:N:49:PHE:HE1 | 1.74 | 0.52 |
| 1:A:86:TYR:CG | 1:A:109:PHE:HB3 | 2.44 | 0.52 |
| 1:F:38:VAL:HG12 | 1:F:109:PHE:CD2 | 2.41 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:L:61:MET:CG | 1:L:62:ASN:H | 2.18 | 0.52 |
| 1:M:29:VAL:HG13 | 1:M:77:LEU:HD11 | 1.90 | 0.52 |
| 1:A:30:ALA:HB2 | 1:A:49:PHE:HE1 | 1.74 | 0.51 |
| 1:C:57:PHE:CE1 | 1:D:105:VAL:HG13 | 2.41 | 0.51 |
| 1:H:80:VAL:HG22 | 1:H:86:TYR:CZ | 2.44 | 0.51 |
| 1:L:13:ILE:HG13 | 1:L:15:SER:N | 2.26 | 0.51 |
| 1:L:80:VAL:HG22 | 1:L:86:TYR:CZ | 2.44 | 0.51 |
| 1:M:42:GLU:HG2 | 1:M:43:THR:H | 1.74 | 0.51 |
| 1:C:42:GLU:HG2 | 1:C:43:THR:H | 1.74 | 0.51 |
| 1:D:56:THR:CG2 | 1:D:57:PHE:H | 2.23 | 0.51 |
| 1:F:30:ALA:HB2 | 1:F:49:PHE:HE1 | 1.74 | 0.51 |
| 1:J:30:ALA:HB2 | 1:J:49:PHE:HE1 | 1.75 | 0.51 |
| 1:N:13:ILE:HG13 | 1:N:15:SER:N | 2.26 | 0.51 |
| 1:C:65:PHE:CD1 | 1:C:80:VAL:HG12 | 2.41 | 0.51 |
| 1:C:90:LEU:HB2 | 1:C:105:VAL:CG2 | 2.38 | 0.51 |
| 1:D:83:LYS:CE | 1:D:109:PHE:HZ | 2.23 | 0.51 |
| 1:E:66:VAL:CG2 | 1:E:68:PRO:HD3 | 2.37 | 0.51 |
| 1:F:29:VAL:HG13 | 1:F:77:LEU:HD11 | 1.90 | 0.51 |
| 1:F:56:THR:CG2 | 1:F:57:PHE:H | 2.23 | 0.51 |
| 1:J:13:ILE:HG13 | 1:J:15:SER:N | 2.26 | 0.51 |
| 1:J:86:TYR:CG | 1:J:109:PHE:HB3 | 2.44 | 0.51 |
| 1:K:29:VAL:CG1 | 1:K:92:PHE:CE2 | 2.94 | 0.51 |
| 1:K:29:VAL:HG13 | 1:K:77:LEU:HD11 | 1.90 | 0.51 |
| 1:N:42:GLU:HG2 | 1:N:43:THR:H | 1.74 | 0.51 |
| 1:N:66:VAL:CG2 | 1:N:68:PRO:HD3 | 2.37 | 0.51 |
| 1:A:26:ILE:CD1 | 1:A:37:VAL:HB | 2.37 | 0.51 |
| 1:A:42:GLU:HG2 | 1:A:43:THR:H | 1.74 | 0.51 |
| 1:A:57:PHE:CE1 | 1:B:105:VAL:HG13 | 2.41 | 0.51 |
| 1:B:42:GLU:HG2 | 1:B:43:THR:H | 1.74 | 0.51 |
| 1:G:57:PHE:CE1 | 1:H:105:VAL:HG13 | 2.41 | 0.51 |
| 1:I:29:VAL:HG13 | 1:I:77:LEU:HD11 | 1.90 | 0.51 |
| 1:J:29:VAL:CG1 | 1:J:92:PHE:CE2 | 2.94 | 0.51 |
| 1:J:45:ILE:HG22 | 1:J:46:THR:H | 1.75 | 0.51 |
| 1:K:45:ILE:HG22 | 1:K:46:THR:H | 1.75 | 0.51 |
| 1:M:29:VAL:CG1 | 1:M:92:PHE:CE2 | 2.94 | 0.51 |
| 1:M:83:LYS:CE | 1:M:109:PHE:HZ | 2.23 | 0.51 |
| 1:A:29:VAL:CG1 | 1:A:92:PHE:CE2 | 2.94 | 0.51 |
| 1:G:49:PHE:N | 1:G:55:ARG:HH12 | 2.06 | 0.51 |
| 1:G:79:ILE:HD12 | 1:G:107:LYS:HZ1 | 1.75 | 0.51 |
| 1:H:49:PHE:N | 1:H:55:ARG:HH12 | 2.06 | 0.51 |
| 1:K:30:ALA:HB2 | 1:K:49:PHE:HE1 | 1.74 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:L:30:ALA:HB2 | 1:L:49:PHE:HE1 | 1.75 | 0.51 |
| 1:L:50:GLY:HA3 | 1:L:77:LEU:HD13 | 1.91 | 0.51 |
| 1:C:45:ILE:HG22 | 1:C:46:THR:H | 1.75 | 0.51 |
| 1:L:29:VAL:CG1 | 1:L:92:PHE:CE2 | 2.94 | 0.51 |
| 1:N:65:PHE:CD1 | 1:N:80:VAL:HG12 | 2.41 | 0.51 |
| 1:D:45:ILE:HG22 | 1:D:46:THR:H | 1.75 | 0.51 |
| 1:E:49:PHE:N | 1:E:55:ARG:HH12 | 2.06 | 0.51 |
| 1:H:83:LYS:CE | 1:H:109:PHE:HZ | 2.23 | 0.51 |
| 1:L:45:ILE:HG22 | 1:L:46:THR:H | 1.75 | 0.51 |
| 1:B:45:ILE:HG22 | 1:B:46:THR:H | 1.75 | 0.51 |
| 1:B:56:THR:CG2 | 1:B:57:PHE:H | 2.23 | 0.51 |
| 1:F:49:PHE:N | 1:F:55:ARG:HH12 | 2.06 | 0.51 |
| 1:H:29:VAL:HG13 | 1:H:77:LEU:HD11 | 1.90 | 0.51 |
| 1:H:56:THR:CG2 | 1:H:57:PHE:H | 2.23 | 0.51 |
| 1:I:45:ILE:HG22 | 1:I:46:THR:H | 1.75 | 0.51 |
| 1:I:49:PHE:N | 1:I:55:ARG:HH12 | 2.06 | 0.51 |
| 1:L:29:VAL:HG13 | 1:L:77:LEU:HD11 | 1.90 | 0.51 |
| 1:N:25:LYS:HD2 | 1:N:25:LYS:H | 1.75 | 0.51 |
| 1:B:13:ILE:HG13 | 1:B:15:SER:N | 2.26 | 0.51 |
| 1:E:30:ALA:HB2 | 1:E:49:PHE:HE1 | 1.75 | 0.51 |
| 1:J:18:TYR:CD2 | 1:J:23:VAL:HG13 | 2.46 | 0.51 |
| 1:K:18:TYR:CD2 | 1:K:23:VAL:HG13 | 2.46 | 0.51 |
| 1:L:25:LYS:HD2 | 1:L:25:LYS:H | 1.75 | 0.51 |
| 1:M:25:LYS:HD2 | 1:M:25:LYS:H | 1.75 | 0.51 |
| 1:M:50:GLY:HA3 | 1:M:77:LEU:HD13 | 1.90 | 0.51 |
| 1:D:13:ILE:HG13 | 1:D:15:SER:N | 2.26 | 0.51 |
| 1:E:45:ILE:HG22 | 1:E:46:THR:H | 1.75 | 0.51 |
| 1:A:45:ILE:HG22 | 1:A:46:THR:H | 1.75 | 0.50 |
| 1:C:13:ILE:HG13 | 1:C:15:SER:N | 2.26 | 0.50 |
| 1:D:66:VAL:CG2 | 1:D:68:PRO:HD3 | 2.37 | 0.50 |
| 1:E:13:ILE:HG13 | 1:E:15:SER:N | 2.26 | 0.50 |
| 1:F:29:VAL:CG1 | 1:F:92:PHE:CE2 | 2.94 | 0.50 |
| 1:H:13:ILE:HG13 | 1:H:15:SER:N | 2.26 | 0.50 |
| 1:M:57:PHE:CE1 | 1:N:105:VAL:HG13 | 2.41 | 0.50 |
| 1:N:26:ILE:CD1 | 1:N:37:VAL:HB | 2.37 | 0.50 |
| 1:N:29:VAL:CG1 | 1:N:92:PHE:CE2 | 2.94 | 0.50 |
| 1:N:83:LYS:CE | 1:N:109:PHE:HZ | 2.23 | 0.50 |
| 1:A:25:LYS:HD2 | 1:A:25:LYS:H | 1.75 | 0.50 |
| 1:E:29:VAL:CG1 | 1:E:92:PHE:CE2 | 2.94 | 0.50 |
| 1:H:29:VAL:CG1 | 1:H:92:PHE:CE2 | 2.94 | 0.50 |
| 1:H:45:ILE:HG22 | 1:H:46:THR:H | 1.75 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:I:18:TYR:CD2 | 1:I:23:VAL:HG13 | 2.46 | 0.50 |
| 1:I:49:PHE:CB | 1:I:55:ARG:HH22 | 2.17 | 0.50 |
| 1:K:25:LYS:HD2 | 1:K:25:LYS:H | 1.75 | 0.50 |
| 1:L:18:TYR:CD2 | 1:L:23:VAL:HG13 | 2.46 | 0.50 |
| 1:D:29:VAL:CG1 | 1:D:92:PHE:CE2 | 2.94 | 0.50 |
| 1:F:13:ILE:HG13 | 1:F:15:SER:N | 2.26 | 0.50 |
| 1:G:29:VAL:HG13 | 1:G:77:LEU:HD11 | 1.90 | 0.50 |
| 1:J:56:THR:CG2 | 1:J:57:PHE:H | 2.23 | 0.50 |
| 1:N:50:GLY:HA3 | 1:N:77:LEU:HD13 | 1.90 | 0.50 |
| 1:A:13:ILE:HG13 | 1:A:15:SER:N | 2.26 | 0.50 |
| 1:A:66:VAL:CG2 | 1:A:68:PRO:HD3 | 2.37 | 0.50 |
| 1:I:13:ILE:HG13 | 1:I:15:SER:N | 2.26 | 0.50 |
| 1:M:26:ILE:CD1 | 1:M:37:VAL:HB | 2.37 | 0.50 |
| 1:N:56:THR:CG2 | 1:N:57:PHE:H | 2.23 | 0.50 |
| 1:B:25:LYS:HD2 | 1:B:25:LYS:H | 1.75 | 0.50 |
| 1:B:29:VAL:CG1 | 1:B:92:PHE:CE2 | 2.94 | 0.50 |
| 1:E:83:LYS:CE | 1:E:109:PHE:HZ | 2.23 | 0.50 |
| 1:F:45:ILE:HG22 | 1:F:46:THR:H | 1.75 | 0.50 |
| 1:G:13:ILE:HG13 | 1:G:15:SER:N | 2.26 | 0.50 |
| 1:G:29:VAL:CG1 | 1:G:92:PHE:CE2 | 2.94 | 0.50 |
| 1:J:49:PHE:N | 1:J:55:ARG:HH12 | 2.06 | 0.50 |
| 1:M:45:ILE:HG22 | 1:M:46:THR:H | 1.75 | 0.50 |
| 1:B:90:LEU:HB2 | 1:B:105:VAL:CG2 | 2.38 | 0.50 |
| 1:C:29:VAL:CG1 | 1:C:92:PHE:CE2 | 2.94 | 0.50 |
| 1:I:29:VAL:CG1 | 1:I:92:PHE:CE2 | 2.94 | 0.50 |
| 1:J:25:LYS:HD2 | 1:J:25:LYS:H | 1.75 | 0.50 |
| 1:J:90:LEU:HB2 | 1:J:105:VAL:CG2 | 2.38 | 0.50 |
| 1:L:56:THR:CG2 | 1:L:57:PHE:H | 2.23 | 0.50 |
| 1:A:49:PHE:CB | 1:A:55:ARG:HH22 | 2.17 | 0.50 |
| 1:B:91:HIS:HA | 1:B:104:THR:CG2 | 2.42 | 0.50 |
| 1:C:91:HIS:HA | 1:C:104:THR:CG2 | 2.42 | 0.50 |
| 1:G:45:ILE:HG22 | 1:G:46:THR:H | 1.75 | 0.50 |
| 1:K:13:ILE:HG13 | 1:K:15:SER:N | 2.26 | 0.50 |
| 1:M:13:ILE:HG13 | 1:M:15:SER:N | 2.26 | 0.50 |
| 1:N:18:TYR:CD2 | 1:N:23:VAL:HG13 | 2.46 | 0.50 |
| 1:A:91:HIS:HA | 1:A:104:THR:CG2 | 2.42 | 0.50 |
| 1:C:25:LYS:HD2 | 1:C:25:LYS:H | 1.75 | 0.50 |
| 1:D:91:HIS:HA | 1:D:104:THR:CG2 | 2.42 | 0.50 |
| 1:I:83:LYS:CE | 1:I:109:PHE:HZ | 2.23 | 0.50 |
| 1:K:54:SER:O | 1:K:55:ARG:HG2 | 2.12 | 0.50 |
| 1:L:26:ILE:CD1 | 1:L:37:VAL:HB | 2.37 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:L:53:GLU:OE2 | 1:M:11:TYR:HB2 | 2.12 | 0.50 |
| 1:N:45:ILE:HG22 | 1:N:46:THR:H | 1.75 | 0.50 |
| 1:N:91:HIS:HA | 1:N:104:THR:CG2 | 2.42 | 0.50 |
| 1:A:5:ARG:CB | 1:A:36:ILE:HB | 2.42 | 0.50 |
| 1:A:50:GLY:HA3 | 1:A:77:LEU:HD13 | 1.91 | 0.50 |
| 1:B:5:ARG:CB | 1:B:36:ILE:HB | 2.42 | 0.50 |
| 1:B:54:SER:O | 1:B:55:ARG:HG2 | 2.12 | 0.50 |
| 1:C:5:ARG:CB | 1:C:36:ILE:HB | 2.42 | 0.50 |
| 1:D:53:GLU:OE2 | 1:E:11:TYR:HB2 | 2.12 | 0.50 |
| 1:D:54:SER:O | 1:D:55:ARG:HG2 | 2.12 | 0.50 |
| 1:I:53:GLU:OE2 | 1:J:11:TYR:HB2 | 2.12 | 0.50 |
| 1:L:91:HIS:HA | 1:L:104:THR:CG2 | 2.42 | 0.50 |
| 1:M:91:HIS:HA | 1:M:104:THR:CG2 | 2.42 | 0.50 |
| 1:E:53:GLU:OE2 | 1:F:11:TYR:HB2 | 2.12 | 0.49 |
| 1:E:91:HIS:HA | 1:E:104:THR:CG2 | 2.42 | 0.49 |
| 1:F:53:GLU:OE2 | 1:G:11:TYR:HB2 | 2.12 | 0.49 |
| 1:F:90:LEU:HB2 | 1:F:105:VAL:CG2 | 2.38 | 0.49 |
| 1:K:26:ILE:CD1 | 1:K:37:VAL:HB | 2.37 | 0.49 |
| 1:K:91:HIS:HA | 1:K:104:THR:CG2 | 2.42 | 0.49 |
| 1:M:53:GLU:OE2 | 1:N:11:TYR:HB2 | 2.12 | 0.49 |
| 1:N:5:ARG:CB | 1:N:36:ILE:HB | 2.42 | 0.49 |
| 1:A:83:LYS:CE | 1:A:109:PHE:HZ | 2.23 | 0.49 |
| 1:C:66:VAL:CG2 | 1:C:68:PRO:HD3 | 2.37 | 0.49 |
| 1:D:5:ARG:CB | 1:D:36:ILE:HB | 2.42 | 0.49 |
| 1:K:49:PHE:CB | 1:K:55:ARG:HH22 | 2.17 | 0.49 |
| 1:M:54:SER:O | 1:M:55:ARG:HG2 | 2.12 | 0.49 |
| 1:E:68:PRO:O | 1:E:77:LEU:HB2 | 2.13 | 0.49 |
| 1:G:68:PRO:O | 1:G:77:LEU:HB2 | 2.13 | 0.49 |
| 1:H:24:VAL:HG22 | 1:H:25:LYS:H | 1.77 | 0.49 |
| 1:I:55:ARG:CD | 1:J:11:TYR:CD2 | 2.96 | 0.49 |
| 1:I:68:PRO:O | 1:I:77:LEU:HB2 | 2.12 | 0.49 |
| 1:J:91:HIS:HA | 1:J:104:THR:CG2 | 2.42 | 0.49 |
| 1:M:5:ARG:CB | 1:M:36:ILE:HB | 2.42 | 0.49 |
| 1:C:53:GLU:OE2 | 1:D:11:TYR:HB2 | 2.12 | 0.49 |
| 1:C:55:ARG:CD | 1:D:11:TYR:CD2 | 2.95 | 0.49 |
| 1:E:5:ARG:CB | 1:E:36:ILE:HB | 2.42 | 0.49 |
| 1:E:54:SER:O | 1:E:55:ARG:HG2 | 2.12 | 0.49 |
| 1:F:54:SER:O | 1:F:55:ARG:HG2 | 2.12 | 0.49 |
| 1:F:91:HIS:HA | 1:F:104:THR:CG2 | 2.42 | 0.49 |
| 1:H:55:ARG:CD | 1:I:11:TYR:CD2 | 2.96 | 0.49 |
| 1:J:55:ARG:CD | 1:K:11:TYR:CD2 | 2.95 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:K:53:GLU:OE2 | 1:L:11:TYR:HB2 | 2.12 | 0.49 |
| 1:M:49:PHE:CB | 1:M:55:ARG:HH22 | 2.17 | 0.49 |
| 1:A:11:TYR:HB2 | 1:N:53:GLU:OE2 | 2.12 | 0.49 |
| 1:A:49:PHE:CD2 | 1:A:79:ILE:HG13 | 2.48 | 0.49 |
| 1:B:50:GLY:HA3 | 1:B:77:LEU:HD13 | 1.90 | 0.49 |
| 1:D:65:PHE:CD1 | 1:D:80:VAL:HG12 | 2.41 | 0.49 |
| 1:H:54:SER:O | 1:H:55:ARG:HG2 | 2.12 | 0.49 |
| 1:I:25:LYS:HD2 | 1:I:25:LYS:H | 1.75 | 0.49 |
| 1:I:54:SER:O | 1:I:55:ARG:HG2 | 2.12 | 0.49 |
| 1:I:91:HIS:HA | 1:I:104:THR:CG2 | 2.42 | 0.49 |
| 1:J:68:PRO:O | 1:J:77:LEU:HB2 | 2.13 | 0.49 |
| 1:K:24:VAL:HG22 | 1:K:25:LYS:H | 1.77 | 0.49 |
| 1:N:54:SER:O | 1:N:55:ARG:HG2 | 2.12 | 0.49 |
| 1:A:32:VAL:HG11 | 1:A:49:PHE:O | 2.13 | 0.49 |
| 1:A:68:PRO:O | 1:A:77:LEU:HB2 | 2.13 | 0.49 |
| 1:B:68:PRO:O | 1:B:77:LEU:HB2 | 2.12 | 0.49 |
| 1:C:49:PHE:CD2 | 1:C:79:ILE:HG13 | 2.48 | 0.49 |
| 1:D:25:LYS:HD2 | 1:D:25:LYS:H | 1.75 | 0.49 |
| 1:E:32:VAL:HG11 | 1:E:49:PHE:O | 2.13 | 0.49 |
| 1:E:49:PHE:CD2 | 1:E:79:ILE:HG13 | 2.48 | 0.49 |
| 1:F:32:VAL:HG11 | 1:F:49:PHE:O | 2.13 | 0.49 |
| 1:G:24:VAL:HG22 | 1:G:25:LYS:H | 1.78 | 0.49 |
| 1:G:53:GLU:OE2 | 1:H:11:TYR:HB2 | 2.12 | 0.49 |
| 1:G:91:HIS:HA | 1:G:104:THR:CG2 | 2.42 | 0.49 |
| 1:H:53:GLU:OE2 | 1:I:11:TYR:HB2 | 2.12 | 0.49 |
| 1:H:57:PHE:CE1 | 1:I:105:VAL:HG13 | 2.41 | 0.49 |
| 1:H:91:HIS:HA | 1:H:104:THR:CG2 | 2.42 | 0.49 |
| 1:J:26:ILE:CD1 | 1:J:37:VAL:HB | 2.37 | 0.49 |
| 1:K:32:VAL:HG11 | 1:K:49:PHE:O | 2.13 | 0.49 |
| 1:A:54:SER:O | 1:A:55:ARG:HG2 | 2.12 | 0.49 |
| 1:B:57:PHE:HZ | 1:C:28:ALA:N | 2.11 | 0.49 |
| 1:C:57:PHE:HZ | 1:D:28:ALA:N | 2.11 | 0.49 |
| 1:D:57:PHE:HZ | 1:E:28:ALA:N | 2.11 | 0.49 |
| 1:D:68:PRO:O | 1:D:77:LEU:HB2 | 2.13 | 0.49 |
| 1:D:88:ILE:HD11 | 1:D:107:LYS:CG | 2.34 | 0.49 |
| 1:G:57:PHE:HZ | 1:H:28:ALA:N | 2.11 | 0.49 |
| 1:J:24:VAL:HG22 | 1:J:25:LYS:H | 1.78 | 0.49 |
| 1:L:5:ARG:CB | 1:L:36:ILE:HB | 2.42 | 0.49 |
| 1:L:24:VAL:HG22 | 1:L:25:LYS:H | 1.78 | 0.49 |
| 1:L:68:PRO:O | 1:L:77:LEU:HB2 | 2.13 | 0.49 |
| 1:M:49:PHE:CD2 | 1:M:79:ILE:HG13 | 2.48 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:A:49:PHE:HE2 | 1:A:79:ILE:CD1 | 2.26 | 0.49 |
| 1:B:32:VAL:HG11 | 1:B:49:PHE:O | 2.13 | 0.49 |
| 1:D:32:VAL:HG11 | 1:D:49:PHE:O | 2.13 | 0.49 |
| 1:E:57:PHE:HZ | 1:F:28:ALA:N | 2.11 | 0.49 |
| 1:G:49:PHE:CD2 | 1:G:79:ILE:HG13 | 2.48 | 0.49 |
| 1:H:57:PHE:HZ | 1:I:28:ALA:N | 2.11 | 0.49 |
| 1:J:32:VAL:HG11 | 1:J:49:PHE:O | 2.13 | 0.49 |
| 1:J:54:SER:O | 1:J:55:ARG:HG2 | 2.12 | 0.49 |
| 1:K:49:PHE:CD2 | 1:K:79:ILE:HG13 | 2.48 | 0.49 |
| 1:M:18:TYR:CD2 | 1:M:23:VAL:HG13 | 2.46 | 0.49 |
| 1:N:32:VAL:HG11 | 1:N:49:PHE:O | 2.13 | 0.49 |
| 1:B:57:PHE:CE1 | 1:C:105:VAL:HG13 | 2.41 | 0.49 |
| 1:B:66:VAL:CG2 | 1:B:68:PRO:HD3 | 2.37 | 0.49 |
| 1:F:5:ARG:CB | 1:F:36:ILE:HB | 2.42 | 0.49 |
| 1:G:54:SER:O | 1:G:55:ARG:HG2 | 2.12 | 0.49 |
| 1:H:49:PHE:CD2 | 1:H:79:ILE:HG13 | 2.48 | 0.49 |
| 1:I:24:VAL:HG22 | 1:I:25:LYS:H | 1.78 | 0.49 |
| 1:J:49:PHE:CD2 | 1:J:79:ILE:HG13 | 2.48 | 0.49 |
| 1:K:55:ARG:CD | 1:L:11:TYR:CD2 | 2.96 | 0.49 |
| 1:D:79:ILE:C | 1:D:81:THR:H | 2.17 | 0.49 |
| 1:L:32:VAL:HG11 | 1:L:49:PHE:O | 2.13 | 0.49 |
| 1:L:49:PHE:CD2 | 1:L:79:ILE:HG13 | 2.48 | 0.49 |
| 1:L:54:SER:O | 1:L:55:ARG:HG2 | 2.12 | 0.49 |
| 1:M:24:VAL:HG22 | 1:M:25:LYS:H | 1.78 | 0.49 |
| 1:M:68:PRO:O | 1:M:77:LEU:HB2 | 2.12 | 0.49 |
| 1:A:90:LEU:HB2 | 1:A:105:VAL:CG2 | 2.38 | 0.48 |
| 1:B:49:PHE:CD2 | 1:B:79:ILE:HG13 | 2.48 | 0.48 |
| 1:D:55:ARG:CD | 1:E:11:TYR:CD2 | 2.96 | 0.48 |
| 1:E:25:LYS:HD2 | 1:E:25:LYS:H | 1.75 | 0.48 |
| 1:E:79:ILE:C | 1:E:81:THR:H | 2.17 | 0.48 |
| 1:F:49:PHE:CD2 | 1:F:79:ILE:HG13 | 2.48 | 0.48 |
| 1:H:25:LYS:HD2 | 1:H:25:LYS:H | 1.75 | 0.48 |
| 1:I:26:ILE:CD1 | 1:I:37:VAL:HB | 2.37 | 0.48 |
| 1:M:79:ILE:C | 1:M:81:THR:H | 2.17 | 0.48 |
| 1:A:43:THR:HG22 | 1:B:14:LYS:HE2 | 1.95 | 0.48 |
| 1:B:53:GLU:OE2 | 1:C:11:TYR:HB2 | 2.12 | 0.48 |
| 1:C:43:THR:HG22 | 1:D:14:LYS:HE2 | 1.96 | 0.48 |
| 1:D:24:VAL:HG22 | 1:D:25:LYS:H | 1.77 | 0.48 |
| 1:F:24:VAL:HG22 | 1:F:25:LYS:H | 1.78 | 0.48 |
| 1:F:57:PHE:CE1 | 1:G:105:VAL:HG13 | 2.41 | 0.48 |
| 1:G:32:VAL:HG11 | 1:G:49:PHE:O | 2.13 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:H:29:VAL:HG13 | 1:H:29:VAL:O | 2.13 | 0.48 |
| 1:I:32:VAL:HG11 | 1:I:49:PHE:O | 2.13 | 0.48 |
| 1:I:57:PHE:HZ | 1:J:28:ALA:N | 2.11 | 0.48 |
| 1:I:79:ILE:C | 1:I:81:THR:H | 2.17 | 0.48 |
| 1:J:53:GLU:OE2 | 1:K:11:TYR:HB2 | 2.12 | 0.48 |
| 1:M:29:VAL:HG13 | 1:M:29:VAL:O | 2.13 | 0.48 |
| 1:A:53:GLU:OE2 | 1:B:11:TYR:HB2 | 2.12 | 0.48 |
| 1:C:50:GLY:HA3 | 1:C:77:LEU:HD13 | 1.91 | 0.48 |
| 1:C:68:PRO:O | 1:C:77:LEU:HB2 | 2.13 | 0.48 |
| 1:C:79:ILE:C | 1:C:81:THR:H | 2.17 | 0.48 |
| 1:D:49:PHE:CD2 | 1:D:79:ILE:HG13 | 2.48 | 0.48 |
| 1:E:24:VAL:HG22 | 1:E:25:LYS:H | 1.78 | 0.48 |
| 1:F:79:ILE:C | 1:F:81:THR:H | 2.17 | 0.48 |
| 1:G:25:LYS:HD2 | 1:G:25:LYS:H | 1.75 | 0.48 |
| 1:H:43:THR:HG22 | 1:I:14:LYS:HE2 | 1.95 | 0.48 |
| 1:J:57:PHE:HZ | 1:K:28:ALA:N | 2.11 | 0.48 |
| 1:J:83:LYS:CE | 1:J:109:PHE:HZ | 2.23 | 0.48 |
| 1:L:55:ARG:CD | 1:M:11:TYR:CD2 | 2.95 | 0.48 |
| 1:L:79:ILE:C | 1:L:81:THR:H | 2.17 | 0.48 |
| 1:H:68:PRO:O | 1:H:77:LEU:HB2 | 2.13 | 0.48 |
| 1:I:29:VAL:HG13 | 1:I:29:VAL:O | 2.14 | 0.48 |
| 1:K:43:THR:HG22 | 1:L:14:LYS:HE2 | 1.96 | 0.48 |
| 1:K:68:PRO:O | 1:K:77:LEU:HB2 | 2.13 | 0.48 |
| 1:L:29:VAL:HG13 | 1:L:29:VAL:O | 2.13 | 0.48 |
| 1:N:29:VAL:HG13 | 1:N:29:VAL:O | 2.13 | 0.48 |
| 1:N:79:ILE:C | 1:N:81:THR:H | 2.17 | 0.48 |
| 1:A:65:PHE:CD1 | 1:A:80:VAL:HG12 | 2.41 | 0.48 |
| 1:E:89:VAL:HG13 | 1:E:89:VAL:O | 2.14 | 0.48 |
| 1:F:25:LYS:HD2 | 1:F:25:LYS:H | 1.75 | 0.48 |
| 1:F:68:PRO:O | 1:F:77:LEU:HB2 | 2.12 | 0.48 |
| 1:F:83:LYS:CE | 1:F:109:PHE:HZ | 2.23 | 0.48 |
| 1:G:79:ILE:C | 1:G:81:THR:H | 2.17 | 0.48 |
| 1:L:110:ILE:H | 1:L:110:ILE:HG12 | 1.51 | 0.48 |
| 1:M:32:VAL:HG11 | 1:M:49:PHE:O | 2.13 | 0.48 |
| 1:M:43:THR:HG22 | 1:N:14:LYS:HE2 | 1.96 | 0.48 |
| 1:N:24:VAL:HG22 | 1:N:25:LYS:H | 1.78 | 0.48 |
| 1:A:24:VAL:HG22 | 1:A:25:LYS:H | 1.77 | 0.48 |
| 1:B:24:VAL:HG23 | 1:B:108:SER:O | 2.14 | 0.48 |
| 1:B:83:LYS:CE | 1:B:109:PHE:HZ | 2.23 | 0.48 |
| 1:C:54:SER:O | 1:C:55:ARG:HG2 | 2.12 | 0.48 |
| 1:E:24:VAL:HG23 | 1:E:108:SER:O | 2.14 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:G:5:ARG:CB | 1:G:36:ILE:HB | 2.42 | 0.48 |
| 1:G:24:VAL:HG23 | 1:G:108:SER:O | 2.14 | 0.48 |
| 1:I:43:THR:HG22 | 1:J:14:LYS:HE2 | 1.95 | 0.48 |
| 1:J:24:VAL:HG23 | 1:J:108:SER:O | 2.14 | 0.48 |
| 1:K:24:VAL:HG23 | 1:K:108:SER:O | 2.14 | 0.48 |
| 1:K:57:PHE:CE1 | 1:L:105:VAL:HG13 | 2.41 | 0.48 |
| 1:L:24:VAL:HG23 | 1:L:108:SER:O | 2.14 | 0.48 |
| 1:M:24:VAL:HG23 | 1:M:108:SER:O | 2.14 | 0.48 |
| 1:A:57:PHE:HZ | 1:B:28:ALA:N | 2.11 | 0.48 |
| 1:B:83:LYS:HA | 1:B:83:LYS:HD3 | 1.57 | 0.48 |
| 1:B:89:VAL:HG13 | 1:B:89:VAL:O | 2.14 | 0.48 |
| 1:C:32:VAL:HG11 | 1:C:49:PHE:O | 2.13 | 0.48 |
| 1:F:24:VAL:HG23 | 1:F:108:SER:O | 2.14 | 0.48 |
| 1:F:43:THR:HG22 | 1:G:14:LYS:HE2 | 1.96 | 0.48 |
| 1:F:55:ARG:CD | 1:G:11:TYR:CD2 | 2.95 | 0.48 |
| 1:H:24:VAL:HG23 | 1:H:108:SER:O | 2.14 | 0.48 |
| 1:H:26:ILE:CD1 | 1:H:37:VAL:HB | 2.37 | 0.48 |
| 1:H:79:ILE:C | 1:H:81:THR:H | 2.17 | 0.48 |
| 1:I:24:VAL:HG23 | 1:I:108:SER:O | 2.14 | 0.48 |
| 1:I:90:LEU:HB2 | 1:I:105:VAL:CG2 | 2.38 | 0.48 |
| 1:M:55:ARG:CD | 1:N:11:TYR:CD2 | 2.95 | 0.48 |
| 1:N:24:VAL:HG23 | 1:N:108:SER:O | 2.14 | 0.48 |
| 1:A:26:ILE:CG1 | 1:A:37:VAL:CG2 | 2.92 | 0.48 |
| 1:A:29:VAL:HG13 | 1:A:29:VAL:O | 2.13 | 0.48 |
| 1:B:26:ILE:CG1 | 1:B:37:VAL:CG2 | 2.92 | 0.48 |
| 1:C:24:VAL:HG22 | 1:C:25:LYS:H | 1.78 | 0.48 |
| 1:E:43:THR:HG22 | 1:F:14:LYS:HE2 | 1.96 | 0.48 |
| 1:F:57:PHE:HZ | 1:G:28:ALA:N | 2.11 | 0.48 |
| 1:G:29:VAL:HG13 | 1:G:29:VAL:O | 2.13 | 0.48 |
| 1:G:89:VAL:HG13 | 1:G:89:VAL:O | 2.14 | 0.48 |
| 1:H:49:PHE:HE2 | 1:H:79:ILE:CD1 | 2.26 | 0.48 |
| 1:I:26:ILE:HG13 | 1:I:37:VAL:CG2 | 2.44 | 0.48 |
| 1:I:49:PHE:CD2 | 1:I:79:ILE:HG13 | 2.48 | 0.48 |
| 1:I:65:PHE:CD1 | 1:I:80:VAL:HG12 | 2.41 | 0.48 |
| 1:J:43:THR:HG22 | 1:K:14:LYS:HE2 | 1.96 | 0.48 |
| 1:M:9:TYR:H | 1:M:9:TYR:HD1 | 1.62 | 0.48 |
| 1:N:68:PRO:O | 1:N:77:LEU:HB2 | 2.13 | 0.48 |
| 1:A:24:VAL:HG23 | 1:A:108:SER:O | 2.14 | 0.48 |
| 1:C:89:VAL:O | 1:C:89:VAL:HG13 | 2.14 | 0.48 |
| 1:D:24:VAL:HG11 | 1:D:26:ILE:HD12 | 1.92 | 0.48 |
| 1:D:24:VAL:HG23 | 1:D:108:SER:O | 2.14 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:D:29:VAL:HG13 | 1:D:29:VAL:O | 2.13 | 0.48 |
| 1:E:24:VAL:HG11 | 1:E:26:ILE:HD12 | 1.92 | 0.48 |
| 1:E:49:PHE:HE2 | 1:E:79:ILE:CD1 | 2.26 | 0.48 |
| 1:E:55:ARG:CD | 1:F:11:TYR:CD2 | 2.95 | 0.48 |
| 1:E:79:ILE:HD12 | 1:E:107:LYS:HZ1 | 1.79 | 0.48 |
| 1:H:26:ILE:HG13 | 1:H:37:VAL:CG2 | 2.44 | 0.48 |
| 1:H:32:VAL:HG11 | 1:H:49:PHE:O | 2.13 | 0.48 |
| 1:J:26:ILE:HG13 | 1:J:37:VAL:CG2 | 2.44 | 0.48 |
| 1:K:79:ILE:HD12 | 1:K:107:LYS:HZ1 | 1.78 | 0.48 |
| 1:K:79:ILE:C | 1:K:81:THR:H | 2.17 | 0.48 |
| 1:L:57:PHE:HZ | 1:M:28:ALA:N | 2.11 | 0.48 |
| 1:M:57:PHE:HZ | 1:N:28:ALA:N | 2.11 | 0.48 |
| 1:N:49:PHE:CD2 | 1:N:79:ILE:HG13 | 2.48 | 0.48 |
| 1:B:24:VAL:HG22 | 1:B:25:LYS:H | 1.78 | 0.48 |
| 1:B:29:VAL:HG13 | 1:B:29:VAL:O | 2.14 | 0.48 |
| 1:B:79:ILE:C | 1:B:81:THR:H | 2.17 | 0.48 |
| 1:C:24:VAL:HG23 | 1:C:108:SER:O | 2.14 | 0.48 |
| 1:C:29:VAL:HG13 | 1:C:29:VAL:O | 2.14 | 0.48 |
| 1:D:89:VAL:HG13 | 1:D:89:VAL:O | 2.14 | 0.48 |
| 1:E:29:VAL:HG13 | 1:E:29:VAL:O | 2.13 | 0.48 |
| 1:G:55:ARG:CD | 1:H:11:TYR:CD2 | 2.95 | 0.48 |
| 1:J:79:ILE:C | 1:J:81:THR:H | 2.17 | 0.48 |
| 1:K:65:PHE:CD1 | 1:K:80:VAL:HG12 | 2.41 | 0.48 |
| 1:L:9:TYR:H | 1:L:9:TYR:HD1 | 1.62 | 0.48 |
| 1:N:26:ILE:CG1 | 1:N:37:VAL:CG2 | 2.92 | 0.48 |
| 1:N:38:VAL:HG13 | 1:N:107:LYS:HZ3 | 1.79 | 0.48 |
| 1:A:28:ALA:N | 1:N:57:PHE:HZ | 2.11 | 0.47 |
| 1:A:79:ILE:C | 1:A:81:THR:H | 2.17 | 0.47 |
| 1:A:89:VAL:O | 1:A:89:VAL:HG13 | 2.14 | 0.47 |
| 1:C:26:ILE:CG1 | 1:C:37:VAL:CG2 | 2.92 | 0.47 |
| 1:D:38:VAL:CA | 1:D:109:PHE:CE2 | 2.97 | 0.47 |
| 1:E:56:THR:CG2 | 1:E:57:PHE:H | 2.23 | 0.47 |
| 1:G:26:ILE:HG13 | 1:G:37:VAL:CG2 | 2.44 | 0.47 |
| 1:G:26:ILE:CD1 | 1:G:37:VAL:HB | 2.37 | 0.47 |
| 1:H:5:ARG:CB | 1:H:36:ILE:HB | 2.42 | 0.47 |
| 1:K:26:ILE:HG13 | 1:K:37:VAL:CG2 | 2.44 | 0.47 |
| 1:C:26:ILE:HG13 | 1:C:37:VAL:CG2 | 2.44 | 0.47 |
| 1:C:38:VAL:CA | 1:C:109:PHE:CE2 | 2.98 | 0.47 |
| 1:D:84:ARG:HB3 | 1:D:85:THR:H | 1.34 | 0.47 |
| 1:D:110:ILE:H | 1:D:110:ILE:HG12 | 1.51 | 0.47 |
| 1:F:24:VAL:HG11 | 1:F:26:ILE:HD12 | 1.92 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:G:83:LYS:CE | 1:G:109:PHE:HZ | 2.23 | 0.47 |
| 1:K:38:VAL:HG23 | 1:K:39:ALA:H | 1.79 | 0.47 |
| 1:L:49:PHE:HE2 | 1:L:79:ILE:CD1 | 2.26 | 0.47 |
| 1:M:79:ILE:HD12 | 1:M:107:LYS:HZ1 | 1.78 | 0.47 |
| 1:A:11:TYR:CD2 | 1:N:55:ARG:CD | 2.95 | 0.47 |
| 1:B:49:PHE:HE2 | 1:B:79:ILE:CD1 | 2.26 | 0.47 |
| 1:C:83:LYS:CE | 1:C:109:PHE:HZ | 2.23 | 0.47 |
| 1:D:43:THR:HG22 | 1:E:14:LYS:HE2 | 1.96 | 0.47 |
| 1:D:50:GLY:HA3 | 1:D:77:LEU:HD13 | 1.91 | 0.47 |
| 1:E:38:VAL:CA | 1:E:109:PHE:CE2 | 2.97 | 0.47 |
| 1:J:29:VAL:HG13 | 1:J:29:VAL:O | 2.14 | 0.47 |
| 1:K:29:VAL:HG13 | 1:K:29:VAL:O | 2.13 | 0.47 |
| 1:K:89:VAL:O | 1:K:89:VAL:HG13 | 2.14 | 0.47 |
| 1:L:43:THR:HG22 | 1:M:14:LYS:HE2 | 1.96 | 0.47 |
| 1:L:83:LYS:HD3 | 1:L:83:LYS:HA | 1.57 | 0.47 |
| 1:N:9:TYR:H | 1:N:9:TYR:HD1 | 1.62 | 0.47 |
| 1:N:89:VAL:O | 1:N:89:VAL:HG13 | 2.14 | 0.47 |
| 1:B:26:ILE:HG13 | 1:B:37:VAL:CG2 | 2.44 | 0.47 |
| 1:B:38:VAL:CA | 1:B:109:PHE:CE2 | 2.98 | 0.47 |
| 1:C:24:VAL:HG11 | 1:C:26:ILE:HD12 | 1.92 | 0.47 |
| 1:C:56:THR:CG2 | 1:C:57:PHE:H | 2.23 | 0.47 |
| 1:D:18:TYR:CD2 | 1:D:23:VAL:HG13 | 2.46 | 0.47 |
| 1:D:26:ILE:HG13 | 1:D:37:VAL:CG2 | 2.44 | 0.47 |
| 1:E:64:PHE:N | 1:E:64:PHE:CD1 | 2.83 | 0.47 |
| 1:F:23:VAL:HG23 | 1:F:23:VAL:O | 2.15 | 0.47 |
| 1:F:26:ILE:HG13 | 1:F:37:VAL:CG2 | 2.44 | 0.47 |
| 1:H:23:VAL:O | 1:H:23:VAL:HG23 | 2.15 | 0.47 |
| 1:H:38:VAL:HG23 | 1:H:39:ALA:H | 1.79 | 0.47 |
| 1:H:64:PHE:N | 1:H:64:PHE:CD1 | 2.83 | 0.47 |
| 1:I:38:VAL:HG23 | 1:I:39:ALA:H | 1.79 | 0.47 |
| 1:I:57:PHE:CE1 | 1:J:105:VAL:HG13 | 2.41 | 0.47 |
| 1:K:57:PHE:HZ | 1:L:28:ALA:N | 2.11 | 0.47 |
| 1:L:26:ILE:HG13 | 1:L:37:VAL:CG2 | 2.44 | 0.47 |
| 1:L:88:ILE:HD11 | 1:L:107:LYS:CG | 2.34 | 0.47 |
| 1:L:89:VAL:HG13 | 1:L:89:VAL:O | 2.14 | 0.47 |
| 1:M:26:ILE:CG1 | 1:M:37:VAL:CG2 | 2.92 | 0.47 |
| 1:A:14:LYS:HE2 | 1:N:43:THR:HG22 | 1.96 | 0.47 |
| 1:B:79:ILE:HD12 | 1:B:107:LYS:HZ1 | 1.79 | 0.47 |
| 1:E:18:TYR:CD2 | 1:E:23:VAL:HG13 | 2.46 | 0.47 |
| 1:J:65:PHE:CD1 | 1:J:80:VAL:HG12 | 2.41 | 0.47 |
| 1:J:89:VAL:HG13 | 1:J:89:VAL:O | 2.14 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:K:9:TYR:H | 1:K:9:TYR:HD1 | 1.62 | 0.47 |
| 1:K:88:ILE:HD11 | 1:K:107:LYS:CG | 2.34 | 0.47 |
| 1:M:88:ILE:HD11 | 1:M:107:LYS:CG | 2.34 | 0.47 |
| 1:A:26:ILE:HG13 | 1:A:37:VAL:CG2 | 2.44 | 0.47 |
| 1:B:43:THR:HG22 | 1:C:14:LYS:HE2 | 1.95 | 0.47 |
| 1:C:18:TYR:CD2 | 1:C:23:VAL:HG13 | 2.46 | 0.47 |
| 1:C:45:ILE:HG23 | 1:D:14:LYS:HE2 | 1.96 | 0.47 |
| 1:C:64:PHE:N | 1:C:64:PHE:CD1 | 2.83 | 0.47 |
| 1:C:83:LYS:HA | 1:C:83:LYS:HD3 | 1.57 | 0.47 |
| 1:D:45:ILE:HG23 | 1:E:14:LYS:HE2 | 1.96 | 0.47 |
| 1:E:26:ILE:HG13 | 1:E:37:VAL:CG2 | 2.44 | 0.47 |
| 1:E:88:ILE:HD11 | 1:E:107:LYS:CG | 2.34 | 0.47 |
| 1:F:38:VAL:HG23 | 1:F:39:ALA:H | 1.79 | 0.47 |
| 1:F:92:PHE:H | 1:F:104:THR:HG22 | 1.80 | 0.47 |
| 1:G:24:VAL:HG21 | 1:G:107:LYS:CD | 2.45 | 0.47 |
| 1:H:65:PHE:CD1 | 1:H:80:VAL:HG12 | 2.41 | 0.47 |
| 1:I:5:ARG:CB | 1:I:36:ILE:HB | 2.42 | 0.47 |
| 1:J:23:VAL:HG23 | 1:J:23:VAL:O | 2.15 | 0.47 |
| 1:A:24:VAL:HG21 | 1:A:107:LYS:CD | 2.45 | 0.47 |
| 1:A:38:VAL:CA | 1:A:109:PHE:CE2 | 2.98 | 0.47 |
| 1:A:105:VAL:HG13 | 1:N:57:PHE:CE1 | 2.41 | 0.47 |
| 1:B:24:VAL:HG21 | 1:B:107:LYS:CD | 2.45 | 0.47 |
| 1:B:45:ILE:HG23 | 1:C:14:LYS:HE2 | 1.96 | 0.47 |
| 1:B:64:PHE:N | 1:B:64:PHE:CD1 | 2.83 | 0.47 |
| 1:D:92:PHE:H | 1:D:104:THR:HG22 | 1.80 | 0.47 |
| 1:E:45:ILE:HG23 | 1:F:14:LYS:HE2 | 1.96 | 0.47 |
| 1:F:26:ILE:CD1 | 1:F:37:VAL:HB | 2.37 | 0.47 |
| 1:F:29:VAL:HG13 | 1:F:29:VAL:O | 2.13 | 0.47 |
| 1:F:38:VAL:CA | 1:F:109:PHE:CE2 | 2.98 | 0.47 |
| 1:G:36:ILE:HG12 | 1:G:37:VAL:N | 2.30 | 0.47 |
| 1:H:24:VAL:HG21 | 1:H:107:LYS:CD | 2.45 | 0.47 |
| 1:H:26:ILE:CG1 | 1:H:37:VAL:CG2 | 2.92 | 0.47 |
| 1:H:36:ILE:HG12 | 1:H:37:VAL:N | 2.30 | 0.47 |
| 1:H:92:PHE:H | 1:H:104:THR:HG22 | 1.80 | 0.47 |
| 1:I:26:ILE:CG1 | 1:I:37:VAL:CG2 | 2.92 | 0.47 |
| 1:I:79:ILE:HG22 | 1:I:81:THR:CB | 2.45 | 0.47 |
| 1:J:26:ILE:CG1 | 1:J:37:VAL:CG2 | 2.92 | 0.47 |
| 1:J:79:ILE:HG22 | 1:J:81:THR:CB | 2.45 | 0.47 |
| 1:J:88:ILE:HD11 | 1:J:107:LYS:CG | 2.34 | 0.47 |
| 1:K:23:VAL:O | 1:K:23:VAL:HG23 | 2.15 | 0.47 |
| 1:M:23:VAL:HG23 | 1:M:23:VAL:O | 2.15 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:M:26:ILE:HG13 | 1:M:37:VAL:CG2 | 2.44 | 0.47 |
| 1:M:89:VAL:HG13 | 1:M:89:VAL:O | 2.14 | 0.47 |
| 1:N:26:ILE:HG13 | 1:N:37:VAL:CG2 | 2.44 | 0.47 |
| 1:C:70:GLN:HE21 | 1:C:70:GLN:HB3 | 1.50 | 0.47 |
| 1:D:26:ILE:CG1 | 1:D:37:VAL:CG2 | 2.92 | 0.47 |
| 1:E:23:VAL:HG23 | 1:E:23:VAL:O | 2.15 | 0.47 |
| 1:E:65:PHE:CD1 | 1:E:80:VAL:HG12 | 2.41 | 0.47 |
| 1:F:18:TYR:CD2 | 1:F:23:VAL:HG13 | 2.46 | 0.47 |
| 1:F:24:VAL:HG21 | 1:F:107:LYS:CD | 2.45 | 0.47 |
| 1:F:45:ILE:HG23 | 1:G:14:LYS:HE2 | 1.96 | 0.47 |
| 1:F:89:VAL:O | 1:F:89:VAL:HG13 | 2.14 | 0.47 |
| 1:G:56:THR:CG2 | 1:G:57:PHE:H | 2.23 | 0.47 |
| 1:G:79:ILE:HG22 | 1:G:81:THR:CB | 2.45 | 0.47 |
| 1:H:79:ILE:HG22 | 1:H:81:THR:CB | 2.45 | 0.47 |
| 1:I:89:VAL:O | 1:I:89:VAL:HG13 | 2.14 | 0.47 |
| 1:J:5:ARG:CB | 1:J:36:ILE:HB | 2.42 | 0.47 |
| 1:K:26:ILE:CG1 | 1:K:37:VAL:CG2 | 2.92 | 0.47 |
| 1:L:79:ILE:HG22 | 1:L:81:THR:CB | 2.45 | 0.47 |
| 1:L:92:PHE:H | 1:L:104:THR:HG22 | 1.80 | 0.47 |
| 1:N:88:ILE:HD11 | 1:N:107:LYS:CG | 2.34 | 0.47 |
| 1:A:55:ARG:CD | 1:B:11:TYR:CD2 | 2.96 | 0.47 |
| 1:C:23:VAL:O | 1:C:23:VAL:HG23 | 2.15 | 0.47 |
| 1:D:24:VAL:HG21 | 1:D:107:LYS:CD | 2.45 | 0.47 |
| 1:E:26:ILE:CG1 | 1:E:37:VAL:CG2 | 2.92 | 0.47 |
| 1:F:64:PHE:N | 1:F:64:PHE:CD1 | 2.83 | 0.47 |
| 1:F:79:ILE:HG22 | 1:F:81:THR:CB | 2.45 | 0.47 |
| 1:G:24:VAL:HG11 | 1:G:26:ILE:HD12 | 1.92 | 0.47 |
| 1:G:26:ILE:CG1 | 1:G:37:VAL:CG2 | 2.92 | 0.47 |
| 1:G:43:THR:HG22 | 1:H:14:LYS:HE2 | 1.96 | 0.47 |
| 1:G:65:PHE:CD1 | 1:G:80:VAL:HG12 | 2.41 | 0.47 |
| 1:H:34:THR:HG23 | 1:H:47:HIS:CB | 2.41 | 0.47 |
| 1:H:89:VAL:O | 1:H:89:VAL:HG13 | 2.14 | 0.47 |
| 1:I:24:VAL:HG21 | 1:I:107:LYS:CD | 2.45 | 0.47 |
| 1:I:36:ILE:HG12 | 1:I:37:VAL:N | 2.30 | 0.47 |
| 1:J:64:PHE:N | 1:J:64:PHE:CD1 | 2.83 | 0.47 |
| 1:K:24:VAL:HG21 | 1:K:107:LYS:CD | 2.45 | 0.47 |
| 1:K:44:TYR:N | 1:K:44:TYR:CD1 | 2.81 | 0.47 |
| 1:K:64:PHE:N | 1:K:64:PHE:CD1 | 2.83 | 0.47 |
| 1:N:38:VAL:HG23 | 1:N:39:ALA:H | 1.79 | 0.47 |
| 1:A:12:ARG:HH11 | 1:N:66:VAL:CG1 | 2.28 | 0.47 |
| 1:A:23:VAL:HG23 | 1:A:23:VAL:O | 2.15 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:A:92:PHE:H | 1:A:104:THR:HG22 | 1.80 | 0.47 |
| 1:B:18:TYR:CD2 | 1:B:23:VAL:HG13 | 2.46 | 0.47 |
| 1:C:79:ILE:HG22 | 1:C:81:THR:CB | 2.45 | 0.47 |
| 1:D:23:VAL:HG23 | 1:D:23:VAL:O | 2.15 | 0.47 |
| 1:K:79:ILE:HG22 | 1:K:81:THR:CB | 2.45 | 0.47 |
| 1:M:44:TYR:N | 1:M:44:TYR:CD1 | 2.81 | 0.47 |
| 1:A:9:TYR:H | 1:A:9:TYR:HD1 | 1.62 | 0.46 |
| 1:A:45:ILE:HG23 | 1:B:14:LYS:HE2 | 1.96 | 0.46 |
| 1:B:64:PHE:N | 1:B:64:PHE:HD1 | 2.14 | 0.46 |
| 1:B:92:PHE:H | 1:B:104:THR:HG22 | 1.80 | 0.46 |
| 1:C:36:ILE:HG12 | 1:C:37:VAL:N | 2.30 | 0.46 |
| 1:D:64:PHE:N | 1:D:64:PHE:HD1 | 2.14 | 0.46 |
| 1:E:24:VAL:HG21 | 1:E:107:LYS:CD | 2.45 | 0.46 |
| 1:E:36:ILE:HG12 | 1:E:37:VAL:N | 2.30 | 0.46 |
| 1:F:36:ILE:HG12 | 1:F:37:VAL:N | 2.30 | 0.46 |
| 1:G:45:ILE:HG23 | 1:H:14:LYS:HE2 | 1.96 | 0.46 |
| 1:I:56:THR:HG22 | 1:I:57:PHE:N | 2.18 | 0.46 |
| 1:I:83:LYS:HD3 | 1:I:83:LYS:HA | 1.57 | 0.46 |
| 1:J:92:PHE:H | 1:J:104:THR:HG22 | 1.80 | 0.46 |
| 1:K:5:ARG:CB | 1:K:36:ILE:HB | 2.42 | 0.46 |
| 1:K:45:ILE:HG23 | 1:L:14:LYS:HE2 | 1.96 | 0.46 |
| 1:L:23:VAL:HG23 | 1:L:23:VAL:O | 2.15 | 0.46 |
| 1:L:24:VAL:HG21 | 1:L:107:LYS:CD | 2.45 | 0.46 |
| 1:L:26:ILE:CG1 | 1:L:37:VAL:CG2 | 2.92 | 0.46 |
| 1:M:38:VAL:HG23 | 1:M:39:ALA:H | 1.79 | 0.46 |
| 1:N:38:VAL:CA | 1:N:109:PHE:CE2 | 2.98 | 0.46 |
| 1:N:64:PHE:N | 1:N:64:PHE:CD1 | 2.83 | 0.46 |
| 1:N:92:PHE:H | 1:N:104:THR:HG22 | 1.80 | 0.46 |
| 1:B:36:ILE:HG12 | 1:B:37:VAL:N | 2.30 | 0.46 |
| 1:B:38:VAL:HG23 | 1:B:39:ALA:H | 1.79 | 0.46 |
| 1:D:79:ILE:HG22 | 1:D:81:THR:CB | 2.45 | 0.46 |
| 1:G:38:VAL:CA | 1:G:109:PHE:CE2 | 2.98 | 0.46 |
| 1:I:9:TYR:H | 1:I:9:TYR:HD1 | 1.62 | 0.46 |
| 1:I:64:PHE:N | 1:I:64:PHE:CD1 | 2.83 | 0.46 |
| 1:I:64:PHE:N | 1:I:64:PHE:HD1 | 2.14 | 0.46 |
| 1:J:64:PHE:N | 1:J:64:PHE:HD1 | 2.14 | 0.46 |
| 1:K:83:LYS:CE | 1:K:109:PHE:HZ | 2.23 | 0.46 |
| 1:L:45:ILE:HG23 | 1:M:14:LYS:HE2 | 1.96 | 0.46 |
| 1:M:36:ILE:HG12 | 1:M:37:VAL:N | 2.30 | 0.46 |
| 1:N:36:ILE:HG12 | 1:N:37:VAL:N | 2.30 | 0.46 |
| 1:A:38:VAL:HG13 | 1:A:107:LYS:HZ3 | 1.81 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:A:56:THR:CG2 | 1:A:57:PHE:H | 2.23 | 0.46 |
| 1:A:66:VAL:CG1 | 1:B:12:ARG:HH11 | 2.29 | 0.46 |
| 1:A:88:ILE:CG1 | 1:A:107:LYS:HB2 | 2.45 | 0.46 |
| 1:B:24:VAL:HG11 | 1:B:26:ILE:HD12 | 1.92 | 0.46 |
| 1:C:24:VAL:HG21 | 1:C:107:LYS:CD | 2.45 | 0.46 |
| 1:E:50:GLY:HA3 | 1:E:77:LEU:HD13 | 1.91 | 0.46 |
| 1:E:64:PHE:N | 1:E:64:PHE:HD1 | 2.14 | 0.46 |
| 1:G:86:TYR:HE1 | 1:G:88:ILE:HG12 | 1.81 | 0.46 |
| 1:H:86:TYR:HE1 | 1:H:88:ILE:HG12 | 1.81 | 0.46 |
| 1:I:23:VAL:HG23 | 1:I:23:VAL:O | 2.15 | 0.46 |
| 1:I:88:ILE:HD11 | 1:I:107:LYS:CG | 2.34 | 0.46 |
| 1:J:45:ILE:HG23 | 1:K:14:LYS:HE2 | 1.96 | 0.46 |
| 1:L:44:TYR:N | 1:L:44:TYR:CD1 | 2.81 | 0.46 |
| 1:M:88:ILE:CG1 | 1:M:107:LYS:HB2 | 2.45 | 0.46 |
| 1:C:46:THR:CB | 1:D:14:LYS:HZ1 | 2.19 | 0.46 |
| 1:C:64:PHE:N | 1:C:64:PHE:HD1 | 2.14 | 0.46 |
| 1:F:86:TYR:HE1 | 1:F:88:ILE:HG12 | 1.81 | 0.46 |
| 1:H:3:VAL:HB | 1:H:40:PRO:HG3 | 1.98 | 0.46 |
| 1:H:64:PHE:N | 1:H:64:PHE:HD1 | 2.14 | 0.46 |
| 1:H:70:GLN:HE21 | 1:H:70:GLN:HB3 | 1.50 | 0.46 |
| 1:I:92:PHE:H | 1:I:104:THR:HG22 | 1.80 | 0.46 |
| 1:L:38:VAL:HG23 | 1:L:39:ALA:H | 1.80 | 0.46 |
| 1:M:64:PHE:N | 1:M:64:PHE:HD1 | 2.14 | 0.46 |
| 1:M:79:ILE:HG22 | 1:M:81:THR:CB | 2.45 | 0.46 |
| 1:N:86:TYR:HE1 | 1:N:88:ILE:HG12 | 1.81 | 0.46 |
| 1:N:88:ILE:CG1 | 1:N:107:LYS:HB2 | 2.45 | 0.46 |
| 1:A:14:LYS:HE2 | 1:N:45:ILE:HG23 | 1.96 | 0.46 |
| 1:A:79:ILE:HG22 | 1:A:81:THR:CB | 2.45 | 0.46 |
| 1:B:23:VAL:HG23 | 1:B:23:VAL:O | 2.15 | 0.46 |
| 1:B:79:ILE:HG22 | 1:B:81:THR:CB | 2.45 | 0.46 |
| 1:C:92:PHE:H | 1:C:104:THR:HG22 | 1.80 | 0.46 |
| 1:E:79:ILE:HG22 | 1:E:81:THR:CB | 2.45 | 0.46 |
| 1:F:26:ILE:CG1 | 1:F:37:VAL:CG2 | 2.92 | 0.46 |
| 1:G:18:TYR:CD2 | 1:G:23:VAL:HG13 | 2.46 | 0.46 |
| 1:G:23:VAL:HG23 | 1:G:23:VAL:O | 2.15 | 0.46 |
| 1:I:66:VAL:CG1 | 1:J:12:ARG:HH11 | 2.29 | 0.46 |
| 1:I:86:TYR:HE1 | 1:I:88:ILE:HG12 | 1.81 | 0.46 |
| 1:J:3:VAL:HB | 1:J:40:PRO:HG3 | 1.98 | 0.46 |
| 1:J:66:VAL:CG1 | 1:K:12:ARG:HH11 | 2.29 | 0.46 |
| 1:K:1:LEU:CD1 | 1:K:16:VAL:H | 2.29 | 0.46 |
| 1:K:66:VAL:CG1 | 1:L:12:ARG:HH11 | 2.29 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:L:1:LEU:CD1 | 1:L:16:VAL:H | 2.29 | 0.46 |
| 1:M:49:PHE:HE2 | 1:M:79:ILE:CD1 | 2.26 | 0.46 |
| 1:M:64:PHE:N | 1:M:64:PHE:CD1 | 2.83 | 0.46 |
| 1:N:64:PHE:N | 1:N:64:PHE:HD1 | 2.14 | 0.46 |
| 1:B:88:ILE:CG1 | 1:B:107:LYS:HB2 | 2.45 | 0.46 |
| 1:C:1:LEU:CD1 | 1:C:16:VAL:H | 2.29 | 0.46 |
| 1:E:86:TYR:HE1 | 1:E:88:ILE:HG12 | 1.81 | 0.46 |
| 1:H:66:VAL:CG1 | 1:I:12:ARG:HH11 | 2.29 | 0.46 |
| 1:I:49:PHE:HE2 | 1:I:79:ILE:CD1 | 2.26 | 0.46 |
| 1:J:1:LEU:CD1 | 1:J:16:VAL:H | 2.29 | 0.46 |
| 1:J:36:ILE:HG12 | 1:J:37:VAL:N | 2.30 | 0.46 |
| 1:J:44:TYR:N | 1:J:44:TYR:CD1 | 2.81 | 0.46 |
| 1:K:64:PHE:N | 1:K:64:PHE:HD1 | 2.14 | 0.46 |
| 1:K:83:LYS:HD3 | 1:K:83:LYS:HA | 1.57 | 0.46 |
| 1:L:36:ILE:HG12 | 1:L:37:VAL:N | 2.30 | 0.46 |
| 1:M:45:ILE:HG23 | 1:N:14:LYS:HE2 | 1.96 | 0.46 |
| 1:N:24:VAL:HG21 | 1:N:107:LYS:CD | 2.45 | 0.46 |
| 1:A:86:TYR:HE1 | 1:A:88:ILE:HG12 | 1.81 | 0.46 |
| 1:D:36:ILE:HG12 | 1:D:37:VAL:N | 2.30 | 0.46 |
| 1:D:38:VAL:HG23 | 1:D:39:ALA:H | 1.79 | 0.46 |
| 1:D:66:VAL:CG1 | 1:E:12:ARG:HH11 | 2.29 | 0.46 |
| 1:E:49:PHE:CB | 1:E:55:ARG:HH22 | 2.17 | 0.46 |
| 1:E:81:THR:HA | 1:E:86:TYR:CE2 | 2.51 | 0.46 |
| 1:F:81:THR:HA | 1:F:86:TYR:CE2 | 2.51 | 0.46 |
| 1:G:81:THR:HA | 1:G:86:TYR:CE2 | 2.51 | 0.46 |
| 1:H:45:ILE:HG23 | 1:I:14:LYS:HE2 | 1.96 | 0.46 |
| 1:H:98:LYS:HE3 | 1:H:100:ASN:CA | 2.36 | 0.46 |
| 1:J:38:VAL:HG23 | 1:J:39:ALA:H | 1.79 | 0.46 |
| 1:J:81:THR:HA | 1:J:86:TYR:CE2 | 2.51 | 0.46 |
| 1:K:29:VAL:HG12 | 1:K:92:PHE:HE2 | 1.81 | 0.46 |
| 1:K:36:ILE:HG12 | 1:K:37:VAL:N | 2.30 | 0.46 |
| 1:L:38:VAL:HG13 | 1:L:107:LYS:HZ3 | 1.81 | 0.46 |
| 1:M:66:VAL:CG1 | 1:N:12:ARG:HH11 | 2.29 | 0.46 |
| 1:M:86:TYR:HE1 | 1:M:88:ILE:HG12 | 1.81 | 0.46 |
| 1:A:18:TYR:CD2 | 1:A:23:VAL:HG13 | 2.46 | 0.46 |
| 1:C:81:THR:HA | 1:C:86:TYR:CE2 | 2.51 | 0.46 |
| 1:C:91:HIS:HB3 | 1:C:104:THR:CG2 | 2.37 | 0.46 |
| 1:D:1:LEU:CD1 | 1:D:16:VAL:H | 2.29 | 0.46 |
| 1:D:46:THR:CB | 1:E:14:LYS:HZ1 | 2.19 | 0.46 |
| 1:D:57:PHE:CE1 | 1:E:105:VAL:HG13 | 2.41 | 0.46 |
| 1:D:81:THR:HA | 1:D:86:TYR:CE2 | 2.51 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:G:1:LEU:CD1 | 1:G:16:VAL:H | 2.29 | 0.46 |
| 1:G:92:PHE:H | 1:G:104:THR:HG22 | 1.80 | 0.46 |
| 1:H:81:THR:HA | 1:H:86:TYR:CE2 | 2.51 | 0.46 |
| 1:H:88:ILE:HD11 | 1:H:107:LYS:CG | 2.34 | 0.46 |
| 1:I:34:THR:HG23 | 1:I:47:HIS:CB | 2.41 | 0.46 |
| 1:I:45:ILE:HG23 | 1:J:14:LYS:HE2 | 1.96 | 0.46 |
| 1:I:56:THR:CG2 | 1:I:57:PHE:H | 2.23 | 0.46 |
| 1:I:81:THR:HA | 1:I:86:TYR:CE2 | 2.51 | 0.46 |
| 1:J:49:PHE:HE2 | 1:J:79:ILE:CD1 | 2.25 | 0.46 |
| 1:L:88:ILE:CG1 | 1:L:107:LYS:HB2 | 2.45 | 0.46 |
| 1:M:1:LEU:CD1 | 1:M:16:VAL:H | 2.29 | 0.46 |
| 1:M:81:THR:HA | 1:M:86:TYR:CE2 | 2.51 | 0.46 |
| 1:N:110:ILE:H | 1:N:110:ILE:HG12 | 1.51 | 0.46 |
| 1:A:36:ILE:HG12 | 1:A:37:VAL:N | 2.30 | 0.46 |
| 1:A:64:PHE:N | 1:A:64:PHE:CD1 | 2.83 | 0.46 |
| 1:A:88:ILE:HD11 | 1:A:107:LYS:CG | 2.34 | 0.46 |
| 1:C:66:VAL:CG1 | 1:D:12:ARG:HH11 | 2.29 | 0.46 |
| 1:D:64:PHE:N | 1:D:64:PHE:CD1 | 2.83 | 0.46 |
| 1:D:86:TYR:HE1 | 1:D:88:ILE:HG12 | 1.81 | 0.46 |
| 1:E:66:VAL:CG1 | 1:F:12:ARG:HH11 | 2.29 | 0.46 |
| 1:H:1:LEU:CD1 | 1:H:16:VAL:H | 2.29 | 0.46 |
| 1:H:24:VAL:HG11 | 1:H:26:ILE:HD12 | 1.92 | 0.46 |
| 1:H:38:VAL:CA | 1:H:109:PHE:CE2 | 2.98 | 0.46 |
| 1:I:3:VAL:HB | 1:I:40:PRO:HG3 | 1.98 | 0.46 |
| 1:J:24:VAL:HG21 | 1:J:107:LYS:CD | 2.45 | 0.46 |
| 1:J:86:TYR:HE1 | 1:J:88:ILE:HG12 | 1.81 | 0.46 |
| 1:M:29:VAL:HG12 | 1:M:92:PHE:HE2 | 1.81 | 0.46 |
| 1:M:38:VAL:CA | 1:M:109:PHE:CE2 | 2.98 | 0.46 |
| 1:N:79:ILE:HG22 | 1:N:81:THR:CB | 2.45 | 0.46 |
| 1:N:81:THR:HA | 1:N:86:TYR:CE2 | 2.51 | 0.46 |
| 1:A:64:PHE:N | 1:A:64:PHE:HD1 | 2.14 | 0.46 |
| 1:B:110:ILE:H | 1:B:110:ILE:HG12 | 1.51 | 0.46 |
| 1:C:81:THR:CA | 1:C:86:TYR:HE2 | 2.29 | 0.46 |
| 1:E:26:ILE:CD1 | 1:E:37:VAL:HB | 2.37 | 0.46 |
| 1:F:3:VAL:HB | 1:F:40:PRO:HG3 | 1.98 | 0.46 |
| 1:F:64:PHE:N | 1:F:64:PHE:HD1 | 2.14 | 0.46 |
| 1:G:3:VAL:HB | 1:G:40:PRO:HG3 | 1.98 | 0.46 |
| 1:G:64:PHE:N | 1:G:64:PHE:HD1 | 2.14 | 0.46 |
| 1:K:3:VAL:HB | 1:K:40:PRO:HG3 | 1.98 | 0.46 |
| 1:K:81:THR:HA | 1:K:86:TYR:CE2 | 2.51 | 0.46 |
| 1:K:92:PHE:H | 1:K:104:THR:HG22 | 1.80 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:L:3:VAL:HB | 1:L:40:PRO:HG3 | 1.98 | 0.46 |
| 1:L:57:PHE:CE1 | 1:M:105:VAL:HG13 | 2.41 | 0.46 |
| 1:L:64:PHE:N | 1:L:64:PHE:CD1 | 2.83 | 0.46 |
| 1:L:65:PHE:CD1 | 1:L:80:VAL:HG12 | 2.41 | 0.46 |
| 1:L:81:THR:HA | 1:L:86:TYR:CE2 | 2.51 | 0.46 |
| 1:M:24:VAL:HG21 | 1:M:107:LYS:CD | 2.45 | 0.46 |
| 1:N:81:THR:CA | 1:N:86:TYR:HE2 | 2.29 | 0.46 |
| 1:A:81:THR:CA | 1:A:86:TYR:HE2 | 2.30 | 0.45 |
| 1:B:55:ARG:CD | 1:C:11:TYR:CD2 | 2.96 | 0.45 |
| 1:B:66:VAL:CG1 | 1:C:12:ARG:HH11 | 2.29 | 0.45 |
| 1:B:81:THR:HA | 1:B:86:TYR:CE2 | 2.51 | 0.45 |
| 1:C:88:ILE:CG1 | 1:C:107:LYS:HB2 | 2.45 | 0.45 |
| 1:D:38:VAL:CG2 | 1:D:39:ALA:N | 2.79 | 0.45 |
| 1:G:66:VAL:CG1 | 1:H:12:ARG:HH11 | 2.28 | 0.45 |
| 1:G:81:THR:CA | 1:G:86:TYR:HE2 | 2.29 | 0.45 |
| 1:H:81:THR:CA | 1:H:86:TYR:HE2 | 2.30 | 0.45 |
| 1:I:29:VAL:HG12 | 1:I:92:PHE:HE2 | 1.81 | 0.45 |
| 1:I:44:TYR:N | 1:I:44:TYR:CD1 | 2.81 | 0.45 |
| 1:M:81:THR:CA | 1:M:86:TYR:HE2 | 2.29 | 0.45 |
| 1:M:92:PHE:H | 1:M:104:THR:HG22 | 1.80 | 0.45 |
| 1:A:3:VAL:HB | 1:A:40:PRO:HG3 | 1.98 | 0.45 |
| 1:A:44:TYR:N | 1:A:44:TYR:CD1 | 2.81 | 0.45 |
| 1:A:81:THR:HA | 1:A:86:TYR:CE2 | 2.51 | 0.45 |
| 1:B:81:THR:CA | 1:B:86:TYR:HE2 | 2.29 | 0.45 |
| 1:C:38:VAL:CG2 | 1:C:39:ALA:N | 2.79 | 0.45 |
| 1:F:91:HIS:HB3 | 1:F:104:THR:CG2 | 2.37 | 0.45 |
| 1:G:88:ILE:HD11 | 1:G:107:LYS:CG | 2.34 | 0.45 |
| 1:H:18:TYR:CD2 | 1:H:23:VAL:HG13 | 2.46 | 0.45 |
| 1:L:81:THR:CA | 1:L:86:TYR:HE2 | 2.30 | 0.45 |
| 1:M:56:THR:CG2 | 1:M:57:PHE:H | 2.23 | 0.45 |
| 1:N:44:TYR:N | 1:N:44:TYR:CD1 | 2.81 | 0.45 |
| 1:B:1:LEU:CD1 | 1:B:16:VAL:H | 2.29 | 0.45 |
| 1:C:3:VAL:HB | 1:C:40:PRO:HG3 | 1.98 | 0.45 |
| 1:E:38:VAL:CG2 | 1:E:39:ALA:N | 2.79 | 0.45 |
| 1:E:92:PHE:H | 1:E:104:THR:HG22 | 1.80 | 0.45 |
| 1:F:1:LEU:CD1 | 1:F:16:VAL:H | 2.29 | 0.45 |
| 1:F:49:PHE:HE2 | 1:F:79:ILE:CD1 | 2.26 | 0.45 |
| 1:F:66:VAL:CG1 | 1:G:12:ARG:HH11 | 2.29 | 0.45 |
| 1:H:38:VAL:HG13 | 1:H:107:LYS:HZ3 | 1.81 | 0.45 |
| 1:K:56:THR:CG2 | 1:K:57:PHE:H | 2.23 | 0.45 |
| 1:L:64:PHE:N | 1:L:64:PHE:HD1 | 2.14 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:M:50:GLY:O | 1:M:70:GLN:HG3 | 2.17 | 0.45 |
| 1:N:1:LEU:CD1 | 1:N:16:VAL:H | 2.29 | 0.45 |
| 1:N:23:VAL:HG23 | 1:N:23:VAL:O | 2.15 | 0.45 |
| 1:D:81:THR:CA | 1:D:86:TYR:HE2 | 2.29 | 0.45 |
| 1:F:65:PHE:CD1 | 1:F:80:VAL:HG12 | 2.41 | 0.45 |
| 1:H:34:THR:OG1 | 1:H:47:HIS:HB2 | 2.17 | 0.45 |
| 1:I:1:LEU:CD1 | 1:I:16:VAL:H | 2.29 | 0.45 |
| 1:L:66:VAL:CG1 | 1:M:12:ARG:HH11 | 2.29 | 0.45 |
| 1:A:50:GLY:O | 1:A:70:GLN:HG3 | 2.17 | 0.45 |
| 1:B:38:VAL:CG2 | 1:B:39:ALA:N | 2.79 | 0.45 |
| 1:C:86:TYR:HE1 | 1:C:88:ILE:HG12 | 1.81 | 0.45 |
| 1:D:50:GLY:O | 1:D:70:GLN:HG3 | 2.17 | 0.45 |
| 1:E:44:TYR:N | 1:E:44:TYR:CD1 | 2.81 | 0.45 |
| 1:G:64:PHE:N | 1:G:64:PHE:CD1 | 2.83 | 0.45 |
| 1:I:38:VAL:CA | 1:I:109:PHE:CE2 | 2.98 | 0.45 |
| 1:J:91:HIS:HB3 | 1:J:104:THR:CG2 | 2.37 | 0.45 |
| 1:K:81:THR:CA | 1:K:86:TYR:HE2 | 2.29 | 0.45 |
| 1:L:38:VAL:CA | 1:L:109:PHE:CE2 | 2.97 | 0.45 |
| 1:L:86:TYR:HE1 | 1:L:88:ILE:HG12 | 1.81 | 0.45 |
| 1:B:86:TYR:HE1 | 1:B:88:ILE:HG12 | 1.81 | 0.45 |
| 1:E:1:LEU:CD1 | 1:E:16:VAL:H | 2.29 | 0.45 |
| 1:F:81:THR:CA | 1:F:86:TYR:HE2 | 2.29 | 0.45 |
| 1:I:81:THR:CA | 1:I:86:TYR:HE2 | 2.29 | 0.45 |
| 1:J:9:TYR:H | 1:J:9:TYR:HD1 | 1.62 | 0.45 |
| 1:K:86:TYR:HE1 | 1:K:88:ILE:HG12 | 1.81 | 0.45 |
| 1:K:88:ILE:CG1 | 1:K:107:LYS:HB2 | 2.45 | 0.45 |
| 1:A:24:VAL:HG11 | 1:A:26:ILE:HD12 | 1.92 | 0.45 |
| 1:A:38:VAL:HG23 | 1:A:39:ALA:H | 1.79 | 0.45 |
| 1:C:38:VAL:HG23 | 1:C:39:ALA:H | 1.79 | 0.45 |
| 1:C:49:PHE:HE2 | 1:C:79:ILE:CD1 | 2.25 | 0.45 |
| 1:F:50:GLY:O | 1:F:70:GLN:HG3 | 2.17 | 0.45 |
| 1:F:88:ILE:HD11 | 1:F:107:LYS:CG | 2.34 | 0.45 |
| 1:F:88:ILE:CG1 | 1:F:107:LYS:HB2 | 2.45 | 0.45 |
| 1:G:98:LYS:HE3 | 1:G:100:ASN:CA | 2.36 | 0.45 |
| 1:H:1:LEU:CG | 1:H:13:ILE:HD11 | 2.47 | 0.45 |
| 1:H:79:ILE:HG22 | 1:H:81:THR:HB | 1.99 | 0.45 |
| 1:H:83:LYS:HA | 1:H:83:LYS:HD3 | 1.57 | 0.45 |
| 1:H:84:ARG:HB3 | 1:H:85:THR:H | 1.34 | 0.45 |
| 1:I:29:VAL:HG11 | 1:I:77:LEU:HD11 | 1.98 | 0.45 |
| 1:I:79:ILE:HG22 | 1:I:81:THR:HB | 1.99 | 0.45 |
| 1:J:79:ILE:HG22 | 1:J:81:THR:HB | 1.99 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:K:38:VAL:CA | 1:K:109:PHE:CE2 | 2.97 | 0.45 |
| 1:M:65:PHE:CD1 | 1:M:80:VAL:HG12 | 2.41 | 0.45 |
| 1:A:13:ILE:HG22 | 1:N:46:THR:HG1 | 1.76 | 0.45 |
| 1:A:29:VAL:HG12 | 1:A:92:PHE:HE2 | 1.81 | 0.45 |
| 1:B:34:THR:OG1 | 1:B:47:HIS:HB2 | 2.17 | 0.45 |
| 1:C:32:VAL:HG13 | 1:C:48:ALA:C | 2.38 | 0.45 |
| 1:F:49:PHE:CB | 1:F:55:ARG:HH22 | 2.17 | 0.45 |
| 1:I:24:VAL:HG11 | 1:I:26:ILE:HD12 | 1.92 | 0.45 |
| 1:I:34:THR:OG1 | 1:I:47:HIS:HB2 | 2.17 | 0.45 |
| 1:J:24:VAL:HG11 | 1:J:38:VAL:HG13 | 1.99 | 0.45 |
| 1:J:38:VAL:CA | 1:J:109:PHE:CE2 | 2.98 | 0.45 |
| 1:K:24:VAL:HG11 | 1:K:38:VAL:HG13 | 1.99 | 0.45 |
