



wwPDB EM Map/Model Validation Report ⓘ

Apr 10, 2016 – 01:56 PM BST

PDB ID : 4AOE
EMDB ID: : EMD-2055
Title : Biomphalaria glabrata Acetylcholine-binding protein type 2 (BgAChBP2)
Authors : Saur, M.; Moeller, V.; Kapetanopoulos, K.; Braukmann, S.; Gebauer, W.;
Tenzer, S.; Markl, J.
Deposited on : 2012-03-26
Resolution : 5.80 Å(reported)
Based on PDB ID : 2BYN

This is a wwPDB EM Map/Model Validation Report for a publicly released PDB/EMDB entry.
For rigid body fitted models, validation errors reported here could
stem from errors in the original structure(s) used in the fitting.

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

A user guide is available at

<http://wwpdb.org/validation/2016/EMValidationReportHelp>

MolProbity : 4.02b-467
Mogul : unknown
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : trunk27241

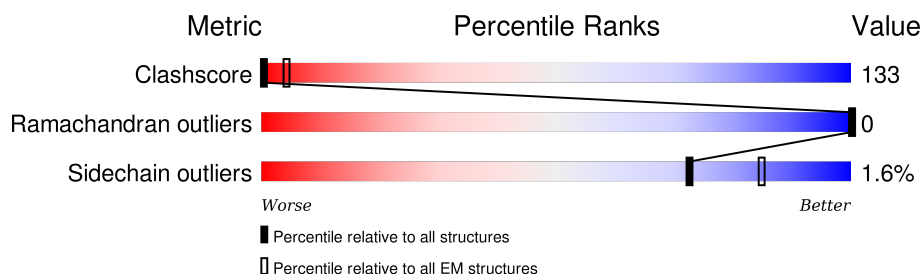
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 5.80 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	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. 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 $\leq 5\%$.

Mol	Chain	Length	Quality of chain
1	A	205	<div> <div>28%</div> <div>71%</div> <div>.</div> </div>
1	B	205	<div> <div>28%</div> <div>70%</div> <div>.</div> </div>
1	C	205	<div> <div>28%</div> <div>71%</div> <div>.</div> </div>
1	D	205	<div> <div>27%</div> <div>72%</div> <div>.</div> </div>
1	E	205	<div> <div>28%</div> <div>71%</div> <div>.</div> </div>

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 8295 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.

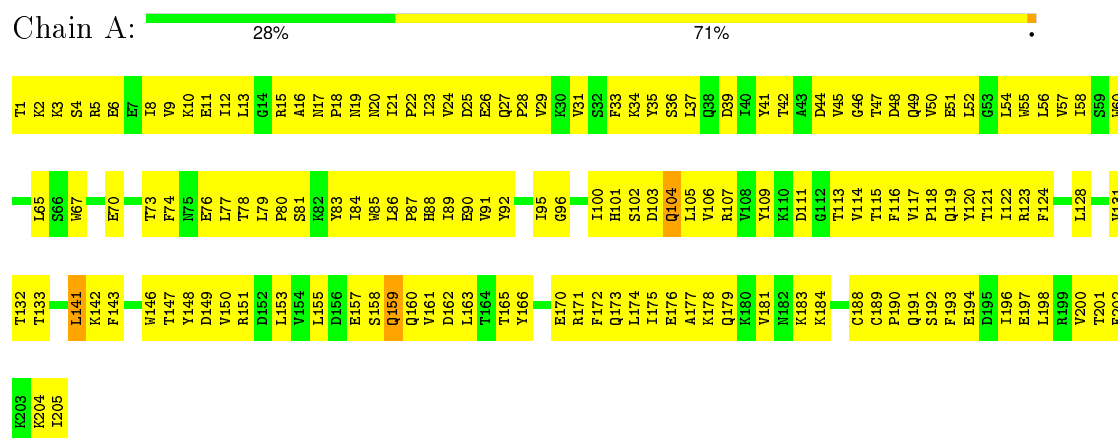
- Molecule 1 is a protein called ACETYLCHOLINE-BINDING PROTEIN TYPE 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	205	Total	C	N	O	S	0	0
			1659	1063	273	318	5		
1	B	205	Total	C	N	O	S	0	0
			1659	1063	273	318	5		
1	C	205	Total	C	N	O	S	0	0
			1659	1063	273	318	5		
1	D	205	Total	C	N	O	S	0	0
			1659	1063	273	318	5		
1	E	205	Total	C	N	O	S	0	0
			1659	1063	273	318	5		

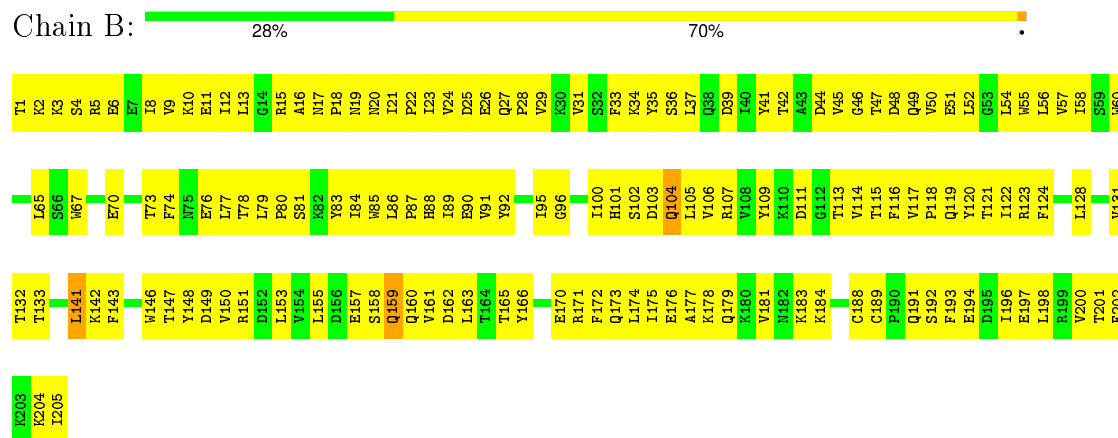
3 Residue-property plots

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

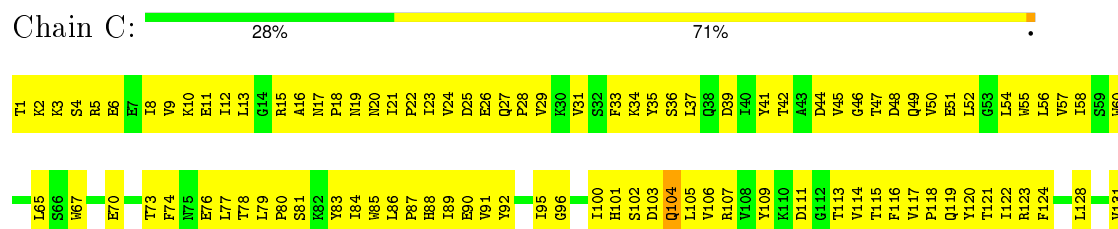
• Molecule 1: ACETYLCHOLINE-BINDING PROTEIN TYPE 2

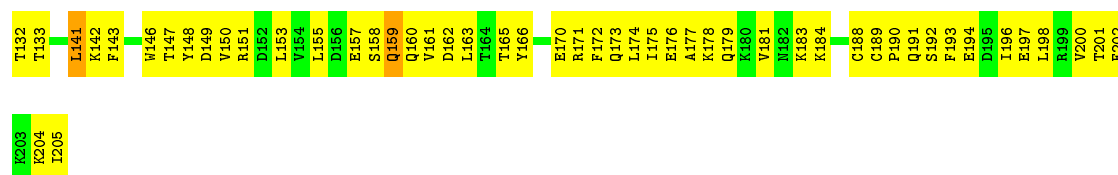


• Molecule 1: ACETYLCHOLINE-BINDING PROTEIN TYPE 2



• Molecule 1: ACETYLCHOLINE-BINDING PROTEIN TYPE 2





• Molecule 1: ACETYLCHOLINE-BINDING PROTEIN TYPE 2

Chain D: 27% 72%



• Molecule 1: ACETYLCHOLINE-BINDING PROTEIN TYPE 2

Chain E: 28% 71%



4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, T	Depositor
Number of images	Not provided	Depositor
Resolution determination method	Not provided	Depositor
CTF correction method	PER MICROGRAPH	Depositor
Microscope	FEI TECNAI F20	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/\text{\AA}^2$)	30	Depositor
Minimum defocus (nm)	2000	Depositor
Maximum defocus (nm)	5000	Depositor
Magnification	50000	Depositor
Image detector	KODAK SO163	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	$\# Z > 2$	RMSZ	$\# Z > 2$
1	A	0.94	0/1697	1.17	0/2306
1	B	0.94	0/1697	1.17	0/2306
1	C	0.94	0/1697	1.17	0/2306
1	D	0.94	0/1697	1.17	0/2306
1	E	0.94	0/1697	1.17	0/2306
All	All	0.94	0/8485	1.17	0/11530

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1659	0	1646	578	0
1	B	1659	0	1646	572	0
1	C	1659	0	1646	567	0
1	D	1659	0	1646	574	0
1	E	1659	0	1646	576	0
All	All	8295	0	8230	2199	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 133.

