



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 15, 2017 – 06:58 am GMT

PDB ID : 4K95
Title : Crystal Structure of Parkin
Authors : Seirafi, M.; Menade, M.; Sauve, V.; Kozlov, G.; Trempe, J.-F.; Nagar, B.; Gehring, K.
Deposited on : 2013-04-19
Resolution : 6.50 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Xtriage (Phenix) : 1.9-1692
EDS : trunk28620
Percentile statistics : 20161228.v01 (using entries in the PDB archive December 28th 2016)
Refmac : 5.8.0135
CCP4 : 6.5.0
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : recalc28949

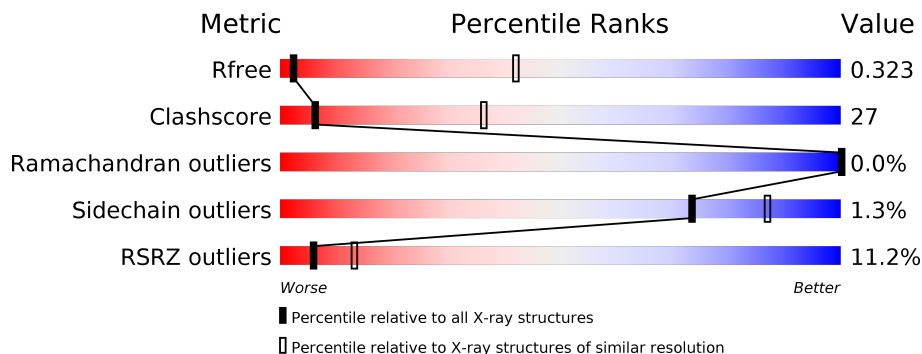
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 6.50 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	100719	1098 (9.00-3.70)
Clashscore	112137	1031 (9.00-3.80)
Ramachandran outliers	110173	1000 (9.00-3.76)
Sidechain outliers	110143	1096 (9.00-3.70)
RSRZ outliers	101464	1000 (9.00-3.72)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower 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 $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	470	 6% 55% 24% 20%
1	B	470	 9% 53% 26% 20%
1	C	470	 4% 56% 24% 20%
1	D	470	 8% 56% 23% 20%
1	E	470	 7% 55% 24% 20%
1	F	470	 6% 54% 25% 20%

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Mol	Chain	Length	Quality of chain
1	G	470	
1	H	470	
1	I	470	
1	J	470	
1	K	470	
1	L	470	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
2	ZN	I	506	-	-	-	X

2 Entry composition [i](#)

There are 2 unique types of molecules in this entry. The entry contains 35796 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called E3 ubiquitin-protein ligase parkin.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	375	2975	1850	542	543	40	0	4	0
1	B	375	2975	1850	542	543	40	0	4	0
1	C	375	2975	1850	542	543	40	0	4	0
1	D	375	2975	1850	542	543	40	0	4	0
1	E	375	2975	1850	542	543	40	0	4	0
1	F	375	2975	1850	542	543	40	0	4	0
1	G	375	2975	1850	542	543	40	0	4	0
1	H	375	2975	1850	542	543	40	0	4	0
1	I	375	2975	1850	542	543	40	0	4	0
1	J	375	2975	1850	542	543	40	0	4	0
1	K	375	2975	1850	542	543	40	0	4	0
1	L	375	2975	1850	542	543	40	0	4	0

There are 84 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-4	GLY	-	EXPRESSION TAG	UNP Q9JK66
A	-3	PRO	-	EXPRESSION TAG	UNP Q9JK66
A	-2	LEU	-	EXPRESSION TAG	UNP Q9JK66
A	-1	GLY	-	EXPRESSION TAG	UNP Q9JK66
A	0	SER	-	EXPRESSION TAG	UNP Q9JK66