| 1:M:84:ARG:HB3 | 1:M:85:THR:H | 1.34 | 0.45 |
| 1:N:49:PHE:HE2 | 1:N:79:ILE:CD1 | 2.26 | 0.45 |
| 1:A:32:VAL:HG13 | 1:A:48:ALA:C | 2.38 | 0.45 |
| 1:A:34:THR:OG1 | 1:A:47:HIS:HB2 | 2.17 | 0.45 |
| 1:C:34:THR:OG1 | 1:C:47:HIS:HB2 | 2.17 | 0.45 |
| 1:C:50:GLY:O | 1:C:70:GLN:HG3 | 2.17 | 0.45 |
| 1:D:49:PHE:CB | 1:D:55:ARG:HH22 | 2.17 | 0.45 |
| 1:E:3:VAL:HB | 1:E:40:PRO:HG3 | 1.98 | 0.45 |
| 1:E:32:VAL:HG13 | 1:E:48:ALA:C | 2.38 | 0.45 |
| 1:E:38:VAL:HG23 | 1:E:39:ALA:H | 1.80 | 0.45 |
| 1:E:88:ILE:CG1 | 1:E:107:LYS:HB2 | 2.45 | 0.45 |
| 1:F:13:ILE:HD12 | 1:F:14:LYS:O | 2.17 | 0.45 |
| 1:F:32:VAL:HG13 | 1:F:48:ALA:C | 2.38 | 0.45 |
| 1:G:1:LEU:CG | 1:G:13:ILE:HD11 | 2.47 | 0.45 |
| 1:G:13:ILE:HD12 | 1:G:14:LYS:O | 2.17 | 0.45 |
| 1:I:50:GLY:O | 1:I:70:GLN:HG3 | 2.17 | 0.45 |
| 1:J:50:GLY:O | 1:J:70:GLN:HG3 | 2.17 | 0.45 |
| 1:K:32:VAL:HG13 | 1:K:48:ALA:C | 2.38 | 0.45 |
| 1:K:50:GLY:O | 1:K:70:GLN:HG3 | 2.17 | 0.45 |
| 1:L:24:VAL:HG11 | 1:L:38:VAL:HG13 | 1.99 | 0.45 |
| 1:A:1:LEU:CD1 | 1:A:16:VAL:H | 2.29 | 0.45 |
| 1:A:38:VAL:CG2 | 1:A:39:ALA:N | 2.79 | 0.45 |
| 1:B:9:TYR:H | 1:B:9:TYR:HD1 | 1.62 | 0.45 |
| 1:D:3:VAL:HB | 1:D:40:PRO:HG3 | 1.98 | 0.45 |
| 1:D:34:THR:OG1 | 1:D:47:HIS:HB2 | 2.17 | 0.45 |
| 1:G:34:THR:OG1 | 1:G:47:HIS:HB2 | 2.17 | 0.45 |
| 1:G:79:ILE:HG22 | 1:G:81:THR:HB | 1.99 | 0.45 |
| 1:G:88:ILE:CG1 | 1:G:107:LYS:HB2 | 2.45 | 0.45 |
| 1:H:29:VAL:HG11 | 1:H:77:LEU:HD11 | 1.98 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:H:44:TYR:N | 1:H:44:TYR:CD1 | 2.81 | 0.45 |
| 1:I:24:VAL:HG11 | 1:I:38:VAL:HG13 | 1.99 | 0.45 |
| 1:K:79:ILE:HG22 | 1:K:81:THR:HB | 1.99 | 0.45 |
| 1:M:3:VAL:HB | 1:M:40:PRO:HG3 | 1.98 | 0.45 |
| 1:M:83:LYS:HD3 | 1:M:83:LYS:HA | 1.57 | 0.45 |
| 1:N:3:VAL:HB | 1:N:40:PRO:HG3 | 1.98 | 0.45 |
| 1:N:24:VAL:HG11 | 1:N:26:ILE:HD12 | 1.92 | 0.45 |
| 1:A:5:ARG:HB2 | 1:A:36:ILE:CB | 2.47 | 0.44 |
| 1:B:50:GLY:O | 1:B:70:GLN:HG3 | 2.17 | 0.44 |
| 1:C:13:ILE:HD12 | 1:C:14:LYS:O | 2.17 | 0.44 |
| 1:D:13:ILE:HD12 | 1:D:14:LYS:O | 2.17 | 0.44 |
| 1:D:88:ILE:CG1 | 1:D:107:LYS:HB2 | 2.45 | 0.44 |
| 1:E:13:ILE:HD12 | 1:E:14:LYS:O | 2.17 | 0.44 |
| 1:E:84:ARG:HB3 | 1:E:85:THR:H | 1.34 | 0.44 |
| 1:G:38:VAL:HG23 | 1:G:39:ALA:H | 1.79 | 0.44 |
| 1:G:50:GLY:O | 1:G:70:GLN:HG3 | 2.17 | 0.44 |
| 1:H:13:ILE:HD12 | 1:H:14:LYS:O | 2.17 | 0.44 |
| 1:J:32:VAL:HG13 | 1:J:48:ALA:C | 2.38 | 0.44 |
| 1:J:81:THR:CA | 1:J:86:TYR:HE2 | 2.29 | 0.44 |
| 1:L:32:VAL:HG13 | 1:L:48:ALA:C | 2.38 | 0.44 |
| 1:M:5:ARG:HB2 | 1:M:36:ILE:CB | 2.47 | 0.44 |
| 1:M:24:VAL:HG11 | 1:M:26:ILE:HD12 | 1.92 | 0.44 |
| 1:N:5:ARG:HB2 | 1:N:36:ILE:CB | 2.47 | 0.44 |
| 1:N:34:THR:OG1 | 1:N:47:HIS:HB2 | 2.17 | 0.44 |
| 1:A:83:LYS:HD3 | 1:A:83:LYS:HA | 1.57 | 0.44 |
| 1:B:13:ILE:HD12 | 1:B:14:LYS:O | 2.17 | 0.44 |
| 1:D:38:VAL:HG13 | 1:D:107:LYS:HZ3 | 1.82 | 0.44 |
| 1:F:1:LEU:CG | 1:F:13:ILE:HD11 | 2.47 | 0.44 |
| 1:I:1:LEU:CG | 1:I:13:ILE:HD11 | 2.47 | 0.44 |
| 1:I:13:ILE:HD12 | 1:I:14:LYS:O | 2.17 | 0.44 |
| 1:J:29:VAL:HG11 | 1:J:77:LEU:HD11 | 1.98 | 0.44 |
| 1:B:32:VAL:HG13 | 1:B:48:ALA:C | 2.38 | 0.44 |
| 1:C:38:VAL:HG13 | 1:C:107:LYS:HZ3 | 1.81 | 0.44 |
| 1:D:38:VAL:CG2 | 1:D:39:ALA:H | 2.31 | 0.44 |
| 1:E:18:TYR:HD2 | 1:E:23:VAL:HG22 | 1.80 | 0.44 |
| 1:E:34:THR:OG1 | 1:E:47:HIS:HB2 | 2.17 | 0.44 |
| 1:F:79:ILE:HD12 | 1:F:107:LYS:HZ1 | 1.82 | 0.44 |
| 1:G:29:VAL:HG12 | 1:G:92:PHE:HE2 | 1.81 | 0.44 |
| 1:G:32:VAL:HG13 | 1:G:48:ALA:C | 2.38 | 0.44 |
| 1:H:24:VAL:HG11 | 1:H:38:VAL:HG13 | 1.99 | 0.44 |
| 1:H:88:ILE:CG1 | 1:H:107:LYS:HB2 | 2.45 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:L:34:THR:OG1 | 1:L:47:HIS:HB2 | 2.17 | 0.44 |
| 1:M:32:VAL:HG13 | 1:M:48:ALA:C | 2.38 | 0.44 |
| 1:N:38:VAL:CG2 | 1:N:39:ALA:N | 2.79 | 0.44 |
| 1:A:1:LEU:CG | 1:A:13:ILE:HD11 | 2.47 | 0.44 |
| 1:A:37:VAL:HG11 | 1:A:79:ILE:HG21 | 2.00 | 0.44 |
| 1:B:5:ARG:HB2 | 1:B:36:ILE:CB | 2.47 | 0.44 |
| 1:B:38:VAL:CG2 | 1:B:39:ALA:H | 2.31 | 0.44 |
| 1:C:25:LYS:HB3 | 1:C:105:VAL:HG11 | 1.99 | 0.44 |
| 1:C:37:VAL:HG11 | 1:C:79:ILE:HG21 | 2.00 | 0.44 |
| 1:E:50:GLY:O | 1:E:70:GLN:HG3 | 2.17 | 0.44 |
| 1:E:76:ASN:HD22 | 1:E:76:ASN:HA | 1.65 | 0.44 |
| 1:E:81:THR:CA | 1:E:86:TYR:HE2 | 2.30 | 0.44 |
| 1:F:79:ILE:HG22 | 1:F:81:THR:HB | 1.99 | 0.44 |
| 1:F:98:LYS:HE3 | 1:F:100:ASN:CA | 2.36 | 0.44 |
| 1:G:83:LYS:HD3 | 1:G:83:LYS:HA | 1.57 | 0.44 |
| 1:H:16:VAL:CG1 | 1:H:18:TYR:HE1 | 2.31 | 0.44 |
| 1:K:34:THR:OG1 | 1:K:47:HIS:HB2 | 2.17 | 0.44 |
| 1:L:5:ARG:HB2 | 1:L:36:ILE:CB | 2.47 | 0.44 |
| 1:L:16:VAL:CG1 | 1:L:18:TYR:HE1 | 2.31 | 0.44 |
| 1:L:50:GLY:O | 1:L:70:GLN:HG3 | 2.17 | 0.44 |
| 1:L:79:ILE:HG22 | 1:L:81:THR:HB | 1.99 | 0.44 |
| 1:M:1:LEU:CG | 1:M:13:ILE:HD11 | 2.47 | 0.44 |
| 1:M:34:THR:OG1 | 1:M:47:HIS:HB2 | 2.17 | 0.44 |
| 1:A:13:ILE:HD12 | 1:A:14:LYS:O | 2.17 | 0.44 |
| 1:B:37:VAL:CG1 | 1:B:38:VAL:N | 2.80 | 0.44 |
| 1:B:46:THR:CB | 1:C:14:LYS:HZ1 | 2.22 | 0.44 |
| 1:C:84:ARG:HB3 | 1:C:85:THR:H | 1.34 | 0.44 |
| 1:D:25:LYS:HB3 | 1:D:105:VAL:HG11 | 1.99 | 0.44 |
| 1:D:37:VAL:HG11 | 1:D:79:ILE:HG21 | 2.00 | 0.44 |
| 1:G:24:VAL:HG11 | 1:G:38:VAL:HG13 | 1.99 | 0.44 |
| 1:H:46:THR:CA | 1:I:14:LYS:HZ1 | 2.30 | 0.44 |
| 1:I:32:VAL:HG13 | 1:I:48:ALA:C | 2.38 | 0.44 |
| 1:J:13:ILE:HD12 | 1:J:14:LYS:O | 2.17 | 0.44 |
| 1:J:38:VAL:HG13 | 1:J:107:LYS:HZ3 | 1.82 | 0.44 |
| 1:L:24:VAL:HG11 | 1:L:26:ILE:HD12 | 1.92 | 0.44 |
| 1:M:37:VAL:CG1 | 1:M:38:VAL:N | 2.80 | 0.44 |
| 1:M:38:VAL:CG2 | 1:M:39:ALA:H | 2.31 | 0.44 |
| 1:M:70:GLN:HE21 | 1:M:70:GLN:HB3 | 1.50 | 0.44 |
| 1:N:1:LEU:CG | 1:N:13:ILE:HD11 | 2.47 | 0.44 |
| 1:N:32:VAL:HG13 | 1:N:48:ALA:C | 2.38 | 0.44 |
| 1:N:37:VAL:HG11 | 1:N:79:ILE:HG21 | 2.00 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:B:25:LYS:HB3 | 1:B:105:VAL:HG11 | 1.99 | 0.44 |
| 1:B:44:TYR:N | 1:B:44:TYR:CD1 | 2.81 | 0.44 |
| 1:B:88:ILE:HD11 | 1:B:107:LYS:CG | 2.34 | 0.44 |
| 1:E:109:PHE:CD1 | 1:E:109:PHE:C | 2.91 | 0.44 |
| 1:F:34:THR:HG23 | 1:F:47:HIS:CB | 2.41 | 0.44 |
| 1:K:16:VAL:CG1 | 1:K:18:TYR:HE1 | 2.31 | 0.44 |
| 1:M:46:THR:CB | 1:N:14:LYS:HZ1 | 2.21 | 0.44 |
| 1:N:13:ILE:HD12 | 1:N:14:LYS:O | 2.17 | 0.44 |
| 1:N:18:TYR:HD2 | 1:N:23:VAL:HG22 | 1.80 | 0.44 |
| 1:N:38:VAL:CG2 | 1:N:39:ALA:H | 2.31 | 0.44 |
| 1:A:79:ILE:HG22 | 1:A:81:THR:HB | 1.99 | 0.44 |
| 1:B:1:LEU:CG | 1:B:13:ILE:HD11 | 2.47 | 0.44 |
| 1:B:3:VAL:HB | 1:B:40:PRO:HG3 | 1.98 | 0.44 |
| 1:C:5:ARG:HB2 | 1:C:36:ILE:CB | 2.47 | 0.44 |
| 1:C:55:ARG:HD2 | 1:D:11:TYR:CG | 2.53 | 0.44 |
| 1:D:79:ILE:HG22 | 1:D:81:THR:HB | 1.99 | 0.44 |
| 1:D:109:PHE:CD1 | 1:D:109:PHE:C | 2.91 | 0.44 |
| 1:F:109:PHE:C | 1:F:109:PHE:CD1 | 2.91 | 0.44 |
| 1:H:55:ARG:HD2 | 1:I:11:TYR:CG | 2.53 | 0.44 |
| 1:H:66:VAL:HB | 1:I:12:ARG:NH1 | 2.33 | 0.44 |
| 1:I:43:THR:HA | 1:J:14:LYS:HD2 | 2.00 | 0.44 |
| 1:I:55:ARG:HD2 | 1:J:11:TYR:CG | 2.53 | 0.44 |
| 1:J:55:ARG:HD2 | 1:K:11:TYR:CG | 2.53 | 0.44 |
| 1:L:91:HIS:HB3 | 1:L:104:THR:CG2 | 2.37 | 0.44 |
| 1:M:13:ILE:HD12 | 1:M:14:LYS:O | 2.17 | 0.44 |
| 1:N:50:GLY:O | 1:N:70:GLN:HG3 | 2.17 | 0.44 |
| 1:A:16:VAL:CG1 | 1:A:18:TYR:HE1 | 2.31 | 0.44 |
| 1:B:29:VAL:HG12 | 1:B:92:PHE:HE2 | 1.81 | 0.44 |
| 1:B:37:VAL:HG11 | 1:B:79:ILE:HG21 | 2.00 | 0.44 |
| 1:B:83:LYS:HZ2 | 1:B:111:GLU:HB3 | 1.83 | 0.44 |
| 1:B:84:ARG:HB3 | 1:B:85:THR:H | 1.34 | 0.44 |
| 1:C:79:ILE:HG22 | 1:C:81:THR:HB | 1.99 | 0.44 |
| 1:E:25:LYS:HB3 | 1:E:105:VAL:HG11 | 1.99 | 0.44 |
| 1:E:83:LYS:HZ2 | 1:E:111:GLU:HB3 | 1.83 | 0.44 |
| 1:F:9:TYR:H | 1:F:9:TYR:HD1 | 1.62 | 0.44 |
| 1:F:18:TYR:HD2 | 1:F:23:VAL:HG22 | 1.80 | 0.44 |
| 1:F:24:VAL:HG11 | 1:F:38:VAL:HG13 | 1.99 | 0.44 |
| 1:F:34:THR:OG1 | 1:F:47:HIS:HB2 | 2.17 | 0.44 |
| 1:F:55:ARG:HD2 | 1:G:11:TYR:CG | 2.53 | 0.44 |
| 1:G:55:ARG:HD2 | 1:H:11:TYR:CG | 2.53 | 0.44 |
| 1:I:25:LYS:HB3 | 1:I:105:VAL:HG11 | 1.99 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:J:88:ILE:CG1 | 1:J:107:LYS:HB2 | 2.45 | 0.44 |
| 1:K:13:ILE:HD12 | 1:K:14:LYS:O | 2.17 | 0.44 |
| 1:K:25:LYS:HB3 | 1:K:105:VAL:HG11 | 1.99 | 0.44 |
| 1:L:1:LEU:CG | 1:L:13:ILE:HD11 | 2.47 | 0.44 |
| 1:L:25:LYS:HB3 | 1:L:105:VAL:HG11 | 1.99 | 0.44 |
| 1:M:37:VAL:HG11 | 1:M:79:ILE:HG21 | 2.00 | 0.44 |
| 1:M:79:ILE:HG22 | 1:M:81:THR:HB | 1.99 | 0.44 |
| 1:N:79:ILE:HG22 | 1:N:81:THR:HB | 1.99 | 0.44 |
| 1:N:91:HIS:HB3 | 1:N:104:THR:CG2 | 2.37 | 0.44 |
| 1:A:25:LYS:HB3 | 1:A:105:VAL:HG11 | 1.99 | 0.44 |
| 1:B:86:TYR:C | 1:B:87:ASN:HD22 | 2.22 | 0.44 |
| 1:C:86:TYR:C | 1:C:87:ASN:HD22 | 2.22 | 0.44 |
| 1:D:55:ARG:HD2 | 1:E:11:TYR:CG | 2.53 | 0.44 |
| 1:E:16:VAL:CG1 | 1:E:18:TYR:CE1 | 3.01 | 0.44 |
| 1:E:55:ARG:HD2 | 1:F:11:TYR:CG | 2.53 | 0.44 |
| 1:E:66:VAL:HB | 1:F:12:ARG:NH1 | 2.33 | 0.44 |
| 1:G:16:VAL:CG1 | 1:G:18:TYR:HE1 | 2.31 | 0.44 |
| 1:G:29:VAL:HG11 | 1:G:77:LEU:HD11 | 1.98 | 0.44 |
| 1:H:25:LYS:HB3 | 1:H:105:VAL:HG11 | 1.99 | 0.44 |
| 1:H:50:GLY:O | 1:H:70:GLN:HG3 | 2.17 | 0.44 |
| 1:I:110:ILE:H | 1:I:110:ILE:HG12 | 1.51 | 0.44 |
| 1:K:5:ARG:HB2 | 1:K:36:ILE:CB | 2.47 | 0.44 |
| 1:K:24:VAL:HG11 | 1:K:26:ILE:HD12 | 1.92 | 0.44 |
| 1:L:13:ILE:HD12 | 1:L:14:LYS:O | 2.17 | 0.44 |
| 1:L:29:VAL:HG12 | 1:L:92:PHE:HE2 | 1.81 | 0.44 |
| 1:L:37:VAL:HG11 | 1:L:79:ILE:HG21 | 2.00 | 0.44 |
| 1:N:29:VAL:HG12 | 1:N:92:PHE:HE2 | 1.81 | 0.44 |
| 1:A:46:THR:CB | 1:B:14:LYS:HZ1 | 2.22 | 0.43 |
| 1:B:55:ARG:HD2 | 1:C:11:TYR:CG | 2.53 | 0.43 |
| 1:C:1:LEU:CG | 1:C:13:ILE:HD11 | 2.47 | 0.43 |
| 1:C:109:PHE:C | 1:C:109:PHE:CD1 | 2.91 | 0.43 |
| 1:D:16:VAL:CG1 | 1:D:18:TYR:CE1 | 3.01 | 0.43 |
| 1:D:16:VAL:CG1 | 1:D:18:TYR:HE1 | 2.31 | 0.43 |
| 1:D:32:VAL:HG13 | 1:D:48:ALA:C | 2.38 | 0.43 |
| 1:D:83:LYS:HD3 | 1:D:83:LYS:HA | 1.57 | 0.43 |
| 1:E:79:ILE:HG22 | 1:E:81:THR:HB | 1.99 | 0.43 |
| 1:F:66:VAL:HB | 1:G:12:ARG:NH1 | 2.33 | 0.43 |
| 1:F:80:VAL:HG23 | 1:F:86:TYR:CE2 | 2.53 | 0.43 |
| 1:G:80:VAL:HG23 | 1:G:86:TYR:CE2 | 2.54 | 0.43 |
| 1:I:86:TYR:C | 1:I:87:ASN:HD22 | 2.22 | 0.43 |
| 1:I:88:ILE:CG1 | 1:I:107:LYS:HB2 | 2.45 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:J:29:VAL:HG12 | 1:J:92:PHE:HE2 | 1.81 | 0.43 |
| 1:K:38:VAL:CG2 | 1:K:39:ALA:H | 2.31 | 0.43 |
| 1:L:76:ASN:HD22 | 1:L:76:ASN:HA | 1.65 | 0.43 |
| 1:M:80:VAL:HG23 | 1:M:86:TYR:CE2 | 2.53 | 0.43 |
| 1:A:16:VAL:CG1 | 1:A:18:TYR:CE1 | 3.01 | 0.43 |
| 1:A:38:VAL:CG2 | 1:A:39:ALA:H | 2.31 | 0.43 |
| 1:B:16:VAL:CG1 | 1:B:18:TYR:CE1 | 3.01 | 0.43 |
| 1:C:16:VAL:CG1 | 1:C:18:TYR:CE1 | 3.01 | 0.43 |
| 1:C:44:TYR:N | 1:C:44:TYR:CD1 | 2.81 | 0.43 |
| 1:D:1:LEU:CG | 1:D:13:ILE:HD11 | 2.47 | 0.43 |
| 1:E:37:VAL:HG11 | 1:E:79:ILE:HG21 | 2.00 | 0.43 |
| 1:F:16:VAL:CG1 | 1:F:18:TYR:CE1 | 3.01 | 0.43 |
| 1:F:37:VAL:HG11 | 1:F:79:ILE:HG21 | 2.00 | 0.43 |
| 1:F:38:VAL:CG2 | 1:F:39:ALA:H | 2.31 | 0.43 |
| 1:G:70:GLN:HE21 | 1:G:70:GLN:HB3 | 1.50 | 0.43 |
| 1:H:49:PHE:CB | 1:H:55:ARG:HH22 | 2.17 | 0.43 |
| 1:H:80:VAL:HG23 | 1:H:86:TYR:CE2 | 2.54 | 0.43 |
| 1:J:34:THR:OG1 | 1:J:47:HIS:HB2 | 2.17 | 0.43 |
| 1:J:49:PHE:CB | 1:J:55:ARG:HH22 | 2.17 | 0.43 |
| 1:K:56:THR:CG2 | 1:K:57:PHE:N | 2.82 | 0.43 |
| 1:L:18:TYR:HD2 | 1:L:23:VAL:HG22 | 1.80 | 0.43 |
| 1:L:98:LYS:HE3 | 1:L:100:ASN:CA | 2.36 | 0.43 |
| 1:A:80:VAL:HG23 | 1:A:86:TYR:CE2 | 2.54 | 0.43 |
| 1:B:44:TYR:N | 1:C:14:LYS:HE3 | 2.16 | 0.43 |
| 1:B:80:VAL:HG23 | 1:B:86:TYR:CE2 | 2.54 | 0.43 |
| 1:C:66:VAL:HB | 1:D:12:ARG:NH1 | 2.33 | 0.43 |
| 1:C:80:VAL:HG23 | 1:C:86:TYR:CE2 | 2.54 | 0.43 |
| 1:D:5:ARG:HB2 | 1:D:36:ILE:CB | 2.47 | 0.43 |
| 1:E:98:LYS:HE3 | 1:E:100:ASN:CA | 2.36 | 0.43 |
| 1:F:110:ILE:H | 1:F:110:ILE:HG12 | 1.51 | 0.43 |
| 1:H:32:VAL:HG13 | 1:H:48:ALA:C | 2.38 | 0.43 |
| 1:I:80:VAL:HG23 | 1:I:86:TYR:CE2 | 2.54 | 0.43 |
| 1:J:1:LEU:CG | 1:J:13:ILE:HD11 | 2.47 | 0.43 |
| 1:J:43:THR:HA | 1:K:14:LYS:HD2 | 1.99 | 0.43 |
| 1:J:80:VAL:HG23 | 1:J:86:TYR:CE2 | 2.54 | 0.43 |
| 1:J:86:TYR:C | 1:J:87:ASN:HD22 | 2.22 | 0.43 |
| 1:K:55:ARG:HD2 | 1:L:11:TYR:CG | 2.53 | 0.43 |
| 1:K:80:VAL:HG23 | 1:K:86:TYR:CE2 | 2.54 | 0.43 |
| 1:L:80:VAL:HG23 | 1:L:86:TYR:CE2 | 2.54 | 0.43 |
| 1:N:16:VAL:CG1 | 1:N:18:TYR:CE1 | 3.01 | 0.43 |
| 1:N:80:VAL:HG23 | 1:N:86:TYR:CE2 | 2.54 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:A:55:ARG:HD2 | 1:B:11:TYR:CG | 2.53 | 0.43 |
| 1:A:86:TYR:C | 1:A:87:ASN:HD22 | 2.22 | 0.43 |
| 1:B:49:PHE:CB | 1:B:55:ARG:HH22 | 2.17 | 0.43 |
| 1:C:56:THR:CG2 | 1:C:57:PHE:N | 2.82 | 0.43 |
| 1:D:9:TYR:H | 1:D:9:TYR:HD1 | 1.62 | 0.43 |
| 1:D:29:VAL:HG12 | 1:D:92:PHE:HE2 | 1.81 | 0.43 |
| 1:E:24:VAL:HG11 | 1:E:38:VAL:HG13 | 1.99 | 0.43 |
| 1:E:29:VAL:HG12 | 1:E:92:PHE:HE2 | 1.81 | 0.43 |
| 1:E:29:VAL:HG11 | 1:E:77:LEU:HD11 | 1.98 | 0.43 |
| 1:E:80:VAL:HG23 | 1:E:86:TYR:CE2 | 2.54 | 0.43 |
| 1:F:21:VAL:HG13 | 1:F:110:ILE:HG13 | 2.01 | 0.43 |
| 1:G:16:VAL:CG1 | 1:G:18:TYR:CE1 | 3.01 | 0.43 |
| 1:G:21:VAL:HG13 | 1:G:110:ILE:HG13 | 2.01 | 0.43 |
| 1:G:38:VAL:CG2 | 1:G:39:ALA:H | 2.31 | 0.43 |
| 1:H:43:THR:HA | 1:I:14:LYS:HD2 | 2.00 | 0.43 |
| 1:H:86:TYR:C | 1:H:87:ASN:HD22 | 2.22 | 0.43 |
| 1:H:109:PHE:CD1 | 1:H:109:PHE:C | 2.91 | 0.43 |
| 1:J:24:VAL:HG11 | 1:J:26:ILE:HD12 | 1.92 | 0.43 |
| 1:J:66:VAL:HB | 1:K:12:ARG:NH1 | 2.33 | 0.43 |
| 1:J:109:PHE:CD1 | 1:J:109:PHE:C | 2.91 | 0.43 |
| 1:K:66:VAL:HB | 1:L:12:ARG:NH1 | 2.33 | 0.43 |
| 1:K:109:PHE:C | 1:K:109:PHE:CD1 | 2.91 | 0.43 |
| 1:L:56:THR:CG2 | 1:L:57:PHE:N | 2.82 | 0.43 |
| 1:M:21:VAL:HG13 | 1:M:110:ILE:HG13 | 2.01 | 0.43 |
| 1:B:79:ILE:HG22 | 1:B:81:THR:HB | 1.99 | 0.43 |
| 1:D:80:VAL:HG23 | 1:D:86:TYR:CE2 | 2.54 | 0.43 |
| 1:D:86:TYR:C | 1:D:87:ASN:HD22 | 2.22 | 0.43 |
| 1:G:7:SER:HB3 | 1:G:8:PRO:O | 2.19 | 0.43 |
| 1:H:21:VAL:HG13 | 1:H:110:ILE:HG13 | 2.01 | 0.43 |
| 1:H:98:LYS:HE3 | 1:H:101:ALA:N | 2.33 | 0.43 |
| 1:I:66:VAL:HB | 1:J:12:ARG:NH1 | 2.33 | 0.43 |
| 1:K:1:LEU:CG | 1:K:13:ILE:HD11 | 2.47 | 0.43 |
| 1:L:55:ARG:HD2 | 1:M:11:TYR:CG | 2.53 | 0.43 |
| 1:L:86:TYR:C | 1:L:87:ASN:HD22 | 2.22 | 0.43 |
| 1:L:109:PHE:CD1 | 1:L:109:PHE:C | 2.91 | 0.43 |
| 1:M:16:VAL:CG1 | 1:M:18:TYR:CE1 | 3.01 | 0.43 |
| 1:N:16:VAL:CG1 | 1:N:18:TYR:HE1 | 2.31 | 0.43 |
| 1:N:21:VAL:HG13 | 1:N:110:ILE:HG13 | 2.01 | 0.43 |
| 1:A:21:VAL:HG13 | 1:A:110:ILE:HG13 | 2.01 | 0.43 |
| 1:C:7:SER:HB3 | 1:C:8:PRO:O | 2.19 | 0.43 |
| 1:C:38:VAL:CG2 | 1:C:39:ALA:H | 2.31 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:D:7:SER:HB3 | 1:D:8:PRO:O | 2.19 | 0.43 |
| 1:D:29:VAL:HG11 | 1:D:77:LEU:HD11 | 1.98 | 0.43 |
| 1:F:25:LYS:HB3 | 1:F:105:VAL:HG11 | 1.99 | 0.43 |
| 1:G:44:TYR:N | 1:G:44:TYR:CD1 | 2.81 | 0.43 |
| 1:I:98:LYS:HE3 | 1:I:101:ALA:N | 2.33 | 0.43 |
| 1:I:109:PHE:C | 1:I:109:PHE:CD1 | 2.91 | 0.43 |
| 1:J:5:ARG:HB2 | 1:J:36:ILE:CB | 2.47 | 0.43 |
| 1:K:29:VAL:HG11 | 1:K:77:LEU:HD11 | 1.98 | 0.43 |
| 1:L:21:VAL:HG13 | 1:L:110:ILE:HG13 | 2.01 | 0.43 |
| 1:M:7:SER:HB3 | 1:M:8:PRO:O | 2.19 | 0.43 |
| 1:M:86:TYR:C | 1:M:87:ASN:HD22 | 2.22 | 0.43 |
| 1:N:25:LYS:HB3 | 1:N:105:VAL:HG11 | 1.99 | 0.43 |
| 1:C:62:ASN:HB2 | 1:C:63:HIS:H | 1.73 | 0.43 |
| 1:E:9:TYR:H | 1:E:9:TYR:HD1 | 1.62 | 0.43 |
| 1:E:21:VAL:HG13 | 1:E:110:ILE:HG13 | 2.01 | 0.43 |
| 1:G:98:LYS:HE3 | 1:G:101:ALA:N | 2.33 | 0.43 |
| 1:H:16:VAL:CG1 | 1:H:18:TYR:CE1 | 3.01 | 0.43 |
| 1:J:37:VAL:HG11 | 1:J:79:ILE:HG21 | 2.00 | 0.43 |
| 1:K:21:VAL:HG13 | 1:K:110:ILE:HG13 | 2.01 | 0.43 |
| 1:L:16:VAL:CG1 | 1:L:18:TYR:CE1 | 3.01 | 0.43 |
| 1:M:109:PHE:CD1 | 1:M:109:PHE:C | 2.91 | 0.43 |
| 1:N:109:PHE:C | 1:N:109:PHE:CD1 | 2.91 | 0.43 |
| 1:A:11:TYR:CG | 1:N:55:ARG:HD2 | 2.53 | 0.43 |
| 1:A:109:PHE:C | 1:A:109:PHE:CD1 | 2.91 | 0.43 |
| 1:B:7:SER:HB3 | 1:B:8:PRO:O | 2.19 | 0.43 |
| 1:B:109:PHE:CD1 | 1:B:109:PHE:C | 2.91 | 0.43 |
| 1:C:9:TYR:H | 1:C:9:TYR:HD1 | 1.62 | 0.43 |
| 1:E:1:LEU:CG | 1:E:13:ILE:HD11 | 2.47 | 0.43 |
| 1:E:7:SER:HB3 | 1:E:8:PRO:O | 2.19 | 0.43 |
| 1:E:34:THR:HA | 1:E:47:HIS:HA | 2.01 | 0.43 |
| 1:E:38:VAL:CG2 | 1:E:39:ALA:H | 2.31 | 0.43 |
| 1:F:38:VAL:HG13 | 1:F:107:LYS:HZ3 | 1.84 | 0.43 |
| 1:F:44:TYR:N | 1:F:44:TYR:CD1 | 2.81 | 0.43 |
| 1:G:18:TYR:HD2 | 1:G:23:VAL:HG22 | 1.80 | 0.43 |
| 1:J:7:SER:HB3 | 1:J:8:PRO:O | 2.19 | 0.43 |
| 1:J:16:VAL:CG1 | 1:J:18:TYR:HE1 | 2.31 | 0.43 |
| 1:J:25:LYS:HB3 | 1:J:105:VAL:HG11 | 1.99 | 0.43 |
| 1:K:86:TYR:C | 1:K:87:ASN:HD22 | 2.22 | 0.43 |
| 1:L:43:THR:HA | 1:M:14:LYS:HD2 | 2.00 | 0.43 |
| 1:M:55:ARG:HD2 | 1:N:11:TYR:CG | 2.53 | 0.43 |
| 1:M:56:THR:CG2 | 1:M:57:PHE:N | 2.82 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:A:66:VAL:HB | 1:B:12:ARG:NH1 | 2.33 | 0.43 |
| 1:D:21:VAL:HG13 | 1:D:110:ILE:HG13 | 2.01 | 0.43 |
| 1:D:24:VAL:HG11 | 1:D:38:VAL:HG13 | 1.99 | 0.43 |
| 1:F:34:THR:HA | 1:F:47:HIS:HA | 2.01 | 0.43 |
| 1:F:61:MET:CG | 1:F:62:ASN:N | 2.82 | 0.43 |
| 1:G:66:VAL:HB | 1:H:12:ARG:NH1 | 2.33 | 0.43 |
| 1:H:5:ARG:O | 1:H:6:ASN:HB2 | 2.19 | 0.43 |
| 1:H:37:VAL:HG11 | 1:H:79:ILE:HG21 | 2.00 | 0.43 |
| 1:I:21:VAL:HG13 | 1:I:110:ILE:HG13 | 2.01 | 0.43 |
| 1:K:18:TYR:HD2 | 1:K:23:VAL:HG22 | 1.80 | 0.43 |
| 1:K:34:THR:HA | 1:K:47:HIS:HA | 2.01 | 0.43 |
| 1:K:37:VAL:HG11 | 1:K:79:ILE:HG21 | 2.00 | 0.43 |
| 1:L:7:SER:HB3 | 1:L:8:PRO:O | 2.19 | 0.43 |
| 1:L:38:VAL:CG2 | 1:L:39:ALA:H | 2.31 | 0.43 |
| 1:M:66:VAL:HB | 1:N:12:ARG:NH1 | 2.33 | 0.43 |
| 1:B:21:VAL:HG13 | 1:B:110:ILE:HG13 | 2.01 | 0.43 |
| 1:B:70:GLN:HE21 | 1:B:70:GLN:HB3 | 1.50 | 0.43 |
| 1:D:49:PHE:HE2 | 1:D:79:ILE:CD1 | 2.26 | 0.43 |
| 1:D:56:THR:CG2 | 1:D:57:PHE:N | 2.82 | 0.43 |
| 1:E:5:ARG:HB2 | 1:E:36:ILE:CB | 2.47 | 0.43 |
| 1:E:5:ARG:O | 1:E:6:ASN:HB2 | 2.19 | 0.43 |
| 1:E:86:TYR:C | 1:E:87:ASN:HD22 | 2.22 | 0.43 |
| 1:F:7:SER:HB3 | 1:F:8:PRO:O | 2.19 | 0.43 |
| 1:F:83:LYS:HZ2 | 1:F:111:GLU:HB3 | 1.84 | 0.43 |
| 1:G:37:VAL:HG12 | 1:G:38:VAL:H | 1.84 | 0.43 |
| 1:H:44:TYR:N | 1:I:14:LYS:HE3 | 2.16 | 0.43 |
| 1:I:16:VAL:CG1 | 1:I:18:TYR:CE1 | 3.01 | 0.43 |
| 1:J:21:VAL:HG13 | 1:J:110:ILE:HG13 | 2.01 | 0.43 |
| 1:J:98:LYS:HE3 | 1:J:101:ALA:N | 2.33 | 0.43 |
| 1:K:16:VAL:CG1 | 1:K:18:TYR:CE1 | 3.01 | 0.43 |
| 1:L:34:THR:HA | 1:L:47:HIS:HA | 2.01 | 0.43 |
| 1:L:98:LYS:CE | 1:L:100:ASN:HA | 2.37 | 0.43 |
| 1:M:9:TYR:CD1 | 1:M:9:TYR:N | 2.87 | 0.43 |
| 1:M:25:LYS:HB3 | 1:M:105:VAL:HG11 | 1.99 | 0.43 |
| 1:M:44:TYR:N | 1:N:14:LYS:HE3 | 2.16 | 0.43 |
| 1:B:11:TYR:HD1 | 1:B:11:TYR:HA | 1.55 | 0.42 |
| 1:D:5:ARG:O | 1:D:6:ASN:HB2 | 2.19 | 0.42 |
| 1:D:34:THR:HA | 1:D:47:HIS:HA | 2.01 | 0.42 |
| 1:D:66:VAL:HB | 1:E:12:ARG:NH1 | 2.33 | 0.42 |
| 1:F:29:VAL:HG11 | 1:F:77:LEU:HD11 | 1.99 | 0.42 |
| 1:F:43:THR:HA | 1:G:14:LYS:HD2 | 2.00 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:G:25:LYS:HB3 | 1:G:105:VAL:HG11 | 1.99 | 0.42 |
| 1:G:34:THR:HA | 1:G:47:HIS:HA | 2.01 | 0.42 |
| 1:G:37:VAL:HG11 | 1:G:79:ILE:HG21 | 2.00 | 0.42 |
| 1:G:56:THR:CG2 | 1:G:57:PHE:N | 2.82 | 0.42 |
| 1:G:86:TYR:C | 1:G:87:ASN:HD22 | 2.22 | 0.42 |
| 1:H:7:SER:HB3 | 1:H:8:PRO:O | 2.19 | 0.42 |
| 1:I:5:ARG:HB2 | 1:I:36:ILE:CB | 2.47 | 0.42 |
| 1:J:16:VAL:CG1 | 1:J:18:TYR:CE1 | 3.01 | 0.42 |
| 1:J:34:THR:HA | 1:J:47:HIS:HA | 2.01 | 0.42 |
| 1:M:43:THR:HA | 1:N:14:LYS:HD2 | 2.00 | 0.42 |
| 1:N:24:VAL:HG11 | 1:N:107:LYS:CD | 2.46 | 0.42 |
| 1:A:30:ALA:CB | 1:A:49:PHE:HE1 | 2.32 | 0.42 |
| 1:A:43:THR:HA | 1:B:14:LYS:HD2 | 2.00 | 0.42 |
| 1:B:66:VAL:HB | 1:C:12:ARG:NH1 | 2.33 | 0.42 |
| 1:C:16:VAL:CG1 | 1:C:18:TYR:HE1 | 2.31 | 0.42 |
| 1:C:21:VAL:HG13 | 1:C:110:ILE:HG13 | 2.01 | 0.42 |
| 1:D:44:TYR:N | 1:D:44:TYR:CD1 | 2.81 | 0.42 |
| 1:D:98:LYS:HE3 | 1:D:100:ASN:CA | 2.36 | 0.42 |
| 1:E:43:THR:HA | 1:F:14:LYS:HD2 | 2.00 | 0.42 |
| 1:F:46:THR:CB | 1:G:14:LYS:HZ1 | 2.21 | 0.42 |
| 1:G:110:ILE:H | 1:G:110:ILE:HG12 | 1.51 | 0.42 |
| 1:H:24:VAL:HG11 | 1:H:107:LYS:CD | 2.46 | 0.42 |
| 1:H:34:THR:HA | 1:H:47:HIS:HA | 2.01 | 0.42 |
| 1:I:34:THR:HA | 1:I:47:HIS:HA | 2.01 | 0.42 |
| 1:I:38:VAL:HG13 | 1:I:107:LYS:HZ3 | 1.83 | 0.42 |
| 1:L:61:MET:CG | 1:L:62:ASN:N | 2.82 | 0.42 |
| 1:M:61:MET:CG | 1:M:62:ASN:N | 2.82 | 0.42 |
| 1:N:86:TYR:C | 1:N:87:ASN:HD22 | 2.22 | 0.42 |
| 1:F:5:ARG:HB2 | 1:F:36:ILE:CB | 2.47 | 0.42 |
| 1:F:37:VAL:HG12 | 1:F:38:VAL:H | 1.85 | 0.42 |
| 1:H:5:ARG:HB2 | 1:H:36:ILE:CB | 2.47 | 0.42 |
| 1:H:29:VAL:HG12 | 1:H:92:PHE:HE2 | 1.81 | 0.42 |
| 1:J:32:VAL:CG1 | 1:J:51:ASP:H | 2.33 | 0.42 |
| 1:L:5:ARG:O | 1:L:6:ASN:HB2 | 2.19 | 0.42 |
| 1:L:30:ALA:CB | 1:L:49:PHE:HE1 | 2.32 | 0.42 |
| 1:L:84:ARG:HB3 | 1:L:85:THR:H | 1.34 | 0.42 |
| 1:M:34:THR:HA | 1:M:47:HIS:HA | 2.01 | 0.42 |
| 1:N:30:ALA:CB | 1:N:49:PHE:HE1 | 2.32 | 0.42 |
| 1:A:5:ARG:O | 1:A:6:ASN:HB2 | 2.19 | 0.42 |
| 1:A:7:SER:HB3 | 1:A:8:PRO:O | 2.19 | 0.42 |
| 1:A:32:VAL:CG1 | 1:A:51:ASP:H | 2.33 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:B:61:MET:CG | 1:B:62:ASN:N | 2.82 | 0.42 |
| 1:C:32:VAL:CG1 | 1:C:51:ASP:H | 2.33 | 0.42 |
| 1:D:30:ALA:CB | 1:D:49:PHE:HE1 | 2.32 | 0.42 |
| 1:D:80:VAL:CG2 | 1:D:88:ILE:CG2 | 2.94 | 0.42 |
| 1:E:30:ALA:CB | 1:E:49:PHE:HE1 | 2.32 | 0.42 |
| 1:F:16:VAL:CG1 | 1:F:18:TYR:HE1 | 2.31 | 0.42 |
| 1:F:98:LYS:HE3 | 1:F:101:ALA:N | 2.33 | 0.42 |
| 1:G:5:ARG:O | 1:G:6:ASN:HB2 | 2.19 | 0.42 |
| 1:H:38:VAL:CG2 | 1:H:39:ALA:H | 2.31 | 0.42 |
| 1:H:56:THR:CG2 | 1:H:57:PHE:N | 2.82 | 0.42 |
| 1:H:76:ASN:HD22 | 1:H:76:ASN:HA | 1.65 | 0.42 |
| 1:I:7:SER:HB3 | 1:I:8:PRO:O | 2.19 | 0.42 |
| 1:I:37:VAL:HG11 | 1:I:79:ILE:HG21 | 2.00 | 0.42 |
| 1:L:66:VAL:HB | 1:M:12:ARG:NH1 | 2.33 | 0.42 |
| 1:M:29:VAL:HG11 | 1:M:77:LEU:HD11 | 1.99 | 0.42 |
| 1:N:56:THR:CG2 | 1:N:57:PHE:N | 2.82 | 0.42 |
| 1:B:30:ALA:CB | 1:B:49:PHE:HE1 | 2.32 | 0.42 |
| 1:B:36:ILE:CG1 | 1:B:37:VAL:N | 2.83 | 0.42 |
| 1:C:24:VAL:HG11 | 1:C:38:VAL:HG13 | 1.99 | 0.42 |
| 1:C:61:MET:CG | 1:C:62:ASN:N | 2.82 | 0.42 |
| 1:E:36:ILE:CG1 | 1:E:37:VAL:N | 2.83 | 0.42 |
| 1:E:91:HIS:HB3 | 1:E:104:THR:CG2 | 2.37 | 0.42 |
| 1:G:5:ARG:HB2 | 1:G:36:ILE:CB | 2.47 | 0.42 |
| 1:G:32:VAL:CG1 | 1:G:51:ASP:H | 2.33 | 0.42 |
| 1:H:32:VAL:CG1 | 1:H:51:ASP:H | 2.33 | 0.42 |
| 1:I:5:ARG:O | 1:I:6:ASN:HB2 | 2.19 | 0.42 |
| 1:I:79:ILE:HD12 | 1:I:107:LYS:HZ1 | 1.83 | 0.42 |
| 1:J:37:VAL:HG12 | 1:J:38:VAL:H | 1.85 | 0.42 |
| 1:K:37:VAL:HG12 | 1:K:38:VAL:H | 1.84 | 0.42 |
| 1:K:61:MET:CG | 1:K:62:ASN:N | 2.82 | 0.42 |
| 1:L:29:VAL:HG11 | 1:L:77:LEU:HD11 | 1.98 | 0.42 |
| 1:L:36:ILE:CG1 | 1:L:37:VAL:N | 2.83 | 0.42 |
| 1:M:18:TYR:HD2 | 1:M:23:VAL:HG22 | 1.80 | 0.42 |
| 1:M:36:ILE:CG1 | 1:M:37:VAL:N | 2.83 | 0.42 |
| 1:M:46:THR:HG1 | 1:N:13:ILE:HG22 | 1.78 | 0.42 |
| 1:N:7:SER:HB3 | 1:N:8:PRO:O | 2.19 | 0.42 |
| 1:N:61:MET:CG | 1:N:62:ASN:N | 2.82 | 0.42 |
| 1:A:12:ARG:NH1 | 1:N:66:VAL:HB | 2.33 | 0.42 |
| 1:C:34:THR:HA | 1:C:47:HIS:HA | 2.01 | 0.42 |
| 1:C:36:ILE:CG1 | 1:C:37:VAL:N | 2.83 | 0.42 |
| 1:D:32:VAL:CG1 | 1:D:51:ASP:H | 2.33 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:D:45:ILE:CG2 | 1:E:14:LYS:HE2 | 2.50 | 0.42 |
| 1:E:44:TYR:N | 1:F:14:LYS:HE3 | 2.16 | 0.42 |
| 1:G:45:ILE:CG2 | 1:H:14:LYS:HE2 | 2.50 | 0.42 |
| 1:H:18:TYR:HD2 | 1:H:23:VAL:HG22 | 1.80 | 0.42 |
| 1:J:18:TYR:HD2 | 1:J:23:VAL:HG22 | 1.80 | 0.42 |
| 1:J:36:ILE:CG1 | 1:J:37:VAL:N | 2.83 | 0.42 |
| 1:K:66:VAL:CG1 | 1:L:12:ARG:NH1 | 2.83 | 0.42 |
| 1:N:29:VAL:HG11 | 1:N:77:LEU:HD11 | 1.98 | 0.42 |
| 1:N:36:ILE:CG1 | 1:N:37:VAL:N | 2.83 | 0.42 |
| 1:N:49:PHE:CB | 1:N:55:ARG:HH22 | 2.17 | 0.42 |
| 1:A:36:ILE:CG1 | 1:A:37:VAL:N | 2.83 | 0.42 |
| 1:C:29:VAL:HG11 | 1:C:77:LEU:HD11 | 1.98 | 0.42 |
| 1:C:45:ILE:CG2 | 1:D:14:LYS:HE2 | 2.50 | 0.42 |
| 1:C:66:VAL:CG1 | 1:D:12:ARG:NH1 | 2.83 | 0.42 |
| 1:E:45:ILE:CG2 | 1:F:14:LYS:HE2 | 2.50 | 0.42 |
| 1:F:86:TYR:C | 1:F:87:ASN:HD22 | 2.22 | 0.42 |
| 1:J:66:VAL:CG1 | 1:K:12:ARG:NH1 | 2.83 | 0.42 |
| 1:J:70:GLN:HE21 | 1:J:70:GLN:HB3 | 1.50 | 0.42 |
| 1:N:5:ARG:O | 1:N:6:ASN:HB2 | 2.19 | 0.42 |
| 1:N:11:TYR:HD1 | 1:N:11:TYR:HA | 1.55 | 0.42 |
| 1:N:34:THR:HA | 1:N:47:HIS:HA | 2.01 | 0.42 |
| 1:A:34:THR:HA | 1:A:47:HIS:HA | 2.01 | 0.42 |
| 1:B:34:THR:HA | 1:B:47:HIS:HA | 2.01 | 0.42 |
| 1:F:45:ILE:CG2 | 1:G:14:LYS:HE2 | 2.50 | 0.42 |
| 1:F:62:ASN:HB2 | 1:F:63:HIS:H | 1.73 | 0.42 |
| 1:G:49:PHE:HE2 | 1:G:79:ILE:CD1 | 2.26 | 0.42 |
| 1:H:45:ILE:CG2 | 1:I:14:LYS:HE2 | 2.50 | 0.42 |
| 1:I:9:TYR:CD1 | 1:I:9:TYR:N | 2.87 | 0.42 |
| 1:I:45:ILE:CG2 | 1:J:14:LYS:HE2 | 2.50 | 0.42 |
| 1:I:66:VAL:CG1 | 1:J:12:ARG:NH1 | 2.83 | 0.42 |
| 1:K:7:SER:HB3 | 1:K:8:PRO:O | 2.19 | 0.42 |
| 1:K:49:PHE:CD2 | 1:K:79:ILE:CG1 | 3.03 | 0.42 |
| 1:K:98:LYS:HE3 | 1:K:101:ALA:N | 2.33 | 0.42 |
| 1:K:110:ILE:H | 1:K:110:ILE:HG12 | 1.51 | 0.42 |
| 1:L:66:VAL:CG1 | 1:M:12:ARG:NH1 | 2.83 | 0.42 |
| 1:A:12:ARG:NH1 | 1:N:66:VAL:CG1 | 2.83 | 0.42 |
| 1:A:66:VAL:CG1 | 1:B:12:ARG:NH1 | 2.83 | 0.42 |
| 1:B:45:ILE:CG2 | 1:C:14:LYS:HE2 | 2.50 | 0.42 |
| 1:D:61:MET:CG | 1:D:62:ASN:N | 2.82 | 0.42 |
| 1:E:80:VAL:CG2 | 1:E:88:ILE:CG2 | 2.94 | 0.42 |
| 1:F:5:ARG:O | 1:F:6:ASN:HB2 | 2.19 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:G:43:THR:HA | 1:H:14:LYS:HD2 | 2.00 | 0.42 |
| 1:I:18:TYR:HD2 | 1:I:23:VAL:HG22 | 1.80 | 0.42 |
| 1:K:5:ARG:O | 1:K:6:ASN:HB2 | 2.19 | 0.42 |
| 1:L:49:PHE:CD2 | 1:L:79:ILE:CG1 | 3.03 | 0.42 |
| 1:L:79:ILE:HG23 | 1:L:86:TYR:OH | 2.20 | 0.42 |
| 1:B:62:ASN:HB2 | 1:B:63:HIS:H | 1.73 | 0.42 |
| 1:C:88:ILE:HD11 | 1:C:107:LYS:CG | 2.34 | 0.42 |
| 1:D:66:VAL:CG1 | 1:E:12:ARG:NH1 | 2.83 | 0.42 |
| 1:F:30:ALA:CB | 1:F:49:PHE:HE1 | 2.32 | 0.42 |
| 1:F:66:VAL:CG1 | 1:G:12:ARG:NH1 | 2.83 | 0.42 |
| 1:H:36:ILE:CG1 | 1:H:37:VAL:N | 2.83 | 0.42 |
| 1:H:49:PHE:CD2 | 1:H:79:ILE:CG1 | 3.03 | 0.42 |
| 1:H:66:VAL:CG1 | 1:I:12:ARG:NH1 | 2.83 | 0.42 |
| 1:I:49:PHE:CD2 | 1:I:79:ILE:CG1 | 3.03 | 0.42 |
| 1:K:30:ALA:CB | 1:K:49:PHE:HE1 | 2.32 | 0.42 |
| 1:K:32:VAL:CG1 | 1:K:51:ASP:H | 2.33 | 0.42 |
| 1:M:5:ARG:O | 1:M:6:ASN:HB2 | 2.19 | 0.42 |
| 1:M:30:ALA:CB | 1:M:49:PHE:HE1 | 2.32 | 0.42 |
| 1:A:14:LYS:HD2 | 1:N:43:THR:HA | 2.00 | 0.41 |
| 1:C:5:ARG:O | 1:C:6:ASN:HB2 | 2.19 | 0.41 |
| 1:G:36:ILE:CG1 | 1:G:37:VAL:N | 2.83 | 0.41 |
| 1:G:109:PHE:CD1 | 1:G:109:PHE:C | 2.91 | 0.41 |
| 1:J:45:ILE:CG2 | 1:K:14:LYS:HE2 | 2.50 | 0.41 |
| 1:K:43:THR:HA | 1:L:14:LYS:HD2 | 2.00 | 0.41 |
| 1:L:32:VAL:CG1 | 1:L:51:ASP:H | 2.33 | 0.41 |
| 1:M:16:VAL:CG1 | 1:M:18:TYR:HE1 | 2.31 | 0.41 |
| 1:M:49:PHE:CD2 | 1:M:79:ILE:CG1 | 3.03 | 0.41 |
| 1:M:66:VAL:CG1 | 1:N:12:ARG:NH1 | 2.83 | 0.41 |
| 1:M:79:ILE:HG23 | 1:M:86:TYR:OH | 2.20 | 0.41 |
| 1:B:24:VAL:HG11 | 1:B:38:VAL:HG13 | 1.99 | 0.41 |
| 1:B:91:HIS:HB3 | 1:B:104:THR:CG2 | 2.37 | 0.41 |
| 1:C:49:PHE:CE2 | 1:C:79:ILE:CG1 | 3.03 | 0.41 |
| 1:C:98:LYS:HE3 | 1:C:100:ASN:CA | 2.36 | 0.41 |
| 1:C:98:LYS:CE | 1:C:100:ASN:HA | 2.37 | 0.41 |
| 1:D:43:THR:HA | 1:E:14:LYS:HD2 | 2.00 | 0.41 |
| 1:G:30:ALA:CB | 1:G:49:PHE:HE1 | 2.32 | 0.41 |
| 1:G:66:VAL:CG1 | 1:H:12:ARG:NH1 | 2.83 | 0.41 |
| 1:I:37:VAL:HG12 | 1:I:38:VAL:H | 1.85 | 0.41 |
| 1:J:30:ALA:CB | 1:J:49:PHE:HE1 | 2.32 | 0.41 |
| 1:J:49:PHE:CE2 | 1:J:79:ILE:CG1 | 3.03 | 0.41 |
| 1:J:61:MET:CG | 1:J:62:ASN:N | 2.82 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:J:79:ILE:HG23 | 1:J:86:TYR:OH | 2.20 | 0.41 |
| 1:L:49:PHE:CB | 1:L:55:ARG:HH22 | 2.17 | 0.41 |
| 1:M:32:VAL:CG1 | 1:M:51:ASP:H | 2.32 | 0.41 |
| 1:N:32:VAL:CG1 | 1:N:51:ASP:H | 2.33 | 0.41 |
| 1:N:49:PHE:CD2 | 1:N:79:ILE:CG1 | 3.03 | 0.41 |
| 1:N:79:ILE:HG23 | 1:N:86:TYR:OH | 2.20 | 0.41 |
| 1:A:49:PHE:CD2 | 1:A:79:ILE:CG1 | 3.03 | 0.41 |
| 1:A:56:THR:CG2 | 1:A:57:PHE:N | 2.82 | 0.41 |
| 1:A:79:ILE:HG23 | 1:A:86:TYR:OH | 2.20 | 0.41 |
| 1:B:16:VAL:CG1 | 1:B:18:TYR:HE1 | 2.31 | 0.41 |
| 1:B:37:VAL:HG12 | 1:B:38:VAL:H | 1.85 | 0.41 |
| 1:B:100:ASN:HA | 1:B:100:ASN:HD22 | 1.53 | 0.41 |
| 1:C:37:VAL:HG12 | 1:C:38:VAL:H | 1.85 | 0.41 |
| 1:E:56:THR:CG2 | 1:E:57:PHE:N | 2.82 | 0.41 |
| 1:F:36:ILE:CG1 | 1:F:37:VAL:N | 2.83 | 0.41 |
| 1:H:30:ALA:CB | 1:H:49:PHE:HE1 | 2.32 | 0.41 |
| 1:H:37:VAL:HG12 | 1:H:38:VAL:H | 1.84 | 0.41 |
| 1:I:46:THR:CA | 1:J:14:LYS:HZ1 | 2.33 | 0.41 |
| 1:I:56:THR:CG2 | 1:I:57:PHE:N | 2.82 | 0.41 |
| 1:K:36:ILE:CG1 | 1:K:37:VAL:N | 2.83 | 0.41 |
| 1:K:45:ILE:CG2 | 1:L:14:LYS:HE2 | 2.50 | 0.41 |
| 1:K:49:PHE:CE2 | 1:K:79:ILE:CG1 | 3.03 | 0.41 |
| 1:A:49:PHE:CE2 | 1:A:79:ILE:CG1 | 3.03 | 0.41 |
| 1:B:32:VAL:CG1 | 1:B:51:ASP:H | 2.33 | 0.41 |
| 1:B:49:PHE:CE2 | 1:B:79:ILE:CG1 | 3.03 | 0.41 |
| 1:C:30:ALA:CB | 1:C:49:PHE:HE1 | 2.32 | 0.41 |
| 1:D:11:TYR:HD1 | 1:D:11:TYR:HA | 1.55 | 0.41 |
| 1:D:36:ILE:CG1 | 1:D:37:VAL:N | 2.83 | 0.41 |
| 1:D:49:PHE:CE2 | 1:D:79:ILE:CG1 | 3.03 | 0.41 |
| 1:E:32:VAL:CG1 | 1:E:51:ASP:H | 2.33 | 0.41 |
| 1:E:37:VAL:HG12 | 1:E:38:VAL:H | 1.85 | 0.41 |
| 1:E:66:VAL:CG1 | 1:F:12:ARG:NH1 | 2.83 | 0.41 |
| 1:E:98:LYS:HE3 | 1:E:101:ALA:N | 2.33 | 0.41 |
| 1:F:49:PHE:CD2 | 1:F:79:ILE:CG1 | 3.03 | 0.41 |
| 1:G:45:ILE:H | 1:G:45:ILE:HG13 | 1.76 | 0.41 |
| 1:G:46:THR:CA | 1:H:14:LYS:HZ1 | 2.33 | 0.41 |
| 1:I:36:ILE:CG1 | 1:I:37:VAL:N | 2.83 | 0.41 |
| 1:J:49:PHE:CD2 | 1:J:79:ILE:CG1 | 3.03 | 0.41 |
| 1:K:79:ILE:HG23 | 1:K:86:TYR:OH | 2.20 | 0.41 |
| 1:L:1:LEU:N | 1:L:5:ARG:HH11 | 2.19 | 0.41 |
| 1:L:12:ARG:CG | 1:L:13:ILE:N | 2.83 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:M:24:VAL:HG11 | 1:M:38:VAL:HG13 | 1.99 | 0.41 |
| 1:A:45:ILE:CG2 | 1:B:14:LYS:HE2 | 2.50 | 0.41 |
| 1:B:66:VAL:CG1 | 1:C:12:ARG:NH1 | 2.83 | 0.41 |
| 1:E:61:MET:CG | 1:E:62:ASN:N | 2.82 | 0.41 |
| 1:F:32:VAL:CG1 | 1:F:51:ASP:H | 2.32 | 0.41 |
| 1:H:9:TYR:H | 1:H:9:TYR:HD1 | 1.62 | 0.41 |
| 1:I:16:VAL:CG1 | 1:I:18:TYR:HE1 | 2.31 | 0.41 |
| 1:I:49:PHE:CE2 | 1:I:79:ILE:CG1 | 3.03 | 0.41 |
| 1:I:91:HIS:HB3 | 1:I:104:THR:CG2 | 2.37 | 0.41 |
| 1:L:45:ILE:CG2 | 1:M:14:LYS:HE2 | 2.50 | 0.41 |
| 1:A:29:VAL:HG11 | 1:A:77:LEU:HD11 | 1.98 | 0.41 |
| 1:A:44:TYR:N | 1:B:14:LYS:HE3 | 2.16 | 0.41 |
| 1:D:37:VAL:HG12 | 1:D:38:VAL:H | 1.84 | 0.41 |
| 1:G:34:THR:HG23 | 1:G:47:HIS:CB | 2.41 | 0.41 |
| 1:I:32:VAL:CG1 | 1:I:51:ASP:H | 2.33 | 0.41 |
| 1:J:1:LEU:N | 1:J:5:ARG:HH11 | 2.19 | 0.41 |
| 1:J:79:ILE:CG2 | 1:J:81:THR:HB | 2.51 | 0.41 |
| 1:K:49:PHE:HE2 | 1:K:79:ILE:CD1 | 2.26 | 0.41 |
| 1:L:49:PHE:CE2 | 1:L:79:ILE:CG1 | 3.03 | 0.41 |
| 1:A:14:LYS:HE2 | 1:N:45:ILE:CG2 | 2.50 | 0.41 |
| 1:A:37:VAL:HG12 | 1:A:38:VAL:H | 1.84 | 0.41 |
| 1:B:49:PHE:CD2 | 1:B:79:ILE:CG1 | 3.03 | 0.41 |
| 1:B:67:LYS:HG2 | 1:B:77:LEU:O | 2.21 | 0.41 |
| 1:B:79:ILE:HG23 | 1:B:86:TYR:OH | 2.20 | 0.41 |
| 1:C:9:TYR:CD1 | 1:C:9:TYR:N | 2.87 | 0.41 |
| 1:C:67:LYS:HG2 | 1:C:77:LEU:O | 2.21 | 0.41 |
| 1:D:67:LYS:HG2 | 1:D:77:LEU:O | 2.21 | 0.41 |
| 1:E:67:LYS:HG2 | 1:E:77:LEU:O | 2.21 | 0.41 |
| 1:F:37:VAL:CG1 | 1:F:38:VAL:N | 2.80 | 0.41 |
| 1:G:1:LEU:N | 1:G:5:ARG:HH11 | 2.19 | 0.41 |
| 1:G:9:TYR:H | 1:G:9:TYR:HD1 | 1.62 | 0.41 |
| 1:G:49:PHE:CB | 1:G:55:ARG:HH22 | 2.17 | 0.41 |
| 1:H:37:VAL:CG1 | 1:H:38:VAL:N | 2.80 | 0.41 |
| 1:I:30:ALA:CB | 1:I:49:PHE:HE1 | 2.32 | 0.41 |
| 1:K:79:ILE:CG2 | 1:K:81:THR:HB | 2.51 | 0.41 |
| 1:M:45:ILE:CG2 | 1:N:14:LYS:HE2 | 2.50 | 0.41 |
| 1:M:79:ILE:CG2 | 1:M:81:THR:HB | 2.51 | 0.41 |
| 1:N:100:ASN:HA | 1:N:100:ASN:HD22 | 1.52 | 0.41 |
| 1:A:14:LYS:HE3 | 1:N:44:TYR:N | 2.16 | 0.41 |
| 1:A:83:LYS:NZ | 1:A:111:GLU:HB3 | 2.36 | 0.41 |
| 1:B:5:ARG:O | 1:B:6:ASN:HB2 | 2.19 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:B:9:TYR:CD1 | 1:B:9:TYR:N | 2.87 | 0.41 |
| 1:C:24:VAL:HG11 | 1:C:107:LYS:CD | 2.46 | 0.41 |
| 1:D:49:PHE:CD2 | 1:D:79:ILE:CG1 | 3.03 | 0.41 |
| 1:E:16:VAL:CG1 | 1:E:18:TYR:HE1 | 2.31 | 0.41 |
| 1:F:67:LYS:HG2 | 1:F:77:LEU:O | 2.21 | 0.41 |
| 1:G:24:VAL:HG11 | 1:G:107:LYS:CD | 2.46 | 0.41 |
| 1:G:49:PHE:CE2 | 1:G:79:ILE:CG1 | 3.03 | 0.41 |
| 1:H:49:PHE:CE2 | 1:H:79:ILE:CG1 | 3.03 | 0.41 |
| 1:H:79:ILE:CG2 | 1:H:81:THR:HB | 2.51 | 0.41 |
| 1:I:38:VAL:CG2 | 1:I:39:ALA:H | 2.31 | 0.41 |
| 1:I:45:ILE:H | 1:I:45:ILE:HG13 | 1.76 | 0.41 |
| 1:I:79:ILE:HG23 | 1:I:86:TYR:OH | 2.20 | 0.41 |
| 1:I:79:ILE:CG2 | 1:I:81:THR:HB | 2.51 | 0.41 |
| 1:K:1:LEU:N | 1:K:5:ARG:HH11 | 2.19 | 0.41 |
| 1:L:37:VAL:HG12 | 1:L:38:VAL:H | 1.85 | 0.41 |
| 1:N:67:LYS:HG2 | 1:N:77:LEU:O | 2.21 | 0.41 |
| 1:A:24:VAL:HG11 | 1:A:38:VAL:HG13 | 1.99 | 0.41 |
| 1:A:67:LYS:HG2 | 1:A:77:LEU:O | 2.21 | 0.41 |
| 1:A:100:ASN:HA | 1:A:100:ASN:HD22 | 1.53 | 0.41 |
| 1:C:43:THR:HA | 1:D:14:LYS:HD2 | 1.99 | 0.41 |
| 1:C:49:PHE:CD2 | 1:C:79:ILE:CG1 | 3.03 | 0.41 |
| 1:C:79:ILE:HD12 | 1:C:107:LYS:HZ1 | 1.86 | 0.41 |
| 1:C:82:ASP:HB3 | 1:C:84:ARG:H | 1.86 | 0.41 |
| 1:D:79:ILE:CG2 | 1:D:81:THR:HB | 2.51 | 0.41 |
| 1:E:49:PHE:CE2 | 1:E:79:ILE:CG1 | 3.03 | 0.41 |
| 1:F:83:LYS:NZ | 1:F:111:GLU:HB3 | 2.36 | 0.41 |
| 1:G:49:PHE:CD2 | 1:G:79:ILE:CG1 | 3.03 | 0.41 |
| 1:G:67:LYS:HG2 | 1:G:77:LEU:O | 2.21 | 0.41 |
| 1:G:79:ILE:CG2 | 1:G:81:THR:HB | 2.51 | 0.41 |
| 1:I:1:LEU:N | 1:I:5:ARG:HH11 | 2.19 | 0.41 |
| 1:I:109:PHE:C | 1:I:109:PHE:HD1 | 2.25 | 0.41 |
| 1:J:5:ARG:O | 1:J:6:ASN:HB2 | 2.19 | 0.41 |
| 1:J:38:VAL:CG2 | 1:J:39:ALA:H | 2.31 | 0.41 |
| 1:J:110:ILE:H | 1:J:110:ILE:HG12 | 1.51 | 0.41 |
| 1:K:12:ARG:CG | 1:K:13:ILE:N | 2.83 | 0.41 |
| 1:K:80:VAL:CG2 | 1:K:88:ILE:CG2 | 2.94 | 0.41 |
| 1:L:32:VAL:CB | 1:L:51:ASP:HA | 2.35 | 0.41 |
| 1:L:79:ILE:CG2 | 1:L:81:THR:HB | 2.51 | 0.41 |
| 1:M:24:VAL:HG11 | 1:M:107:LYS:CD | 2.46 | 0.41 |
| 1:M:83:LYS:HZ2 | 1:M:111:GLU:HB3 | 1.85 | 0.41 |
| 1:M:83:LYS:NZ | 1:M:111:GLU:HB3 | 2.36 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:M:91:HIS:HB3 | 1:M:104:THR:CG2 | 2.37 | 0.41 |
| 1:M:109:PHE:C | 1:M:109:PHE:HD1 | 2.25 | 0.41 |
| 1:N:24:VAL:HG11 | 1:N:38:VAL:HG13 | 1.99 | 0.41 |
| 1:N:49:PHE:CE2 | 1:N:79:ILE:CG1 | 3.03 | 0.41 |
| 1:N:109:PHE:C | 1:N:109:PHE:HD1 | 2.25 | 0.41 |
| 1:C:79:ILE:HG23 | 1:C:86:TYR:OH | 2.20 | 0.41 |
| 1:E:49:PHE:CD2 | 1:E:79:ILE:CG1 | 3.03 | 0.41 |
| 1:E:79:ILE:CG2 | 1:E:81:THR:HB | 2.51 | 0.41 |
| 1:E:82:ASP:HB3 | 1:E:84:ARG:H | 1.86 | 0.41 |
| 1:F:49:PHE:CE2 | 1:F:79:ILE:CG1 | 3.03 | 0.41 |
| 1:F:80:VAL:CG2 | 1:F:88:ILE:CG2 | 2.94 | 0.41 |
| 1:G:83:LYS:HZ2 | 1:G:111:GLU:HB3 | 1.87 | 0.41 |
| 1:H:1:LEU:N | 1:H:5:ARG:HH11 | 2.19 | 0.41 |
| 1:H:83:LYS:NZ | 1:H:111:GLU:HB3 | 2.36 | 0.41 |
| 1:I:61:MET:CG | 1:I:62:ASN:N | 2.82 | 0.41 |
| 1:J:109:PHE:C | 1:J:109:PHE:HD1 | 2.25 | 0.41 |
| 1:L:98:LYS:HE3 | 1:L:101:ALA:N | 2.33 | 0.41 |
| 1:M:86:TYR:C | 1:M:86:TYR:CD1 | 2.94 | 0.41 |
| 1:A:62:ASN:HB2 | 1:A:63:HIS:H | 1.73 | 0.40 |
| 1:C:1:LEU:N | 1:C:5:ARG:HH11 | 2.19 | 0.40 |
| 1:C:100:ASN:HA | 1:C:100:ASN:HD22 | 1.52 | 0.40 |
| 1:D:1:LEU:N | 1:D:5:ARG:HH11 | 2.19 | 0.40 |
| 1:D:37:VAL:CG1 | 1:D:38:VAL:H | 2.34 | 0.40 |
| 1:E:37:VAL:CG1 | 1:E:38:VAL:H | 2.34 | 0.40 |
| 1:F:57:PHE:CZ | 1:G:27:ASP:HB2 | 2.57 | 0.40 |
| 1:H:86:TYR:C | 1:H:86:TYR:CD1 | 2.94 | 0.40 |
| 1:J:83:LYS:HZ2 | 1:J:111:GLU:HB3 | 1.85 | 0.40 |
| 1:L:44:TYR:N | 1:M:14:LYS:HE3 | 2.16 | 0.40 |
| 1:L:61:MET:HG2 | 1:L:62:ASN:N | 2.34 | 0.40 |
| 1:L:67:LYS:HG2 | 1:L:77:LEU:O | 2.21 | 0.40 |
| 1:L:86:TYR:C | 1:L:86:TYR:CD1 | 2.94 | 0.40 |
| 1:M:17:VAL:HG12 | 1:M:18:TYR:H | 1.86 | 0.40 |
| 1:M:82:ASP:HB3 | 1:M:84:ARG:H | 1.86 | 0.40 |
| 1:N:37:VAL:HG12 | 1:N:38:VAL:H | 1.84 | 0.40 |
| 1:N:83:LYS:HD3 | 1:N:83:LYS:HA | 1.57 | 0.40 |
| 1:N:86:TYR:C | 1:N:86:TYR:CD1 | 2.94 | 0.40 |
| 1:A:9:TYR:CD1 | 1:A:9:TYR:N | 2.87 | 0.40 |
| 1:B:29:VAL:HG11 | 1:B:77:LEU:HD11 | 1.98 | 0.40 |
| 1:B:98:LYS:HE3 | 1:B:101:ALA:N | 2.33 | 0.40 |
| 1:C:79:ILE:CG2 | 1:C:81:THR:HB | 2.51 | 0.40 |
| 1:C:109:PHE:C | 1:C:109:PHE:HD1 | 2.25 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|-----------------|--------------------------|-------------------|
| 1:D:9:TYR:CD1 | 1:D:9:TYR:N | 2.87 | 0.40 |
| 1:D:86:TYR:C | 1:D:86:TYR:CD1 | 2.94 | 0.40 |
| 1:D:109:PHE:C | 1:D:109:PHE:HD1 | 2.25 | 0.40 |
| 1:F:70:GLN:HE21 | 1:F:70:GLN:HB3 | 1.50 | 0.40 |
| 1:G:57:PHE:CZ | 1:H:27:ASP:HB2 | 2.57 | 0.40 |
| 1:G:79:ILE:HG23 | 1:G:86:TYR:OH | 2.20 | 0.40 |
| 1:G:82:ASP:HB3 | 1:G:84:ARG:H | 1.86 | 0.40 |
| 1:G:86:TYR:C | 1:G:86:TYR:CD1 | 2.94 | 0.40 |
| 1:H:46:THR:N | 1:I:14:LYS:HZ1 | 2.19 | 0.40 |
| 1:H:79:ILE:HG23 | 1:H:86:TYR:OH | 2.20 | 0.40 |
| 1:I:86:TYR:C | 1:I:86:TYR:CD1 | 2.94 | 0.40 |
| 1:J:82:ASP:HB3 | 1:J:84:ARG:H | 1.86 | 0.40 |
| 1:K:86:TYR:C | 1:K:86:TYR:CD1 | 2.94 | 0.40 |
| 1:M:49:PHE:CE2 | 1:M:79:ILE:CG1 | 3.03 | 0.40 |
| 1:N:1:LEU:N | 1:N:5:ARG:HH11 | 2.19 | 0.40 |
| 1:A:57:PHE:CZ | 1:B:27:ASP:HB2 | 2.57 | 0.40 |
| 1:A:86:TYR:C | 1:A:86:TYR:CD1 | 2.94 | 0.40 |
| 1:B:79:ILE:CG2 | 1:B:81:THR:HB | 2.51 | 0.40 |
| 1:C:83:LYS:NZ | 1:C:111:GLU:HB3 | 2.36 | 0.40 |
| 1:C:86:TYR:C | 1:C:86:TYR:CD1 | 2.94 | 0.40 |
| 1:C:98:LYS:HE3 | 1:C:101:ALA:N | 2.33 | 0.40 |
| 1:D:83:LYS:NZ | 1:D:111:GLU:HB3 | 2.36 | 0.40 |
| 1:F:79:ILE:CG2 | 1:F:81:THR:HB | 2.51 | 0.40 |
| 1:I:82:ASP:HB3 | 1:I:84:ARG:H | 1.86 | 0.40 |
| 1:I:83:LYS:NZ | 1:I:111:GLU:HB3 | 2.36 | 0.40 |
| 1:K:83:LYS:NZ | 1:K:111:GLU:HB3 | 2.36 | 0.40 |
| 1:L:14:LYS:H | 1:L:14:LYS:HG2 | 1.48 | 0.40 |
| 1:M:98:LYS:CE | 1:M:101:ALA:H | 2.34 | 0.40 |
| 1:N:17:VAL:HG12 | 1:N:18:TYR:H | 1.86 | 0.40 |
| 1:N:79:ILE:CG2 | 1:N:81:THR:HB | 2.51 | 0.40 |
| 1:A:27:ASP:HB2 | 1:N:57:PHE:CZ | 2.57 | 0.40 |
| 1:A:98:LYS:HE3 | 1:A:101:ALA:N | 2.33 | 0.40 |
| 1:A:109:PHE:C | 1:A:109:PHE:HD1 | 2.25 | 0.40 |
| 1:B:1:LEU:N | 1:B:5:ARG:HH11 | 2.19 | 0.40 |
| 1:D:79:ILE:HD12 | 1:D:107:LYS:HZ1 | 1.85 | 0.40 |
| 1:E:79:ILE:HG23 | 1:E:86:TYR:OH | 2.20 | 0.40 |
| 1:F:17:VAL:HG12 | 1:F:18:TYR:H | 1.86 | 0.40 |
| 1:F:37:VAL:CG1 | 1:F:38:VAL:H | 2.34 | 0.40 |
| 1:H:57:PHE:CZ | 1:I:27:ASP:HB2 | 2.57 | 0.40 |
| 1:J:86:TYR:C | 1:J:86:TYR:CD1 | 2.94 | 0.40 |
| 1:K:38:VAL:O | 1:K:44:TYR:CE1 | 2.75 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------|--------------------------|-------------------|
| 1:K:61:MET:HG2 | 1:K:62:ASN:N | 2.34 | 0.40 |
| 1:L:82:ASP:HB3 | 1:L:84:ARG:H | 1.86 | 0.40 |
| 1:M:61:MET:HG2 | 1:M:62:ASN:N | 2.34 | 0.40 |
| 1:A:34:THR:HG23 | 1:A:47:HIS:CB | 2.41 | 0.40 |
| 1:B:56:THR:CG2 | 1:B:57:PHE:N | 2.82 | 0.40 |
| 1:B:82:ASP:HB3 | 1:B:84:ARG:H | 1.86 | 0.40 |
| 1:B:86:TYR:C | 1:B:86:TYR:CD1 | 2.94 | 0.40 |
| 1:C:29:VAL:HG12 | 1:C:92:PHE:HE2 | 1.81 | 0.40 |
| 1:D:98:LYS:HE3 | 1:D:101:ALA:N | 2.33 | 0.40 |
| 1:E:1:LEU:N | 1:E:5:ARG:HH11 | 2.19 | 0.40 |
| 1:E:38:VAL:HG13 | 1:E:107:LYS:HZ3 | 1.86 | 0.40 |
| 1:E:45:ILE:H | 1:E:45:ILE:HG13 | 1.76 | 0.40 |
| 1:E:57:PHE:CZ | 1:F:27:ASP:HB2 | 2.57 | 0.40 |
| 1:F:86:TYR:C | 1:F:86:TYR:CD1 | 2.94 | 0.40 |
| 1:G:83:LYS:NZ | 1:G:111:GLU:HB3 | 2.36 | 0.40 |
| 1:G:98:LYS:CE | 1:G:101:ALA:H | 2.34 | 0.40 |
| 1:H:82:ASP:HB3 | 1:H:84:ARG:H | 1.86 | 0.40 |
| 1:H:109:PHE:C | 1:H:109:PHE:HD1 | 2.25 | 0.40 |
| 1:J:56:THR:CG2 | 1:J:57:PHE:N | 2.82 | 0.40 |
| 1:J:67:LYS:HG2 | 1:J:77:LEU:O | 2.21 | 0.40 |
| 1:K:57:PHE:CZ | 1:L:27:ASP:HB2 | 2.57 | 0.40 |
| 1:K:98:LYS:HE3 | 1:K:100:ASN:CA | 2.36 | 0.40 |
| 1:L:38:VAL:O | 1:L:44:TYR:CE1 | 2.75 | 0.40 |
| 1:M:38:VAL:O | 1:M:44:TYR:CE1 | 2.75 | 0.40 |
| 1:M:100:ASN:HA | 1:M:100:ASN:HD22 | 1.52 | 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 | 110/112 (98%) | 70 (64%) | 26 (24%) | 14 (13%) | 0 5 |