All (2199) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:88:HIS:CE1	1:B:105:LEU:HD21	1.28	1.65
1:C:88:HIS:CE1	1:D:105:LEU:HD21	1.28	1.64
1:A:105:LEU:HD21	1:E:88:HIS:CE1	1.28	1.64
1:D:88:HIS:CE1	1:E:105:LEU:HD21	1.28	1.63
1:B:88:HIS:CE1	1:C:105:LEU:HD21	1.28	1.60
1:A:147:THR:OG1	1:B:105:LEU:HD13	1.22	1.39
1:C:147:THR:OG1	1:D:105:LEU:HD13	1.22	1.38
1:A:21:ILE:CG1	1:B:5:ARG:HH22	1.42	1.32
1:A:5:ARG:HH22	1:E:21:ILE:CG1	1.42	1.32
1:C:21:ILE:CG1	1:D:5:ARG:HH22	1.42	1.32
1:B:21:ILE:CG1	1:C:5:ARG:HH22	1.42	1.32
1:B:47:THR:O	1:C:41:TYR:CZ	1.83	1.31
1:A:41:TYR:CZ	1:E:47:THR:O	1.83	1.31
1:A:47:THR:O	1:B:41:TYR:CZ	1.83	1.31
1:D:47:THR:O	1:E:41:TYR:CZ	1.83	1.31
1:D:147:THR:OG1	1:E:105:LEU:HD13	1.22	1.31
1:D:21:ILE:CG1	1:E:5:ARG:HH22	1.42	1.30
1:C:47:THR:O	1:D:41:TYR:CZ	1.83	1.30
1:A:105:LEU:HD13	1:E:147:THR:OG1	1.22	1.29
1:D:24:VAL:O	1:E:3:LYS:N	1.66	1.28
1:B:88:HIS:CE1	1:C:105:LEU:CD2	2.16	1.28
1:A:88:HIS:CE1	1:B:105:LEU:CD2	2.16	1.28
1:B:24:VAL:O	1:C:3:LYS:N	1.66	1.28
1:A:105:LEU:HD21	1:E:88:HIS:NE2	1.48	1.27
1:B:147:THR:OG1	1:C:105:LEU:HD13	1.22	1.27
1:A:24:VAL:O	1:B:3:LYS:N	1.66	1.27
1:A:88:HIS:NE2	1:B:105:LEU:HD21	1.48	1.26
1:D:88:HIS:CE1	1:E:105:LEU:CD2	2.16	1.26
1:D:88:HIS:NE2	1:E:105:LEU:HD21	1.48	1.26
1:C:24:VAL:O	1:D:3:LYS:N	1.66	1.26
1:A:3:LYS:N	1:E:24:VAL:O	1.66	1.26
1:C:88:HIS:CE1	1:D:105:LEU:CD2	2.16	1.25
1:B:88:HIS:NE2	1:C:105:LEU:HD21	1.48	1.25
1:C:88:HIS:NE2	1:D:105:LEU:HD21	1.48	1.25
1:A:105:LEU:CD2	1:E:88:HIS:CE1	2.16	1.25
1:B:21:ILE:HB	1:C:5:ARG:NH2	1.54	1.22
1:A:21:ILE:HB	1:B:5:ARG:NH2	1.54	1.22
1:D:21:ILE:HB	1:E:5:ARG:NH2	1.54	1.21
1:C:21:ILE:HB	1:D:5:ARG:NH2	1.54	1.20
1:A:5:ARG:NH2	1:E:21:ILE:HB	1.53	1.20
1:E:175:ILE:HG13	1:E:201:THR:HG23	1.20	1.18
1:D:26:GLU:HA	1:E:2:LYS:HG2	1.27	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:26:GLU:HA	1:C:2:LYS:HG2	1.27	1.16
1:C:26:GLU:HA	1:D:2:LYS:HG2	1.27	1.16
1:D:146:TRP:CH2	1:E:119:GLN:HG3	1.81	1.16
1:B:21:ILE:CB	1:C:5:ARG:NH2	2.09	1.16
1:A:175:ILE:HG13	1:A:201:THR:HG23	1.20	1.16
1:C:21:ILE:CB	1:D:5:ARG:NH2	2.09	1.15
1:A:5:ARG:NH2	1:E:21:ILE:CB	2.09	1.15
1:A:21:ILE:CB	1:B:5:ARG:NH2	2.09	1.15
1:A:2:LYS:HG2	1:E:26:GLU:HA	1.27	1.15
1:D:21:ILE:CG1	1:E:5:ARG:NH2	2.09	1.15
1:B:146:TRP:CH2	1:C:119:GLN:HG3	1.81	1.14
1:A:146:TRP:CH2	1:B:119:GLN:HG3	1.81	1.14
1:C:146:TRP:CH2	1:D:119:GLN:HG3	1.81	1.14
1:A:21:ILE:CG1	1:B:5:ARG:NH2	2.09	1.14
1:C:21:ILE:CG1	1:D:5:ARG:NH2	2.09	1.14
1:D:21:ILE:CB	1:E:5:ARG:NH2	2.09	1.14
1:C:175:ILE:HG13	1:C:201:THR:HG23	1.21	1.14
1:A:119:GLN:HG3	1:E:146:TRP:CH2	1.81	1.14
1:A:88:HIS:CG	1:B:105:LEU:HD11	1.83	1.14
1:A:26:GLU:HA	1:B:2:LYS:HG2	1.27	1.14
1:B:88:HIS:O	1:C:103:ASP:OD2	1.66	1.14
1:C:88:HIS:O	1:D:103:ASP:OD2	1.66	1.13
1:B:21:ILE:CG1	1:C:5:ARG:NH2	2.09	1.13
1:B:88:HIS:CG	1:C:105:LEU:HD11	1.83	1.13
1:A:105:LEU:HD11	1:E:88:HIS:CG	1.83	1.13
1:A:5:ARG:NH2	1:E:21:ILE:CG1	2.09	1.13
1:C:88:HIS:CG	1:D:105:LEU:HD11	1.83	1.12
1:D:88:HIS:O	1:E:103:ASP:OD2	1.66	1.12
1:D:88:HIS:CG	1:E:105:LEU:HD11	1.83	1.12
1:A:88:HIS:O	1:B:103:ASP:OD2	1.66	1.12
1:B:175:ILE:HG13	1:B:201:THR:HG23	1.20	1.11
1:A:103:ASP:OD2	1:E:88:HIS:O	1.66	1.11
1:D:47:THR:O	1:E:41:TYR:CE1	2.04	1.11
1:A:47:THR:O	1:B:41:TYR:CE1	2.04	1.10
1:C:20:ASN:CG	1:D:10:LYS:HE2	1.71	1.10
1:B:183:LYS:HG2	1:B:194:GLU:HG2	1.34	1.10
1:A:10:LYS:HE2	1:E:20:ASN:CG	1.71	1.10
1:A:20:ASN:CG	1:B:10:LYS:HE2	1.71	1.10
1:B:47:THR:O	1:C:41:TYR:CE1	2.04	1.09
1:C:47:THR:O	1:D:41:TYR:CE1	2.04	1.09
1:A:24:VAL:O	1:B:2:LYS:HA	1.53	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:41:TYR:CE1	1:E:47:THR:O	2.04	1.09
1:D:175:ILE:HG13	1:D:201:THR:HG23	1.20	1.09
1:B:146:TRP:CZ3	1:C:102:SER:HB3	1.88	1.09
1:D:146:TRP:CE3	1:E:102:SER:HB2	1.88	1.09
1:A:102:SER:HB2	1:E:146:TRP:CE3	1.88	1.09
1:C:183:LYS:HG2	1:C:194:GLU:HG2	1.34	1.09
1:D:146:TRP:CZ3	1:E:102:SER:HB3	1.88	1.09
1:E:9:VAL:HG22	1:E:77:LEU:HD22	1.34	1.08
1:D:20:ASN:CG	1:E:10:LYS:HE2	1.71	1.08
1:A:2:LYS:HA	1:E:24:VAL:O	1.53	1.08
1:B:24:VAL:O	1:C:2:LYS:HA	1.53	1.08
1:A:102:SER:HB3	1:E:146:TRP:CZ3	1.88	1.08
1:A:146:TRP:CZ3	1:B:102:SER:HB3	1.88	1.08
1:A:146:TRP:CD2	1:B:102:SER:HB2	1.88	1.08
1:D:9:VAL:HG22	1:D:77:LEU:HD22	1.34	1.08
1:B:20:ASN:CG	1:C:10:LYS:HE2	1.71	1.08
1:C:26:GLU:HG3	1:D:2:LYS:HD2	1.34	1.08
1:C:31:VAL:HG23	1:C:153:LEU:HD11	1.36	1.08
1:D:31:VAL:HG23	1:D:153:LEU:HD11	1.36	1.08
1:A:183:LYS:HG2	1:A:194:GLU:HG2	1.34	1.08
1:B:146:TRP:CD2	1:C:102:SER:HB2	1.88	1.07
1:E:31:VAL:HG23	1:E:153:LEU:HD11	1.35	1.07
1:C:146:TRP:CZ3	1:D:102:SER:HB3	1.88	1.07
1:A:146:TRP:CE3	1:B:102:SER:HB2	1.88	1.07
1:A:102:SER:HB2	1:E:146:TRP:CD2	1.89	1.07
1:D:146:TRP:CD2	1:E:102:SER:HB2	1.88	1.07
1:C:146:TRP:CD2	1:D:102:SER:HB2	1.88	1.07
1:C:24:VAL:O	1:D:2:LYS:HA	1.53	1.07
1:A:9:VAL:HG22	1:A:77:LEU:HD22	1.34	1.07
1:D:24:VAL:O	1:E:2:LYS:HA	1.53	1.07
1:B:146:TRP:CE3	1:C:102:SER:HB2	1.88	1.07
1:C:146:TRP:CE3	1:D:102:SER:HB2	1.88	1.07
1:A:21:ILE:HG22	1:B:1:THR:N	1.70	1.06
1:C:21:ILE:CB	1:D:5:ARG:HH22	1.67	1.06
1:C:21:ILE:HG22	1:D:1:THR:N	1.70	1.06
1:A:1:THR:N	1:E:21:ILE:HG22	1.70	1.06
1:B:26:GLU:HG3	1:C:2:LYS:HD2	1.34	1.06
1:D:183:LYS:HG2	1:D:194:GLU:HG2	1.34	1.06
1:E:45:VAL:HB	1:E:128:LEU:HD11	1.38	1.05
1:A:26:GLU:HG3	1:B:2:LYS:HD2	1.34	1.05
1:B:21:ILE:CB	1:C:5:ARG:HH22	1.67	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:21:ILE:HG22	1:C:1:THR:N	1.70	1.05
1:E:183:LYS:HG2	1:E:194:GLU:HG2	1.34	1.05
1:A:45:VAL:HB	1:A:128:LEU:HD11	1.38	1.05
1:A:2:LYS:HD2	1:E:26:GLU:HG3	1.34	1.05
1:D:21:ILE:HG22	1:E:1:THR:N	1.70	1.05
1:C:9:VAL:HG22	1:C:77:LEU:HD22	1.34	1.05
1:A:21:ILE:CB	1:B:5:ARG:HH22	1.67	1.04
1:B:31:VAL:HG23	1:B:153:LEU:HD11	1.35	1.04
1:B:45:VAL:HB	1:B:128:LEU:HD11	1.38	1.04
1:B:146:TRP:CE3	1:C:102:SER:CB	2.41	1.04
1:A:24:VAL:CA	1:B:3:LYS:N	2.21	1.04
1:B:24:VAL:CA	1:C:3:LYS:N	2.21	1.04
1:D:45:VAL:HB	1:D:128:LEU:HD11	1.38	1.04
1:D:21:ILE:CB	1:E:5:ARG:HH22	1.67	1.04
1:C:146:TRP:CE3	1:D:102:SER:CB	2.41	1.04
1:A:24:VAL:HA	1:B:3:LYS:N	1.73	1.03
1:C:21:ILE:CD1	1:D:5:ARG:HH22	1.71	1.03
1:D:26:GLU:HG3	1:E:2:LYS:HD2	1.34	1.03
1:D:146:TRP:CE3	1:E:102:SER:CB	2.41	1.03
1:C:26:GLU:HA	1:D:2:LYS:CG	1.89	1.03
1:D:21:ILE:CD1	1:E:5:ARG:HH22	1.71	1.03
1:B:146:TRP:HH2	1:C:119:GLN:CD	1.60	1.03
1:B:9:VAL:HG22	1:B:77:LEU:HD22	1.34	1.03
1:C:24:VAL:HA	1:D:3:LYS:N	1.74	1.03
1:A:3:LYS:N	1:E:24:VAL:HA	1.73	1.03
1:D:26:GLU:HA	1:E:2:LYS:CG	1.89	1.03
1:A:146:TRP:HH2	1:B:119:GLN:CD	1.61	1.03
1:A:105:LEU:CD1	1:E:147:THR:OG1	2.06	1.03
1:B:147:THR:OG1	1:C:105:LEU:CD1	2.06	1.03
1:A:31:VAL:HG23	1:A:153:LEU:HD11	1.35	1.03
1:A:119:GLN:CD	1:E:146:TRP:HH2	1.61	1.03
1:A:146:TRP:CE3	1:B:102:SER:CB	2.41	1.03
1:B:21:ILE:CD1	1:C:5:ARG:HH22	1.71	1.03
1:B:24:VAL:HA	1:C:3:LYS:N	1.74	1.03
1:A:5:ARG:HH22	1:E:21:ILE:CD1	1.71	1.02
1:A:3:LYS:N	1:E:24:VAL:CA	2.21	1.02
1:D:24:VAL:CA	1:E:3:LYS:N	2.21	1.02
1:B:26:GLU:HA	1:C:2:LYS:CG	1.89	1.02
1:C:147:THR:OG1	1:D:105:LEU:CD1	2.06	1.02
1:C:146:TRP:HH2	1:D:119:GLN:CD	1.61	1.02
1:D:37:LEU:HA	1:D:54:LEU:HD23	1.42	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:5:ARG:HH22	1:E:21:ILE:CB	1.67	1.02
1:D:147:THR:OG1	1:E:105:LEU:CD1	2.06	1.02
1:D:24:VAL:HA	1:E:3:LYS:N	1.73	1.02
1:A:21:ILE:CD1	1:B:5:ARG:HH22	1.71	1.02
1:A:147:THR:OG1	1:B:105:LEU:CD1	2.06	1.02
1:C:24:VAL:CA	1:D:3:LYS:N	2.21	1.02
1:D:146:TRP:HH2	1:E:119:GLN:CD	1.61	1.02
1:A:102:SER:CB	1:E:146:TRP:CE3	2.41	1.02
1:C:45:VAL:HB	1:C:128:LEU:HD11	1.38	1.01
1:A:2:LYS:CG	1:E:26:GLU:HA	1.89	1.01
1:C:76:GLU:HB2	1:C:107:ARG:HD2	1.43	1.00
1:C:37:LEU:HA	1:C:54:LEU:HD23	1.42	1.00
1:A:26:GLU:HA	1:B:2:LYS:CG	1.89	1.00
1:A:1:THR:CG2	1:E:27:GLN:H	1.74	1.00
1:B:37:LEU:HA	1:B:54:LEU:HD23	1.42	1.00
1:A:37:LEU:HA	1:A:54:LEU:HD23	1.42	1.00
1:E:15:ARG:HD3	1:E:67:TRP:CE2	1.97	1.00
1:B:76:GLU:HB2	1:B:107:ARG:HD2	1.43	0.99
1:D:27:GLN:H	1:E:1:THR:CG2	1.74	0.99
1:E:76:GLU:HB2	1:E:107:ARG:HD2	1.43	0.99
1:A:27:GLN:H	1:B:1:THR:CG2	1.74	0.99
1:A:76:GLU:HB2	1:A:107:ARG:HD2	1.43	0.99
1:D:15:ARG:HD3	1:D:67:TRP:CE2	1.97	0.99
1:D:76:GLU:HB2	1:D:107:ARG:HD2	1.43	0.98
1:C:15:ARG:HD3	1:C:67:TRP:CE2	1.97	0.98
1:C:27:GLN:H	1:D:1:THR:CG2	1.74	0.98
1:B:27:GLN:H	1:C:1:THR:CG2	1.74	0.98
1:C:146:TRP:CH2	1:D:119:GLN:CG	2.47	0.98
1:C:27:GLN:H	1:D:1:THR:HG22	1.26	0.98
1:E:37:LEU:HA	1:E:54:LEU:HD23	1.42	0.98
1:A:15:ARG:HD3	1:A:67:TRP:CE2	1.97	0.98
1:D:146:TRP:CH2	1:E:119:GLN:CG	2.47	0.98
1:A:1:THR:HG22	1:E:27:GLN:H	1.26	0.98
1:B:15:ARG:HD3	1:B:67:TRP:CE2	1.97	0.98
1:B:146:TRP:HH2	1:C:119:GLN:CG	1.77	0.97
1:C:24:VAL:O	1:D:2:LYS:CA	2.12	0.97
1:A:11:GLU:HG3	1:A:15:ARG:HD2	1.47	0.97
1:A:119:GLN:HG3	1:E:146:TRP:CZ2	1.99	0.97
1:B:24:VAL:O	1:C:2:LYS:CA	2.12	0.97
1:C:146:TRP:HH2	1:D:119:GLN:CG	1.77	0.97
1:A:24:VAL:O	1:B:2:LYS:CA	2.12	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:11:GLU:HG3	1:B:15:ARG:HD2	1.47	0.97
1:B:146:TRP:CH2	1:C:119:GLN:CG	2.47	0.97
1:C:146:TRP:CZ2	1:D:119:GLN:HG3	1.99	0.97
1:D:24:VAL:O	1:E:2:LYS:CA	2.12	0.96
1:A:119:GLN:CG	1:E:146:TRP:CH2	2.47	0.96
1:D:146:TRP:CZ2	1:E:119:GLN:HG3	1.99	0.96
1:A:24:VAL:C	1:B:3:LYS:N	2.18	0.96
1:B:24:VAL:C	1:C:3:LYS:N	2.18	0.96
1:A:27:GLN:H	1:B:1:THR:HG22	1.27	0.96
1:A:119:GLN:CG	1:E:146:TRP:HH2	1.77	0.96
1:D:146:TRP:HH2	1:E:119:GLN:CG	1.77	0.96
1:A:3:LYS:N	1:E:24:VAL:C	2.18	0.96
1:A:146:TRP:CZ2	1:B:119:GLN:HG3	1.99	0.96
1:B:45:VAL:HG23	1:B:128:LEU:HD21	1.48	0.96
1:D:45:VAL:HG23	1:D:128:LEU:HD21	1.48	0.96
1:B:27:GLN:H	1:C:1:THR:HG22	1.27	0.96
1:C:24:VAL:C	1:D:3:LYS:H	1.69	0.96
1:B:24:VAL:C	1:C:3:LYS:H	1.69	0.96
1:A:146:TRP:CH2	1:B:119:GLN:CG	2.47	0.96
1:D:27:GLN:H	1:E:1:THR:HG22	1.26	0.96
1:D:24:VAL:C	1:E:3:LYS:H	1.69	0.96
1:B:146:TRP:CZ2	1:C:119:GLN:HG3	1.99	0.95
1:B:20:ASN:OD1	1:C:10:LYS:CE	2.15	0.95
1:E:45:VAL:HG23	1:E:128:LEU:HD21	1.48	0.95
1:C:11:GLU:HG3	1:C:15:ARG:HD2	1.47	0.95
1:C:24:VAL:C	1:D:3:LYS:N	2.18	0.95
1:A:2:LYS:CA	1:E:24:VAL:O	2.12	0.95
1:A:45:VAL:HG23	1:A:128:LEU:HD21	1.48	0.95
1:A:146:TRP:HH2	1:B:119:GLN:CG	1.77	0.95
1:A:10:LYS:CE	1:E:20:ASN:OD1	2.14	0.95
1:D:20:ASN:OD1	1:E:10:LYS:CE	2.14	0.95
1:A:11:GLU:CG	1:A:15:ARG:HD2	1.97	0.95
1:C:45:VAL:HG23	1:C:128:LEU:HD21	1.48	0.95
1:E:11:GLU:HG3	1:E:15:ARG:HD2	1.47	0.95
1:B:11:GLU:CG	1:B:15:ARG:HD2	1.97	0.95
1:A:20:ASN:OD1	1:B:10:LYS:CE	2.15	0.95
1:D:24:VAL:C	1:E:3:LYS:N	2.18	0.95
1:B:147:THR:H	1:C:105:LEU:HD12	1.31	0.95
1:E:11:GLU:CG	1:E:15:ARG:HD2	1.97	0.95
1:A:3:LYS:H	1:E:24:VAL:C	1.69	0.94
1:A:15:ARG:HD3	1:A:67:TRP:CD2	2.02	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:55:TRP:CH2	1:E:165:THR:HG21	2.03	0.94
1:B:77:LEU:HD21	1:B:79:LEU:HD21	1.50	0.94
1:C:147:THR:H	1:D:105:LEU:HD12	1.31	0.94
1:C:20:ASN:OD1	1:D:10:LYS:CE	2.15	0.94
1:C:11:GLU:CG	1:C:15:ARG:HD2	1.97	0.94
1:A:55:TRP:CH2	1:A:165:THR:HG21	2.03	0.94
1:D:146:TRP:CD2	1:E:102:SER:CB	2.50	0.94
1:A:147:THR:H	1:B:105:LEU:HD12	1.31	0.94
1:D:11:GLU:HG3	1:D:15:ARG:HD2	1.47	0.94
1:C:21:ILE:HG12	1:D:5:ARG:NH2	1.83	0.94
1:C:146:TRP:CD2	1:D:102:SER:CB	2.50	0.94
1:E:15:ARG:HD3	1:E:67:TRP:CD2	2.03	0.94
1:D:11:GLU:CG	1:D:15:ARG:HD2	1.97	0.94
1:D:77:LEU:HD21	1:D:79:LEU:HD21	1.50	0.94
1:C:55:TRP:CH2	1:C:165:THR:HG21	2.03	0.94
1:D:55:TRP:CH2	1:D:165:THR:HG21	2.03	0.94
1:A:146:TRP:CD2	1:B:102:SER:CB	2.50	0.93
1:B:146:TRP:CD2	1:C:102:SER:CB	2.50	0.93
1:D:15:ARG:HD3	1:D:67:TRP:CD2	2.03	0.93
1:D:147:THR:H	1:E:105:LEU:HD12	1.31	0.93
1:B:55:TRP:CH2	1:B:165:THR:HG21	2.02	0.93
1:A:102:SER:CB	1:E:146:TRP:CD2	2.50	0.93
1:C:15:ARG:HD3	1:C:67:TRP:CD2	2.03	0.93
1:B:15:ARG:HD3	1:B:67:TRP:CD2	2.02	0.93
1:E:77:LEU:HD21	1:E:79:LEU:HD21	1.50	0.93
1:D:21:ILE:HG12	1:E:5:ARG:NH2	1.83	0.93
1:A:77:LEU:HD21	1:A:79:LEU:HD21	1.50	0.92
1:A:119:GLN:NE2	1:E:92:TYR:O	2.02	0.92
1:A:21:ILE:HG12	1:B:5:ARG:NH2	1.83	0.92
1:A:24:VAL:C	1:B:3:LYS:H	1.69	0.92
1:A:92:TYR:O	1:B:119:GLN:NE2	2.02	0.91
1:B:92:TYR:O	1:C:119:GLN:NE2	2.02	0.91
1:B:13:LEU:HD21	1:B:79:LEU:HD13	1.53	0.91
1:A:5:ARG:NH2	1:E:21:ILE:HG12	1.83	0.91
1:A:74:PHE:CE1	1:E:151:ARG:NH2	2.38	0.91
1:C:77:LEU:HD21	1:C:79:LEU:HD21	1.50	0.91
1:A:105:LEU:HD12	1:E:147:THR:H	1.31	0.91
1:C:9:VAL:HG22	1:C:77:LEU:CD2	2.01	0.91
1:A:9:VAL:HG22	1:A:77:LEU:CD2	2.01	0.91
1:E:57:VAL:HA	1:E:117:VAL:HG12	1.53	0.91
1:A:151:ARG:NH2	1:B:74:PHE:CE1	2.38	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:151:ARG:NH2	1:E:74:PHE:CE1	2.38	0.91
1:C:92:TYR:O	1:D:119:GLN:NE2	2.02	0.91
1:D:92:TYR:O	1:E:119:GLN:NE2	2.02	0.91
1:C:151:ARG:NH2	1:D:74:PHE:CE1	2.38	0.90
1:B:20:ASN:OD1	1:C:10:LYS:HE2	1.71	0.90
1:C:147:THR:HB	1:D:78:THR:OG1	1.71	0.90
1:D:147:THR:HB	1:E:78:THR:OG1	1.71	0.90
1:B:151:ARG:NH2	1:C:74:PHE:CE1	2.38	0.90
1:C:13:LEU:HD21	1:C:79:LEU:HD13	1.53	0.90
1:B:198:LEU:CD1	1:B:200:VAL:HG13	2.02	0.90
1:D:13:LEU:HD21	1:D:79:LEU:HD13	1.53	0.90
1:A:10:LYS:NZ	1:E:20:ASN:HB2	1.87	0.90
1:D:20:ASN:OD1	1:E:10:LYS:HE2	1.71	0.90
1:D:9:VAL:HG22	1:D:77:LEU:CD2	2.01	0.90
1:A:13:LEU:HD21	1:A:79:LEU:HD13	1.53	0.90
1:D:20:ASN:HB2	1:E:10:LYS:NZ	1.87	0.90
1:A:198:LEU:CD1	1:A:200:VAL:HG13	2.02	0.90
1:A:198:LEU:HD11	1:A:200:VAL:HG13	1.53	0.90
1:C:57:VAL:HA	1:C:117:VAL:HG12	1.53	0.90
1:D:57:VAL:HA	1:D:117:VAL:HG12	1.53	0.90
1:E:13:LEU:HD21	1:E:79:LEU:HD13	1.52	0.90
1:B:57:VAL:HA	1:B:117:VAL:HG12	1.53	0.90
1:E:175:ILE:HG13	1:E:201:THR:CG2	2.02	0.90
1:D:198:LEU:HD11	1:D:200:VAL:HG13	1.53	0.90
1:A:78:THR:OG1	1:E:147:THR:HB	1.71	0.90
1:C:198:LEU:HD11	1:C:200:VAL:HG13	1.53	0.90
1:C:175:ILE:HG13	1:C:201:THR:CG2	2.02	0.90
1:C:20:ASN:HB2	1:D:10:LYS:NZ	1.87	0.90
1:E:9:VAL:HG22	1:E:77:LEU:CD2	2.01	0.90
1:A:20:ASN:HB2	1:B:10:LYS:NZ	1.87	0.89
1:D:198:LEU:CD1	1:D:200:VAL:HG13	2.02	0.89
1:B:9:VAL:HG22	1:B:77:LEU:CD2	2.01	0.89
1:C:198:LEU:CD1	1:C:200:VAL:HG13	2.02	0.89
1:B:20:ASN:HB2	1:C:10:LYS:NZ	1.87	0.89
1:A:147:THR:HB	1:B:78:THR:OG1	1.71	0.89
1:A:175:ILE:HG13	1:A:201:THR:CG2	2.01	0.89
1:D:175:ILE:HG13	1:D:201:THR:CG2	2.02	0.89
1:A:20:ASN:OD1	1:B:10:LYS:HE2	1.71	0.89
1:B:147:THR:HB	1:C:78:THR:OG1	1.71	0.89
1:B:198:LEU:HD11	1:B:200:VAL:HG13	1.53	0.89
1:E:198:LEU:CD1	1:E:200:VAL:HG13	2.02	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:57:VAL:HA	1:A:117:VAL:HG12	1.53	0.88
1:B:21:ILE:HG12	1:C:5:ARG:NH2	1.83	0.88
1:B:175:ILE:HG13	1:B:201:THR:CG2	2.02	0.88
1:A:10:LYS:HE2	1:E:20:ASN:OD1	1.71	0.88
1:D:91:VAL:HG22	1:D:143:PHE:CE2	2.08	0.88
1:E:198:LEU:HD11	1:E:200:VAL:HG13	1.53	0.88
1:A:37:LEU:HA	1:A:54:LEU:CD2	2.04	0.88
1:E:91:VAL:HG22	1:E:143:PHE:CE2	2.09	0.88
1:C:91:VAL:HG22	1:C:143:PHE:CE2	2.09	0.87
1:B:91:VAL:HG22	1:B:143:PHE:CE2	2.08	0.87
1:A:91:VAL:HG22	1:A:143:PHE:CE2	2.09	0.87
1:D:146:TRP:CH2	1:E:119:GLN:CD	2.47	0.87
1:C:24:VAL:C	1:D:1:THR:O	2.13	0.87
1:B:146:TRP:CH2	1:C:119:GLN:CD	2.47	0.87
1:A:119:GLN:CD	1:E:146:TRP:CH2	2.47	0.87
1:B:37:LEU:HA	1:B:54:LEU:CD2	2.04	0.87
1:A:141:LEU:HD21	1:A:198:LEU:HB3	1.57	0.87
1:A:146:TRP:CH2	1:B:119:GLN:CD	2.47	0.87
1:E:141:LEU:HD21	1:E:198:LEU:HB3	1.57	0.87
1:D:21:ILE:CG2	1:E:1:THR:N	2.38	0.87
1:D:37:LEU:HA	1:D:54:LEU:CD2	2.04	0.87
1:C:37:LEU:HA	1:C:54:LEU:CD2	2.04	0.87
1:D:141:LEU:HD21	1:D:198:LEU:HB3	1.57	0.87
1:C:21:ILE:CG2	1:D:1:THR:N	2.38	0.86
1:D:33:PHE:HZ	1:D:56:LEU:HD13	1.39	0.86
1:C:146:TRP:CH2	1:D:119:GLN:CD	2.47	0.86
1:C:33:PHE:HZ	1:C:56:LEU:HD13	1.39	0.86
1:B:21:ILE:CG2	1:C:1:THR:N	2.38	0.86
1:A:24:VAL:C	1:B:1:THR:O	2.13	0.86
1:B:33:PHE:HZ	1:B:56:LEU:HD13	1.39	0.86
1:C:47:THR:C	1:D:41:TYR:CZ	2.49	0.86
1:E:37:LEU:HA	1:E:54:LEU:CD2	2.04	0.86
1:D:24:VAL:C	1:E:1:THR:O	2.13	0.86
1:B:88:HIS:NE2	1:C:105:LEU:CD2	2.34	0.86
1:B:47:THR:HG21	1:B:49:GLN:NE2	1.91	0.86
1:C:47:THR:HG21	1:C:49:GLN:NE2	1.91	0.86
1:B:141:LEU:HD21	1:B:198:LEU:HB3	1.57	0.86
1:A:33:PHE:HZ	1:A:56:LEU:HD13	1.39	0.86
1:A:1:THR:N	1:E:21:ILE:CG2	2.38	0.85
1:A:1:THR:O	1:E:24:VAL:C	2.13	0.85