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Chain	Residue	Modelled	Actual	Comment	Reference
A	138	ALA	GLU	CONFLICT	UNP Q9JK66
A	348	ARG	LYS	CONFLICT	UNP Q9JK66
B	-4	GLY	-	EXPRESSION TAG	UNP Q9JK66
B	-3	PRO	-	EXPRESSION TAG	UNP Q9JK66
B	-2	LEU	-	EXPRESSION TAG	UNP Q9JK66
B	-1	GLY	-	EXPRESSION TAG	UNP Q9JK66
B	0	SER	-	EXPRESSION TAG	UNP Q9JK66
B	138	ALA	GLU	CONFLICT	UNP Q9JK66
B	348	ARG	LYS	CONFLICT	UNP Q9JK66
C	-4	GLY	-	EXPRESSION TAG	UNP Q9JK66
C	-3	PRO	-	EXPRESSION TAG	UNP Q9JK66
C	-2	LEU	-	EXPRESSION TAG	UNP Q9JK66
C	-1	GLY	-	EXPRESSION TAG	UNP Q9JK66
C	0	SER	-	EXPRESSION TAG	UNP Q9JK66
C	138	ALA	GLU	CONFLICT	UNP Q9JK66
C	348	ARG	LYS	CONFLICT	UNP Q9JK66
D	-4	GLY	-	EXPRESSION TAG	UNP Q9JK66
D	-3	PRO	-	EXPRESSION TAG	UNP Q9JK66
D	-2	LEU	-	EXPRESSION TAG	UNP Q9JK66
D	-1	GLY	-	EXPRESSION TAG	UNP Q9JK66
D	0	SER	-	EXPRESSION TAG	UNP Q9JK66
D	138	ALA	GLU	CONFLICT	UNP Q9JK66
D	348	ARG	LYS	CONFLICT	UNP Q9JK66
E	-4	GLY	-	EXPRESSION TAG	UNP Q9JK66
E	-3	PRO	-	EXPRESSION TAG	UNP Q9JK66
E	-2	LEU	-	EXPRESSION TAG	UNP Q9JK66
E	-1	GLY	-	EXPRESSION TAG	UNP Q9JK66
E	0	SER	-	EXPRESSION TAG	UNP Q9JK66
E	138	ALA	GLU	CONFLICT	UNP Q9JK66
E	348	ARG	LYS	CONFLICT	UNP Q9JK66
F	-4	GLY	-	EXPRESSION TAG	UNP Q9JK66
F	-3	PRO	-	EXPRESSION TAG	UNP Q9JK66
F	-2	LEU	-	EXPRESSION TAG	UNP Q9JK66
F	-1	GLY	-	EXPRESSION TAG	UNP Q9JK66
F	0	SER	-	EXPRESSION TAG	UNP Q9JK66
F	138	ALA	GLU	CONFLICT	UNP Q9JK66
F	348	ARG	LYS	CONFLICT	UNP Q9JK66
G	-4	GLY	-	EXPRESSION TAG	UNP Q9JK66
G	-3	PRO	-	EXPRESSION TAG	UNP Q9JK66
G	-2	LEU	-	EXPRESSION TAG	UNP Q9JK66
G	-1	GLY	-	EXPRESSION TAG	UNP Q9JK66
G	0	SER	-	EXPRESSION TAG	UNP Q9JK66

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Chain	Residue	Modelled	Actual	Comment	Reference
G	138	ALA	GLU	CONFLICT	UNP Q9JK66
G	348	ARG	LYS	CONFLICT	UNP Q9JK66
H	-4	GLY	-	EXPRESSION TAG	UNP Q9JK66
H	-3	PRO	-	EXPRESSION TAG	UNP Q9JK66
H	-2	LEU	-	EXPRESSION TAG	UNP Q9JK66
H	-1	GLY	-	EXPRESSION TAG	UNP Q9JK66
H	0	SER	-	EXPRESSION TAG	UNP Q9JK66
H	138	ALA	GLU	CONFLICT	UNP Q9JK66
H	348	ARG	LYS	CONFLICT	UNP Q9JK66
I	-4	GLY	-	EXPRESSION TAG	UNP Q9JK66
I	-3	PRO	-	EXPRESSION TAG	UNP Q9JK66
I	-2	LEU	-	EXPRESSION TAG	UNP Q9JK66
I	-1	GLY	-	EXPRESSION TAG	UNP Q9JK66
I	0	SER	-	EXPRESSION TAG	UNP Q9JK66
I	138	ALA	GLU	CONFLICT	UNP Q9JK66
I	348	ARG	LYS	CONFLICT	UNP Q9JK66
J	-4	GLY	-	EXPRESSION TAG	UNP Q9JK66
J	-3	PRO	-	EXPRESSION TAG	UNP Q9JK66
J	-2	LEU	-	EXPRESSION TAG	UNP Q9JK66
J	-1	GLY	-	EXPRESSION TAG	UNP Q9JK66
J	0	SER	-	EXPRESSION TAG	UNP Q9JK66
J	138	ALA	GLU	CONFLICT	UNP Q9JK66
J	348	ARG	LYS	CONFLICT	UNP Q9JK66
K	-4	GLY	-	EXPRESSION TAG	UNP Q9JK66
K	-3	PRO	-	EXPRESSION TAG	UNP Q9JK66
K	-2	LEU	-	EXPRESSION TAG	UNP Q9JK66
K	-1	GLY	-	EXPRESSION TAG	UNP Q9JK66
K	0	SER	-	EXPRESSION TAG	UNP Q9JK66
K	138	ALA	GLU	CONFLICT	UNP Q9JK66
K	348	ARG	LYS	CONFLICT	UNP Q9JK66
L	-4	GLY	-	EXPRESSION TAG	UNP Q9JK66
L	-3	PRO	-	EXPRESSION TAG	UNP Q9JK66
L	-2	LEU	-	EXPRESSION TAG	UNP Q9JK66
L	-1	GLY	-	EXPRESSION TAG	UNP Q9JK66
L	0	SER	-	EXPRESSION TAG	UNP Q9JK66
L	138	ALA	GLU	CONFLICT	UNP Q9JK66
L	348	ARG	LYS	CONFLICT	UNP Q9JK66