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| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|-----------------|-----------|-----------|-----------|-------------|---|
| 1 | B | 110/112 (98%) | 70 (64%) | 26 (24%) | 14 (13%) | 0 | 5 |
| 1 | C | 110/112 (98%) | 70 (64%) | 26 (24%) | 14 (13%) | 0 | 5 |
| 1 | D | 110/112 (98%) | 70 (64%) | 26 (24%) | 14 (13%) | 0 | 5 |
| 1 | E | 110/112 (98%) | 70 (64%) | 26 (24%) | 14 (13%) | 0 | 5 |
| 1 | F | 110/112 (98%) | 70 (64%) | 26 (24%) | 14 (13%) | 0 | 5 |
| 1 | G | 110/112 (98%) | 70 (64%) | 26 (24%) | 14 (13%) | 0 | 5 |
| 1 | H | 110/112 (98%) | 70 (64%) | 26 (24%) | 14 (13%) | 0 | 5 |
| 1 | I | 110/112 (98%) | 70 (64%) | 26 (24%) | 14 (13%) | 0 | 5 |
| 1 | J | 110/112 (98%) | 70 (64%) | 26 (24%) | 14 (13%) | 0 | 5 |
| 1 | K | 110/112 (98%) | 70 (64%) | 26 (24%) | 14 (13%) | 0 | 5 |
| 1 | L | 110/112 (98%) | 70 (64%) | 26 (24%) | 14 (13%) | 0 | 5 |
| 1 | M | 110/112 (98%) | 70 (64%) | 26 (24%) | 14 (13%) | 0 | 5 |
| 1 | N | 110/112 (98%) | 70 (64%) | 26 (24%) | 14 (13%) | 0 | 5 |
| All | All | 1540/1568 (98%) | 980 (64%) | 364 (24%) | 196 (13%) | 1 | 5 |