1:A:21:ILE:CG2	1:B:1:THR:N	2.38	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:47:THR:HG21	1:E:49:GLN:NE2	1.91	0.85
1:D:47:THR:HG21	1:D:49:GLN:NE2	1.91	0.85
1:B:24:VAL:C	1:C:1:THR:O	2.13	0.85
1:B:47:THR:C	1:C:41:TYR:CZ	2.49	0.85
1:A:47:THR:HG21	1:A:49:GLN:NE2	1.91	0.85
1:C:141:LEU:HD21	1:C:198:LEU:HB3	1.57	0.85
1:C:128:LEU:O	1:C:131:VAL:HG13	1.76	0.85
1:A:47:THR:C	1:B:41:TYR:CZ	2.49	0.85
1:A:10:LYS:CE	1:E:20:ASN:CG	2.45	0.85
1:E:128:LEU:O	1:E:131:VAL:HG13	1.76	0.85
1:D:47:THR:C	1:E:41:TYR:CZ	2.49	0.85
1:B:20:ASN:CG	1:C:10:LYS:CE	2.45	0.85
1:B:128:LEU:O	1:B:131:VAL:HG13	1.76	0.85
1:E:33:PHE:HZ	1:E:56:LEU:HD13	1.39	0.85
1:A:105:LEU:HD21	1:E:88:HIS:CD2	2.12	0.84
1:A:41:TYR:CZ	1:E:47:THR:C	2.49	0.84
1:C:20:ASN:OD1	1:D:10:LYS:HE2	1.71	0.84
1:A:128:LEU:O	1:A:131:VAL:HG13	1.76	0.84
1:A:88:HIS:CD2	1:B:105:LEU:HD21	2.11	0.84
1:D:88:HIS:CD2	1:E:105:LEU:HD21	2.11	0.84
1:D:128:LEU:O	1:D:131:VAL:HG13	1.76	0.84
1:C:88:HIS:CD2	1:D:105:LEU:HD21	2.12	0.84
1:A:102:SER:HB3	1:E:146:TRP:CE3	2.11	0.84
1:D:88:HIS:ND1	1:E:105:LEU:HD21	1.92	0.84
1:A:20:ASN:CG	1:B:10:LYS:CE	2.45	0.84
1:A:27:GLN:HB2	1:B:1:THR:HG23	1.60	0.84
1:A:1:THR:HG23	1:E:27:GLN:HB2	1.60	0.84
1:D:20:ASN:CG	1:E:10:LYS:CE	2.45	0.84
1:C:20:ASN:HB2	1:D:10:LYS:HZ3	1.38	0.84
1:B:58:ILE:HG22	1:B:116:PHE:O	1.78	0.84
1:B:27:GLN:N	1:C:1:THR:CG2	2.39	0.84
1:C:20:ASN:CG	1:D:10:LYS:CE	2.45	0.84
1:B:88:HIS:CD2	1:C:105:LEU:HD21	2.12	0.83
1:B:27:GLN:HB2	1:C:1:THR:HG23	1.60	0.83
1:E:34:LYS:HE2	1:E:158:SER:H	1.44	0.83
1:D:20:ASN:HB2	1:E:10:LYS:HZ3	1.41	0.83
1:D:27:GLN:HB2	1:E:1:THR:HG23	1.60	0.83
1:C:58:ILE:HG22	1:C:116:PHE:O	1.78	0.83
1:A:34:LYS:HE2	1:A:158:SER:H	1.44	0.83
1:D:34:LYS:HE2	1:D:158:SER:H	1.44	0.83
1:D:58:ILE:HG22	1:D:116:PHE:O	1.78	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:27:GLN:HB2	1:D:1:THR:HG23	1.60	0.82
1:A:105:LEU:HD21	1:E:88:HIS:ND1	1.92	0.82
1:B:92:TYR:HD2	1:B:142:LYS:HB2	1.44	0.82
1:E:76:GLU:CB	1:E:107:ARG:HD2	2.09	0.82
1:C:34:LYS:HE2	1:C:158:SER:H	1.44	0.82
1:A:146:TRP:CE3	1:B:102:SER:HB3	2.11	0.82
1:A:92:TYR:HD2	1:A:142:LYS:HB2	1.44	0.82
1:E:58:ILE:HG22	1:E:116:PHE:O	1.78	0.82
1:D:76:GLU:CB	1:D:107:ARG:HD2	2.09	0.82
1:A:105:LEU:CD2	1:E:88:HIS:NE2	2.34	0.82
1:A:76:GLU:CB	1:A:107:ARG:HD2	2.10	0.82
1:A:88:HIS:ND1	1:B:105:LEU:HD21	1.92	0.82
1:C:88:HIS:ND1	1:D:105:LEU:HD21	1.93	0.82
1:A:58:ILE:HG22	1:A:116:PHE:O	1.78	0.82
1:C:88:HIS:NE2	1:D:105:LEU:CD2	2.34	0.82
1:B:88:HIS:ND1	1:C:105:LEU:HD21	1.93	0.82
1:C:92:TYR:HD2	1:C:142:LYS:HB2	1.44	0.81
1:C:47:THR:C	1:D:41:TYR:OH	2.18	0.81
1:A:5:ARG:HG3	1:A:74:PHE:CD2	2.15	0.81
1:B:176:GLU:HG2	1:B:201:THR:CG2	2.10	0.81
1:D:163:LEU:HD22	1:D:174:LEU:HD22	1.63	0.81
1:E:163:LEU:HD22	1:E:174:LEU:HD22	1.63	0.81
1:E:92:TYR:HD2	1:E:142:LYS:HB2	1.44	0.81
1:A:176:GLU:HG2	1:A:201:THR:CG2	2.11	0.81
1:D:176:GLU:HG2	1:D:201:THR:CG2	2.10	0.81
1:B:20:ASN:HB2	1:C:10:LYS:HZ3	1.41	0.81
1:B:76:GLU:CB	1:B:107:ARG:HD2	2.10	0.81
1:E:5:ARG:HG3	1:E:74:PHE:CD2	2.15	0.81
1:B:21:ILE:HD13	1:C:5:ARG:HH22	1.45	0.81
1:C:163:LEU:HD22	1:C:174:LEU:HD22	1.63	0.81
1:E:176:GLU:HG2	1:E:201:THR:CG2	2.11	0.81
1:A:150:VAL:HG22	1:A:194:GLU:HG3	1.62	0.81
1:E:150:VAL:HG22	1:E:194:GLU:HG3	1.62	0.81
1:A:1:THR:CG2	1:E:27:GLN:N	2.39	0.81
1:A:5:ARG:HH22	1:E:21:ILE:HD13	1.45	0.81
1:C:76:GLU:CB	1:C:107:ARG:HD2	2.10	0.81
1:A:163:LEU:HD22	1:A:174:LEU:HD22	1.63	0.81
1:A:21:ILE:HD13	1:B:5:ARG:HH22	1.46	0.81
1:D:21:ILE:HD13	1:E:5:ARG:HH22	1.45	0.81
1:B:150:VAL:HG22	1:B:194:GLU:HG3	1.62	0.81
1:B:5:ARG:HG3	1:B:74:PHE:CD2	2.15	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:88:HIS:NE2	1:E:105:LEU:CD2	2.34	0.81
1:B:34:LYS:HE2	1:B:158:SER:H	1.44	0.80
1:A:27:GLN:N	1:B:1:THR:CG2	2.39	0.80
1:B:146:TRP:CE3	1:C:102:SER:HB3	2.11	0.80
1:E:21:ILE:CG2	1:E:23:ILE:HG22	2.12	0.80
1:A:2:LYS:C	1:E:24:VAL:O	2.20	0.80
1:D:5:ARG:HG3	1:D:74:PHE:CD2	2.15	0.80
1:C:21:ILE:HD13	1:D:5:ARG:HH22	1.46	0.80
1:E:21:ILE:HG22	1:E:23:ILE:HG22	1.63	0.80
1:C:176:GLU:HG2	1:C:201:THR:CG2	2.11	0.80
1:E:141:LEU:CD2	1:E:198:LEU:HB3	2.12	0.80
1:D:92:TYR:HD2	1:D:142:LYS:HB2	1.44	0.80
1:C:45:VAL:CB	1:C:128:LEU:HD11	2.12	0.80
1:D:141:LEU:CD2	1:D:198:LEU:HB3	2.12	0.80
1:D:21:ILE:HG22	1:D:23:ILE:HG22	1.63	0.80
1:C:5:ARG:HG3	1:C:74:PHE:CD2	2.15	0.80
1:B:21:ILE:CG2	1:B:23:ILE:HG22	2.12	0.80
1:A:141:LEU:CD2	1:A:198:LEU:HB3	2.12	0.80
1:D:24:VAL:O	1:E:2:LYS:C	2.20	0.80
1:B:21:ILE:HG22	1:B:23:ILE:HG22	1.63	0.80
1:D:45:VAL:CB	1:D:128:LEU:HD11	2.12	0.80
1:B:141:LEU:CD2	1:B:198:LEU:HB3	2.12	0.80
1:C:146:TRP:CE3	1:D:102:SER:HB3	2.11	0.79
1:A:10:LYS:HZ3	1:E:20:ASN:HB2	1.46	0.79
1:A:21:ILE:CG2	1:A:23:ILE:HG22	2.12	0.79
1:D:21:ILE:CG2	1:D:23:ILE:HG22	2.12	0.79
1:D:150:VAL:HG22	1:D:194:GLU:HG3	1.62	0.79
1:A:45:VAL:HA	1:A:128:LEU:CD2	2.12	0.79
1:C:21:ILE:CG2	1:C:23:ILE:HG22	2.12	0.79
1:D:146:TRP:CE3	1:E:102:SER:HB3	2.11	0.79
1:E:45:VAL:HA	1:E:128:LEU:CD2	2.13	0.79
1:A:21:ILE:HG22	1:A:23:ILE:HG22	1.63	0.79
1:B:47:THR:C	1:C:41:TYR:OH	2.18	0.79
1:A:29:VAL:O	1:A:153:LEU:HD12	1.83	0.79
1:C:141:LEU:CD2	1:C:198:LEU:HB3	2.12	0.79
1:A:74:PHE:CE2	1:A:77:LEU:HA	2.18	0.79
1:D:21:ILE:HD13	1:E:5:ARG:HH12	1.48	0.79
1:A:45:VAL:CB	1:A:128:LEU:HD11	2.12	0.79
1:A:5:ARG:HH12	1:E:21:ILE:HD13	1.48	0.79
1:E:74:PHE:CE2	1:E:77:LEU:HA	2.18	0.79
1:C:74:PHE:CE2	1:C:77:LEU:HA	2.18	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:163:LEU:HD22	1:B:174:LEU:HD22	1.63	0.79
1:E:31:VAL:CG2	1:E:153:LEU:HD11	2.13	0.79
1:C:150:VAL:HG22	1:C:194:GLU:HG3	1.62	0.79
1:B:45:VAL:CB	1:B:128:LEU:HD11	2.12	0.79
1:D:45:VAL:HA	1:D:128:LEU:CD2	2.13	0.79
1:A:24:VAL:O	1:B:2:LYS:C	2.20	0.79
1:B:24:VAL:O	1:C:2:LYS:C	2.20	0.79
1:D:47:THR:C	1:E:41:TYR:OH	2.18	0.79
1:C:21:ILE:HG22	1:C:23:ILE:HG22	1.63	0.79
1:C:24:VAL:O	1:D:2:LYS:C	2.20	0.79
1:D:29:VAL:O	1:D:153:LEU:HD12	1.83	0.79
1:C:21:ILE:HD13	1:D:5:ARG:HH12	1.48	0.79
1:A:31:VAL:CG2	1:A:153:LEU:HD11	2.13	0.79
1:E:55:TRP:HH2	1:E:165:THR:HG21	1.48	0.79
1:A:47:THR:C	1:B:41:TYR:OH	2.18	0.79
1:A:102:SER:HB3	1:E:146:TRP:CH2	2.19	0.78
1:D:74:PHE:CE2	1:D:77:LEU:HA	2.18	0.78
1:B:31:VAL:CG2	1:B:153:LEU:HD11	2.13	0.78
1:B:45:VAL:HA	1:B:128:LEU:CD2	2.13	0.78
1:B:74:PHE:CE2	1:B:77:LEU:HA	2.18	0.78
1:D:31:VAL:CG2	1:D:153:LEU:HD11	2.13	0.78
1:D:55:TRP:HH2	1:D:165:THR:HG21	1.48	0.78
1:A:20:ASN:HB2	1:B:10:LYS:HZ3	1.47	0.78
1:C:45:VAL:HA	1:C:128:LEU:CD2	2.12	0.78
1:A:21:ILE:HD13	1:B:5:ARG:HH12	1.48	0.78
1:B:21:ILE:HD13	1:C:5:ARG:HH12	1.48	0.78
1:E:45:VAL:CB	1:E:128:LEU:HD11	2.12	0.78
1:B:29:VAL:O	1:B:153:LEU:HD12	1.83	0.78
1:C:146:TRP:CH2	1:D:102:SER:HB3	2.19	0.77
1:D:58:ILE:HG23	1:D:60:TRP:HZ3	1.49	0.77
1:D:146:TRP:CH2	1:E:102:SER:HB3	2.19	0.77
1:A:26:GLU:CA	1:B:2:LYS:HG2	2.12	0.77
1:C:27:GLN:N	1:D:1:THR:CG2	2.39	0.77
1:B:183:LYS:HG2	1:B:194:GLU:CG	2.13	0.77
1:C:29:VAL:O	1:C:153:LEU:HD12	1.83	0.77
1:E:183:LYS:CG	1:E:194:GLU:HG2	2.14	0.77
1:C:58:ILE:HG23	1:C:60:TRP:HZ3	1.49	0.77
1:A:58:ILE:HG23	1:A:60:TRP:HZ3	1.49	0.77
1:E:58:ILE:HG23	1:E:60:TRP:HZ3	1.49	0.77
1:E:29:VAL:O	1:E:153:LEU:HD12	1.83	0.77
1:A:24:VAL:HA	1:B:3:LYS:CA	2.14	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:26:GLU:CA	1:D:2:LYS:HG2	2.12	0.77
1:C:24:VAL:HA	1:D:3:LYS:CA	2.14	0.77
1:A:2:LYS:HG2	1:E:26:GLU:CA	2.12	0.77
1:B:146:TRP:CH2	1:C:102:SER:HB3	2.19	0.77
1:C:31:VAL:CG2	1:C:153:LEU:HD11	2.13	0.77
1:B:150:VAL:HG23	1:B:192:SER:O	1.85	0.77
1:C:150:VAL:HG23	1:C:192:SER:O	1.85	0.77
1:B:58:ILE:HG23	1:B:60:TRP:HZ3	1.49	0.77
1:A:21:ILE:HB	1:B:5:ARG:HH21	1.49	0.76
1:D:24:VAL:HA	1:E:3:LYS:CA	2.14	0.76
1:E:150:VAL:HG23	1:E:192:SER:O	1.85	0.76
1:A:3:LYS:CA	1:E:24:VAL:HA	2.14	0.76
1:D:148:TYR:CE1	1:E:78:THR:HG21	2.21	0.76
1:A:146:TRP:CH2	1:B:102:SER:HB3	2.19	0.76
1:A:183:LYS:HG2	1:A:194:GLU:CG	2.13	0.76
1:D:150:VAL:HG23	1:D:192:SER:O	1.85	0.76
1:A:88:HIS:NE2	1:B:105:LEU:CD2	2.34	0.76
1:C:148:TYR:CE1	1:D:78:THR:HG21	2.21	0.76
1:A:5:ARG:HH21	1:E:21:ILE:HB	1.49	0.76
1:C:183:LYS:HG2	1:C:194:GLU:CG	2.13	0.76
1:A:55:TRP:HH2	1:A:165:THR:HG21	1.48	0.76
1:A:105:LEU:HD11	1:E:88:HIS:CB	2.16	0.76
1:D:88:HIS:CB	1:E:105:LEU:HD11	2.16	0.76
1:B:23:ILE:CD1	1:B:27:GLN:HB2	2.16	0.76
1:B:24:VAL:HA	1:C:3:LYS:CA	2.14	0.76
1:A:23:ILE:CD1	1:A:27:GLN:HB2	2.16	0.76
1:D:21:ILE:CB	1:E:5:ARG:HH21	1.98	0.76
1:D:23:ILE:CD1	1:D:27:GLN:HB2	2.16	0.76
1:E:183:LYS:HG2	1:E:194:GLU:CG	2.13	0.76
1:B:183:LYS:CG	1:B:194:GLU:HG2	2.14	0.75
1:E:23:ILE:CD1	1:E:27:GLN:HB2	2.16	0.75
1:C:49:GLN:OE1	1:C:95:ILE:HG21	1.87	0.75
1:A:176:GLU:HG2	1:A:201:THR:HG21	1.68	0.75
1:A:150:VAL:HG23	1:A:192:SER:O	1.85	0.75
1:D:49:GLN:OE1	1:D:95:ILE:HG21	1.87	0.75
1:A:23:ILE:H	1:B:1:THR:H2	1.34	0.75
1:A:78:THR:HG21	1:E:148:TYR:CE1	2.21	0.75
1:E:176:GLU:HG2	1:E:201:THR:HG21	1.68	0.75
1:B:55:TRP:HH2	1:B:165:THR:HG21	1.48	0.75
1:C:88:HIS:CB	1:D:105:LEU:HD11	2.16	0.75
1:B:148:TYR:CE1	1:C:78:THR:HG21	2.21	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:24:VAL:C	1:B:2:LYS:HA	2.08	0.75
1:C:23:ILE:CD1	1:C:27:GLN:HB2	2.16	0.75
1:B:21:ILE:HB	1:C:5:ARG:HH21	1.49	0.75
1:C:58:ILE:CD1	1:C:87:PRO:HG2	2.17	0.75
1:E:49:GLN:OE1	1:E:95:ILE:HG21	1.87	0.75
1:C:183:LYS:CG	1:C:194:GLU:HG2	2.14	0.75
1:A:148:TYR:CE1	1:B:78:THR:HG21	2.21	0.75
1:B:26:GLU:CA	1:C:2:LYS:HG2	2.12	0.75
1:B:49:GLN:OE1	1:B:95:ILE:HG21	1.87	0.75
1:A:41:TYR:OH	1:E:47:THR:C	2.18	0.75
1:A:88:HIS:CB	1:B:105:LEU:HD11	2.16	0.75
1:D:21:ILE:HB	1:E:5:ARG:HH21	1.49	0.75
1:E:58:ILE:CD1	1:E:87:PRO:HG2	2.17	0.74
1:B:176:GLU:HG2	1:B:201:THR:HG21	1.68	0.74
1:D:176:GLU:HG2	1:D:201:THR:HG21	1.68	0.74
1:A:5:ARG:HH21	1:E:21:ILE:CB	1.98	0.74
1:A:2:LYS:C	1:E:24:VAL:HA	2.07	0.74
1:B:88:HIS:CB	1:C:105:LEU:HD11	2.16	0.74
1:D:58:ILE:CD1	1:D:87:PRO:HG2	2.17	0.74
1:C:24:VAL:C	1:D:2:LYS:HA	2.08	0.74
1:C:55:TRP:HH2	1:C:165:THR:HG21	1.48	0.74
1:A:58:ILE:CD1	1:A:87:PRO:HG2	2.17	0.74
1:D:183:LYS:HG2	1:D:194:GLU:CG	2.13	0.74
1:C:24:VAL:HA	1:D:2:LYS:C	2.07	0.74
1:C:21:ILE:HB	1:D:5:ARG:HH21	1.49	0.74
1:D:26:GLU:CA	1:E:2:LYS:HG2	2.12	0.74
1:B:58:ILE:CD1	1:B:87:PRO:HG2	2.17	0.74
1:D:24:VAL:HA	1:E:2:LYS:C	2.07	0.74
1:D:23:ILE:H	1:E:1:THR:H2	1.32	0.74
1:B:23:ILE:HD11	1:B:27:GLN:HB2	1.70	0.74
1:A:49:GLN:OE1	1:A:95:ILE:HG21	1.87	0.74
1:A:23:ILE:HD11	1:A:27:GLN:HB2	1.70	0.74
1:A:24:VAL:HA	1:B:2:LYS:C	2.07	0.74
1:E:76:GLU:HG2	1:E:76:GLU:O	1.88	0.74
1:D:141:LEU:HG	1:D:143:PHE:CE1	2.23	0.74
1:C:92:TYR:CD2	1:C:142:LYS:HB2	2.23	0.73
1:A:183:LYS:CG	1:A:194:GLU:HG2	2.14	0.73
1:B:24:VAL:C	1:C:2:LYS:HA	2.08	0.73
1:E:141:LEU:HG	1:E:143:PHE:CE1	2.23	0.73
1:D:183:LYS:CG	1:D:194:GLU:HG2	2.14	0.73
1:B:24:VAL:HA	1:C:2:LYS:C	2.07	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:24:VAL:C	1:E:2:LYS:HA	2.08	0.73
1:C:23:ILE:HD11	1:C:27:GLN:HB2	1.70	0.73
1:B:21:ILE:HG22	1:C:1:THR:H2	1.53	0.73
1:C:141:LEU:HG	1:C:143:PHE:CE1	2.23	0.73
1:D:76:GLU:HG2	1:D:76:GLU:O	1.88	0.73
1:A:2:LYS:HA	1:E:24:VAL:C	2.08	0.73
1:B:141:LEU:HG	1:B:143:PHE:CE1	2.23	0.73
1:B:76:GLU:O	1:B:76:GLU:HG2	1.88	0.72
1:A:76:GLU:HG2	1:A:76:GLU:O	1.88	0.72
1:E:23:ILE:HD11	1:E:27:GLN:HB2	1.70	0.72
1:B:92:TYR:CD2	1:B:142:LYS:HB2	2.23	0.72
1:A:1:THR:H2	1:E:23:ILE:H	1.36	0.72
1:E:76:GLU:HB2	1:E:107:ARG:CD	2.19	0.72
1:C:176:GLU:HG2	1:C:201:THR:HG21	1.68	0.72
1:A:141:LEU:HG	1:A:143:PHE:CE1	2.23	0.72
1:B:21:ILE:CB	1:C:5:ARG:HH21	1.98	0.72
1:E:92:TYR:CD2	1:E:142:LYS:HB2	2.23	0.72
1:D:76:GLU:HB2	1:D:107:ARG:CD	2.19	0.72
1:C:76:GLU:HB2	1:C:107:ARG:CD	2.19	0.72
1:D:92:TYR:CD2	1:D:142:LYS:HB2	2.23	0.72
1:D:23:ILE:HD11	1:D:27:GLN:HB2	1.70	0.72
1:C:21:ILE:HG22	1:D:1:THR:H2	1.51	0.72
1:A:92:TYR:CD2	1:A:142:LYS:HB2	2.23	0.72
1:A:78:THR:O	1:A:79:LEU:HD23	1.90	0.72
1:D:78:THR:O	1:D:79:LEU:HD23	1.90	0.71
1:C:76:GLU:O	1:C:76:GLU:HG2	1.88	0.71
1:A:77:LEU:CD2	1:A:79:LEU:HD21	2.21	0.71
1:E:78:THR:O	1:E:79:LEU:HD23	1.90	0.71
1:E:12:ILE:HG13	1:E:13:LEU:N	2.06	0.71
1:B:76:GLU:HB2	1:B:107:ARG:CD	2.19	0.71
1:B:78:THR:O	1:B:79:LEU:HD23	1.90	0.71
1:A:76:GLU:HB2	1:A:107:ARG:CD	2.19	0.71
1:A:10:LYS:HE3	1:E:20:ASN:OD1	1.90	0.71
1:A:21:ILE:CB	1:B:5:ARG:HH21	1.98	0.71
1:D:27:GLN:CB	1:E:1:THR:HG23	2.19	0.71
1:C:20:ASN:OD1	1:D:10:LYS:HE3	1.90	0.71
1:E:15:ARG:HD3	1:E:67:TRP:CZ2	2.26	0.71
1:D:11:GLU:HG2	1:D:15:ARG:HD2	1.73	0.71
1:A:12:ILE:HG13	1:A:13:LEU:N	2.06	0.71
1:B:148:TYR:CD1	1:C:78:THR:HG21	2.26	0.71
1:E:118:PRO:HG2	1:E:120:TYR:HE1	1.56	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:20:ASN:OD1	1:E:10:LYS:HE3	1.90	0.70
1:B:58:ILE:CG2	1:B:60:TRP:HZ3	2.04	0.70
1:B:15:ARG:HD3	1:B:67:TRP:CZ2	2.26	0.70
1:C:27:GLN:CB	1:D:1:THR:HG23	2.19	0.70
1:C:78:THR:O	1:C:79:LEU:HD23	1.90	0.70
1:B:11:GLU:HG2	1:B:15:ARG:HD2	1.73	0.70
1:C:148:TYR:CD1	1:D:78:THR:HG21	2.26	0.70
1:D:118:PRO:HG2	1:D:120:TYR:HE1	1.56	0.70
1:A:20:ASN:OD1	1:B:10:LYS:HE3	1.90	0.70
1:B:118:PRO:HG2	1:B:120:TYR:HE1	1.56	0.70
1:C:15:ARG:HD3	1:C:67:TRP:CZ2	2.26	0.70
1:D:77:LEU:CD2	1:D:79:LEU:HD21	2.21	0.70
1:D:148:TYR:CD1	1:E:78:THR:HG21	2.26	0.70
1:B:12:ILE:HG13	1:B:13:LEU:N	2.06	0.70
1:B:77:LEU:CD2	1:B:79:LEU:HD21	2.21	0.70
1:A:58:ILE:CG2	1:A:60:TRP:HZ3	2.04	0.70
1:C:12:ILE:HG13	1:C:13:LEU:N	2.06	0.70
1:E:101:HIS:HB3	1:E:119:GLN:HE21	1.56	0.70
1:D:15:ARG:HD3	1:D:67:TRP:CZ2	2.26	0.70
1:D:12:ILE:HG13	1:D:13:LEU:N	2.06	0.70
1:C:58:ILE:CG2	1:C:60:TRP:HZ3	2.04	0.70
1:A:118:PRO:HG2	1:A:120:TYR:HE1	1.56	0.70
1:A:148:TYR:CD1	1:B:78:THR:HG21	2.26	0.70
1:A:78:THR:HG21	1:E:148:TYR:CD1	2.26	0.70
1:A:101:HIS:HB2	1:A:119:GLN:HB2	1.74	0.70
1:C:21:ILE:CB	1:D:5:ARG:HH21	1.98	0.70
1:C:101:HIS:HB2	1:C:119:GLN:CB	2.22	0.70
1:A:101:HIS:HB3	1:A:119:GLN:HE21	1.56	0.70
1:D:58:ILE:CG2	1:D:60:TRP:HZ3	2.04	0.70
1:B:87:PRO:HB2	1:B:89:ILE:CD1	2.22	0.70
1:A:15:ARG:HD3	1:A:67:TRP:CZ2	2.26	0.70
1:C:87:PRO:HB2	1:C:89:ILE:CD1	2.22	0.69
1:A:101:HIS:HB2	1:A:119:GLN:CB	2.22	0.69
1:B:101:HIS:HB2	1:B:119:GLN:CB	2.22	0.69
1:D:11:GLU:O	1:D:15:ARG:HG2	1.92	0.69
1:E:58:ILE:CG2	1:E:60:TRP:HZ3	2.04	0.69
1:A:27:GLN:CB	1:B:1:THR:HG23	2.19	0.69
1:B:23:ILE:H	1:C:1:THR:H2	1.39	0.69
1:E:89:ILE:HD12	1:E:89:ILE:H	1.58	0.69
1:D:101:HIS:HB2	1:D:119:GLN:CB	2.22	0.69
1:A:87:PRO:HB2	1:A:89:ILE:CD1	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:101:HIS:HB3	1:D:119:GLN:HE21	1.56	0.69
1:A:3:LYS:CA	1:E:24:VAL:CA	2.71	0.69
1:A:24:VAL:CA	1:B:3:LYS:CA	2.71	0.69
1:E:77:LEU:CD2	1:E:79:LEU:HD21	2.21	0.69
1:B:21:ILE:HD13	1:C:5:ARG:NH2	2.08	0.69
1:B:101:HIS:HB3	1:B:119:GLN:HE21	1.56	0.69
1:C:101:HIS:HB2	1:C:119:GLN:HB2	1.74	0.69
1:C:118:PRO:HG2	1:C:120:TYR:HE1	1.56	0.69
1:E:11:GLU:O	1:E:15:ARG:HG2	1.92	0.69
1:C:11:GLU:O	1:C:15:ARG:HG2	1.92	0.69
1:E:35:TYR:H	1:E:179:GLN:HE22	1.41	0.69
1:C:21:ILE:HD13	1:D:5:ARG:NH2	2.08	0.69
1:D:101:HIS:HB2	1:D:119:GLN:HB2	1.74	0.69
1:B:20:ASN:OD1	1:C:10:LYS:HE3	1.90	0.69
1:D:35:TYR:H	1:D:179:GLN:HE22	1.41	0.69
1:D:21:ILE:HG22	1:E:1:THR:H2	1.58	0.68
1:A:102:SER:CB	1:E:146:TRP:CZ3	2.66	0.68
1:C:11:GLU:HG2	1:C:15:ARG:HD2	1.73	0.68
1:A:21:ILE:HG22	1:B:1:THR:H2	1.57	0.68
1:E:87:PRO:HB2	1:E:89:ILE:CD1	2.22	0.68
1:C:24:VAL:CA	1:D:3:LYS:CA	2.71	0.68
1:A:105:LEU:HD11	1:E:88:HIS:CD2	2.28	0.68
1:C:101:HIS:HB3	1:C:119:GLN:HE21	1.56	0.68
1:A:89:ILE:H	1:A:89:ILE:HD12	1.58	0.68
1:E:101:HIS:HB2	1:E:119:GLN:CB	2.22	0.68
1:B:11:GLU:O	1:B:15:ARG:HG2	1.92	0.68
1:A:35:TYR:H	1:A:179:GLN:HE22	1.41	0.68
1:A:88:HIS:CD2	1:B:105:LEU:HD11	2.29	0.68
1:A:12:ILE:O	1:A:16:ALA:HB3	1.93	0.68
1:B:88:HIS:CD2	1:C:105:LEU:HD11	2.28	0.68
1:C:77:LEU:CD2	1:C:79:LEU:HD21	2.21	0.68
1:A:11:GLU:HG2	1:A:15:ARG:HD2	1.73	0.68
1:C:88:HIS:CD2	1:D:105:LEU:HD11	2.29	0.68
1:E:12:ILE:O	1:E:16:ALA:HB3	1.93	0.68
1:D:21:ILE:HD13	1:E:5:ARG:NH2	2.08	0.68
1:C:9:VAL:HG12	1:C:13:LEU:HD12	1.76	0.68
1:E:101:HIS:HB2	1:E:119:GLN:HB2	1.74	0.68
1:A:11:GLU:O	1:A:15:ARG:HG2	1.92	0.68
1:D:33:PHE:CE1	1:D:56:LEU:HD22	2.29	0.68