- Molecule 2 is ZINC ION (three-letter code: ZN) (formula: Zn).

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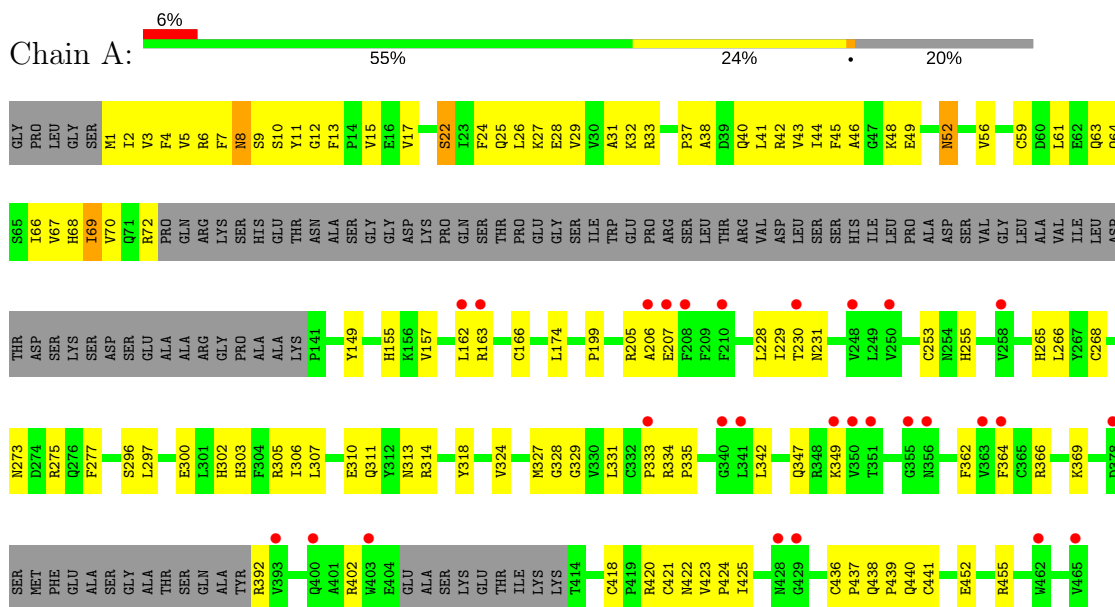
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	
2	G	8	Total 8	Zn 8	0	0
2	J	8	Total 8	Zn 8	0	0
2	D	8	Total 8	Zn 8	0	0
2	K	8	Total 8	Zn 8	0	0
2	E	8	Total 8	Zn 8	0	0
2	H	8	Total 8	Zn 8	0	0
2	B	8	Total 8	Zn 8	0	0
2	I	8	Total 8	Zn 8	0	0
2	C	8	Total 8	Zn 8	0	0
2	A	8	Total 8	Zn 8	0	0
2	L	8	Total 8	Zn 8	0	0
2	F	8	Total 8	Zn 8	0	0