All (196) Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 3 | VAL |
| 1 | A | 14 | LYS |
| 1 | A | 21 | VAL |
| 1 | A | 28 | ALA |
| 1 | A | 33 | ALA |
| 1 | A | 38 | VAL |
| 1 | A | 83 | LYS |
| 1 | B | 3 | VAL |
| 1 | B | 14 | LYS |
| 1 | B | 21 | VAL |
| 1 | B | 28 | ALA |
| 1 | B | 33 | ALA |
| 1 | B | 38 | VAL |
| 1 | B | 83 | LYS |
| 1 | C | 3 | VAL |
| 1 | C | 14 | LYS |
| 1 | C | 21 | VAL |
| 1 | C | 28 | ALA |
| 1 | C | 33 | ALA |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | C | 38 | VAL |
| 1 | C | 83 | LYS |
| 1 | D | 3 | VAL |
| 1 | D | 14 | LYS |
| 1 | D | 21 | VAL |
| 1 | D | 28 | ALA |
| 1 | D | 33 | ALA |
| 1 | D | 38 | VAL |
| 1 | D | 83 | LYS |
| 1 | E | 3 | VAL |
| 1 | E | 14 | LYS |
| 1 | E | 21 | VAL |
| 1 | E | 28 | ALA |
| 1 | E | 33 | ALA |
| 1 | E | 38 | VAL |
| 1 | E | 83 | LYS |
| 1 | F | 3 | VAL |
| 1 | F | 14 | LYS |
| 1 | F | 21 | VAL |
| 1 | F | 28 | ALA |
| 1 | F | 33 | ALA |
| 1 | F | 38 | VAL |
| 1 | F | 83 | LYS |
| 1 | G | 3 | VAL |
| 1 | G | 14 | LYS |
| 1 | G | 21 | VAL |
| 1 | G | 28 | ALA |
| 1 | G | 33 | ALA |
| 1 | G | 38 | VAL |
| 1 | G | 83 | LYS |
| 1 | H | 3 | VAL |
| 1 | H | 14 | LYS |
| 1 | H | 21 | VAL |
| 1 | H | 28 | ALA |
| 1 | H | 33 | ALA |
| 1 | H | 38 | VAL |
| 1 | H | 83 | LYS |
| 1 | I | 3 | VAL |
| 1 | I | 14 | LYS |
| 1 | I | 21 | VAL |
| 1 | I | 28 | ALA |
| 1 | I | 33 | ALA |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | I | 38 | VAL |
| 1 | I | 83 | LYS |
| 1 | J | 3 | VAL |
| 1 | J | 14 | LYS |
| 1 | J | 21 | VAL |
| 1 | J | 28 | ALA |
| 1 | J | 33 | ALA |
| 1 | J | 38 | VAL |
| 1 | J | 83 | LYS |
| 1 | K | 3 | VAL |
| 1 | K | 14 | LYS |
| 1 | K | 21 | VAL |
| 1 | K | 28 | ALA |
| 1 | K | 33 | ALA |
| 1 | K | 38 | VAL |
| 1 | K | 83 | LYS |
| 1 | L | 3 | VAL |
| 1 | L | 14 | LYS |
| 1 | L | 21 | VAL |
| 1 | L | 28 | ALA |
| 1 | L | 33 | ALA |
| 1 | L | 38 | VAL |
| 1 | L | 83 | LYS |
| 1 | M | 3 | VAL |
| 1 | M | 14 | LYS |
| 1 | M | 21 | VAL |
| 1 | M | 28 | ALA |
| 1 | M | 33 | ALA |
| 1 | M | 38 | VAL |
| 1 | M | 83 | LYS |
| 1 | N | 3 | VAL |
| 1 | N | 14 | LYS |
| 1 | N | 21 | VAL |
| 1 | N | 28 | ALA |
| 1 | N | 33 | ALA |
| 1 | N | 38 | VAL |
| 1 | N | 83 | LYS |
| 1 | A | 35 | HIS |
| 1 | A | 37 | VAL |
| 1 | A | 109 | PHE |
| 1 | B | 35 | HIS |
| 1 | B | 37 | VAL |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | B | 109 | PHE |
| 1 | C | 35 | HIS |
| 1 | C | 37 | VAL |
| 1 | C | 109 | PHE |
| 1 | D | 35 | HIS |
| 1 | D | 37 | VAL |
| 1 | D | 109 | PHE |
| 1 | E | 35 | HIS |
| 1 | E | 37 | VAL |
| 1 | E | 109 | PHE |
| 1 | F | 35 | HIS |
| 1 | F | 37 | VAL |
| 1 | F | 109 | PHE |
| 1 | G | 35 | HIS |
| 1 | G | 37 | VAL |
| 1 | G | 109 | PHE |
| 1 | H | 35 | HIS |
| 1 | H | 37 | VAL |
| 1 | H | 109 | PHE |
| 1 | I | 35 | HIS |
| 1 | I | 37 | VAL |
| 1 | I | 109 | PHE |
| 1 | J | 35 | HIS |
| 1 | J | 37 | VAL |
| 1 | J | 109 | PHE |
| 1 | K | 35 | HIS |
| 1 | K | 37 | VAL |
| 1 | K | 109 | PHE |
| 1 | L | 35 | HIS |
| 1 | L | 37 | VAL |
| 1 | L | 109 | PHE |
| 1 | M | 35 | HIS |
| 1 | M | 37 | VAL |
| 1 | M | 109 | PHE |
| 1 | N | 35 | HIS |
| 1 | N | 37 | VAL |
| 1 | N | 109 | PHE |
| 1 | A | 62 | ASN |
| 1 | A | 70 | GLN |
| 1 | A | 93 | ILE |
| 1 | B | 62 | ASN |
| 1 | B | 70 | GLN |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | C | 62 | ASN |
| 1 | C | 70 | GLN |
| 1 | C | 93 | ILE |
| 1 | D | 62 | ASN |
| 1 | D | 70 | GLN |
| 1 | D | 93 | ILE |
| 1 | E | 62 | ASN |
| 1 | E | 70 | GLN |
| 1 | E | 93 | ILE |
| 1 | F | 62 | ASN |
| 1 | F | 70 | GLN |
| 1 | G | 62 | ASN |
| 1 | G | 70 | GLN |
| 1 | G | 93 | ILE |
| 1 | H | 62 | ASN |
| 1 | H | 70 | GLN |
| 1 | H | 93 | ILE |
| 1 | I | 62 | ASN |
| 1 | I | 70 | GLN |
| 1 | J | 62 | ASN |
| 1 | J | 70 | GLN |
| 1 | J | 93 | ILE |
| 1 | K | 62 | ASN |
| 1 | K | 70 | GLN |
| 1 | K | 93 | ILE |
| 1 | L | 62 | ASN |
| 1 | L | 70 | GLN |
| 1 | L | 93 | ILE |
| 1 | M | 62 | ASN |
| 1 | M | 70 | GLN |
| 1 | N | 62 | ASN |
| 1 | N | 70 | GLN |
| 1 | N | 93 | ILE |
| 1 | B | 93 | ILE |
| 1 | F | 93 | ILE |
| 1 | I | 93 | ILE |
| 1 | M | 93 | ILE |
| 1 | A | 80 | VAL |
| 1 | B | 80 | VAL |
| 1 | C | 80 | VAL |
| 1 | D | 80 | VAL |
| 1 | E | 80 | VAL |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | F | 80 | VAL |
| 1 | G | 80 | VAL |
| 1 | H | 80 | VAL |
| 1 | I | 80 | VAL |
| 1 | J | 80 | VAL |
| 1 | K | 80 | VAL |
| 1 | L | 80 | VAL |
| 1 | M | 80 | VAL |
| 1 | N | 80 | VAL |