1:D:9:VAL:HG12	1:D:13:LEU:HD12	1.75	0.68
1:B:24:VAL:CA	1:C:3:LYS:CA	2.71	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:161:VAL:HG22	1:A:179:GLN:HG3	1.76	0.68
1:D:27:GLN:N	1:E:1:THR:CG2	2.39	0.68
1:B:33:PHE:CE1	1:B:56:LEU:HD22	2.29	0.68
1:C:89:ILE:H	1:C:89:ILE:HD12	1.58	0.68
1:D:116:PHE:CE2	1:D:118:PRO:HD3	2.29	0.68
1:B:13:LEU:HD21	1:B:79:LEU:CD1	2.24	0.68
1:A:148:TYR:CE1	1:B:78:THR:CG2	2.77	0.68
1:D:12:ILE:O	1:D:16:ALA:HB3	1.93	0.68
1:D:87:PRO:HB2	1:D:89:ILE:CD1	2.22	0.68
1:A:33:PHE:CE1	1:A:56:LEU:HD22	2.29	0.68
1:A:9:VAL:HG12	1:A:13:LEU:HD12	1.75	0.68
1:B:101:HIS:CB	1:B:119:GLN:HE21	2.07	0.68
1:B:101:HIS:HB2	1:B:119:GLN:HB2	1.74	0.68
1:B:116:PHE:CE2	1:B:118:PRO:HD3	2.29	0.68
1:E:11:GLU:HG2	1:E:15:ARG:HD2	1.73	0.68
1:E:116:PHE:CE2	1:E:118:PRO:HD3	2.29	0.67
1:C:33:PHE:CE1	1:C:56:LEU:HD22	2.29	0.67
1:B:89:ILE:H	1:B:89:ILE:HD12	1.58	0.67
1:C:116:PHE:CE2	1:C:118:PRO:HD3	2.29	0.67
1:E:33:PHE:CE1	1:E:56:LEU:HD22	2.29	0.67
1:C:12:ILE:O	1:C:16:ALA:HB3	1.93	0.67
1:B:21:ILE:CD1	1:C:5:ARG:NH2	2.51	0.67
1:B:148:TYR:CE1	1:C:78:THR:CG2	2.77	0.67
1:A:116:PHE:CE2	1:A:118:PRO:HD3	2.29	0.67
1:B:12:ILE:O	1:B:16:ALA:HB3	1.93	0.67
1:A:78:THR:CG2	1:E:148:TYR:CE1	2.77	0.67
1:D:148:TYR:CE1	1:E:78:THR:CG2	2.77	0.67
1:C:13:LEU:HD21	1:C:79:LEU:CD1	2.24	0.67
1:C:35:TYR:H	1:C:179:GLN:HE22	1.41	0.67
1:D:89:ILE:HD12	1:D:89:ILE:H	1.58	0.67
1:A:5:ARG:NH1	1:E:21:ILE:HD13	2.10	0.67
1:B:35:TYR:H	1:B:179:GLN:HE22	1.41	0.67
1:C:25:ASP:O	1:D:2:LYS:HA	1.95	0.67
1:D:88:HIS:CD2	1:E:105:LEU:HD11	2.28	0.67
1:C:58:ILE:HG23	1:C:60:TRP:CZ3	2.30	0.67
1:E:161:VAL:HG22	1:E:179:GLN:HG3	1.76	0.67
1:E:9:VAL:HG12	1:E:13:LEU:HD12	1.75	0.67
1:D:21:ILE:HD13	1:E:5:ARG:NH1	2.10	0.67
1:B:25:ASP:O	1:C:2:LYS:HA	1.95	0.67
1:A:116:PHE:CD2	1:A:118:PRO:HD3	2.30	0.67
1:D:31:VAL:HG23	1:D:153:LEU:CD1	2.21	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:21:ILE:HD13	1:B:5:ARG:NH1	2.10	0.67
1:B:9:VAL:HG12	1:B:13:LEU:HD12	1.75	0.67
1:A:77:LEU:HG	1:A:78:THR:N	2.09	0.67
1:D:24:VAL:CA	1:E:3:LYS:CA	2.71	0.67
1:D:25:ASP:O	1:E:2:LYS:HA	1.95	0.67
1:C:77:LEU:HG	1:C:78:THR:N	2.10	0.67
1:B:161:VAL:HG22	1:B:179:GLN:HG3	1.76	0.67
1:E:116:PHE:CD2	1:E:118:PRO:HD3	2.30	0.67
1:C:161:VAL:HG22	1:C:179:GLN:HG3	1.76	0.67
1:C:21:ILE:HD13	1:D:5:ARG:NH1	2.10	0.67
1:C:166:TYR:OH	1:C:170:GLU:HG2	1.95	0.67
1:B:166:TYR:OH	1:B:170:GLU:HG2	1.95	0.67
1:A:2:LYS:HA	1:E:25:ASP:O	1.95	0.67
1:D:26:GLU:HG3	1:E:2:LYS:CD	2.21	0.67
1:A:101:HIS:CB	1:A:119:GLN:HE21	2.07	0.67
1:C:148:TYR:CE1	1:D:78:THR:CG2	2.77	0.66
1:A:5:ARG:NH2	1:E:21:ILE:HD13	2.08	0.66
1:B:27:GLN:CB	1:C:1:THR:HG23	2.19	0.66
1:A:1:THR:H2	1:E:21:ILE:HG22	1.55	0.66
1:C:116:PHE:CD2	1:C:118:PRO:HD3	2.30	0.66
1:E:31:VAL:HG23	1:E:153:LEU:CD1	2.21	0.66
1:E:58:ILE:HG23	1:E:60:TRP:CZ3	2.29	0.66
1:B:33:PHE:CZ	1:B:56:LEU:HB3	2.31	0.66
1:B:116:PHE:CD2	1:B:118:PRO:HD3	2.30	0.66
1:D:161:VAL:HG22	1:D:179:GLN:HG3	1.76	0.66
1:A:25:ASP:O	1:B:2:LYS:HA	1.95	0.66
1:E:101:HIS:CB	1:E:119:GLN:HE21	2.07	0.66
1:C:31:VAL:HG23	1:C:153:LEU:CD1	2.21	0.66
1:D:116:PHE:CD2	1:D:118:PRO:HD3	2.30	0.66
1:B:77:LEU:HG	1:B:78:THR:N	2.09	0.66
1:D:147:THR:CB	1:E:78:THR:OG1	2.44	0.66
1:C:33:PHE:CZ	1:C:56:LEU:HB3	2.31	0.66
1:D:58:ILE:HG23	1:D:60:TRP:CZ3	2.30	0.66
1:B:21:ILE:HD13	1:C:5:ARG:NH1	2.09	0.66
1:A:166:TYR:OH	1:A:170:GLU:HG2	1.95	0.66
1:A:58:ILE:HG23	1:A:60:TRP:CZ3	2.30	0.66
1:D:166:TYR:OH	1:D:170:GLU:HG2	1.95	0.66
1:A:1:THR:HG23	1:E:27:GLN:CB	2.19	0.66
1:D:13:LEU:HD21	1:D:79:LEU:CD1	2.24	0.66
1:E:13:LEU:HD21	1:E:79:LEU:CD1	2.24	0.66
1:D:101:HIS:CB	1:D:119:GLN:HE21	2.07	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:77:LEU:HG	1:E:78:THR:N	2.09	0.66
1:C:25:ASP:N	1:D:1:THR:O	2.29	0.65
1:C:147:THR:CB	1:D:78:THR:OG1	2.44	0.65
1:B:179:GLN:HG2	1:B:198:LEU:HD23	1.78	0.65
1:C:179:GLN:HG2	1:C:198:LEU:HD23	1.78	0.65
1:A:13:LEU:HD21	1:A:79:LEU:CD1	2.24	0.65
1:A:33:PHE:HE1	1:A:56:LEU:HD22	1.62	0.65
1:E:33:PHE:CZ	1:E:56:LEU:HB3	2.31	0.65
1:A:25:ASP:N	1:B:1:THR:O	2.29	0.65
1:D:77:LEU:HG	1:D:78:THR:N	2.09	0.65
1:D:33:PHE:CZ	1:D:56:LEU:HB3	2.31	0.65
1:A:21:ILE:HD13	1:B:5:ARG:NH2	2.08	0.65
1:C:101:HIS:CB	1:C:119:GLN:HE21	2.07	0.65
1:B:175:ILE:HD11	1:B:201:THR:OG1	1.96	0.65
1:B:45:VAL:HA	1:B:128:LEU:HD22	1.79	0.65
1:E:179:GLN:HG2	1:E:198:LEU:HD23	1.78	0.65
1:E:58:ILE:HD11	1:E:87:PRO:HG2	1.78	0.65
1:E:33:PHE:HE1	1:E:56:LEU:HD22	1.62	0.65
1:A:175:ILE:HD11	1:A:201:THR:OG1	1.96	0.65
1:D:175:ILE:HD11	1:D:201:THR:OG1	1.96	0.65
1:A:196:ILE:HD12	1:A:196:ILE:O	1.97	0.65
1:A:2:LYS:CD	1:E:26:GLU:HG3	2.21	0.65
1:A:146:TRP:CZ3	1:B:102:SER:CB	2.66	0.65
1:C:175:ILE:HD11	1:C:201:THR:OG1	1.96	0.65
1:D:45:VAL:HA	1:D:128:LEU:HD22	1.79	0.65
1:A:33:PHE:CZ	1:A:56:LEU:HB3	2.31	0.65
1:B:26:GLU:HG3	1:C:2:LYS:CD	2.21	0.65
1:B:58:ILE:HG23	1:B:60:TRP:CZ3	2.30	0.65
1:D:33:PHE:HE1	1:D:56:LEU:HD22	1.61	0.65
1:D:25:ASP:N	1:E:1:THR:O	2.29	0.65
1:B:25:ASP:N	1:C:1:THR:O	2.29	0.65
1:A:78:THR:OG1	1:E:147:THR:CB	2.44	0.65
1:D:34:LYS:HE2	1:D:158:SER:N	2.12	0.65
1:A:1:THR:O	1:E:25:ASP:N	2.29	0.64
1:E:166:TYR:OH	1:E:170:GLU:HG2	1.95	0.64
1:E:175:ILE:HD11	1:E:201:THR:OG1	1.97	0.64
1:C:58:ILE:HD11	1:C:87:PRO:HG2	1.78	0.64
1:A:58:ILE:HD11	1:A:87:PRO:HG2	1.78	0.64
1:D:196:ILE:O	1:D:196:ILE:HD12	1.97	0.64
1:C:90:GLU:HG3	1:D:103:ASP:CG	2.18	0.64
1:D:90:GLU:HG3	1:E:103:ASP:OD2	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:33:PHE:HE1	1:B:56:LEU:HD22	1.62	0.64
1:A:45:VAL:HA	1:A:128:LEU:HD22	1.79	0.64
1:C:90:GLU:HG3	1:D:103:ASP:OD2	1.97	0.64
1:C:21:ILE:O	1:D:6:GLU:OE2	2.16	0.64
1:C:45:VAL:HA	1:C:128:LEU:HD22	1.79	0.64
1:A:33:PHE:CZ	1:A:56:LEU:HD13	2.29	0.64
1:D:179:GLN:HG2	1:D:198:LEU:HD23	1.78	0.64
1:E:196:ILE:HD12	1:E:196:ILE:O	1.97	0.64
1:A:26:GLU:HG3	1:B:2:LYS:CD	2.21	0.64
1:C:26:GLU:HG3	1:D:2:LYS:CD	2.20	0.64
1:B:196:ILE:O	1:B:196:ILE:HD12	1.97	0.64
1:C:196:ILE:O	1:C:196:ILE:HD12	1.97	0.64
1:D:58:ILE:HD11	1:D:87:PRO:HG2	1.78	0.64
1:A:6:GLU:OE2	1:E:21:ILE:O	2.16	0.64
1:A:34:LYS:HE2	1:A:158:SER:N	2.12	0.64
1:B:31:VAL:HG23	1:B:153:LEU:CD1	2.21	0.64
1:A:179:GLN:HG2	1:A:198:LEU:HD23	1.78	0.64
1:E:33:PHE:O	1:E:157:GLU:HG2	1.98	0.64
1:B:34:LYS:HE2	1:B:158:SER:CB	2.28	0.64
1:A:24:VAL:HG22	1:B:3:LYS:HA	1.80	0.64
1:B:74:PHE:HE2	1:B:77:LEU:HA	1.63	0.64
1:B:35:TYR:CZ	1:B:196:ILE:HD11	2.33	0.64
1:C:34:LYS:HE2	1:C:158:SER:N	2.12	0.64
1:C:33:PHE:HE1	1:C:56:LEU:HD22	1.62	0.64
1:C:95:ILE:HG23	1:C:123:ARG:HG3	1.80	0.64
1:B:58:ILE:HD13	1:B:87:PRO:HG2	1.80	0.64
1:D:35:TYR:CZ	1:D:196:ILE:HD11	2.33	0.64
1:C:24:VAL:HG22	1:D:3:LYS:HA	1.80	0.63
1:C:23:ILE:H	1:D:1:THR:H2	1.43	0.63
1:B:33:PHE:O	1:B:157:GLU:HG2	1.98	0.63
1:E:34:LYS:HE2	1:E:158:SER:CB	2.28	0.63
1:A:33:PHE:O	1:A:157:GLU:HG2	1.98	0.63
1:B:21:ILE:O	1:C:6:GLU:OE2	2.16	0.63
1:E:35:TYR:CZ	1:E:196:ILE:HD11	2.33	0.63
1:B:90:GLU:HG3	1:C:103:ASP:OD2	1.97	0.63
1:B:24:VAL:HG22	1:C:3:LYS:HA	1.80	0.63
1:A:34:LYS:HE2	1:A:158:SER:CB	2.28	0.63
1:D:95:ILE:HG23	1:D:123:ARG:HG3	1.80	0.63
1:D:34:LYS:HE2	1:D:158:SER:CB	2.28	0.63
1:C:20:ASN:CB	1:D:10:LYS:NZ	2.61	0.63
1:A:21:ILE:O	1:B:6:GLU:OE2	2.16	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:103:ASP:CG	1:E:90:GLU:HG3	2.18	0.63
1:B:90:GLU:HG3	1:C:103:ASP:CG	2.18	0.63
1:C:17:ASN:OD1	1:C:18:PRO:HD2	1.99	0.63
1:E:34:LYS:HE2	1:E:158:SER:N	2.12	0.63
1:C:33:PHE:CZ	1:C:56:LEU:HD13	2.29	0.63
1:A:3:LYS:HA	1:E:24:VAL:HG22	1.80	0.63
1:D:90:GLU:HG3	1:E:103:ASP:CG	2.18	0.63
1:A:58:ILE:HD13	1:A:87:PRO:HG2	1.80	0.63
1:E:45:VAL:HA	1:E:128:LEU:HD22	1.79	0.63
1:A:90:GLU:HG3	1:B:103:ASP:OD2	1.97	0.63
1:A:17:ASN:OD1	1:A:18:PRO:HD2	1.99	0.63
1:C:33:PHE:O	1:C:157:GLU:HG2	1.98	0.63
1:C:35:TYR:CZ	1:C:196:ILE:HD11	2.33	0.63
1:D:33:PHE:O	1:D:157:GLU:HG2	1.98	0.63
1:A:103:ASP:OD2	1:E:90:GLU:HG3	1.97	0.63
1:B:147:THR:CB	1:C:78:THR:OG1	2.44	0.63
1:B:58:ILE:HD11	1:B:87:PRO:HG2	1.78	0.63
1:A:35:TYR:CZ	1:A:196:ILE:HD11	2.33	0.63
1:D:17:ASN:OD1	1:D:18:PRO:HD2	1.99	0.63
1:D:21:ILE:O	1:E:6:GLU:OE2	2.16	0.62
1:D:88:HIS:CG	1:E:105:LEU:CD1	2.73	0.62
1:A:31:VAL:HG23	1:A:153:LEU:CD1	2.21	0.62
1:A:95:ILE:HG23	1:A:123:ARG:HG3	1.80	0.62
1:A:141:LEU:HD23	1:A:141:LEU:H	1.64	0.62
1:D:24:VAL:HG22	1:E:3:LYS:HA	1.80	0.62
1:A:90:GLU:HG3	1:B:103:ASP:CG	2.18	0.62
1:D:58:ILE:HD13	1:D:87:PRO:HG2	1.80	0.62
1:B:141:LEU:H	1:B:141:LEU:HD23	1.64	0.62
1:B:198:LEU:HD11	1:B:200:VAL:CG1	2.27	0.62
1:C:34:LYS:HE2	1:C:158:SER:CB	2.28	0.62
1:E:95:ILE:HG23	1:E:123:ARG:HG3	1.80	0.62
1:E:150:VAL:HG23	1:E:192:SER:C	2.20	0.62
1:E:141:LEU:H	1:E:141:LEU:HD23	1.64	0.62
1:A:147:THR:CB	1:B:78:THR:OG1	2.44	0.62
1:C:58:ILE:HD13	1:C:87:PRO:HG2	1.80	0.62
1:A:20:ASN:CB	1:B:10:LYS:NZ	2.61	0.62
1:E:17:ASN:OD1	1:E:18:PRO:HD2	1.99	0.62
1:B:95:ILE:HG23	1:B:123:ARG:HG3	1.80	0.62
1:B:34:LYS:HE2	1:B:158:SER:N	2.12	0.62
1:B:17:ASN:OD1	1:B:18:PRO:HD2	1.99	0.62
1:B:150:VAL:HG23	1:B:192:SER:C	2.20	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:10:LYS:NZ	1:E:20:ASN:CB	2.61	0.62
1:C:150:VAL:HG23	1:C:192:SER:C	2.20	0.62
1:E:58:ILE:HD13	1:E:87:PRO:HG2	1.80	0.62
1:C:141:LEU:H	1:C:141:LEU:HD23	1.65	0.62
1:D:20:ASN:CB	1:E:10:LYS:NZ	2.61	0.62
1:A:198:LEU:HD11	1:A:200:VAL:CG1	2.27	0.62
1:E:35:TYR:HB2	1:E:179:GLN:NE2	2.15	0.62
1:A:88:HIS:CG	1:B:105:LEU:CD1	2.74	0.62
1:A:105:LEU:CD1	1:E:147:THR:CB	2.75	0.62
1:A:150:VAL:HG23	1:A:192:SER:C	2.20	0.62
1:C:35:TYR:HB2	1:C:179:GLN:NE2	2.15	0.61
1:A:35:TYR:HB2	1:A:179:GLN:NE2	2.15	0.61
1:C:24:VAL:HA	1:D:3:LYS:HA	1.82	0.61
1:D:141:LEU:HD23	1:D:141:LEU:H	1.64	0.61
1:B:2:LYS:O	1:B:6:GLU:HG3	2.00	0.61
1:B:33:PHE:CZ	1:B:56:LEU:HD13	2.30	0.61
1:E:104:GLN:HG2	1:E:104:GLN:O	2.01	0.61
1:A:88:HIS:CG	1:B:105:LEU:HD21	2.36	0.61
1:D:104:GLN:HG2	1:D:104:GLN:O	2.01	0.61
1:B:20:ASN:CB	1:C:10:LYS:NZ	2.61	0.61
1:D:35:TYR:HB2	1:D:179:GLN:NE2	2.15	0.61
1:C:2:LYS:O	1:C:6:GLU:HG3	2.01	0.61
1:C:198:LEU:HD11	1:C:200:VAL:CG1	2.27	0.61
1:D:141:LEU:HD23	1:D:198:LEU:O	2.00	0.61
1:A:2:LYS:O	1:A:6:GLU:HG3	2.00	0.61
1:B:88:HIS:CG	1:C:105:LEU:HD21	2.36	0.61
1:B:87:PRO:HB2	1:B:89:ILE:HD13	1.83	0.61
1:E:141:LEU:HD23	1:E:198:LEU:O	2.01	0.61
1:C:181:VAL:HG22	1:C:196:ILE:HG22	1.84	0.60
1:D:33:PHE:CZ	1:D:56:LEU:HD13	2.30	0.60
1:A:104:GLN:HG2	1:A:104:GLN:O	2.01	0.60
1:A:105:LEU:HD21	1:E:88:HIS:CG	2.36	0.60
1:E:2:LYS:O	1:E:6:GLU:HG3	2.00	0.60
1:B:35:TYR:HB2	1:B:179:GLN:NE2	2.15	0.60
1:D:87:PRO:HB2	1:D:89:ILE:HD13	1.83	0.60
1:D:150:VAL:HG23	1:D:192:SER:C	2.20	0.60
1:A:1:THR:H2	1:E:23:ILE:N	1.89	0.60
1:A:2:LYS:CA	1:E:24:VAL:C	2.68	0.60
1:D:23:ILE:N	1:E:1:THR:N	2.49	0.60
1:E:74:PHE:HE2	1:E:77:LEU:HA	1.63	0.60
1:B:181:VAL:HG22	1:B:196:ILE:HG22	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:141:LEU:HD23	1:A:198:LEU:O	2.00	0.60
1:B:104:GLN:O	1:B:104:GLN:HG2	2.01	0.60
1:C:104:GLN:HG2	1:C:104:GLN:O	2.01	0.60
1:A:24:VAL:HA	1:B:3:LYS:HA	1.82	0.60
1:B:88:HIS:CG	1:C:105:LEU:CD1	2.74	0.60
1:A:181:VAL:HG22	1:A:196:ILE:HG22	1.83	0.60
1:A:103:ASP:OD2	1:E:88:HIS:C	2.39	0.60
1:C:141:LEU:HD23	1:C:198:LEU:O	2.01	0.60
1:A:88:HIS:C	1:B:103:ASP:OD2	2.39	0.60
1:C:147:THR:CB	1:D:105:LEU:CD1	2.75	0.60
1:D:74:PHE:HE2	1:D:77:LEU:HA	1.63	0.60
1:C:88:HIS:CG	1:D:105:LEU:HD21	2.36	0.60
1:A:1:THR:N	1:E:23:ILE:N	2.49	0.60
1:E:88:HIS:HD2	1:E:148:TYR:HE2	1.50	0.60
1:A:3:LYS:HA	1:E:24:VAL:HA	1.82	0.60
1:D:88:HIS:CG	1:E:105:LEU:HD21	2.36	0.60
1:B:141:LEU:HD23	1:B:198:LEU:O	2.01	0.60
1:E:87:PRO:HB2	1:E:89:ILE:HD13	1.83	0.60
1:A:23:ILE:N	1:B:1:THR:N	2.49	0.60
1:A:74:PHE:HE2	1:A:77:LEU:HA	1.63	0.60
1:D:88:HIS:C	1:E:103:ASP:OD2	2.39	0.60
1:A:87:PRO:HB2	1:A:89:ILE:HD13	1.83	0.60
1:A:48:ASP:OD2	1:B:171:ARG:NH2	2.35	0.60
1:D:181:VAL:HG22	1:D:196:ILE:HG22	1.83	0.60
1:D:52:LEU:CD1	1:D:124:PHE:HE2	2.15	0.60
1:D:2:LYS:O	1:D:6:GLU:HG3	2.01	0.60
1:C:87:PRO:HB2	1:C:89:ILE:HD13	1.83	0.60
1:E:198:LEU:HD11	1:E:200:VAL:CG1	2.27	0.60
1:C:52:LEU:CD1	1:C:124:PHE:HE2	2.15	0.60
1:C:48:ASP:OD2	1:D:171:ARG:NH2	2.35	0.59
1:E:181:VAL:HG22	1:E:196:ILE:HG22	1.83	0.59
1:B:48:ASP:OD2	1:C:171:ARG:NH2	2.35	0.59
1:D:48:ASP:OD2	1:E:171:ARG:NH2	2.35	0.59
1:C:15:ARG:HD3	1:C:67:TRP:CE3	2.37	0.59
1:E:52:LEU:CD1	1:E:124:PHE:HE2	2.15	0.59
1:D:88:HIS:HD2	1:D:148:TYR:HE2	1.50	0.59
1:D:149:ASP:HA	1:D:193:PHE:CD2	2.38	0.59
1:D:161:VAL:HG11	1:D:177:ALA:CB	2.33	0.59
1:B:15:ARG:HD3	1:B:67:TRP:CE3	2.37	0.59
1:C:88:HIS:CG	1:D:105:LEU:CD1	2.74	0.59
1:B:149:ASP:HA	1:B:193:PHE:CD2	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:161:VAL:HG11	1:E:177:ALA:CB	2.33	0.59
1:B:81:SER:O	1:B:86:LEU:HD21	2.03	0.59
1:A:88:HIS:HD2	1:A:148:TYR:HE2	1.50	0.59
1:C:24:VAL:C	1:D:2:LYS:CA	2.68	0.59
1:A:171:ARG:NH2	1:E:48:ASP:OD2	2.35	0.59
1:E:81:SER:O	1:E:86:LEU:HD21	2.03	0.59
1:D:24:VAL:HA	1:E:3:LYS:HA	1.82	0.59
1:B:73:THR:HG23	1:B:74:PHE:N	2.18	0.59
1:C:23:ILE:N	1:D:1:THR:N	2.49	0.59
1:C:74:PHE:HE2	1:C:77:LEU:HA	1.63	0.59
1:E:15:ARG:HD3	1:E:67:TRP:CE3	2.37	0.59
1:A:161:VAL:HG11	1:A:177:ALA:CB	2.33	0.59
1:B:52:LEU:CD1	1:B:124:PHE:HE2	2.15	0.59
1:C:149:ASP:HA	1:C:193:PHE:CD2	2.38	0.59
1:B:88:HIS:C	1:C:103:ASP:OD2	2.39	0.59
1:B:24:VAL:HA	1:C:3:LYS:HA	1.82	0.59
1:C:88:HIS:C	1:D:103:ASP:OD2	2.39	0.59
1:A:95:ILE:HG23	1:A:123:ARG:CG	2.33	0.59
1:D:95:ILE:HG23	1:D:123:ARG:CG	2.33	0.59
1:E:35:TYR:CE2	1:E:56:LEU:HD22	2.38	0.59
1:A:73:THR:HG23	1:A:74:PHE:N	2.18	0.58
1:E:149:ASP:HA	1:E:193:PHE:CD2	2.38	0.58
1:B:88:HIS:HD2	1:B:148:TYR:HE2	1.50	0.58
1:B:161:VAL:HG11	1:B:177:ALA:HB1	1.85	0.58
1:D:15:ARG:HD3	1:D:67:TRP:CE3	2.37	0.58
1:A:163:LEU:HD21	1:A:177:ALA:HB3	1.85	0.58
1:E:161:VAL:HG11	1:E:177:ALA:HB1	1.85	0.58
1:D:81:SER:O	1:D:86:LEU:HD21	2.03	0.58
1:A:81:SER:O	1:A:86:LEU:HD21	2.03	0.58
1:B:95:ILE:HG23	1:B:123:ARG:CG	2.33	0.58
1:C:95:ILE:O	1:D:121:THR:HG21	2.03	0.58
1:D:198:LEU:HD11	1:D:200:VAL:CG1	2.27	0.58
1:A:28:PRO:HB3	1:A:151:ARG:O	2.03	0.58
1:C:88:HIS:HD2	1:C:148:TYR:HE2	1.49	0.58
1:C:161:VAL:HG11	1:C:177:ALA:CB	2.33	0.58
1:C:163:LEU:HD21	1:C:177:ALA:HB3	1.85	0.58
1:D:35:TYR:CE2	1:D:56:LEU:HD22	2.38	0.58
1:E:163:LEU:HD21	1:E:177:ALA:HB3	1.85	0.58
1:C:81:SER:O	1:C:86:LEU:HD21	2.03	0.58
1:D:28:PRO:HB3	1:D:151:ARG:O	2.03	0.58
1:B:35:TYR:CE2	1:B:56:LEU:HD22	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:95:ILE:HG23	1:C:123:ARG:CG	2.33	0.58
1:B:118:PRO:HG2	1:B:120:TYR:CE1	2.39	0.58
1:A:35:TYR:CE2	1:A:56:LEU:HD22	2.38	0.58
1:A:149:ASP:HA	1:A:193:PHE:CD2	2.38	0.58
1:B:163:LEU:HD21	1:B:177:ALA:HB3	1.85	0.58
1:A:15:ARG:HD3	1:A:67:TRP:CE3	2.37	0.58
1:E:163:LEU:CD2	1:E:174:LEU:HD22	2.34	0.58
1:A:147:THR:CB	1:B:105:LEU:CD1	2.75	0.58
1:A:52:LEU:CD1	1:A:124:PHE:HE2	2.15	0.58
1:A:24:VAL:C	1:B:2:LYS:CA	2.68	0.58
1:B:161:VAL:HG11	1:B:177:ALA:CB	2.33	0.58
1:E:118:PRO:HG2	1:E:120:TYR:CE1	2.39	0.58
1:E:45:VAL:HG13	1:E:46:GLY:N	2.19	0.58
1:A:161:VAL:HG11	1:A:177:ALA:HB1	1.85	0.58
1:C:73:THR:HG23	1:C:74:PHE:N	2.18	0.58
1:C:117:VAL:O	1:C:117:VAL:HG23	2.04	0.58
1:D:117:VAL:O	1:D:117:VAL:HG23	2.03	0.58
1:A:117:VAL:O	1:A:117:VAL:HG23	2.04	0.58
1:A:121:THR:HG21	1:E:95:ILE:O	2.03	0.58
1:A:146:TRP:CE2	1:B:102:SER:CB	2.87	0.58
1:D:95:ILE:O	1:E:121:THR:HG21	2.03	0.58
1:E:95:ILE:HG23	1:E:123:ARG:CG	2.33	0.58
1:C:161:VAL:HG11	1:C:177:ALA:HB1	1.85	0.58
1:B:28:PRO:HB3	1:B:151:ARG:O	2.03	0.57
1:B:95:ILE:O	1:C:121:THR:HG21	2.03	0.57
1:A:95:ILE:O	1:B:121:THR:HG21	2.03	0.57
1:C:45:VAL:HG13	1:C:46:GLY:N	2.19	0.57
1:A:35:TYR:HD1	1:A:179:GLN:CD	2.07	0.57
1:D:161:VAL:HG11	1:D:177:ALA:HB1	1.85	0.57
1:D:35:TYR:HD1	1:D:179:GLN:CD	2.07	0.57
1:C:52:LEU:HD11	1:C:124:PHE:HE2	1.69	0.57
1:A:39:ASP:HB2	1:A:170:GLU:CD	2.24	0.57
1:C:35:TYR:CE2	1:C:56:LEU:HD22	2.38	0.57
1:E:28:PRO:HB3	1:E:151:ARG:O	2.03	0.57
1:B:24:VAL:C	1:C:2:LYS:CA	2.68	0.57
1:B:146:TRP:CE2	1:C:102:SER:CB	2.87	0.57
1:D:118:PRO:HG2	1:D:120:TYR:CE1	2.39	0.57
1:D:39:ASP:HB2	1:D:170:GLU:CD	2.24	0.57
1:B:52:LEU:HD11	1:B:124:PHE:HE2	1.69	0.57
1:C:21:ILE:HD12	1:C:21:ILE:N	2.20	0.57
1:E:73:THR:HG23	1:E:74:PHE:N	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:23:ILE:N	1:C:1:THR:N	2.49	0.57
1:A:102:SER:CB	1:E:146:TRP:CE2	2.87	0.57
1:C:146:TRP:CE2	1:D:102:SER:CB	2.87	0.57
1:B:35:TYR:HD1	1:B:179:GLN:CD	2.07	0.57
1:E:39:ASP:HB2	1:E:170:GLU:CD	2.24	0.57
1:C:35:TYR:HD1	1:C:179:GLN:CD	2.07	0.57
1:D:22:PRO:C	1:E:6:GLU:OE2	2.43	0.57
1:C:74:PHE:HE2	1:C:77:LEU:CD1	2.17	0.57
1:B:47:THR:HG21	1:B:49:GLN:CD	2.25	0.57
1:B:34:LYS:HD2	1:B:159:GLN:OE1	2.05	0.57
1:E:34:LYS:HD2	1:E:159:GLN:OE1	2.05	0.57
1:E:33:PHE:CZ	1:E:56:LEU:HD13	2.30	0.57
1:D:52:LEU:HD11	1:D:124:PHE:HE2	1.69	0.57
1:C:28:PRO:HB3	1:C:151:ARG:O	2.03	0.57
1:D:73:THR:HG23	1:D:74:PHE:N	2.18	0.57
1:E:47:THR:HG21	1:E:49:GLN:CD	2.25	0.57
1:B:117:VAL:O	1:B:117:VAL:HG23	2.04	0.57
1:B:39:ASP:HB2	1:B:170:GLU:CD	2.24	0.57
1:A:21:ILE:HD12	1:A:21:ILE:N	2.20	0.57
1:A:23:ILE:N	1:B:1:THR:H2	1.87	0.57
1:C:21:ILE:CD1	1:D:5:ARG:NH2	2.51	0.57
1:D:5:ARG:HH11	1:D:77:LEU:CD1	2.18	0.57
1:E:5:ARG:HH11	1:E:77:LEU:CD1	2.18	0.57
1:B:21:ILE:N	1:B:21:ILE:HD12	2.20	0.57
1:D:146:TRP:CE2	1:E:102:SER:CB	2.87	0.57
1:E:35:TYR:HD1	1:E:179:GLN:CD	2.07	0.57
1:B:33:PHE:CE1	1:B:35:TYR:CZ	2.93	0.57
1:D:163:LEU:HD21	1:D:177:ALA:HB3	1.85	0.57
1:C:50:VAL:HG11	1:C:124:PHE:CZ	2.40	0.57
1:E:21:ILE:HD12	1:E:21:ILE:N	2.20	0.56
1:D:147:THR:CB	1:E:105:LEU:CD1	2.75	0.56
1:D:21:ILE:HD12	1:D:21:ILE:N	2.20	0.56
1:B:26:GLU:HA	1:C:2:LYS:HG3	1.85	0.56
1:A:33:PHE:CE1	1:A:35:TYR:CZ	2.93	0.56
1:E:52:LEU:HD11	1:E:124:PHE:HE2	1.69	0.56
1:C:22:PRO:C	1:D:6:GLU:OE2	2.43	0.56
1:A:47:THR:HG21	1:A:49:GLN:CD	2.25	0.56
1:D:45:VAL:HG13	1:D:46:GLY:N	2.19	0.56
1:B:37:LEU:HD13	1:B:54:LEU:HD21	1.87	0.56
1:A:52:LEU:HD11	1:A:124:PHE:HE2	1.69	0.56
1:C:19:ASN:HD21	1:C:85:TRP:HD1	1.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1:THR:N	1:E:23:ILE:H	2.04	0.56
1:A:74:PHE:HE2	1:A:77:LEU:CD1	2.17	0.56
1:C:39:ASP:HB2	1:C:170:GLU:CD	2.24	0.56
1:A:118:PRO:HG2	1:A:120:TYR:CE1	2.39	0.56
1:E:95:ILE:CG2	1:E:123:ARG:HG3	2.36	0.56
1:E:117:VAL:HG23	1:E:117:VAL:O	2.04	0.56
1:C:33:PHE:CE1	1:C:35:TYR:CZ	2.93	0.56
1:A:45:VAL:HA	1:A:128:LEU:HD21	1.88	0.56
1:B:45:VAL:HG13	1:B:46:GLY:N	2.19	0.56
1:C:37:LEU:HD13	1:C:54:LEU:HD21	1.87	0.56
1:A:37:LEU:HD13	1:A:54:LEU:HD21	1.88	0.56
1:D:50:VAL:HG11	1:D:124:PHE:CZ	2.40	0.56
1:B:50:VAL:HG11	1:B:124:PHE:CZ	2.40	0.56
1:A:22:PRO:C	1:B:6:GLU:OE2	2.43	0.56
1:E:74:PHE:HE2	1:E:77:LEU:CD1	2.17	0.56
1:B:95:ILE:CG2	1:B:123:ARG:HG3	2.36	0.56
1:E:37:LEU:HD13	1:E:54:LEU:HD21	1.88	0.56
1:B:147:THR:CB	1:C:105:LEU:CD1	2.75	0.56
1:A:34:LYS:HD2	1:A:159:GLN:OE1	2.05	0.56
1:A:45:VAL:HG13	1:A:46:GLY:N	2.19	0.56
1:D:37:LEU:HD13	1:D:54:LEU:HD21	1.88	0.56
1:A:163:LEU:CD2	1:A:174:LEU:HD22	2.34	0.56
1:A:19:ASN:HD21	1:A:85:TRP:HD1	1.53	0.56
1:B:21:ILE:HB	1:C:5:ARG:HH22	1.34	0.56
1:D:47:THR:HG21	1:D:49:GLN:CD	2.25	0.56
1:E:50:VAL:HG11	1:E:124:PHE:CZ	2.40	0.56
1:A:50:VAL:HG11	1:A:124:PHE:CZ	2.40	0.56
1:D:76:GLU:CG	1:D:107:ARG:HD2	2.36	0.56
1:A:1:THR:N	1:E:23:ILE:C	2.43	0.56
1:B:22:PRO:C	1:C:6:GLU:OE2	2.43	0.56
1:C:34:LYS:HD2	1:C:159:GLN:OE1	2.05	0.56
1:C:95:ILE:CG2	1:C:123:ARG:HG3	2.36	0.56
1:D:34:LYS:HD2	1:D:159:GLN:OE1	2.05	0.56
1:D:45:VAL:HA	1:D:128:LEU:HD21	1.88	0.56
1:B:19:ASN:HD21	1:B:85:TRP:HD1	1.52	0.56
1:D:19:ASN:HD21	1:D:85:TRP:HD1	1.53	0.56
1:D:95:ILE:CG2	1:D:123:ARG:HG3	2.36	0.56
1:E:45:VAL:HA	1:E:128:LEU:HD21	1.88	0.56
1:A:5:ARG:HH11	1:A:77:LEU:CD1	2.18	0.56
1:A:6:GLU:OE2	1:E:22:PRO:C	2.43	0.56
1:C:118:PRO:HG2	1:C:120:TYR:CE1	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:33:PHE:CE1	1:D:35:TYR:CZ	2.93	0.56
1:A:105:LEU:CD1	1:E:88:HIS:CG	2.73	0.55
1:D:24:VAL:C	1:E:2:LYS:CA	2.68	0.55
1:C:5:ARG:HH11	1:C:77:LEU:CD1	2.18	0.55
1:C:163:LEU:CD2	1:C:174:LEU:HD22	2.34	0.55
1:D:74:PHE:HE2	1:D:77:LEU:CD1	2.17	0.55
1:A:142:LYS:HE3	1:A:184:LYS:NZ	2.22	0.55
1:E:19:ASN:HD21	1:E:85:TRP:HD1	1.53	0.55
1:B:5:ARG:HH11	1:B:77:LEU:CD1	2.18	0.55
1:B:74:PHE:HE2	1:B:77:LEU:CD1	2.17	0.55
1:A:95:ILE:CG2	1:A:123:ARG:HG3	2.36	0.55
1:A:23:ILE:H	1:B:1:THR:N	2.04	0.55
1:C:142:LYS:HE3	1:C:184:LYS:NZ	2.22	0.55
1:C:47:THR:HG21	1:C:49:GLN:CD	2.25	0.55
1:C:76:GLU:CG	1:C:107:ARG:HD2	2.37	0.55
1:A:106:VAL:HG21	1:A:114:VAL:CG1	2.37	0.55
1:D:95:ILE:HG23	1:D:123:ARG:CD	2.37	0.55
1:E:11:GLU:HG3	1:E:15:ARG:NH1	2.22	0.55
1:A:11:GLU:HG3	1:A:15:ARG:NH1	2.22	0.55
1:B:11:GLU:HG3	1:B:15:ARG:HH11	1.72	0.55
1:E:33:PHE:CE1	1:E:35:TYR:CZ	2.93	0.55
1:E:76:GLU:CG	1:E:107:ARG:HD2	2.36	0.55
1:E:95:ILE:HG23	1:E:123:ARG:CD	2.37	0.55
1:A:11:GLU:HG3	1:A:15:ARG:HH11	1.72	0.55
1:E:142:LYS:HE3	1:E:184:LYS:NZ	2.22	0.55
1:D:106:VAL:HG21	1:D:114:VAL:CG1	2.37	0.55
1:B:163:LEU:CD2	1:B:174:LEU:HD22	2.34	0.55
1:D:142:LYS:HE3	1:D:184:LYS:NZ	2.22	0.55
1:E:106:VAL:HG21	1:E:114:VAL:CG1	2.37	0.55
1:D:45:VAL:CG2	1:D:128:LEU:HD21	2.31	0.55
1:D:11:GLU:HG3	1:D:15:ARG:NH1	2.22	0.55
1:B:36:SER:HB3	1:B:55:TRP:CD2	2.42	0.55
1:B:142:LYS:HE3	1:B:184:LYS:NZ	2.22	0.55
1:B:47:THR:HG21	1:B:49:GLN:HE21	1.70	0.55
1:B:11:GLU:HG3	1:B:15:ARG:NH1	2.22	0.55
1:B:95:ILE:HG23	1:B:123:ARG:CD	2.37	0.54
1:A:36:SER:HB3	1:A:55:TRP:CD2	2.42	0.54
1:D:36:SER:HB3	1:D:55:TRP:CD2	2.43	0.54
1:C:11:GLU:HG3	1:C:15:ARG:NH1	2.22	0.54
1:A:155:LEU:N	1:A:155:LEU:HD22	2.23	0.54
1:A:115:THR:HG23	1:A:115:THR:O	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:95:ILE:HG23	1:A:123:ARG:CD	2.37	0.54
1:E:115:THR:HG23	1:E:115:THR:O	2.08	0.54
1:C:131:VAL:HG23	1:C:132:THR:N	2.23	0.54
1:C:11:GLU:HG3	1:C:15:ARG:HH11	1.72	0.54
1:C:151:ARG:CZ	1:D:74:PHE:CE1	2.91	0.54
1:B:23:ILE:H	1:C:1:THR:N	2.04	0.54
1:A:45:VAL:CG2	1:A:128:LEU:HD21	2.31	0.54
1:B:37:LEU:CD1	1:B:54:LEU:HD21	2.38	0.54
1:A:37:LEU:CD1	1:A:54:LEU:HD21	2.38	0.54
1:A:26:GLU:HA	1:B:2:LYS:HG3	1.85	0.54
1:A:151:ARG:CZ	1:B:74:PHE:CE1	2.91	0.54
1:A:2:LYS:HG3	1:E:26:GLU:HA	1.85	0.54
1:C:95:ILE:HG23	1:C:123:ARG:CD	2.37	0.54
1:B:115:THR:HG23	1:B:115:THR:O	2.08	0.54
1:D:11:GLU:HG3	1:D:15:ARG:HH11	1.72	0.54
1:D:163:LEU:CD2	1:D:174:LEU:HD22	2.34	0.54
1:E:89:ILE:HD12	1:E:89:ILE:N	2.22	0.54
1:A:161:VAL:HG12	1:A:162:ASP:N	2.23	0.54
1:A:76:GLU:CG	1:A:107:ARG:HD2	2.36	0.54
1:E:155:LEU:N	1:E:155:LEU:HD22	2.23	0.54
1:D:189:CYS:HB3	1:D:191:GLN:OE1	2.08	0.54
1:A:189:CYS:HB3	1:A:191:GLN:OE1	2.08	0.54
1:A:131:VAL:HG23	1:A:132:THR:N	2.23	0.54
1:D:37:LEU:CD1	1:D:54:LEU:HD21	2.38	0.54
1:C:36:SER:HB3	1:C:55:TRP:CD2	2.42	0.54
1:D:161:VAL:HG21	1:D:177:ALA:HB1	1.90	0.54
1:B:76:GLU:CG	1:B:107:ARG:HD2	2.36	0.54
1:C:23:ILE:H	1:D:1:THR:N	2.04	0.54
1:C:106:VAL:HG21	1:C:114:VAL:CG1	2.37	0.54
1:E:37:LEU:CD1	1:E:54:LEU:HD21	2.38	0.54
1:E:161:VAL:HG21	1:E:177:ALA:HB1	1.90	0.54
1:E:189:CYS:HB3	1:E:191:GLN:OE1	2.08	0.54
1:B:155:LEU:HD22	1:B:155:LEU:N	2.23	0.54
1:A:119:GLN:OE1	1:E:146:TRP:HH2	1.90	0.54
1:D:47:THR:HG21	1:D:49:GLN:HE21	1.70	0.54
1:C:37:LEU:CD1	1:C:54:LEU:HD21	2.38	0.54
1:A:89:ILE:N	1:A:89:ILE:HD12	2.22	0.53
1:A:47:THR:CG2	1:A:49:GLN:HG2	2.39	0.53
1:B:131:VAL:HG23	1:B:132:THR:N	2.23	0.53
1:E:15:ARG:HB2	1:E:67:TRP:CH2	2.43	0.53
1:D:15:ARG:CZ	1:D:67:TRP:CE3	2.92	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:15:ARG:HB2	1:A:67:TRP:CH2	2.44	0.53
1:E:36:SER:HB3	1:E:55:TRP:CD2	2.42	0.53
1:B:189:CYS:HB3	1:B:191:GLN:OE1	2.08	0.53
1:B:151:ARG:CZ	1:C:74:PHE:CE1	2.91	0.53
1:B:161:VAL:HG12	1:B:162:ASP:N	2.23	0.53
1:B:161:VAL:HG21	1:B:177:ALA:HB1	1.90	0.53
1:E:47:THR:HG21	1:E:49:GLN:HE21	1.70	0.53
1:E:15:ARG:CZ	1:E:67:TRP:CE3	2.92	0.53
1:E:47:THR:CG2	1:E:49:GLN:HG2	2.39	0.53
1:B:89:ILE:N	1:B:89:ILE:HD12	2.22	0.53
1:D:131:VAL:HG23	1:D:132:THR:N	2.23	0.53
1:E:161:VAL:HG12	1:E:162:ASP:N	2.23	0.53
1:D:89:ILE:N	1:D:89:ILE:HD12	2.22	0.53
1:B:106:VAL:HG21	1:B:114:VAL:CG1	2.37	0.53
1:E:11:GLU:HG3	1:E:15:ARG:HH11	1.72	0.53
1:D:155:LEU:N	1:D:155:LEU:HD22	2.22	0.53
1:B:196:ILE:HD12	1:B:196:ILE:C	2.29	0.53
1:E:131:VAL:HG23	1:E:132:THR:N	2.23	0.53
1:D:15:ARG:HB2	1:D:67:TRP:CH2	2.44	0.53
1:A:74:PHE:CE1	1:E:151:ARG:CZ	2.91	0.53
1:E:45:VAL:CG2	1:E:128:LEU:HD21	2.31	0.53
1:A:15:ARG:CZ	1:A:67:TRP:CE3	2.91	0.53
1:A:146:TRP:HH2	1:B:119:GLN:OE1	1.90	0.53
1:B:15:ARG:HB2	1:B:67:TRP:CH2	2.44	0.53
1:D:151:ARG:CZ	1:E:74:PHE:CE1	2.91	0.53
1:C:196:ILE:C	1:C:196:ILE:HD12	2.29	0.53
1:C:155:LEU:N	1:C:155:LEU:HD22	2.23	0.53
1:B:163:LEU:HD13	1:B:174:LEU:CD2	2.39	0.53
1:A:161:VAL:HG21	1:A:177:ALA:HB1	1.90	0.53
1:C:189:CYS:HB3	1:C:191:GLN:OE1	2.08	0.53
1:B:47:THR:CG2	1:B:49:GLN:HG2	2.39	0.53
1:D:146:TRP:HH2	1:E:119:GLN:OE1	1.90	0.53
1:C:161:VAL:HG12	1:C:162:ASP:N	2.23	0.53
1:B:15:ARG:CZ	1:B:67:TRP:CE3	2.92	0.53
1:D:196:ILE:C	1:D:196:ILE:HD12	2.29	0.53
1:A:65:LEU:N	1:A:65:LEU:HD22	2.24	0.53
1:C:115:THR:O	1:C:115:THR:HG23	2.08	0.52
1:D:115:THR:O	1:D:115:THR:HG23	2.08	0.52
1:B:37:LEU:HD12	1:B:54:LEU:CD2	2.40	0.52
1:D:161:VAL:HG12	1:D:162:ASP:N	2.23	0.52
1:E:163:LEU:HD13	1:E:174:LEU:CD2	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:80:PRO:HG2	1:E:83:TYR:HE1	1.74	0.52
1:A:44:ASP:HB3	1:A:47:THR:HB	1.92	0.52
1:C:161:VAL:HG21	1:C:177:ALA:HB1	1.90	0.52
1:C:15:ARG:CZ	1:C:67:TRP:CE3	2.92	0.52
1:A:163:LEU:HD13	1:A:174:LEU:CD2	2.39	0.52
1:E:65:LEU:N	1:E:65:LEU:HD22	2.24	0.52
1:C:88:HIS:CD2	1:C:148:TYR:HE2	2.28	0.52
1:A:101:HIS:HB3	1:A:119:GLN:NE2	2.24	0.52
1:C:15:ARG:HB2	1:C:67:TRP:CH2	2.43	0.52
1:A:141:LEU:N	1:A:141:LEU:HD23	2.25	0.52
1:D:35:TYR:CE1	1:D:196:ILE:CD1	2.93	0.52
1:D:80:PRO:HG2	1:D:83:TYR:HE1	1.74	0.52
1:C:65:LEU:N	1:C:65:LEU:HD22	2.24	0.52
1:C:37:LEU:HD12	1:C:54:LEU:CD2	2.40	0.52
1:A:37:LEU:HD12	1:A:54:LEU:CD2	2.40	0.52
1:A:196:ILE:HD12	1:A:196:ILE:C	2.29	0.52
1:B:88:HIS:CD2	1:B:148:TYR:HE2	2.28	0.52
1:C:141:LEU:HD23	1:C:141:LEU:N	2.25	0.52
1:D:141:LEU:N	1:D:141:LEU:HD23	2.25	0.52
1:E:35:TYR:CE1	1:E:196:ILE:CD1	2.93	0.52
1:A:80:PRO:HG2	1:A:83:TYR:HE1	1.74	0.52
1:D:47:THR:CG2	1:D:49:GLN:HG2	2.39	0.52
1:E:101:HIS:HB3	1:E:119:GLN:NE2	2.24	0.52
1:B:33:PHE:HZ	1:B:56:LEU:CD1	2.18	0.52
1:D:44:ASP:HB3	1:D:47:THR:HB	1.92	0.52
1:D:163:LEU:HD13	1:D:174:LEU:CD2	2.39	0.52
1:E:80:PRO:HB2	1:E:83:TYR:CD1	2.45	0.52
1:D:21:ILE:HD13	1:E:5:ARG:CZ	2.40	0.52
1:D:88:HIS:CD2	1:D:148:TYR:HE2	2.28	0.52
1:C:89:ILE:HD12	1:C:89:ILE:N	2.22	0.52
1:C:163:LEU:HD13	1:C:174:LEU:CD2	2.39	0.52
1:C:35:TYR:CE1	1:C:196:ILE:CD1	2.93	0.52
1:C:47:THR:CG2	1:C:49:GLN:HG2	2.38	0.52
1:B:31:VAL:CG1	1:B:58:ILE:HG13	2.40	0.52
1:D:37:LEU:HD12	1:D:54:LEU:HD23	1.92	0.52
1:E:141:LEU:N	1:E:141:LEU:HD23	2.25	0.52
1:D:65:LEU:HD22	1:D:65:LEU:N	2.24	0.52
1:A:88:HIS:CD2	1:A:148:TYR:HE2	2.28	0.52
1:D:23:ILE:N	1:E:1:THR:H2	1.83	0.52
1:C:44:ASP:HB3	1:C:47:THR:HB	1.92	0.52
1:C:146:TRP:NE1	1:D:117:VAL:O	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:37:LEU:HD12	1:C:54:LEU:HD23	1.92	0.52
1:C:80:PRO:HG2	1:C:83:TYR:HE1	1.74	0.52
1:D:23:ILE:H	1:E:1:THR:N	2.04	0.52
1:D:26:GLU:HA	1:E:2:LYS:HG3	1.84	0.52
1:B:141:LEU:N	1:B:141:LEU:HD23	2.25	0.52
1:B:44:ASP:HB3	1:B:47:THR:HB	1.92	0.52
1:C:39:ASP:HB2	1:C:170:GLU:OE2	2.10	0.52
1:B:39:ASP:HB2	1:B:170:GLU:OE2	2.10	0.52
1:D:101:HIS:HB3	1:D:119:GLN:NE2	2.24	0.52
1:B:80:PRO:HG2	1:B:83:TYR:HE1	1.74	0.52
1:A:21:ILE:HD13	1:B:5:ARG:CZ	2.40	0.51
1:A:5:ARG:CZ	1:E:21:ILE:HD13	2.40	0.51
1:A:31:VAL:CG1	1:A:58:ILE:HG13	2.40	0.51
1:D:39:ASP:HB2	1:D:170:GLU:OE2	2.10	0.51
1:B:37:LEU:HD12	1:B:54:LEU:HD23	1.92	0.51
1:C:45:VAL:HA	1:C:128:LEU:HD21	1.88	0.51
1:D:37:LEU:HD12	1:D:54:LEU:CD2	2.40	0.51
1:E:37:LEU:HD12	1:E:54:LEU:CD2	2.40	0.51
1:B:65:LEU:N	1:B:65:LEU:HD22	2.24	0.51
1:C:31:VAL:CG1	1:C:58:ILE:HG13	2.40	0.51
1:E:44:ASP:HB3	1:E:47:THR:HB	1.91	0.51
1:D:31:VAL:CG1	1:D:58:ILE:HG13	2.40	0.51
1:A:1:THR:HG22	1:E:25:ASP:O	2.11	0.51
1:B:88:HIS:CD2	1:C:105:LEU:CD2	2.91	0.51
1:A:35:TYR:CE1	1:A:196:ILE:CD1	2.93	0.51
1:E:196:ILE:HD12	1:E:196:ILE:C	2.29	0.51
1:B:84:ILE:O	1:B:86:LEU:HD22	2.11	0.51
1:A:80:PRO:HB2	1:A:83:TYR:CD1	2.45	0.51
1:C:80:PRO:HB2	1:C:83:TYR:CD1	2.45	0.51
1:B:178:LYS:O	1:B:198:LEU:HD22	2.11	0.51
1:E:170:GLU:HG3	1:E:171:ARG:N	2.26	0.51
1:A:37:LEU:HD12	1:A:54:LEU:HD23	1.92	0.51
1:E:198:LEU:C	1:E:198:LEU:HD13	2.31	0.51
1:C:25:ASP:O	1:D:1:THR:HG22	2.11	0.51
1:B:25:ASP:O	1:C:1:THR:HG22	2.11	0.51
1:B:35:TYR:CE1	1:B:196:ILE:CD1	2.93	0.51
1:B:198:LEU:C	1:B:198:LEU:HD13	2.31	0.51
1:C:170:GLU:HG3	1:C:171:ARG:N	2.26	0.51
1:A:170:GLU:HG3	1:A:171:ARG:N	2.26	0.51
1:A:146:TRP:NE1	1:B:117:VAL:O	2.42	0.51
1:E:31:VAL:CG1	1:E:58:ILE:HG13	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:146:TRP:HH2	1:D:119:GLN:OE1	1.90	0.51
1:D:198:LEU:HD13	1:D:198:LEU:C	2.31	0.51
1:D:80:PRO:HB2	1:D:83:TYR:CD1	2.45	0.51
1:E:39:ASP:HB2	1:E:170:GLU:OE2	2.10	0.51
1:A:176:GLU:HG2	1:A:201:THR:HG22	1.93	0.51
1:A:21:ILE:HB	1:B:5:ARG:HH22	1.34	0.51
1:C:146:TRP:CZ3	1:D:102:SER:CB	2.66	0.51
1:C:198:LEU:C	1:C:198:LEU:HD13	2.31	0.51
1:D:15:ARG:HB2	1:D:67:TRP:CZ2	2.46	0.51
1:E:37:LEU:HD12	1:E:54:LEU:HD23	1.92	0.51
1:B:146:TRP:HH2	1:C:119:GLN:OE1	1.91	0.51
1:E:100:ILE:CD1	1:E:120:TYR:CE2	2.94	0.51
1:B:100:ILE:CD1	1:B:120:TYR:CE2	2.94	0.51
1:E:84:ILE:O	1:E:86:LEU:HD22	2.11	0.51
1:B:50:VAL:CG1	1:B:124:PHE:CZ	2.94	0.51
1:B:80:PRO:HB2	1:B:83:TYR:CD1	2.45	0.51
1:B:109:TYR:HD2	1:B:111:ASP:H	1.59	0.51
1:C:26:GLU:HA	1:D:2:LYS:HG3	1.85	0.50
1:C:100:ILE:CD1	1:C:120:TYR:CE2	2.94	0.50
1:D:92:TYR:HD2	1:D:142:LYS:CB	2.21	0.50
1:C:35:TYR:HH	1:C:143:PHE:CB	2.23	0.50
1:D:170:GLU:HG3	1:D:171:ARG:N	2.26	0.50
1:E:176:GLU:HG2	1:E:201:THR:HG22	1.93	0.50
1:A:20:ASN:HB2	1:B:10:LYS:HZ1	1.70	0.50
1:B:15:ARG:HB2	1:B:67:TRP:CZ2	2.46	0.50
1:E:80:PRO:HG2	1:E:83:TYR:CE1	2.46	0.50
1:C:80:PRO:HG2	1:C:83:TYR:CE1	2.46	0.50
1:B:80:PRO:HG2	1:B:83:TYR:CE1	2.46	0.50
1:A:109:TYR:HD2	1:A:111:ASP:H	1.59	0.50
1:A:103:ASP:CG	1:E:90:GLU:CG	2.78	0.50
1:D:149:ASP:OD2	1:D:151:ARG:HB3	2.12	0.50
1:B:21:ILE:HD13	1:C:5:ARG:CZ	2.40	0.50
1:C:178:LYS:O	1:C:198:LEU:HD22	2.11	0.50
1:D:100:ILE:CD1	1:D:120:TYR:CE2	2.94	0.50
1:C:15:ARG:HB2	1:C:67:TRP:CZ2	2.46	0.50
1:D:84:ILE:O	1:D:86:LEU:HD22	2.11	0.50
1:C:50:VAL:CG1	1:C:124:PHE:CZ	2.94	0.50
1:C:89:ILE:H	1:C:89:ILE:CD1	2.23	0.50
1:C:47:THR:HG21	1:C:49:GLN:HE21	1.70	0.50
1:A:141:LEU:CD1	1:A:143:PHE:CZ	2.95	0.50
1:A:80:PRO:HG2	1:A:83:TYR:CE1	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:109:TYR:HD2	1:E:111:ASP:H	1.59	0.50
1:E:88:HIS:CD2	1:E:148:TYR:HE2	2.28	0.50
1:E:74:PHE:CE2	1:E:77:LEU:CD1	2.95	0.50
1:A:39:ASP:HB2	1:A:170:GLU:OE2	2.10	0.50
1:E:89:ILE:H	1:E:89:ILE:CD1	2.23	0.50
1:B:45:VAL:HA	1:B:128:LEU:HD21	1.88	0.50
1:D:36:SER:CB	1:D:55:TRP:CE2	2.95	0.50
1:B:36:SER:CB	1:B:55:TRP:CE2	2.94	0.50
1:E:178:LYS:O	1:E:198:LEU:HD22	2.11	0.50
1:E:50:VAL:CG1	1:E:124:PHE:CZ	2.94	0.50
1:C:205:ILE:O	1:C:205:ILE:HG23	2.11	0.50
1:A:21:ILE:O	1:B:6:GLU:HG2	2.12	0.50
1:A:25:ASP:O	1:B:1:THR:HG22	2.11	0.50
1:D:21:ILE:O	1:E:6:GLU:HG2	2.12	0.50
1:C:101:HIS:HB3	1:C:119:GLN:NE2	2.24	0.50
1:C:173:GLN:O	1:C:202:PHE:HB2	2.12	0.50
1:D:29:VAL:HG23	1:D:153:LEU:CD1	2.41	0.50
1:A:84:ILE:O	1:A:86:LEU:HD22	2.11	0.50
1:D:50:VAL:CG1	1:D:124:PHE:CZ	2.94	0.50
1:A:6:GLU:HG2	1:E:21:ILE:O	2.12	0.50
1:C:29:VAL:HG23	1:C:153:LEU:CD1	2.41	0.50
1:A:29:VAL:HG23	1:A:153:LEU:CD1	2.41	0.50
1:A:89:ILE:H	1:A:89:ILE:CD1	2.23	0.50
1:A:15:ARG:HB2	1:A:67:TRP:CZ2	2.46	0.50
1:E:36:SER:CB	1:E:55:TRP:CE2	2.95	0.50
1:A:173:GLN:O	1:A:202:PHE:HB2	2.12	0.50
1:D:157:GLU:OE2	1:D:196:ILE:HB	2.12	0.50
1:E:163:LEU:HD22	1:E:174:LEU:CD2	2.40	0.50
1:A:50:VAL:CG1	1:A:124:PHE:CZ	2.94	0.50
1:C:109:TYR:HD2	1:C:111:ASP:H	1.59	0.50
1:B:205:ILE:O	1:B:205:ILE:HG23	2.11	0.50
1:C:21:ILE:HD13	1:D:5:ARG:CZ	2.40	0.50
1:A:74:PHE:CE2	1:A:77:LEU:CD1	2.95	0.50
1:D:25:ASP:O	1:E:1:THR:HG22	2.11	0.50
1:B:149:ASP:OD2	1:B:151:ARG:HB3	2.12	0.50