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 | 99/99 (100%) | 67 (68%) | 32 (32%) | 0 | 2 |
| 1 | B | 99/99 (100%) | 67 (68%) | 32 (32%) | 0 | 2 |
| 1 | C | 99/99 (100%) | 67 (68%) | 32 (32%) | 0 | 2 |
| 1 | D | 99/99 (100%) | 67 (68%) | 32 (32%) | 0 | 2 |
| 1 | E | 99/99 (100%) | 67 (68%) | 32 (32%) | 0 | 2 |
| 1 | F | 99/99 (100%) | 67 (68%) | 32 (32%) | 0 | 2 |
| 1 | G | 99/99 (100%) | 67 (68%) | 32 (32%) | 0 | 2 |
| 1 | H | 99/99 (100%) | 67 (68%) | 32 (32%) | 0 | 2 |
| 1 | I | 99/99 (100%) | 67 (68%) | 32 (32%) | 0 | 2 |
| 1 | J | 99/99 (100%) | 67 (68%) | 32 (32%) | 0 | 2 |
| 1 | K | 99/99 (100%) | 67 (68%) | 32 (32%) | 0 | 2 |
| 1 | L | 99/99 (100%) | 67 (68%) | 32 (32%) | 0 | 2 |
| 1 | M | 99/99 (100%) | 67 (68%) | 32 (32%) | 0 | 2 |
| 1 | N | 99/99 (100%) | 67 (68%) | 32 (32%) | 0 | 2 |
| All | All | 1386/1386 (100%) | 938 (68%) | 448 (32%) | 1 | 2 |