1:C:141:LEU:CD1	1:C:143:PHE:CZ	2.95	0.50
1:E:15:ARG:HB2	1:E:67:TRP:CZ2	2.46	0.50
1:A:36:SER:CB	1:A:55:TRP:CE2	2.95	0.50
1:A:178:LYS:O	1:A:198:LEU:HD22	2.11	0.50
1:A:198:LEU:HD13	1:A:198:LEU:C	2.31	0.50
1:E:70:GLU:CD	1:E:70:GLU:H	2.15	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:80:PRO:HG2	1:D:83:TYR:CE1	2.46	0.50
1:D:109:TYR:HD2	1:D:111:ASP:H	1.59	0.50
1:A:21:ILE:HG22	1:A:23:ILE:H	1.77	0.50
1:C:21:ILE:O	1:D:6:GLU:HG2	2.12	0.50
1:B:21:ILE:O	1:C:6:GLU:HG2	2.12	0.50
1:B:141:LEU:CD1	1:B:143:PHE:CZ	2.95	0.50
1:A:100:ILE:CD1	1:A:120:TYR:CE2	2.94	0.50
1:C:84:ILE:O	1:C:86:LEU:HD22	2.11	0.50
1:A:205:ILE:O	1:A:205:ILE:HG23	2.11	0.50
1:A:149:ASP:OD2	1:A:151:ARG:HB3	2.12	0.49
1:E:101:HIS:HB2	1:E:119:GLN:HB3	1.93	0.49
1:C:157:GLU:OE2	1:C:196:ILE:HB	2.12	0.49
1:D:89:ILE:CD1	1:D:89:ILE:H	2.23	0.49
1:B:29:VAL:HG23	1:B:153:LEU:CD1	2.41	0.49
1:B:89:ILE:H	1:B:89:ILE:CD1	2.23	0.49
1:A:21:ILE:CD1	1:B:5:ARG:NH2	2.51	0.49
1:C:147:THR:HB	1:D:78:THR:HG1	1.76	0.49
1:D:74:PHE:CE2	1:D:77:LEU:CD1	2.95	0.49
1:E:29:VAL:HG23	1:E:153:LEU:CD1	2.41	0.49
1:E:173:GLN:O	1:E:202:PHE:HB2	2.12	0.49
1:E:205:ILE:O	1:E:205:ILE:HG23	2.11	0.49
1:A:5:ARG:HH11	1:A:77:LEU:HD11	1.77	0.49
1:A:105:LEU:CD2	1:E:88:HIS:CD2	2.91	0.49
1:E:5:ARG:HH11	1:E:77:LEU:HD11	1.77	0.49
1:B:24:VAL:CA	1:C:2:LYS:C	2.75	0.49
1:D:141:LEU:CD1	1:D:143:PHE:CZ	2.95	0.49
1:C:21:ILE:HG22	1:C:23:ILE:H	1.78	0.49
1:C:23:ILE:HD13	1:C:27:GLN:HB2	1.94	0.49
1:D:5:ARG:HH11	1:D:77:LEU:HD11	1.77	0.49
1:C:5:ARG:HH11	1:C:77:LEU:HD11	1.77	0.49
1:B:157:GLU:OE2	1:B:196:ILE:HB	2.12	0.49
1:A:47:THR:HG21	1:A:49:GLN:HE21	1.70	0.49
1:B:170:GLU:HG3	1:B:171:ARG:N	2.26	0.49
1:C:33:PHE:HZ	1:C:56:LEU:CD1	2.18	0.49
1:E:157:GLU:OE2	1:E:196:ILE:HB	2.12	0.49
1:D:70:GLU:CD	1:D:70:GLU:H	2.15	0.49
1:C:149:ASP:OD2	1:C:151:ARG:HB3	2.12	0.49
1:E:149:ASP:OD2	1:E:151:ARG:HB3	2.12	0.49
1:B:173:GLN:O	1:B:202:PHE:HB2	2.12	0.49
1:A:179:GLN:CG	1:A:198:LEU:HD23	2.43	0.49
1:D:173:GLN:O	1:D:202:PHE:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:178:LYS:O	1:D:198:LEU:HD22	2.11	0.49
1:E:179:GLN:CG	1:E:198:LEU:HD23	2.43	0.49
1:A:23:ILE:HD11	1:A:27:GLN:CB	2.41	0.49
1:B:35:TYR:CD2	1:B:56:LEU:CD2	2.96	0.49
1:B:146:TRP:NE1	1:C:117:VAL:O	2.42	0.49
1:A:117:VAL:O	1:E:146:TRP:NE1	2.42	0.49
1:B:101:HIS:HB2	1:B:119:GLN:HB3	1.93	0.49
1:C:92:TYR:HD2	1:C:142:LYS:CB	2.21	0.49
1:B:45:VAL:CG2	1:B:128:LEU:HD21	2.31	0.49
1:A:70:GLU:CD	1:A:70:GLU:H	2.15	0.49
1:D:205:ILE:O	1:D:205:ILE:HG23	2.11	0.49
1:B:74:PHE:CE2	1:B:77:LEU:CD1	2.95	0.49
1:C:74:PHE:CE2	1:C:77:LEU:CD1	2.95	0.49
1:C:35:TYR:CD2	1:C:56:LEU:CD2	2.96	0.49
1:E:175:ILE:CG1	1:E:201:THR:HG23	2.15	0.49
1:C:36:SER:CB	1:C:55:TRP:CE2	2.95	0.49
1:E:141:LEU:CD1	1:E:143:PHE:CZ	2.95	0.49
1:C:88:HIS:CD2	1:D:105:LEU:CD2	2.91	0.49
1:A:9:VAL:HG12	1:A:13:LEU:CD1	2.42	0.49
1:E:23:ILE:HD11	1:E:27:GLN:CB	2.41	0.49
1:D:21:ILE:HG22	1:D:23:ILE:H	1.77	0.49
1:C:101:HIS:HB2	1:C:119:GLN:HB3	1.93	0.49
1:C:70:GLU:CD	1:C:70:GLU:H	2.15	0.49
1:A:6:GLU:CD	1:E:21:ILE:O	2.52	0.49
1:B:170:GLU:OE1	1:B:170:GLU:HA	2.13	0.49
1:A:157:GLU:OE2	1:A:196:ILE:HB	2.12	0.49
1:A:35:TYR:CD2	1:A:56:LEU:CD2	2.96	0.49
1:C:42:THR:HG22	1:C:51:GLU:HB2	1.95	0.49
1:C:23:ILE:HD11	1:C:27:GLN:CB	2.41	0.49
1:B:21:ILE:O	1:C:6:GLU:CD	2.52	0.49
1:B:35:TYR:OH	1:B:196:ILE:HD11	2.13	0.49
1:B:179:GLN:CG	1:B:198:LEU:HD23	2.43	0.49
1:E:92:TYR:CD2	1:E:142:LYS:CB	2.95	0.49
1:A:42:THR:HG22	1:A:51:GLU:HB2	1.95	0.49
1:B:70:GLU:H	1:B:70:GLU:CD	2.15	0.49
1:D:21:ILE:O	1:E:6:GLU:CD	2.52	0.48
1:D:35:TYR:CD2	1:D:56:LEU:CD2	2.96	0.48
1:D:42:THR:HG22	1:D:51:GLU:HB2	1.95	0.48
1:C:21:ILE:HB	1:D:5:ARG:HH22	1.33	0.48
1:C:21:ILE:O	1:D:6:GLU:CD	2.52	0.48
1:A:92:TYR:CD2	1:A:142:LYS:CB	2.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:170:GLU:HA	1:E:170:GLU:OE1	2.13	0.48
1:E:34:LYS:HE2	1:E:158:SER:HB2	1.96	0.48
1:B:20:ASN:HB2	1:C:10:LYS:HZ1	1.76	0.48
1:D:35:TYR:OH	1:D:196:ILE:HD11	2.13	0.48
1:B:42:THR:HG22	1:B:51:GLU:HB2	1.95	0.48
1:A:27:GLN:N	1:B:1:THR:HG22	2.09	0.48
1:C:170:GLU:OE1	1:C:170:GLU:HA	2.13	0.48
1:C:141:LEU:HG	1:C:143:PHE:HE1	1.76	0.48
1:B:9:VAL:HG12	1:B:13:LEU:CD1	2.42	0.48
1:C:163:LEU:HD22	1:C:174:LEU:CD2	2.40	0.48
1:D:34:LYS:HE2	1:D:158:SER:HB2	1.96	0.48
1:A:21:ILE:O	1:B:6:GLU:CD	2.52	0.48
1:B:92:TYR:HD2	1:B:142:LYS:CB	2.21	0.48
1:A:163:LEU:HD22	1:A:174:LEU:CD2	2.40	0.48
1:D:86:LEU:HD22	1:D:86:LEU:N	2.29	0.48
1:E:9:VAL:HG12	1:E:13:LEU:CD1	2.42	0.48
1:A:34:LYS:HE2	1:A:158:SER:HB2	1.95	0.48
1:A:41:TYR:CE2	1:E:47:THR:O	2.58	0.48
1:B:101:HIS:HB3	1:B:119:GLN:NE2	2.24	0.48
1:E:141:LEU:HG	1:E:143:PHE:HE1	1.76	0.48
1:B:70:GLU:HG2	1:B:70:GLU:O	2.14	0.48
1:E:42:THR:HG22	1:E:51:GLU:HB2	1.95	0.48
1:B:23:ILE:HD13	1:B:27:GLN:HB2	1.94	0.48
1:A:170:GLU:HA	1:A:170:GLU:OE1	2.13	0.48
1:A:161:VAL:HB	1:A:177:ALA:HB3	1.95	0.48
1:E:35:TYR:OH	1:E:196:ILE:HD11	2.13	0.48
1:B:5:ARG:HH11	1:B:77:LEU:HD11	1.77	0.48
1:B:92:TYR:CD2	1:B:142:LYS:CB	2.95	0.48
1:C:118:PRO:HB2	1:C:120:TYR:CE1	2.49	0.48
1:E:35:TYR:CD2	1:E:56:LEU:CD2	2.96	0.48
1:A:86:LEU:N	1:A:86:LEU:HD22	2.29	0.48
1:A:1:THR:HG22	1:E:27:GLN:N	2.09	0.48
1:A:2:LYS:C	1:E:24:VAL:CA	2.75	0.48
1:A:118:PRO:HB2	1:A:120:TYR:CE1	2.49	0.48
1:C:24:VAL:C	1:D:2:LYS:C	2.70	0.48
1:E:21:ILE:HG22	1:E:23:ILE:H	1.77	0.48
1:A:106:VAL:HG23	1:A:116:PHE:HB2	1.96	0.48
1:D:170:GLU:HA	1:D:170:GLU:OE1	2.13	0.48
1:C:45:VAL:CG2	1:C:128:LEU:HD21	2.31	0.48
1:E:161:VAL:HB	1:E:177:ALA:HB3	1.95	0.48
1:C:161:VAL:HB	1:C:177:ALA:HB3	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:35:TYR:OH	1:C:196:ILE:HD11	2.13	0.47
1:B:106:VAL:HG23	1:B:116:PHE:HB2	1.96	0.47
1:D:141:LEU:HG	1:D:143:PHE:HE1	1.76	0.47
1:E:86:LEU:HD22	1:E:86:LEU:N	2.29	0.47
1:B:21:ILE:HG22	1:B:23:ILE:H	1.78	0.47
1:A:10:LYS:HZ1	1:E:20:ASN:HB2	1.71	0.47
1:E:128:LEU:CD2	1:E:128:LEU:H	2.27	0.47
1:B:29:VAL:HG23	1:B:153:LEU:HD12	1.96	0.47
1:A:101:HIS:HB2	1:A:119:GLN:HB3	1.93	0.47
1:D:47:THR:HG21	1:D:49:GLN:CG	2.45	0.47
1:D:92:TYR:CD2	1:D:142:LYS:CB	2.95	0.47
1:A:70:GLU:O	1:A:70:GLU:HG2	2.14	0.47
1:B:74:PHE:CE2	1:B:77:LEU:CA	2.95	0.47
1:C:47:THR:HG21	1:C:49:GLN:CG	2.45	0.47
1:D:101:HIS:HB2	1:D:119:GLN:HB3	1.93	0.47
1:B:52:LEU:HD11	1:B:124:PHE:CE2	2.50	0.47
1:A:23:ILE:HG12	1:B:1:THR:C	2.33	0.47
1:A:74:PHE:CE2	1:A:77:LEU:CA	2.95	0.47
1:B:34:LYS:HE2	1:B:158:SER:HB2	1.95	0.47
1:C:179:GLN:CG	1:C:198:LEU:HD23	2.43	0.47
1:B:128:LEU:CD2	1:B:128:LEU:H	2.28	0.47
1:C:128:LEU:CD2	1:C:128:LEU:H	2.28	0.47
1:B:86:LEU:HD22	1:B:86:LEU:N	2.29	0.47
1:C:86:LEU:N	1:C:86:LEU:HD22	2.29	0.47
1:A:23:ILE:HD13	1:A:27:GLN:HB2	1.94	0.47
1:D:9:VAL:HG12	1:D:13:LEU:CD1	2.43	0.47
1:B:141:LEU:HG	1:B:143:PHE:HE1	1.76	0.47
1:B:163:LEU:HD22	1:B:174:LEU:CD2	2.40	0.47
1:C:34:LYS:HE2	1:C:158:SER:HB2	1.96	0.47
1:A:106:VAL:HG23	1:A:115:THR:O	2.15	0.47
1:A:47:THR:O	1:B:41:TYR:CE2	2.58	0.47
1:D:23:ILE:HD11	1:D:27:GLN:CB	2.41	0.47
1:C:9:VAL:HG12	1:C:13:LEU:CD1	2.43	0.47
1:B:161:VAL:HB	1:B:177:ALA:HB3	1.95	0.47
1:E:47:THR:HG21	1:E:49:GLN:CG	2.45	0.47
1:E:118:PRO:HB2	1:E:120:TYR:CE1	2.49	0.47
1:C:35:TYR:HB2	1:C:179:GLN:HE21	1.79	0.47
1:C:49:GLN:HG2	1:D:41:TYR:OH	2.15	0.47
1:B:118:PRO:HB2	1:B:120:TYR:CE1	2.49	0.47
1:A:35:TYR:OH	1:A:196:ILE:HD11	2.13	0.47
1:D:161:VAL:HB	1:D:177:ALA:HB3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:33:PHE:HZ	1:D:56:LEU:CD1	2.18	0.47
1:C:70:GLU:HG2	1:C:70:GLU:O	2.14	0.47
1:B:173:GLN:HG2	1:B:174:LEU:N	2.30	0.47
1:A:47:THR:HG21	1:A:49:GLN:CG	2.45	0.47
1:E:106:VAL:HG23	1:E:115:THR:O	2.15	0.47
1:C:173:GLN:HG2	1:C:174:LEU:N	2.30	0.47
1:D:106:VAL:HG23	1:D:115:THR:O	2.15	0.47
1:B:150:VAL:CG2	1:B:194:GLU:HG3	2.41	0.47
1:D:128:LEU:CD2	1:D:128:LEU:H	2.28	0.47
1:E:35:TYR:H	1:E:179:GLN:NE2	2.12	0.47
1:D:70:GLU:HG2	1:D:70:GLU:O	2.14	0.47
1:B:95:ILE:CG2	1:B:123:ARG:CG	2.93	0.47
1:E:106:VAL:HG23	1:E:116:PHE:HB2	1.96	0.47
1:A:33:PHE:HZ	1:A:56:LEU:CD1	2.18	0.47
1:E:173:GLN:HG2	1:E:174:LEU:N	2.30	0.47
1:A:90:GLU:CG	1:B:103:ASP:CG	2.78	0.47
1:A:95:ILE:CG2	1:A:123:ARG:CG	2.93	0.47
1:D:106:VAL:HG23	1:D:116:PHE:HB2	1.96	0.47
1:A:128:LEU:H	1:A:128:LEU:CD2	2.28	0.47
1:A:24:VAL:HG11	1:B:3:LYS:HD3	1.64	0.46
1:A:41:TYR:OH	1:E:49:GLN:HG2	2.15	0.46
1:D:170:GLU:HG3	1:D:172:PHE:H	1.80	0.46
1:C:150:VAL:CG2	1:C:194:GLU:HG3	2.41	0.46
1:D:173:GLN:HG2	1:D:174:LEU:N	2.30	0.46
1:A:52:LEU:HD11	1:A:124:PHE:CE2	2.50	0.46
1:E:70:GLU:HG2	1:E:70:GLU:O	2.14	0.46
1:B:35:TYR:HB2	1:B:179:GLN:HE21	1.79	0.46
1:A:170:GLU:HG3	1:A:172:PHE:H	1.80	0.46
1:B:106:VAL:HG23	1:B:115:THR:O	2.15	0.46
1:E:52:LEU:HD11	1:E:124:PHE:CE2	2.49	0.46
1:A:88:HIS:CD2	1:B:105:LEU:CD2	2.91	0.46
1:B:49:GLN:HG2	1:C:41:TYR:OH	2.15	0.46
1:C:106:VAL:HG23	1:C:116:PHE:HB2	1.96	0.46
1:D:35:TYR:HH	1:D:143:PHE:CB	2.28	0.46
1:B:188:CYS:SG	1:B:189:CYS:N	2.89	0.46
1:C:106:VAL:HG23	1:C:115:THR:O	2.15	0.46
1:A:49:GLN:HG2	1:B:41:TYR:OH	2.15	0.46
1:E:29:VAL:HG23	1:E:153:LEU:HD12	1.96	0.46
1:D:118:PRO:HB2	1:D:120:TYR:CE1	2.49	0.46
1:D:29:VAL:HG23	1:D:153:LEU:HD12	1.96	0.46
1:C:176:GLU:HG2	1:C:201:THR:HG22	1.93	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:106:VAL:CG2	1:A:114:VAL:CG1	2.94	0.46
1:A:146:TRP:CE2	1:B:102:SER:OG	2.68	0.46
1:B:170:GLU:HG3	1:B:172:PHE:H	1.80	0.46
1:D:146:TRP:NE1	1:E:117:VAL:O	2.42	0.46
1:E:35:TYR:HH	1:E:143:PHE:CB	2.29	0.46
1:B:23:ILE:HG12	1:C:1:THR:C	2.33	0.46
1:C:170:GLU:HG3	1:C:172:PHE:H	1.80	0.46
1:E:95:ILE:CG2	1:E:123:ARG:CG	2.93	0.46
1:D:49:GLN:HG2	1:E:41:TYR:OH	2.15	0.46
1:D:106:VAL:CG2	1:D:114:VAL:CG1	2.94	0.46
1:A:173:GLN:HG2	1:A:174:LEU:N	2.30	0.46
1:A:35:TYR:HH	1:A:143:PHE:CB	2.29	0.46
1:A:29:VAL:HG23	1:A:153:LEU:HD12	1.96	0.46
1:A:24:VAL:CA	1:B:2:LYS:C	2.75	0.46
1:C:23:ILE:N	1:D:1:THR:H2	1.99	0.46
1:A:1:THR:C	1:E:23:ILE:HG12	2.33	0.46
1:B:35:TYR:H	1:B:179:GLN:NE2	2.12	0.46
1:A:116:PHE:CE2	1:A:118:PRO:HG3	2.51	0.46
1:A:188:CYS:SG	1:A:189:CYS:N	2.89	0.46
1:A:24:VAL:C	1:B:2:LYS:C	2.70	0.46
1:C:24:VAL:HG11	1:D:3:LYS:HD3	1.64	0.46
1:B:21:ILE:CG2	1:C:5:ARG:HH21	2.29	0.46
1:B:47:THR:HG21	1:B:49:GLN:CG	2.45	0.46
1:E:170:GLU:HG3	1:E:172:PHE:H	1.81	0.46
1:A:150:VAL:CG2	1:A:194:GLU:HG3	2.41	0.46
1:E:45:VAL:CA	1:E:128:LEU:CD1	2.94	0.46
1:A:45:VAL:CA	1:A:128:LEU:CD1	2.94	0.46
1:A:141:LEU:HG	1:A:143:PHE:HE1	1.76	0.46
1:A:21:ILE:CG2	1:B:5:ARG:HH21	2.29	0.46
1:C:29:VAL:HG23	1:C:153:LEU:HD12	1.96	0.46
1:A:92:TYR:HD2	1:A:142:LYS:CB	2.21	0.46
1:E:34:LYS:HB2	1:E:57:VAL:HB	1.98	0.46
1:D:175:ILE:CG1	1:D:201:THR:HG23	2.15	0.46
1:D:188:CYS:SG	1:D:189:CYS:N	2.89	0.46
1:A:76:GLU:HB2	1:A:107:ARG:CG	2.47	0.45
1:B:23:ILE:HD11	1:B:27:GLN:CB	2.41	0.45
1:A:34:LYS:HB2	1:A:57:VAL:HB	1.98	0.45
1:C:92:TYR:CD2	1:C:142:LYS:CB	2.95	0.45
1:D:34:LYS:HB2	1:D:57:VAL:HB	1.98	0.45
1:B:176:GLU:HG2	1:B:201:THR:HG22	1.93	0.45
1:D:52:LEU:HD11	1:D:124:PHE:CE2	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:47:THR:O	1:E:41:TYR:CE2	2.58	0.45
1:E:106:VAL:CG2	1:E:114:VAL:CG1	2.94	0.45
1:C:163:LEU:CD1	1:C:174:LEU:CD2	2.94	0.45
1:D:31:VAL:CG1	1:D:58:ILE:CG1	2.94	0.45
1:B:116:PHE:CE2	1:B:118:PRO:HG3	2.51	0.45
1:D:179:GLN:CG	1:D:198:LEU:HD23	2.43	0.45
1:D:12:ILE:HD11	1:D:79:LEU:HD11	1.98	0.45
1:C:34:LYS:HB2	1:C:57:VAL:HB	1.99	0.45
1:E:31:VAL:CG1	1:E:58:ILE:CG1	2.94	0.45
1:D:58:ILE:HD11	1:D:87:PRO:CG	2.46	0.45
1:C:20:ASN:ND2	1:D:10:LYS:HE2	2.29	0.45
1:B:45:VAL:CA	1:B:128:LEU:CD1	2.94	0.45
1:E:11:GLU:OE2	1:E:67:TRP:HB2	2.17	0.45
1:C:11:GLU:OE2	1:C:67:TRP:HB2	2.17	0.45
1:A:163:LEU:CD1	1:A:174:LEU:CD2	2.95	0.45
1:A:5:ARG:HH21	1:E:21:ILE:CG2	2.29	0.45
1:E:4:SER:O	1:E:8:ILE:HG12	2.17	0.45
1:C:4:SER:O	1:C:8:ILE:HG12	2.17	0.45
1:B:106:VAL:CG2	1:B:114:VAL:CG1	2.94	0.45
1:E:67:TRP:N	1:E:67:TRP:CD1	2.85	0.45
1:E:188:CYS:SG	1:E:189:CYS:N	2.89	0.45
1:C:188:CYS:SG	1:C:189:CYS:N	2.89	0.45
1:E:23:ILE:HD13	1:E:27:GLN:HB2	1.94	0.45
1:E:3:LYS:CG	1:E:4:SER:N	2.80	0.45
1:C:95:ILE:CG2	1:C:123:ARG:CG	2.93	0.45
1:D:150:VAL:CG2	1:D:194:GLU:HG3	2.41	0.45
1:B:11:GLU:OE2	1:B:67:TRP:HB2	2.17	0.45
1:E:33:PHE:HZ	1:E:56:LEU:CD1	2.18	0.45
1:D:4:SER:O	1:D:8:ILE:HG12	2.17	0.45
1:A:12:ILE:HD11	1:A:79:LEU:HD11	1.98	0.45
1:A:1:THR:O	1:E:23:ILE:HG12	2.17	0.45
1:B:163:LEU:CD2	1:B:174:LEU:CD2	2.95	0.45
1:B:34:LYS:HB2	1:B:57:VAL:HB	1.98	0.45
1:C:128:LEU:HD23	1:C:128:LEU:H	1.82	0.45
1:D:163:LEU:CD1	1:D:174:LEU:CD2	2.95	0.45
1:D:35:TYR:H	1:D:179:GLN:NE2	2.12	0.45
1:A:23:ILE:HG12	1:B:1:THR:O	2.17	0.45
1:B:4:SER:O	1:B:8:ILE:HG12	2.17	0.45
1:C:21:ILE:CG2	1:D:5:ARG:HH21	2.29	0.45
1:A:4:SER:O	1:A:8:ILE:HG12	2.17	0.45
1:B:24:VAL:C	1:C:2:LYS:C	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:106:VAL:CG2	1:C:114:VAL:CG1	2.94	0.45
1:A:58:ILE:HD11	1:A:87:PRO:CG	2.46	0.45
1:A:20:ASN:ND2	1:B:10:LYS:HE2	2.29	0.45
1:B:58:ILE:HD11	1:B:87:PRO:CG	2.46	0.45
1:C:45:VAL:CA	1:C:128:LEU:CD1	2.94	0.45
1:C:23:ILE:HG12	1:D:1:THR:O	2.17	0.45
1:A:3:LYS:CG	1:A:4:SER:N	2.80	0.45
1:C:116:PHE:CE2	1:C:118:PRO:HG3	2.51	0.45
1:A:31:VAL:CG1	1:A:58:ILE:CG1	2.94	0.45
1:A:175:ILE:CG1	1:A:201:THR:HG23	2.15	0.45
1:B:76:GLU:HB2	1:B:107:ARG:CG	2.46	0.45
1:C:3:LYS:CG	1:C:4:SER:N	2.80	0.45
1:E:116:PHE:CE2	1:E:118:PRO:HG3	2.51	0.45
1:E:150:VAL:CG2	1:E:194:GLU:HG3	2.41	0.45
1:A:67:TRP:CD1	1:A:67:TRP:N	2.85	0.45
1:A:163:LEU:CD2	1:A:174:LEU:CD2	2.95	0.45
1:D:3:LYS:CG	1:D:4:SER:N	2.80	0.45
1:D:23:ILE:HG12	1:E:1:THR:O	2.17	0.45
1:A:37:LEU:CD1	1:A:54:LEU:CD2	2.95	0.45
1:B:67:TRP:N	1:B:67:TRP:CD1	2.84	0.45
1:C:52:LEU:HD11	1:C:124:PHE:CE2	2.49	0.45
1:D:21:ILE:CG2	1:E:5:ARG:HH21	2.29	0.44
1:C:163:LEU:CD2	1:C:174:LEU:CD2	2.95	0.44
1:B:58:ILE:O	1:B:58:ILE:HG23	2.18	0.44
1:B:128:LEU:HD23	1:B:128:LEU:H	1.82	0.44
1:D:128:LEU:HD23	1:D:128:LEU:H	1.82	0.44
1:B:37:LEU:CD1	1:B:54:LEU:CD2	2.95	0.44
1:E:163:LEU:CD1	1:E:174:LEU:CD2	2.94	0.44
1:E:163:LEU:CD2	1:E:174:LEU:CD2	2.95	0.44
1:A:1:THR:N	1:E:21:ILE:HG21	2.30	0.44
1:D:88:HIS:CD2	1:E:105:LEU:CD2	2.91	0.44
1:C:76:GLU:HB2	1:C:107:ARG:CG	2.47	0.44
1:B:163:LEU:CD1	1:B:174:LEU:CD2	2.95	0.44
1:D:116:PHE:CE2	1:D:118:PRO:HG3	2.51	0.44
1:A:128:LEU:H	1:A:128:LEU:HD23	1.82	0.44
1:A:11:GLU:OE2	1:A:67:TRP:HB2	2.17	0.44
1:E:81:SER:OG	1:E:104:GLN:HB2	2.17	0.44
1:D:81:SER:OG	1:D:104:GLN:HB2	2.17	0.44
1:B:81:SER:OG	1:B:104:GLN:HB2	2.17	0.44
1:B:12:ILE:HD11	1:B:79:LEU:HD11	1.98	0.44
1:D:74:PHE:HE2	1:D:77:LEU:CA	2.29	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:141:LEU:HD11	1:B:143:PHE:HZ	1.82	0.44
1:E:106:VAL:O	1:E:106:VAL:HG13	2.18	0.44
1:A:20:ASN:CB	1:B:10:LYS:HZ1	2.27	0.44
1:B:31:VAL:CG1	1:B:58:ILE:CG1	2.94	0.44
1:D:11:GLU:OE2	1:D:67:TRP:HB2	2.17	0.44
1:D:163:LEU:HD13	1:D:174:LEU:HD23	2.00	0.44
1:E:12:ILE:HD11	1:E:79:LEU:HD11	1.98	0.44
1:C:31:VAL:CG1	1:C:58:ILE:CG1	2.94	0.44
1:A:34:LYS:CE	1:A:158:SER:CB	2.95	0.44
1:D:95:ILE:CG2	1:D:123:ARG:CG	2.93	0.44
1:C:47:THR:HG21	1:C:49:GLN:HG2	2.00	0.44
1:D:45:VAL:CA	1:D:128:LEU:CD1	2.94	0.44
1:E:15:ARG:HD3	1:E:67:TRP:CH2	2.53	0.44
1:A:2:LYS:C	1:E:24:VAL:C	2.70	0.44
1:E:76:GLU:HB2	1:E:107:ARG:CG	2.47	0.44
1:E:96:GLY:H	1:E:123:ARG:HG3	1.83	0.44
1:C:163:LEU:HD13	1:C:174:LEU:HD23	2.00	0.44
1:B:3:LYS:CG	1:B:4:SER:N	2.80	0.44
1:D:76:GLU:HB2	1:D:107:ARG:CG	2.46	0.44
1:D:23:ILE:C	1:E:1:THR:N	2.43	0.44
1:C:12:ILE:HD11	1:C:79:LEU:HD11	1.98	0.44
1:B:23:ILE:HG12	1:C:1:THR:O	2.17	0.44
1:C:146:TRP:CE2	1:D:102:SER:OG	2.68	0.44
1:B:132:THR:HG23	1:B:133:THR:N	2.33	0.44
1:E:15:ARG:NE	1:E:67:TRP:CZ3	2.86	0.44
1:A:88:HIS:CE1	1:B:105:LEU:HD23	2.40	0.44
1:D:74:PHE:CE2	1:D:77:LEU:CA	2.95	0.44
1:C:58:ILE:HG23	1:C:58:ILE:O	2.18	0.44
1:A:58:ILE:HG23	1:A:58:ILE:O	2.18	0.44
1:D:96:GLY:H	1:D:123:ARG:HG3	1.83	0.44
1:C:141:LEU:HD11	1:C:143:PHE:HZ	1.82	0.44
1:C:96:GLY:H	1:C:123:ARG:HG3	1.83	0.44
1:E:128:LEU:H	1:E:128:LEU:HD23	1.82	0.44
1:C:37:LEU:CD1	1:C:54:LEU:CD2	2.95	0.44
1:D:15:ARG:NE	1:D:67:TRP:CZ3	2.86	0.44
1:C:15:ARG:HD3	1:C:67:TRP:CH2	2.53	0.44
1:C:15:ARG:NE	1:C:67:TRP:CZ3	2.86	0.44
1:A:160:GLN:O	1:A:161:VAL:HG23	2.18	0.44
1:C:74:PHE:HE2	1:C:77:LEU:CA	2.29	0.44
1:C:106:VAL:O	1:C:106:VAL:HG13	2.18	0.44
1:C:58:ILE:HD11	1:C:87:PRO:CG	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:176:GLU:HG2	1:D:201:THR:HG22	1.93	0.44
1:E:35:TYR:HB2	1:E:179:GLN:HE21	1.79	0.44
1:A:172:PHE:CE1	1:A:204:LYS:HG2	2.53	0.44
1:A:96:GLY:H	1:A:123:ARG:HG3	1.83	0.44
1:D:47:THR:HG21	1:D:49:GLN:HG2	2.00	0.44
1:B:175:ILE:CG1	1:B:201:THR:HG23	2.15	0.44
1:E:37:LEU:CD1	1:E:54:LEU:CD2	2.95	0.44
1:A:15:ARG:NE	1:A:67:TRP:CZ3	2.86	0.44
1:A:35:TYR:HB2	1:A:179:GLN:HE21	1.79	0.44
1:D:160:GLN:O	1:D:161:VAL:HG23	2.18	0.44
1:E:163:LEU:HD13	1:E:174:LEU:HD23	2.00	0.44
1:B:172:PHE:CE1	1:B:204:LYS:HG2	2.53	0.43
1:D:47:THR:CA	1:E:41:TYR:CZ	3.00	0.43
1:C:132:THR:HG23	1:C:133:THR:N	2.33	0.43
1:C:15:ARG:NH1	1:C:67:TRP:CE3	2.86	0.43
1:D:141:LEU:HD11	1:D:143:PHE:HZ	1.82	0.43
1:D:163:LEU:CD2	1:D:174:LEU:CD2	2.95	0.43
1:D:35:TYR:HB2	1:D:179:GLN:HE21	1.79	0.43
1:E:141:LEU:HD11	1:E:143:PHE:HZ	1.82	0.43
1:B:90:GLU:CG	1:C:103:ASP:CG	2.78	0.43
1:B:34:LYS:CE	1:B:158:SER:CB	2.95	0.43
1:D:58:ILE:O	1:D:58:ILE:HG23	2.18	0.43
1:C:45:VAL:CA	1:C:128:LEU:HD11	2.48	0.43
1:C:67:TRP:CD1	1:C:67:TRP:N	2.85	0.43
1:A:15:ARG:NH1	1:A:67:TRP:CE3	2.86	0.43
1:B:15:ARG:NH1	1:B:67:TRP:CE3	2.87	0.43
1:A:2:LYS:CA	1:E:25:ASP:O	2.65	0.43
1:D:23:ILE:HD13	1:D:27:GLN:HB2	1.94	0.43
1:D:24:VAL:HG11	1:E:3:LYS:HD3	1.64	0.43
1:B:141:LEU:HD11	1:B:143:PHE:CZ	2.54	0.43
1:D:20:ASN:HB2	1:E:10:LYS:HZ1	1.76	0.43
1:B:106:VAL:HG13	1:B:106:VAL:O	2.18	0.43
1:D:45:VAL:CA	1:D:128:LEU:HD11	2.49	0.43
1:D:67:TRP:N	1:D:67:TRP:CD1	2.85	0.43
1:B:15:ARG:HD3	1:B:67:TRP:CH2	2.53	0.43
1:A:141:LEU:HD11	1:A:143:PHE:HZ	1.82	0.43
1:D:141:LEU:HD11	1:D:143:PHE:CZ	2.54	0.43
1:E:33:PHE:CE1	1:E:35:TYR:CE2	3.06	0.43
1:A:25:ASP:O	1:B:2:LYS:CA	2.65	0.43
1:B:76:GLU:N	1:B:76:GLU:OE1	2.52	0.43
1:B:163:LEU:HD13	1:B:174:LEU:HD23	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:33:PHE:CE1	1:B:35:TYR:CE2	3.06	0.43
1:C:141:LEU:HD11	1:C:143:PHE:CZ	2.54	0.43
1:A:141:LEU:HD11	1:A:143:PHE:CZ	2.54	0.43
1:A:81:SER:OG	1:A:104:GLN:HB2	2.17	0.43
1:C:81:SER:OG	1:C:104:GLN:HB2	2.17	0.43
1:E:76:GLU:OE1	1:E:76:GLU:N	2.52	0.43
1:E:34:LYS:CE	1:E:158:SER:CB	2.95	0.43
1:E:172:PHE:CE1	1:E:204:LYS:HG2	2.53	0.43
1:D:172:PHE:CE1	1:D:204:LYS:HG2	2.53	0.43
1:A:10:LYS:HZ1	1:E:20:ASN:CB	2.29	0.43
1:A:15:ARG:HD3	1:A:67:TRP:CH2	2.53	0.43
1:C:23:ILE:HG12	1:D:1:THR:C	2.33	0.43
1:C:34:LYS:CE	1:C:158:SER:CB	2.95	0.43
1:E:58:ILE:HG23	1:E:58:ILE:O	2.18	0.43
1:E:132:THR:HG23	1:E:133:THR:N	2.33	0.43
1:E:15:ARG:NH1	1:E:67:TRP:CE3	2.86	0.43
1:B:15:ARG:NE	1:B:67:TRP:CZ3	2.86	0.43
1:A:33:PHE:CE1	1:A:35:TYR:CE2	3.06	0.43
1:B:109:TYR:HB3	1:B:111:ASP:OD1	2.19	0.43
1:C:21:ILE:HG21	1:D:1:THR:N	2.30	0.43
1:B:160:GLN:O	1:B:161:VAL:HG23	2.18	0.43
1:B:47:THR:CA	1:C:41:TYR:CZ	3.00	0.43
1:A:117:VAL:HG23	1:E:146:TRP:HE1	1.84	0.43
1:D:106:VAL:HG13	1:D:106:VAL:O	2.18	0.43
1:A:132:THR:HG23	1:A:133:THR:N	2.33	0.43
1:D:132:THR:HG23	1:D:133:THR:N	2.33	0.43
1:D:15:ARG:HD3	1:D:67:TRP:CH2	2.53	0.43
1:D:15:ARG:NH1	1:D:67:TRP:CE3	2.86	0.43
1:A:157:GLU:OE2	1:A:179:GLN:HB3	2.19	0.43
1:A:106:VAL:O	1:A:106:VAL:HG13	2.18	0.43
1:A:101:HIS:NE2	1:A:121:THR:CG2	2.82	0.43
1:B:101:HIS:NE2	1:B:121:THR:CG2	2.82	0.43
1:C:146:TRP:HE1	1:D:117:VAL:HG23	1.84	0.43
1:B:29:VAL:HG23	1:B:29:VAL:O	2.18	0.43
1:B:45:VAL:CA	1:B:128:LEU:HD11	2.48	0.43
1:A:35:TYR:CE2	1:A:56:LEU:CD2	3.02	0.43
1:E:160:GLN:O	1:E:161:VAL:HG23	2.18	0.43
1:E:143:PHE:HB2	1:E:196:ILE:HG13	2.01	0.43
1:D:76:GLU:N	1:D:76:GLU:OE1	2.52	0.43
1:A:74:PHE:HE2	1:A:77:LEU:CA	2.29	0.43
1:D:21:ILE:CD1	1:E:5:ARG:NH2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:146:TRP:HE1	1:C:117:VAL:HG23	1.84	0.43
1:C:172:PHE:CE1	1:C:204:LYS:HG2	2.53	0.43
1:C:29:VAL:O	1:C:29:VAL:HG23	2.18	0.43
1:A:113:THR:HG22	1:A:114:VAL:N	2.34	0.43
1:A:146:TRP:HE1	1:B:117:VAL:HG23	1.84	0.43
1:B:128:LEU:N	1:B:128:LEU:HD23	2.34	0.43
1:B:74:PHE:HE2	1:B:77:LEU:CA	2.29	0.43
1:A:76:GLU:OE1	1:A:76:GLU:N	2.52	0.43
1:E:74:PHE:HE2	1:E:77:LEU:CA	2.29	0.43
1:C:76:GLU:N	1:C:76:GLU:OE1	2.52	0.43
1:B:35:TYR:CE2	1:B:56:LEU:CD2	3.02	0.43
1:C:58:ILE:CG2	1:C:116:PHE:HB3	2.49	0.43
1:A:102:SER:OG	1:E:146:TRP:CE2	2.68	0.43
1:E:45:VAL:CA	1:E:128:LEU:HD11	2.48	0.43
1:D:128:LEU:N	1:D:128:LEU:HD23	2.34	0.43
1:A:163:LEU:HD13	1:A:174:LEU:HD23	2.00	0.43
1:D:157:GLU:OE2	1:D:179:GLN:HB3	2.19	0.43
1:E:109:TYR:HB3	1:E:111:ASP:OD1	2.19	0.43
1:D:23:ILE:HG12	1:E:1:THR:C	2.33	0.42
1:A:29:VAL:O	1:A:29:VAL:HG23	2.18	0.42
1:D:146:TRP:HE1	1:E:117:VAL:HG23	1.84	0.42
1:C:160:GLN:O	1:C:161:VAL:HG23	2.18	0.42
1:D:37:LEU:CD1	1:D:54:LEU:CD2	2.95	0.42
1:A:143:PHE:HB2	1:A:196:ILE:HG13	2.01	0.42
1:A:5:ARG:NH2	1:E:21:ILE:CD1	2.51	0.42
1:B:157:GLU:OE2	1:B:179:GLN:HB3	2.19	0.42
1:C:101:HIS:NE2	1:C:121:THR:CG2	2.82	0.42
1:A:58:ILE:CG2	1:A:116:PHE:HB3	2.49	0.42
1:E:101:HIS:NE2	1:E:121:THR:CG2	2.82	0.42
1:C:128:LEU:N	1:C:128:LEU:HD23	2.34	0.42
1:A:36:SER:HB3	1:A:55:TRP:CE2	2.54	0.42
1:D:33:PHE:CE1	1:D:35:TYR:CE2	3.06	0.42
1:E:141:LEU:HD11	1:E:143:PHE:CZ	2.54	0.42
1:B:74:PHE:CE2	1:B:76:GLU:O	2.73	0.42
1:B:74:PHE:CE2	1:B:77:LEU:HD12	2.55	0.42
1:A:3:LYS:HD3	1:E:24:VAL:HG11	1.64	0.42
1:A:74:PHE:CE2	1:A:77:LEU:HD12	2.54	0.42
1:C:74:PHE:CE2	1:C:76:GLU:O	2.73	0.42
1:C:74:PHE:CE2	1:C:77:LEU:HD12	2.54	0.42
1:B:96:GLY:H	1:B:123:ARG:HG3	1.83	0.42
1:B:47:THR:O	1:C:41:TYR:CE2	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:113:THR:HG22	1:C:114:VAL:N	2.34	0.42
1:C:31:VAL:HG11	1:C:58:ILE:CG1	2.50	0.42
1:A:47:THR:HG21	1:A:49:GLN:HG2	2.00	0.42
1:C:157:GLU:OE2	1:C:179:GLN:HB3	2.19	0.42
1:D:58:ILE:CG2	1:D:116:PHE:HB3	2.49	0.42
1:D:29:VAL:O	1:D:29:VAL:HG23	2.18	0.42
1:D:36:SER:HB3	1:D:55:TRP:CE2	2.55	0.42
1:D:143:PHE:HB2	1:D:196:ILE:HG13	2.01	0.42
1:C:109:TYR:HB3	1:C:111:ASP:OD1	2.19	0.42
1:A:74:PHE:CZ	1:A:76:GLU:O	2.73	0.42
1:E:88:HIS:O	1:E:90:GLU:HG3	2.20	0.42
1:E:74:PHE:CE2	1:E:77:LEU:HD12	2.55	0.42
1:C:74:PHE:HE2	1:C:77:LEU:CB	2.33	0.42
1:B:91:VAL:HG21	1:B:122:ILE:HD13	2.01	0.42
1:A:31:VAL:HG11	1:A:58:ILE:CG1	2.50	0.42
1:E:58:ILE:HD11	1:E:87:PRO:CG	2.46	0.42
1:C:35:TYR:CE2	1:C:56:LEU:CD2	3.02	0.42
1:C:47:THR:O	1:D:41:TYR:CE2	2.58	0.42
1:B:45:VAL:CG1	1:B:46:GLY:N	2.83	0.42
1:A:91:VAL:HG21	1:A:122:ILE:HD13	2.01	0.42
1:E:19:ASN:ND2	1:E:85:TRP:HD1	2.17	0.42
1:D:109:TYR:HB3	1:D:111:ASP:OD1	2.19	0.42
1:A:88:HIS:O	1:A:90:GLU:HG3	2.20	0.42
1:C:24:VAL:CA	1:D:2:LYS:C	2.75	0.42
1:C:88:HIS:O	1:C:90:GLU:HG3	2.20	0.42
1:D:74:PHE:CE2	1:D:77:LEU:HD12	2.55	0.42
1:C:74:PHE:CZ	1:C:76:GLU:O	2.73	0.42
1:E:47:THR:HG21	1:E:49:GLN:HG2	2.00	0.42
1:E:58:ILE:CG2	1:E:116:PHE:HB3	2.49	0.42
1:C:141:LEU:N	1:C:141:LEU:CD2	2.83	0.42
1:C:33:PHE:CE1	1:C:35:TYR:CE2	3.06	0.42
1:A:10:LYS:HE2	1:E:20:ASN:ND2	2.29	0.42
1:E:45:VAL:CG1	1:E:46:GLY:N	2.83	0.42
1:D:35:TYR:CE2	1:D:56:LEU:CD2	3.02	0.42
1:E:161:VAL:CG1	1:E:162:ASP:N	2.82	0.42
1:E:157:GLU:OE2	1:E:179:GLN:HB3	2.19	0.42
1:D:74:PHE:HE2	1:D:77:LEU:CB	2.33	0.42
1:A:74:PHE:CE2	1:A:76:GLU:O	2.73	0.42
1:D:24:VAL:C	1:E:2:LYS:C	2.70	0.42
1:D:27:GLN:N	1:E:1:THR:HG22	2.08	0.42
1:E:74:PHE:HE2	1:E:77:LEU:CB	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:128:LEU:N	1:E:128:LEU:HD23	2.34	0.42
1:A:45:VAL:CA	1:A:128:LEU:HD11	2.48	0.42
1:D:189:CYS:HA	1:D:190:PRO:HD2	1.84	0.42
1:B:74:PHE:HE2	1:B:77:LEU:CB	2.33	0.42
1:B:74:PHE:CZ	1:B:76:GLU:O	2.73	0.42
1:B:88:HIS:O	1:B:90:GLU:HG3	2.20	0.42
1:C:12:ILE:HG13	1:C:13:LEU:H	1.83	0.42
1:B:141:LEU:N	1:B:141:LEU:CD2	2.83	0.42
1:B:143:PHE:HB2	1:B:196:ILE:HG13	2.01	0.42
1:E:31:VAL:HG11	1:E:58:ILE:CG1	2.50	0.42
1:D:31:VAL:HG11	1:D:58:ILE:CG1	2.49	0.42
1:C:36:SER:HB3	1:C:55:TRP:CE2	2.54	0.42
1:A:161:VAL:CG1	1:A:162:ASP:N	2.82	0.42
1:D:104:GLN:HE21	1:D:104:GLN:HB3	1.60	0.42
1:D:74:PHE:CZ	1:D:76:GLU:O	2.73	0.42
1:E:16:ALA:O	1:E:17:ASN:HB2	2.20	0.42
1:E:74:PHE:CE2	1:E:77:LEU:CA	2.95	0.42
1:C:16:ALA:O	1:C:17:ASN:HB2	2.20	0.42
1:B:91:VAL:CG2	1:B:143:PHE:CE2	2.94	0.42
1:D:101:HIS:NE2	1:D:121:THR:CG2	2.82	0.42
1:D:34:LYS:CE	1:D:158:SER:CB	2.95	0.42
1:B:58:ILE:CG2	1:B:116:PHE:HB3	2.49	0.42
1:A:109:TYR:HB3	1:A:111:ASP:OD1	2.19	0.42
1:C:197:GLU:HG3	1:C:197:GLU:O	2.20	0.42
1:D:151:ARG:NH2	1:E:74:PHE:CD1	2.87	0.42
1:E:74:PHE:CE2	1:E:76:GLU:O	2.73	0.42
1:C:74:PHE:CE2	1:C:77:LEU:CA	2.95	0.42
1:C:143:PHE:HB2	1:C:196:ILE:HG13	2.01	0.42
1:A:128:LEU:HD23	1:A:128:LEU:N	2.34	0.42
1:B:55:TRP:HH2	1:B:165:THR:CG2	2.27	0.42
1:D:141:LEU:N	1:D:141:LEU:CD2	2.83	0.42
1:C:80:PRO:CG	1:C:83:TYR:CE1	3.03	0.42
1:A:197:GLU:HG3	1:A:197:GLU:O	2.20	0.42
1:E:74:PHE:CZ	1:E:76:GLU:O	2.73	0.42
1:D:47:THR:O	1:D:48:ASP:HB2	2.20	0.42
1:E:29:VAL:HG23	1:E:29:VAL:O	2.18	0.42
1:B:113:THR:HG22	1:B:114:VAL:N	2.34	0.42
1:D:91:VAL:HG21	1:D:122:ILE:HD13	2.01	0.42
1:D:161:VAL:CG1	1:D:162:ASP:N	2.83	0.42
1:C:19:ASN:ND2	1:C:85:TRP:HD1	2.17	0.42
1:C:80:PRO:HB2	1:C:83:TYR:CE1	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:197:GLU:HG3	1:D:197:GLU:O	2.20	0.42
1:B:24:VAL:HG11	1:C:3:LYS:HD3	1.64	0.41
1:B:161:VAL:CG1	1:B:162:ASP:N	2.82	0.41
1:A:47:THR:O	1:A:48:ASP:HB2	2.20	0.41
1:C:161:VAL:CG1	1:C:162:ASP:N	2.83	0.41
1:C:35:TYR:H	1:C:179:GLN:NE2	2.12	0.41
1:B:31:VAL:HG11	1:B:58:ILE:CG1	2.49	0.41
1:A:35:TYR:CD2	1:A:56:LEU:HD22	2.55	0.41
1:E:141:LEU:N	1:E:141:LEU:CD2	2.83	0.41
1:E:80:PRO:CG	1:E:83:TYR:CE1	3.03	0.41
1:B:80:PRO:CG	1:B:83:TYR:CE1	3.03	0.41
1:B:80:PRO:HB2	1:B:83:TYR:CE1	2.55	0.41
1:C:9:VAL:CG1	1:C:13:LEU:CD1	2.98	0.41
1:E:113:THR:HG22	1:E:114:VAL:N	2.34	0.41
1:D:80:PRO:CG	1:D:83:TYR:CE1	3.03	0.41
1:D:9:VAL:CG1	1:D:13:LEU:CD1	2.98	0.41
1:A:74:PHE:HE2	1:A:77:LEU:CB	2.33	0.41
1:D:23:ILE:N	1:E:6:GLU:OE2	2.53	0.41
1:B:23:ILE:N	1:C:6:GLU:OE2	2.54	0.41
1:B:118:PRO:CG	1:B:120:TYR:CE1	3.03	0.41
1:B:15:ARG:CD	1:B:67:TRP:CZ2	3.02	0.41
1:A:80:PRO:HB2	1:A:83:TYR:CE1	2.55	0.41
1:A:23:ILE:N	1:B:6:GLU:OE2	2.53	0.41
1:E:23:ILE:CD1	1:E:27:GLN:CB	2.95	0.41
1:D:25:ASP:O	1:E:2:LYS:CA	2.65	0.41
1:B:47:THR:HG21	1:B:49:GLN:HG2	2.00	0.41
1:E:47:THR:O	1:E:48:ASP:HB2	2.20	0.41
1:E:92:TYR:HD2	1:E:142:LYS:CB	2.21	0.41
1:C:35:TYR:CD2	1:C:56:LEU:HD22	2.56	0.41
1:C:91:VAL:HG21	1:C:122:ILE:HD13	2.01	0.41
1:C:45:VAL:CG1	1:C:46:GLY:N	2.83	0.41
1:D:141:LEU:HD23	1:D:198:LEU:HB3	1.96	0.41
1:E:141:LEU:HD23	1:E:198:LEU:HB3	1.96	0.41
1:B:19:ASN:ND2	1:B:85:TRP:HD1	2.17	0.41
1:D:74:PHE:CE2	1:D:76:GLU:O	2.73	0.41
1:E:149:ASP:HA	1:E:193:PHE:CE2	2.55	0.41
1:D:88:HIS:O	1:D:90:GLU:HG3	2.20	0.41
1:E:9:VAL:CG1	1:E:13:LEU:CD1	2.98	0.41
1:C:118:PRO:CG	1:C:120:TYR:CE1	3.03	0.41
1:A:41:TYR:CZ	1:E:47:THR:CA	3.00	0.41
1:E:118:PRO:CG	1:E:120:TYR:CE1	3.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:45:VAL:CG1	1:D:46:GLY:N	2.83	0.41
1:A:141:LEU:N	1:A:141:LEU:CD2	2.83	0.41
1:A:80:PRO:CG	1:A:83:TYR:CE1	3.03	0.41
1:E:197:GLU:HG3	1:E:197:GLU:O	2.20	0.41
1:A:149:ASP:HA	1:A:193:PHE:CE2	2.55	0.41
1:D:149:ASP:HA	1:D:193:PHE:CE2	2.55	0.41
1:B:25:ASP:O	1:C:2:LYS:CA	2.65	0.41
1:E:106:VAL:CG2	1:E:116:PHE:HB2	2.51	0.41
1:D:106:VAL:CG2	1:D:116:PHE:HB2	2.51	0.41
1:B:106:VAL:CG2	1:B:116:PHE:HB2	2.51	0.41
1:D:81:SER:OG	1:D:104:GLN:HG3	2.21	0.41
1:D:19:ASN:ND2	1:D:85:TRP:HD1	2.17	0.41
1:B:197:GLU:O	1:B:197:GLU:HG3	2.20	0.41
1:A:16:ALA:O	1:A:17:ASN:HB2	2.20	0.41
1:D:21:ILE:HB	1:E:5:ARG:HH22	1.34	0.41
1:C:9:VAL:CG1	1:C:13:LEU:HD12	2.48	0.41
1:C:122:ILE:HG22	1:C:123:ARG:N	2.36	0.41
1:A:45:VAL:CG1	1:A:46:GLY:N	2.83	0.41
1:A:15:ARG:CD	1:A:67:TRP:CZ2	3.02	0.41
1:E:36:SER:HB3	1:E:55:TRP:CE2	2.54	0.41
1:E:35:TYR:CE2	1:E:56:LEU:CD2	3.02	0.41
1:C:104:GLN:H	1:C:104:GLN:NE2	2.19	0.41
1:C:189:CYS:HA	1:C:190:PRO:HD2	1.84	0.41
1:A:147:THR:N	1:B:105:LEU:HD12	2.15	0.41
1:B:74:PHE:HE2	1:B:77:LEU:HD12	1.85	0.41
1:A:77:LEU:HD21	1:A:79:LEU:CD2	2.36	0.41
1:B:47:THR:O	1:B:48:ASP:HB2	2.20	0.41
1:D:92:TYR:CD2	1:D:142:LYS:O	2.74	0.41
1:D:146:TRP:CE2	1:E:102:SER:OG	2.68	0.41
1:D:113:THR:HG22	1:D:114:VAL:N	2.34	0.41
1:C:175:ILE:CG1	1:C:201:THR:HG23	2.15	0.41
1:A:45:VAL:N	1:A:128:LEU:HD13	2.36	0.41
1:E:15:ARG:CD	1:E:67:TRP:CZ2	3.02	0.41
1:E:104:GLN:NE2	1:E:104:GLN:H	2.19	0.41
1:E:81:SER:OG	1:E:104:GLN:HG3	2.21	0.41
1:B:104:GLN:NE2	1:B:104:GLN:H	2.19	0.41
1:C:23:ILE:N	1:D:6:GLU:OE2	2.54	0.41
1:C:23:ILE:C	1:D:1:THR:H3	1.98	0.41
1:A:6:GLU:OE2	1:E:23:ILE:N	2.54	0.41
1:B:92:TYR:CD2	1:B:142:LYS:O	2.74	0.41
1:B:161:VAL:HG21	1:B:177:ALA:C	2.42	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:118:PRO:CG	1:A:120:TYR:CE1	3.03	0.41
1:A:92:TYR:CD2	1:A:142:LYS:O	2.74	0.41
1:D:100:ILE:HG22	1:D:102:SER:O	2.21	0.41
1:E:45:VAL:N	1:E:128:LEU:HD13	2.36	0.41
1:A:35:TYR:H	1:A:179:GLN:NE2	2.12	0.41
1:E:35:TYR:CD2	1:E:56:LEU:HD22	2.56	0.41
1:E:91:VAL:HG21	1:E:122:ILE:HD13	2.01	0.41
1:E:104:GLN:HE21	1:E:104:GLN:HB3	1.60	0.41
1:D:104:GLN:NE2	1:D:104:GLN:H	2.19	0.41
1:A:104:GLN:H	1:A:104:GLN:NE2	2.19	0.41
1:A:81:SER:OG	1:A:104:GLN:HG3	2.21	0.41
1:E:140:THR:HG23	1:E:140:THR:O	2.21	0.41
1:B:16:ALA:O	1:B:17:ASN:HB2	2.20	0.41
1:A:12:ILE:HG13	1:A:13:LEU:H	1.83	0.41
1:A:6:GLU:CG	1:E:21:ILE:O	2.69	0.41
1:B:149:ASP:HA	1:B:193:PHE:CE2	2.55	0.41
1:C:47:THR:O	1:C:48:ASP:HB2	2.20	0.41
1:C:47:THR:CA	1:D:41:TYR:CZ	3.00	0.41
1:D:161:VAL:HG21	1:D:177:ALA:C	2.42	0.41
1:D:35:TYR:CD2	1:D:56:LEU:HD22	2.55	0.41
1:D:9:VAL:CG1	1:D:13:LEU:HD12	2.48	0.40
1:D:16:ALA:O	1:D:17:ASN:HB2	2.20	0.40
1:D:21:ILE:HG21	1:E:1:THR:N	2.30	0.40
1:B:35:TYR:CD2	1:B:56:LEU:HD22	2.56	0.40
1:E:92:TYR:CD2	1:E:142:LYS:O	2.74	0.40
1:C:92:TYR:CD2	1:C:142:LYS:O	2.74	0.40
1:D:55:TRP:HH2	1:D:165:THR:CG2	2.27	0.40
1:D:80:PRO:HB2	1:D:83:TYR:CE1	2.55	0.40
1:C:80:PRO:HB2	1:C:83:TYR:HD1	1.86	0.40
1:D:140:THR:O	1:D:140:THR:HG23	2.21	0.40
1:B:21:ILE:O	1:C:6:GLU:CG	2.69	0.40
1:B:160:GLN:O	1:B:179:GLN:HB2	2.22	0.40
1:B:35:TYR:HH	1:B:143:PHE:CB	2.34	0.40
1:C:100:ILE:HG22	1:C:102:SER:O	2.21	0.40
1:A:100:ILE:HG22	1:A:102:SER:O	2.21	0.40
1:A:106:VAL:CG2	1:A:116:PHE:HB2	2.51	0.40
1:E:100:ILE:HG22	1:E:102:SER:O	2.21	0.40
1:C:161:VAL:HG21	1:C:177:ALA:C	2.42	0.40
1:D:118:PRO:CG	1:D:120:TYR:CE1	3.03	0.40
1:E:176:GLU:CG	1:E:201:THR:HG22	2.51	0.40
1:D:160:GLN:O	1:D:179:GLN:HB2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3:LYS:HG3	1:C:4:SER:N	2.36	0.40
1:A:160:GLN:O	1:A:179:GLN:HB2	2.22	0.40
1:A:161:VAL:HG21	1:A:177:ALA:C	2.42	0.40
1:A:9:VAL:CG1	1:A:13:LEU:CD1	2.98	0.40
1:E:12:ILE:CG1	1:E:13:LEU:N	2.82	0.40
1:B:88:HIS:ND1	1:C:105:LEU:CD2	2.70	0.40
1:C:45:VAL:HA	1:C:128:LEU:CD1	2.52	0.40
1:B:36:SER:HB3	1:B:55:TRP:CE2	2.54	0.40
1:B:81:SER:OG	1:B:104:GLN:HG3	2.21	0.40
1:D:180:LYS:O	1:D:197:GLU:HG2	2.22	0.40
1:A:151:ARG:NH2	1:B:74:PHE:CD1	2.87	0.40
1:A:21:ILE:O	1:B:6:GLU:CG	2.69	0.40
1:B:9:VAL:CG1	1:B:13:LEU:CD1	2.98	0.40
1:C:149:ASP:HA	1:C:193:PHE:CE2	2.55	0.40
1:C:25:ASP:O	1:D:2:LYS:CA	2.65	0.40
1:D:3:LYS:HG3	1:D:4:SER:N	2.36	0.40
1:D:77:LEU:CG	1:D:78:THR:N	2.82	0.40
1:E:3:LYS:HG3	1:E:4:SER:N	2.36	0.40
1:B:122:ILE:HG22	1:B:123:ARG:N	2.36	0.40
1:A:176:GLU:CG	1:A:201:THR:HG22	2.51	0.40
1:D:176:GLU:CG	1:D:201:THR:HG22	2.51	0.40
1:B:45:VAL:N	1:B:128:LEU:HD13	2.36	0.40
1:E:55:TRP:HH2	1:E:165:THR:CG2	2.27	0.40
1:A:189:CYS:HA	1:A:190:PRO:HD2	1.84	0.40
1:E:80:PRO:HB2	1:E:83:TYR:CE1	2.55	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	203/205 (99%)	191 (94%)	12 (6%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	203/205 (99%)	191 (94%)	12 (6%)	0	100	100
1	C	203/205 (99%)	191 (94%)	12 (6%)	0	100	100
1	D	203/205 (99%)	191 (94%)	12 (6%)	0	100	100
1	E	203/205 (99%)	191 (94%)	12 (6%)	0	100	100
All	All	1015/1025 (99%)	955 (94%)	60 (6%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains ⓘ