All (448) residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 1 | LEU |
| 1 | A | 3 | VAL |
| 1 | A | 9 | TYR |
| 1 | A | 11 | TYR |
| 1 | A | 14 | LYS |
| 1 | A | 17 | VAL |
| 1 | A | 25 | LYS |
| 1 | A | 26 | ILE |
| 1 | A | 35 | HIS |
| 1 | A | 43 | THR |
| 1 | A | 45 | ILE |
| 1 | A | 49 | PHE |
| 1 | A | 53 | GLU |
| 1 | A | 55 | ARG |
| 1 | A | 57 | PHE |
| 1 | A | 59 | HIS |
| 1 | A | 60 | LYS |
| 1 | A | 61 | MET |
| 1 | A | 64 | PHE |
| 1 | A | 66 | VAL |
| 1 | A | 69 | LYS |
| 1 | A | 70 | GLN |
| 1 | A | 72 | MET |
| 1 | A | 73 | SER |
| 1 | A | 76 | ASN |
| 1 | A | 84 | ARG |
| 1 | A | 92 | PHE |
| 1 | A | 98 | LYS |
| 1 | A | 105 | VAL |
| 1 | A | 109 | PHE |
| 1 | A | 110 | ILE |
| 1 | A | 111 | GLU |
| 1 | B | 1 | LEU |
| 1 | B | 3 | VAL |
| 1 | B | 9 | TYR |
| 1 | B | 11 | TYR |
| 1 | B | 14 | LYS |
| 1 | B | 17 | VAL |
| 1 | B | 25 | LYS |
| 1 | B | 26 | ILE |
| 1 | B | 35 | HIS |
| 1 | B | 43 | THR |
| 1 | B | 45 | ILE |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | B | 49 | PHE |
| 1 | B | 53 | GLU |
| 1 | B | 55 | ARG |
| 1 | B | 57 | PHE |
| 1 | B | 59 | HIS |
| 1 | B | 60 | LYS |
| 1 | B | 61 | MET |
| 1 | B | 64 | PHE |
| 1 | B | 66 | VAL |
| 1 | B | 69 | LYS |
| 1 | B | 70 | GLN |
| 1 | B | 72 | MET |
| 1 | B | 73 | SER |
| 1 | B | 76 | ASN |
| 1 | B | 84 | ARG |
| 1 | B | 92 | PHE |
| 1 | B | 98 | LYS |
| 1 | B | 105 | VAL |
| 1 | B | 109 | PHE |
| 1 | B | 110 | ILE |
| 1 | B | 111 | GLU |
| 1 | C | 1 | LEU |
| 1 | C | 3 | VAL |
| 1 | C | 9 | TYR |
| 1 | C | 11 | TYR |
| 1 | C | 14 | LYS |
| 1 | C | 17 | VAL |
| 1 | C | 25 | LYS |
| 1 | C | 26 | ILE |
| 1 | C | 35 | HIS |
| 1 | C | 43 | THR |
| 1 | C | 45 | ILE |
| 1 | C | 49 | PHE |
| 1 | C | 53 | GLU |
| 1 | C | 55 | ARG |
| 1 | C | 57 | PHE |
| 1 | C | 59 | HIS |
| 1 | C | 60 | LYS |
| 1 | C | 61 | MET |
| 1 | C | 64 | PHE |
| 1 | C | 66 | VAL |
| 1 | C | 69 | LYS |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | C | 70 | GLN |
| 1 | C | 72 | MET |
| 1 | C | 73 | SER |
| 1 | C | 76 | ASN |
| 1 | C | 84 | ARG |
| 1 | C | 92 | PHE |
| 1 | C | 98 | LYS |
| 1 | C | 105 | VAL |
| 1 | C | 109 | PHE |
| 1 | C | 110 | ILE |
| 1 | C | 111 | GLU |
| 1 | D | 1 | LEU |
| 1 | D | 3 | VAL |
| 1 | D | 9 | TYR |
| 1 | D | 11 | TYR |
| 1 | D | 14 | LYS |
| 1 | D | 17 | VAL |
| 1 | D | 25 | LYS |
| 1 | D | 26 | ILE |
| 1 | D | 35 | HIS |
| 1 | D | 43 | THR |
| 1 | D | 45 | ILE |
| 1 | D | 49 | PHE |
| 1 | D | 53 | GLU |
| 1 | D | 55 | ARG |
| 1 | D | 57 | PHE |
| 1 | D | 59 | HIS |
| 1 | D | 60 | LYS |
| 1 | D | 61 | MET |
| 1 | D | 64 | PHE |
| 1 | D | 66 | VAL |
| 1 | D | 69 | LYS |
| 1 | D | 70 | GLN |
| 1 | D | 72 | MET |
| 1 | D | 73 | SER |
| 1 | D | 76 | ASN |
| 1 | D | 84 | ARG |
| 1 | D | 92 | PHE |
| 1 | D | 98 | LYS |
| 1 | D | 105 | VAL |
| 1 | D | 109 | PHE |
| 1 | D | 110 | ILE |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | D | 111 | GLU |
| 1 | E | 1 | LEU |
| 1 | E | 3 | VAL |
| 1 | E | 9 | TYR |
| 1 | E | 11 | TYR |
| 1 | E | 14 | LYS |
| 1 | E | 17 | VAL |
| 1 | E | 25 | LYS |
| 1 | E | 26 | ILE |
| 1 | E | 35 | HIS |
| 1 | E | 43 | THR |
| 1 | E | 45 | ILE |
| 1 | E | 49 | PHE |
| 1 | E | 53 | GLU |
| 1 | E | 55 | ARG |
| 1 | E | 57 | PHE |
| 1 | E | 59 | HIS |
| 1 | E | 60 | LYS |
| 1 | E | 61 | MET |
| 1 | E | 64 | PHE |
| 1 | E | 66 | VAL |
| 1 | E | 69 | LYS |
| 1 | E | 70 | GLN |
| 1 | E | 72 | MET |
| 1 | E | 73 | SER |
| 1 | E | 76 | ASN |
| 1 | E | 84 | ARG |
| 1 | E | 92 | PHE |
| 1 | E | 98 | LYS |
| 1 | E | 105 | VAL |
| 1 | E | 109 | PHE |
| 1 | E | 110 | ILE |
| 1 | E | 111 | GLU |
| 1 | F | 1 | LEU |
| 1 | F | 3 | VAL |
| 1 | F | 9 | TYR |
| 1 | F | 11 | TYR |
| 1 | F | 14 | LYS |
| 1 | F | 17 | VAL |
| 1 | F | 25 | LYS |
| 1 | F | 26 | ILE |
| 1 | F | 35 | HIS |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | F | 43 | THR |
| 1 | F | 45 | ILE |
| 1 | F | 49 | PHE |
| 1 | F | 53 | GLU |
| 1 | F | 55 | ARG |
| 1 | F | 57 | PHE |
| 1 | F | 59 | HIS |
| 1 | F | 60 | LYS |
| 1 | F | 61 | MET |
| 1 | F | 64 | PHE |
| 1 | F | 66 | VAL |
| 1 | F | 69 | LYS |
| 1 | F | 70 | GLN |
| 1 | F | 72 | MET |
| 1 | F | 73 | SER |
| 1 | F | 76 | ASN |
| 1 | F | 84 | ARG |
| 1 | F | 92 | PHE |
| 1 | F | 98 | LYS |
| 1 | F | 105 | VAL |
| 1 | F | 109 | PHE |
| 1 | F | 110 | ILE |
| 1 | F | 111 | GLU |
| 1 | G | 1 | LEU |
| 1 | G | 3 | VAL |
| 1 | G | 9 | TYR |
| 1 | G | 11 | TYR |
| 1 | G | 14 | LYS |
| 1 | G | 17 | VAL |
| 1 | G | 25 | LYS |
| 1 | G | 26 | ILE |
| 1 | G | 35 | HIS |
| 1 | G | 43 | THR |
| 1 | G | 45 | ILE |
| 1 | G | 49 | PHE |
| 1 | G | 53 | GLU |
| 1 | G | 55 | ARG |
| 1 | G | 57 | PHE |
| 1 | G | 59 | HIS |
| 1 | G | 60 | LYS |
| 1 | G | 61 | MET |
| 1 | G | 64 | PHE |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | G | 66 | VAL |
| 1 | G | 69 | LYS |
| 1 | G | 70 | GLN |
| 1 | G | 72 | MET |
| 1 | G | 73 | SER |
| 1 | G | 76 | ASN |
| 1 | G | 84 | ARG |
| 1 | G | 92 | PHE |
| 1 | G | 98 | LYS |
| 1 | G | 105 | VAL |
| 1 | G | 109 | PHE |
| 1 | G | 110 | ILE |
| 1 | G | 111 | GLU |
| 1 | H | 1 | LEU |
| 1 | H | 3 | VAL |
| 1 | H | 9 | TYR |
| 1 | H | 11 | TYR |
| 1 | H | 14 | LYS |
| 1 | H | 17 | VAL |
| 1 | H | 25 | LYS |
| 1 | H | 26 | ILE |
| 1 | H | 35 | HIS |
| 1 | H | 43 | THR |
| 1 | H | 45 | ILE |
| 1 | H | 49 | PHE |
| 1 | H | 53 | GLU |
| 1 | H | 55 | ARG |
| 1 | H | 57 | PHE |
| 1 | H | 59 | HIS |
| 1 | H | 60 | LYS |
| 1 | H | 61 | MET |
| 1 | H | 64 | PHE |
| 1 | H | 66 | VAL |
| 1 | H | 69 | LYS |
| 1 | H | 70 | GLN |
| 1 | H | 72 | MET |
| 1 | H | 73 | SER |
| 1 | H | 76 | ASN |
| 1 | H | 84 | ARG |
| 1 | H | 92 | PHE |
| 1 | H | 98 | LYS |
| 1 | H | 105 | VAL |

Continued on next page...

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | H | 109 | PHE |
| 1 | H | 110 | ILE |
| 1 | H | 111 | GLU |
| 1 | I | 1 | LEU |
| 1 | I | 3 | VAL |
| 1 | I | 9 | TYR |
| 1 | I | 11 | TYR |
| 1 | I | 14 | LYS |
| 1 | I | 17 | VAL |
| 1 | I | 25 | LYS |
| 1 | I | 26 | ILE |
| 1 | I | 35 | HIS |
| 1 | I | 43 | THR |
| 1 | I | 45 | ILE |
| 1 | I | 49 | PHE |
| 1 | I | 53 | GLU |
| 1 | I | 55 | ARG |
| 1 | I | 57 | PHE |
| 1 | I | 59 | HIS |
| 1 | I | 60 | LYS |
| 1 | I | 61 | MET |
| 1 | I | 64 | PHE |
| 1 | I | 66 | VAL |
| 1 | I | 69 | LYS |
| 1 | I | 70 | GLN |
| 1 | I | 72 | MET |
| 1 | I | 73 | SER |
| 1 | I | 76 | ASN |
| 1 | I | 84 | ARG |
| 1 | I | 92 | PHE |
| 1 | I | 98 | LYS |
| 1 | I | 105 | VAL |
| 1 | I | 109 | PHE |
| 1 | I | 110 | ILE |
| 1 | I | 111 | GLU |
| 1 | J | 1 | LEU |
| 1 | J | 3 | VAL |
| 1 | J | 9 | TYR |
| 1 | J | 11 | TYR |
| 1 | J | 14 | LYS |
| 1 | J | 17 | VAL |
| 1 | J | 25 | LYS |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | J | 26 | ILE |
| 1 | J | 35 | HIS |
| 1 | J | 43 | THR |
| 1 | J | 45 | ILE |
| 1 | J | 49 | PHE |
| 1 | J | 53 | GLU |
| 1 | J | 55 | ARG |
| 1 | J | 57 | PHE |
| 1 | J | 59 | HIS |
| 1 | J | 60 | LYS |
| 1 | J | 61 | MET |
| 1 | J | 64 | PHE |
| 1 | J | 66 | VAL |
| 1 | J | 69 | LYS |
| 1 | J | 70 | GLN |
| 1 | J | 72 | MET |
| 1 | J | 73 | SER |
| 1 | J | 76 | ASN |
| 1 | J | 84 | ARG |
| 1 | J | 92 | PHE |
| 1 | J | 98 | LYS |
| 1 | J | 105 | VAL |
| 1 | J | 109 | PHE |
| 1 | J | 110 | ILE |
| 1 | J | 111 | GLU |
| 1 | K | 1 | LEU |
| 1 | K | 3 | VAL |
| 1 | K | 9 | TYR |
| 1 | K | 11 | TYR |
| 1 | K | 14 | LYS |
| 1 | K | 17 | VAL |
| 1 | K | 25 | LYS |
| 1 | K | 26 | ILE |
| 1 | K | 35 | HIS |
| 1 | K | 43 | THR |
| 1 | K | 45 | ILE |
| 1 | K | 49 | PHE |
| 1 | K | 53 | GLU |
| 1 | K | 55 | ARG |
| 1 | K | 57 | PHE |
| 1 | K | 59 | HIS |
| 1 | K | 60 | LYS |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | K | 61 | MET |
| 1 | K | 64 | PHE |
| 1 | K | 66 | VAL |
| 1 | K | 69 | LYS |
| 1 | K | 70 | GLN |
| 1 | K | 72 | MET |
| 1 | K | 73 | SER |
| 1 | K | 76 | ASN |
| 1 | K | 84 | ARG |
| 1 | K | 92 | PHE |
| 1 | K | 98 | LYS |
| 1 | K | 105 | VAL |
| 1 | K | 109 | PHE |
| 1 | K | 110 | ILE |
| 1 | K | 111 | GLU |
| 1 | L | 1 | LEU |
| 1 | L | 3 | VAL |
| 1 | L | 9 | TYR |
| 1 | L | 11 | TYR |
| 1 | L | 14 | LYS |
| 1 | L | 17 | VAL |
| 1 | L | 25 | LYS |
| 1 | L | 26 | ILE |
| 1 | L | 35 | HIS |
| 1 | L | 43 | THR |
| 1 | L | 45 | ILE |
| 1 | L | 49 | PHE |
| 1 | L | 53 | GLU |
| 1 | L | 55 | ARG |
| 1 | L | 57 | PHE |
| 1 | L | 59 | HIS |
| 1 | L | 60 | LYS |
| 1 | L | 61 | MET |
| 1 | L | 64 | PHE |
| 1 | L | 66 | VAL |
| 1 | L | 69 | LYS |
| 1 | L | 70 | GLN |
| 1 | L | 72 | MET |
| 1 | L | 73 | SER |
| 1 | L | 76 | ASN |
| 1 | L | 84 | ARG |
| 1 | L | 92 | PHE |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | L | 98 | LYS |
| 1 | L | 105 | VAL |
| 1 | L | 109 | PHE |
| 1 | L | 110 | ILE |
| 1 | L | 111 | GLU |
| 1 | M | 1 | LEU |
| 1 | M | 3 | VAL |
| 1 | M | 9 | TYR |
| 1 | M | 11 | TYR |
| 1 | M | 14 | LYS |
| 1 | M | 17 | VAL |
| 1 | M | 25 | LYS |
| 1 | M | 26 | ILE |
| 1 | M | 35 | HIS |
| 1 | M | 43 | THR |
| 1 | M | 45 | ILE |
| 1 | M | 49 | PHE |
| 1 | M | 53 | GLU |
| 1 | M | 55 | ARG |
| 1 | M | 57 | PHE |
| 1 | M | 59 | HIS |
| 1 | M | 60 | LYS |
| 1 | M | 61 | MET |
| 1 | M | 64 | PHE |
| 1 | M | 66 | VAL |
| 1 | M | 69 | LYS |
| 1 | M | 70 | GLN |
| 1 | M | 72 | MET |
| 1 | M | 73 | SER |
| 1 | M | 76 | ASN |
| 1 | M | 84 | ARG |
| 1 | M | 92 | PHE |
| 1 | M | 98 | LYS |
| 1 | M | 105 | VAL |
| 1 | M | 109 | PHE |
| 1 | M | 110 | ILE |
| 1 | M | 111 | GLU |
| 1 | N | 1 | LEU |
| 1 | N | 3 | VAL |
| 1 | N | 9 | TYR |
| 1 | N | 11 | TYR |
| 1 | N | 14 | LYS |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | N | 17 | VAL |
| 1 | N | 25 | LYS |
| 1 | N | 26 | ILE |
| 1 | N | 35 | HIS |
| 1 | N | 43 | THR |
| 1 | N | 45 | ILE |
| 1 | N | 49 | PHE |
| 1 | N | 53 | GLU |
| 1 | N | 55 | ARG |
| 1 | N | 57 | PHE |
| 1 | N | 59 | HIS |
| 1 | N | 60 | LYS |
| 1 | N | 61 | MET |
| 1 | N | 64 | PHE |
| 1 | N | 66 | VAL |
| 1 | N | 69 | LYS |
| 1 | N | 70 | GLN |
| 1 | N | 72 | MET |
| 1 | N | 73 | SER |
| 1 | N | 76 | ASN |
| 1 | N | 84 | ARG |
| 1 | N | 92 | PHE |
| 1 | N | 98 | LYS |
| 1 | N | 105 | VAL |
| 1 | N | 109 | PHE |
| 1 | N | 110 | ILE |
| 1 | N | 111 | GLU |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (73) such sidechains are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 70 | GLN |
| 1 | A | 76 | ASN |
| 1 | A | 87 | ASN |
| 1 | A | 91 | HIS |
| 1 | A | 100 | ASN |
| 1 | B | 70 | GLN |
| 1 | B | 76 | ASN |
| 1 | B | 87 | ASN |
| 1 | B | 91 | HIS |
| 1 | B | 100 | ASN |
| 1 | C | 70 | GLN |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | C | 76 | ASN |
| 1 | C | 87 | ASN |
| 1 | C | 91 | HIS |
| 1 | C | 100 | ASN |
| 1 | D | 70 | GLN |
| 1 | D | 76 | ASN |
| 1 | D | 87 | ASN |
| 1 | D | 91 | HIS |
| 1 | D | 100 | ASN |
| 1 | E | 70 | GLN |
| 1 | E | 76 | ASN |
| 1 | E | 87 | ASN |
| 1 | E | 91 | HIS |
| 1 | E | 100 | ASN |
| 1 | F | 70 | GLN |
| 1 | F | 76 | ASN |
| 1 | F | 87 | ASN |
| 1 | F | 91 | HIS |
| 1 | F | 100 | ASN |
| 1 | G | 70 | GLN |
| 1 | G | 76 | ASN |
| 1 | G | 87 | ASN |
| 1 | G | 91 | HIS |
| 1 | G | 100 | ASN |
| 1 | H | 70 | GLN |
| 1 | H | 76 | ASN |
| 1 | H | 87 | ASN |
| 1 | H | 91 | HIS |
| 1 | H | 100 | ASN |
| 1 | I | 70 | GLN |
| 1 | I | 76 | ASN |
| 1 | I | 87 | ASN |
| 1 | I | 91 | HIS |
| 1 | I | 100 | ASN |
| 1 | J | 70 | GLN |
| 1 | J | 76 | ASN |
| 1 | J | 87 | ASN |
| 1 | J | 91 | HIS |
| 1 | J | 100 | ASN |
| 1 | K | 35 | HIS |
| 1 | K | 70 | GLN |
| 1 | K | 76 | ASN |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | K | 87 | ASN |
| 1 | K | 91 | HIS |
| 1 | K | 100 | ASN |
| 1 | L | 35 | HIS |
| 1 | L | 70 | GLN |
| 1 | L | 76 | ASN |
| 1 | L | 87 | ASN |
| 1 | L | 91 | HIS |
| 1 | L | 100 | ASN |
| 1 | M | 35 | HIS |
| 1 | M | 70 | GLN |
| 1 | M | 76 | ASN |
| 1 | M | 87 | ASN |
| 1 | M | 91 | HIS |
| 1 | M | 100 | ASN |
| 1 | N | 70 | GLN |
| 1 | N | 76 | ASN |
| 1 | N | 87 | ASN |
| 1 | N | 91 | HIS |
| 1 | N | 100 | ASN |