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	188/188 (100%)	185 (98%)	3 (2%)	70	88
1	B	188/188 (100%)	185 (98%)	3 (2%)	70	88
1	C	188/188 (100%)	185 (98%)	3 (2%)	70	88
1	D	188/188 (100%)	185 (98%)	3 (2%)	70	88
1	E	188/188 (100%)	185 (98%)	3 (2%)	70	88
All	All	940/940 (100%)	925 (98%)	15 (2%)	72	88

All (15) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	104	GLN
1	A	141	LEU
1	A	159	GLN
1	B	104	GLN
1	B	141	LEU
1	B	159	GLN
1	C	104	GLN
1	C	141	LEU
1	C	159	GLN
1	D	104	GLN

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Mol	Chain	Res	Type
1	D	141	LEU
1	D	159	GLN
1	E	104	GLN
1	E	141	LEU
1	E	159	GLN

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (34) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	20	ASN
1	A	27	GLN
1	A	104	GLN
1	A	119	GLN
1	A	135	GLN
1	A	173	GLN
1	A	179	GLN
1	B	20	ASN
1	B	27	GLN
1	B	104	GLN
1	B	119	GLN
1	B	135	GLN
1	B	173	GLN
1	B	179	GLN
1	C	27	GLN
1	C	104	GLN
1	C	119	GLN
1	C	135	GLN
1	C	173	GLN
1	C	179	GLN
1	D	20	ASN
1	D	27	GLN
1	D	104	GLN
1	D	119	GLN
1	D	135	GLN
1	D	173	GLN
1	D	179	GLN
1	E	20	ASN
1	E	27	GLN
1	E	104	GLN
1	E	119	GLN
1	E	135	GLN
1	E	173	GLN

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Mol	Chain	Res	Type
1	E	179	GLN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry ⓘ

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.