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

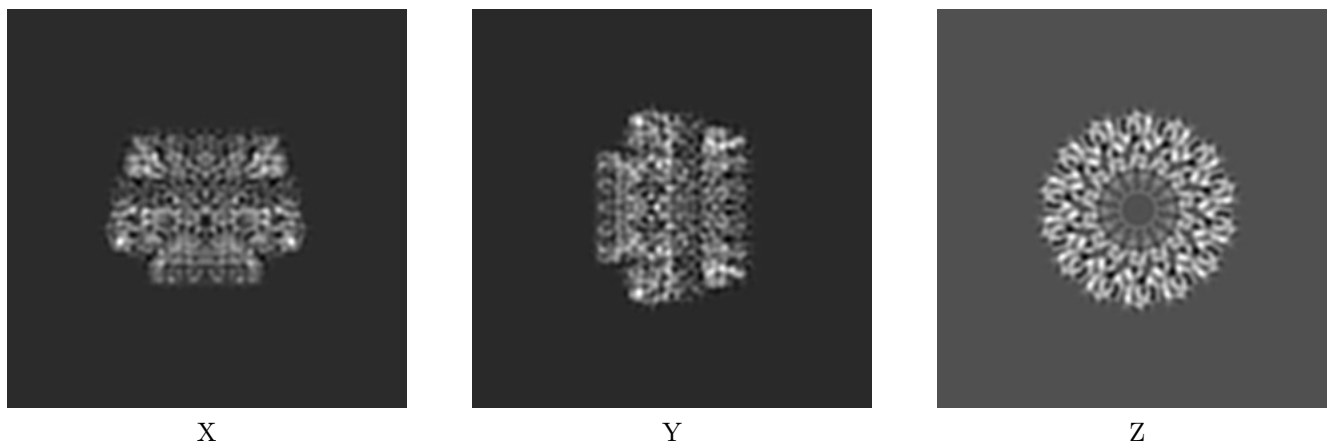
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-2233. 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](#)

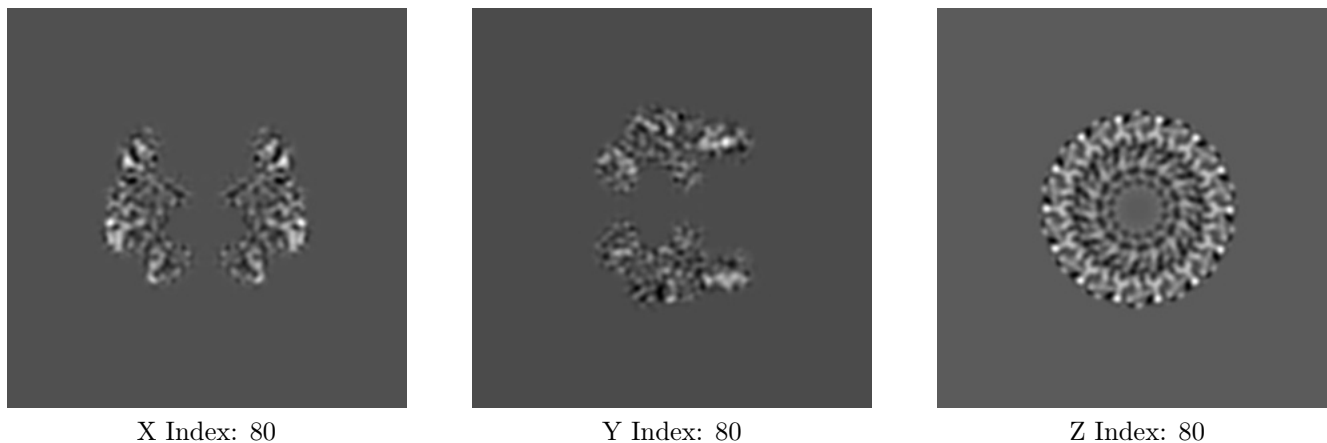
6.1.1 Primary map



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

6.2 Central slices [i](#)

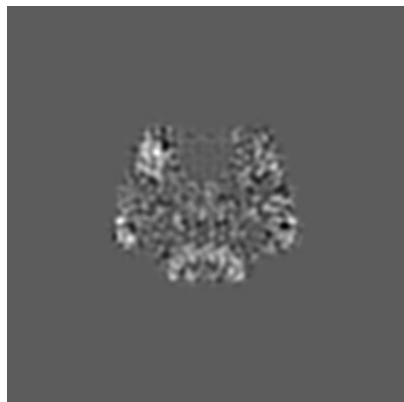
6.2.1 Primary map



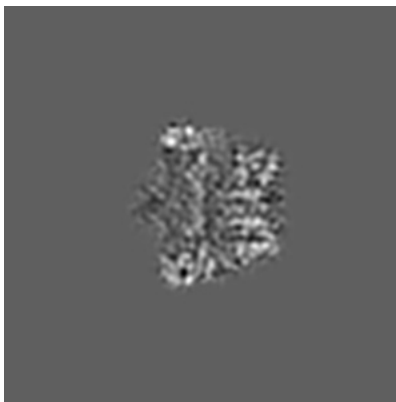
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

6.3.1 Primary map



X Index: 97



Y Index: 103

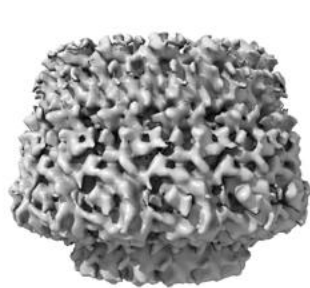


Z Index: 66

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

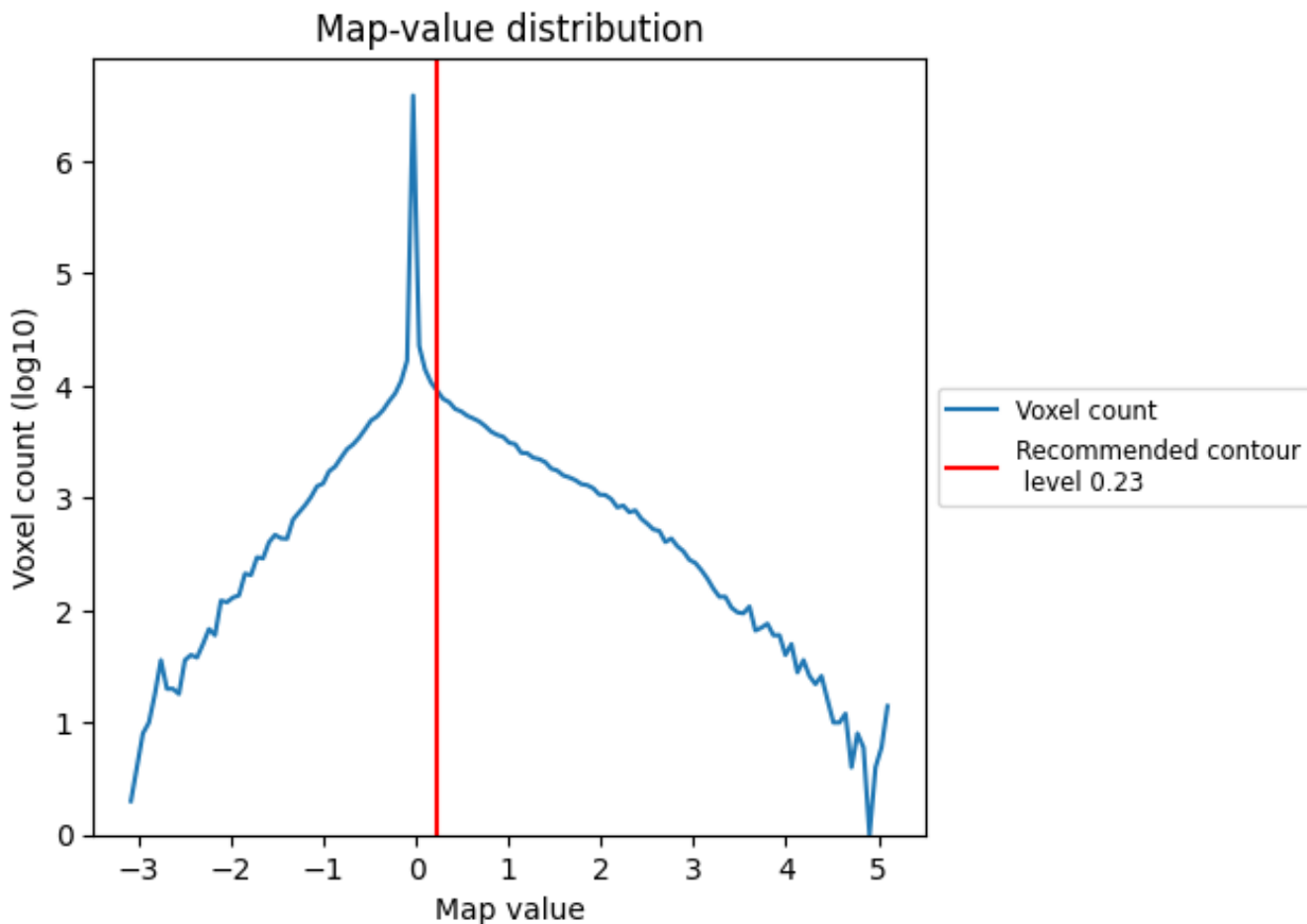
6.5 Mask visualisation

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

7 Map analysis [i](#)

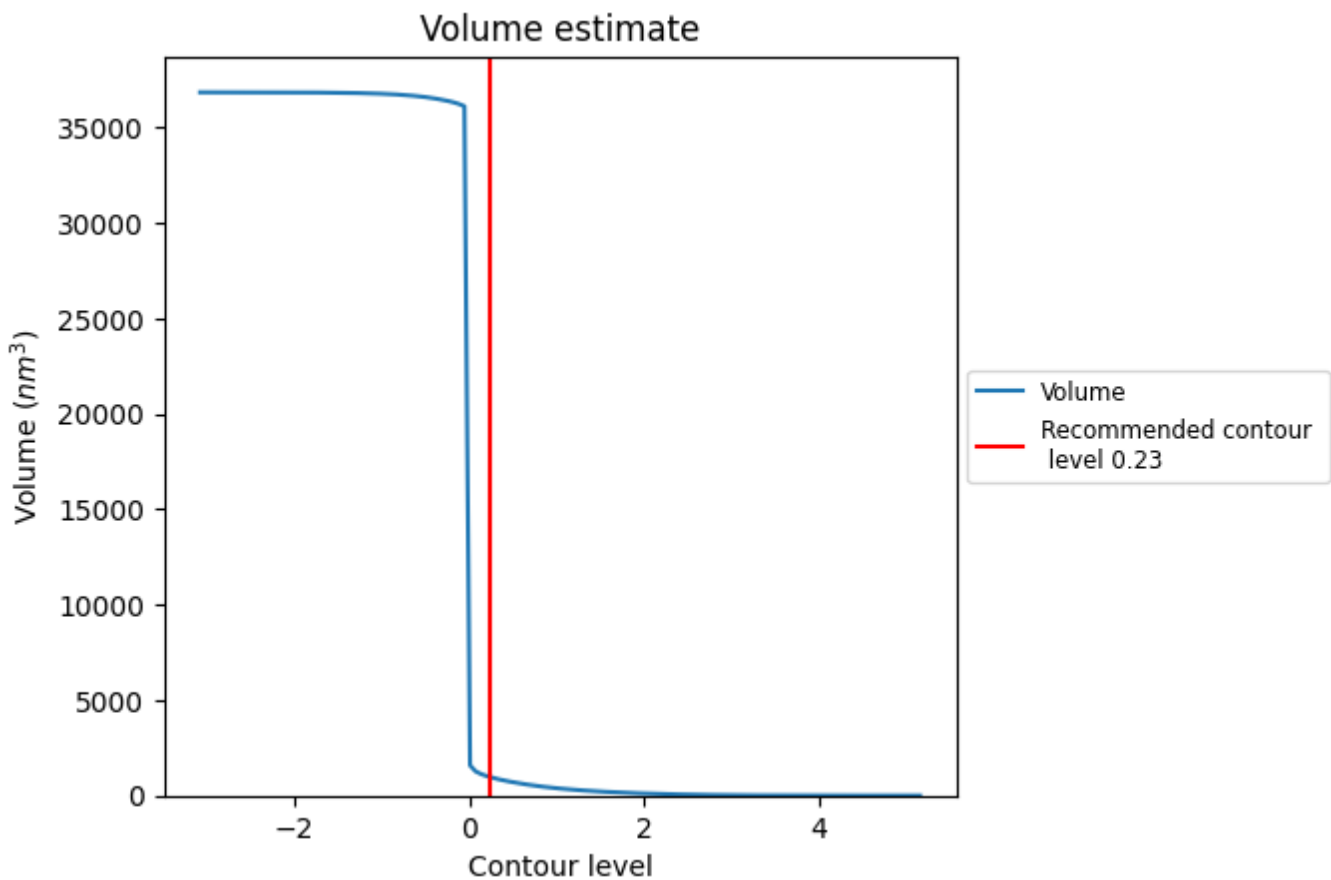
This section contains the results of statistical analysis of the map.

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.

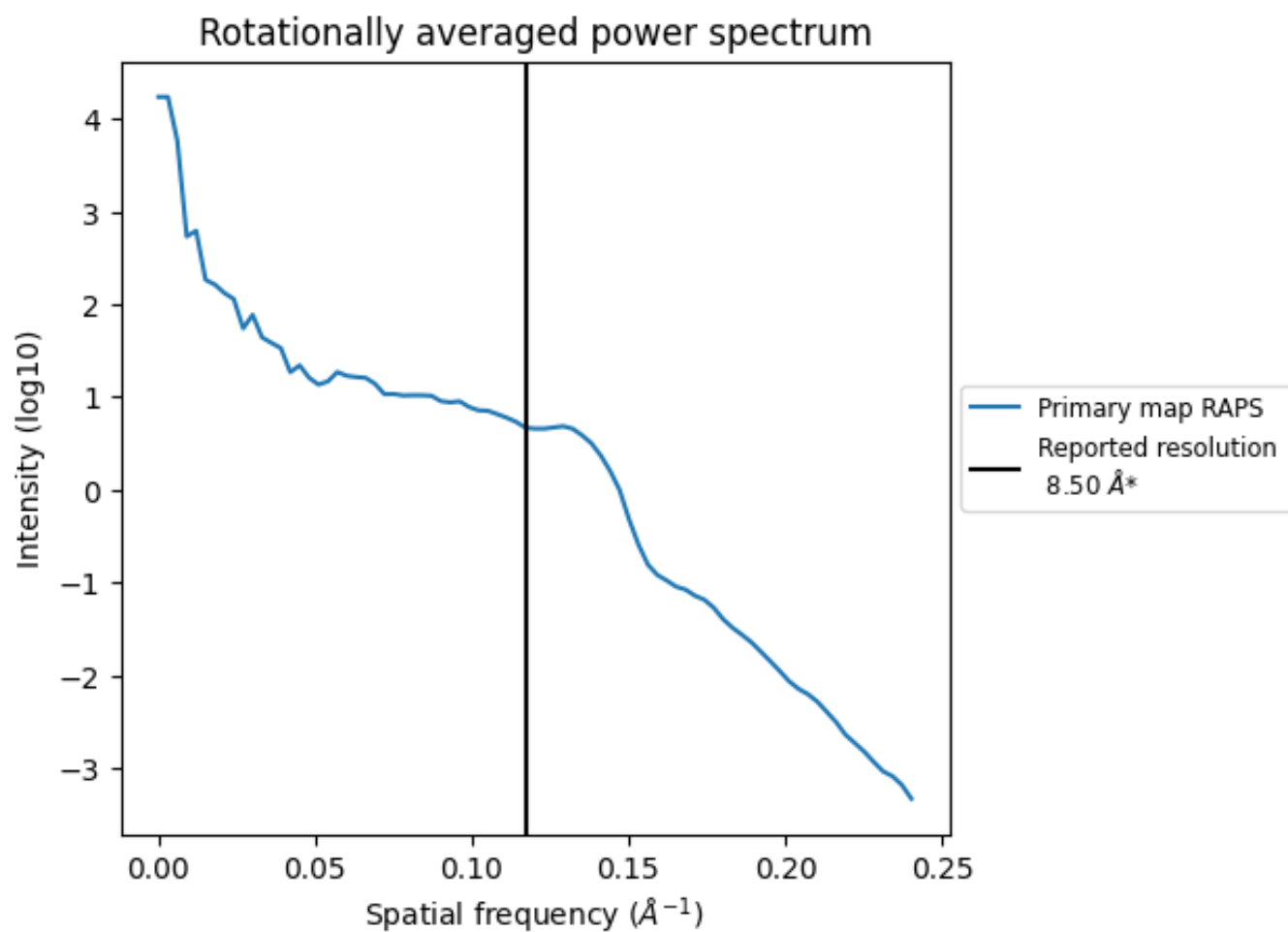
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 983 nm^3 ; this corresponds to an approximate mass of 888 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 0.118\AA^{-1}

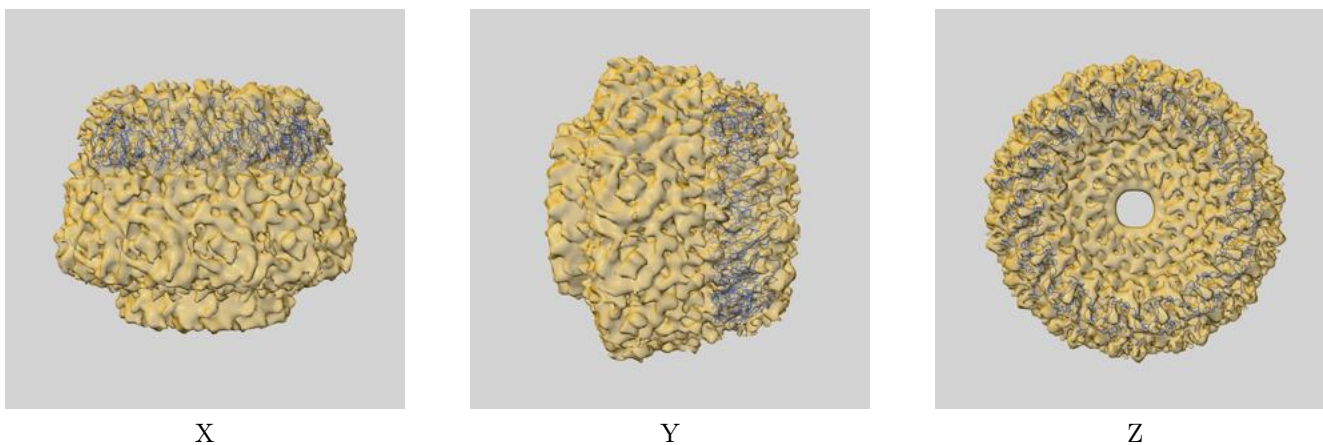
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

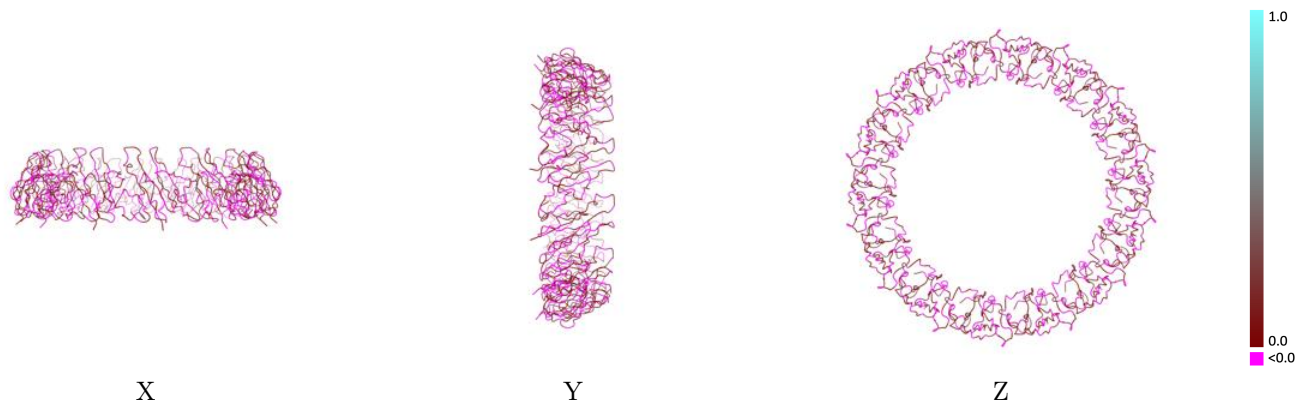
This section contains information regarding the fit between EMDB map EMD-2233 and PDB model 3ZBJ. Per-residue inclusion information can be found in section 3 on page 5.

9.1 Map-model overlay [i](#)



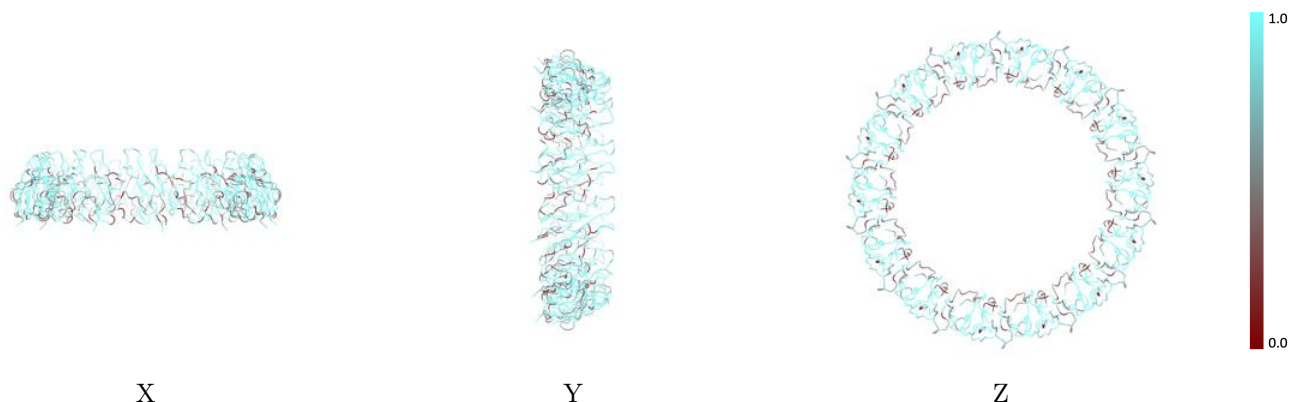
The images above show the 3D surface view of the map at the recommended contour level 0.23 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



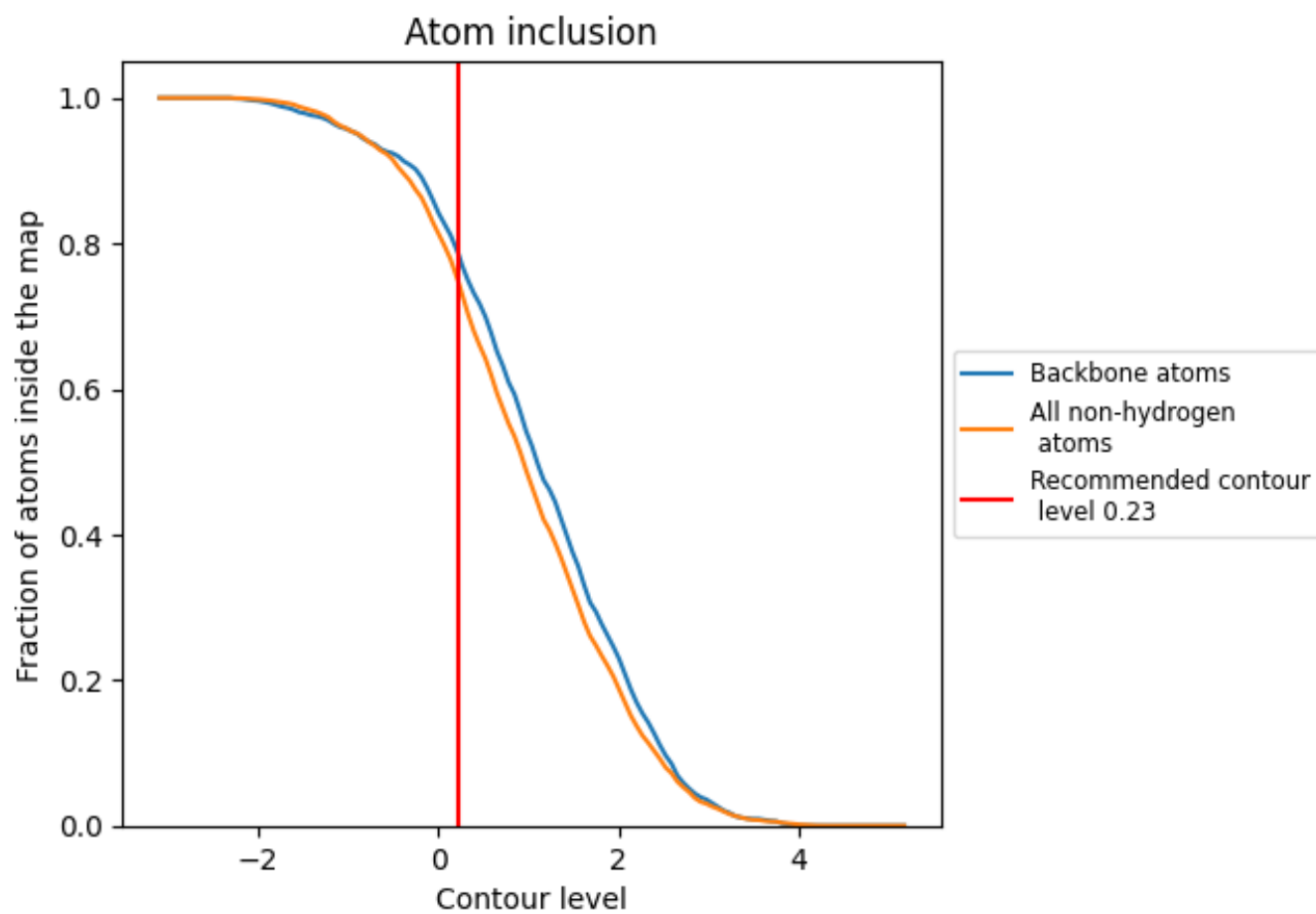
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.23).































9.4 Atom inclusion [i](#)



At the recommended contour level, 78% of all backbone atoms, 75% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.23) and Q-score for the entire model and for each chain.

| Chain | Atom inclusion | Q-score |
|-------|---|---|
| All |  0.7455 |  0.0290 |
| A |  0.7434 |  0.0280 |
| B |  0.7446 |  0.0330 |
| C |  0.7457 |  0.0290 |
| D |  0.7468 |  0.0280 |
| E |  0.7411 |  0.0260 |
| F |  0.7480 |  0.0280 |
| G |  0.7491 |  0.0280 |
| H |  0.7434 |  0.0300 |
| I |  0.7446 |  0.0310 |
| J |  0.7457 |  0.0310 |
| K |  0.7468 |  0.0270 |
| L |  0.7411 |  0.0300 |
| M |  0.7480 |  0.0300 |
| N |  0.7491 |  0.0310 |