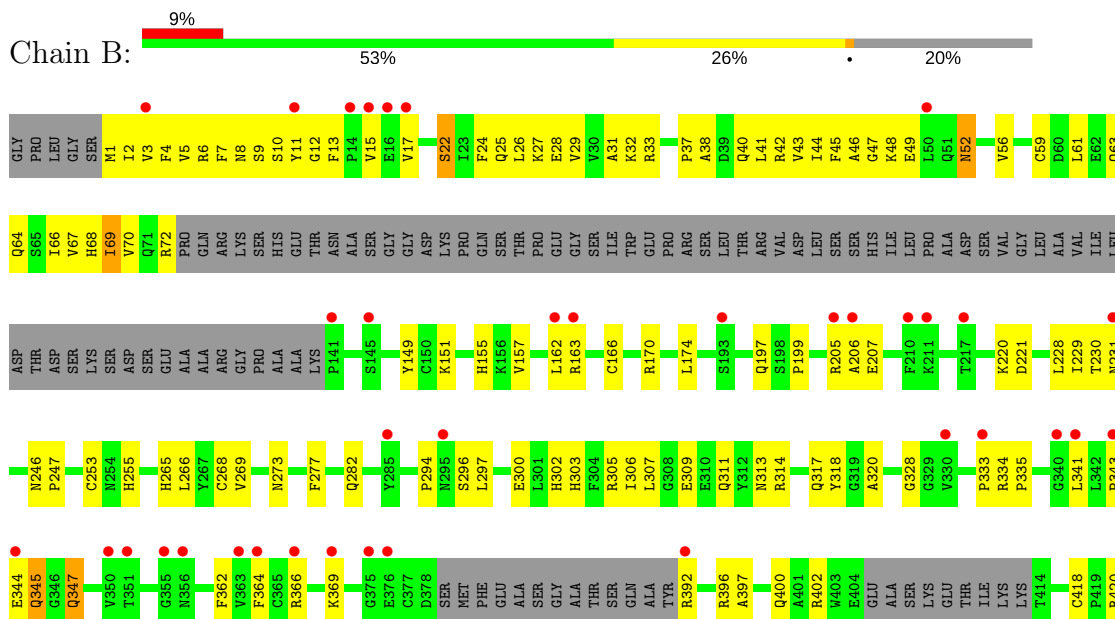
3 Residue-property plots [i](#)

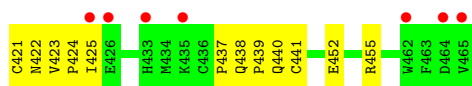
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are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

- Molecule 1: E3 ubiquitin-protein ligase parkin

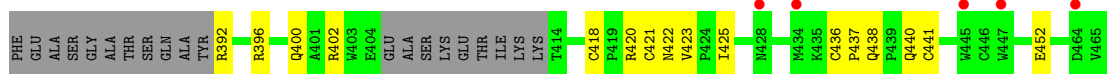
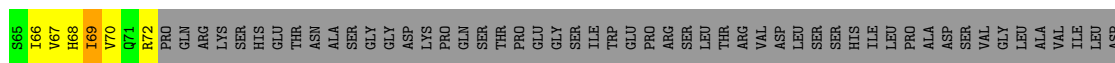
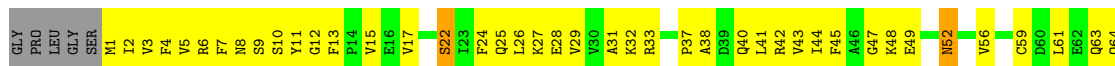


- Molecule 1: E3 ubiquitin-protein ligase parkin

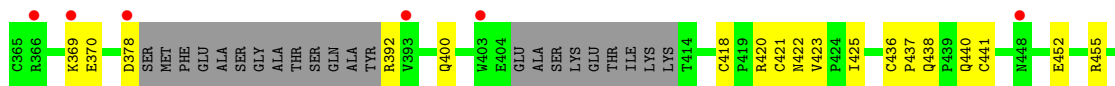
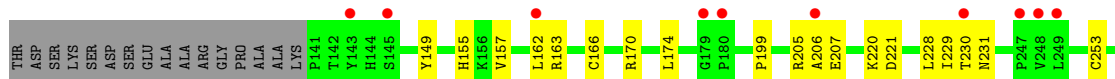
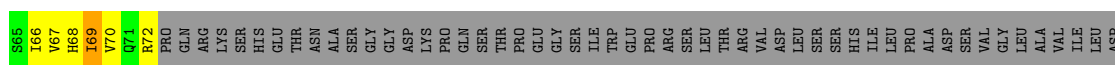
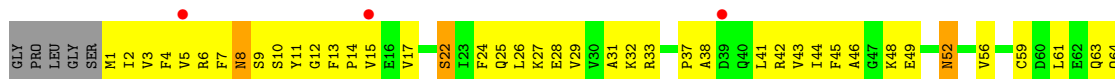




• Molecule 1: E3 ubiquitin-protein ligase parkin

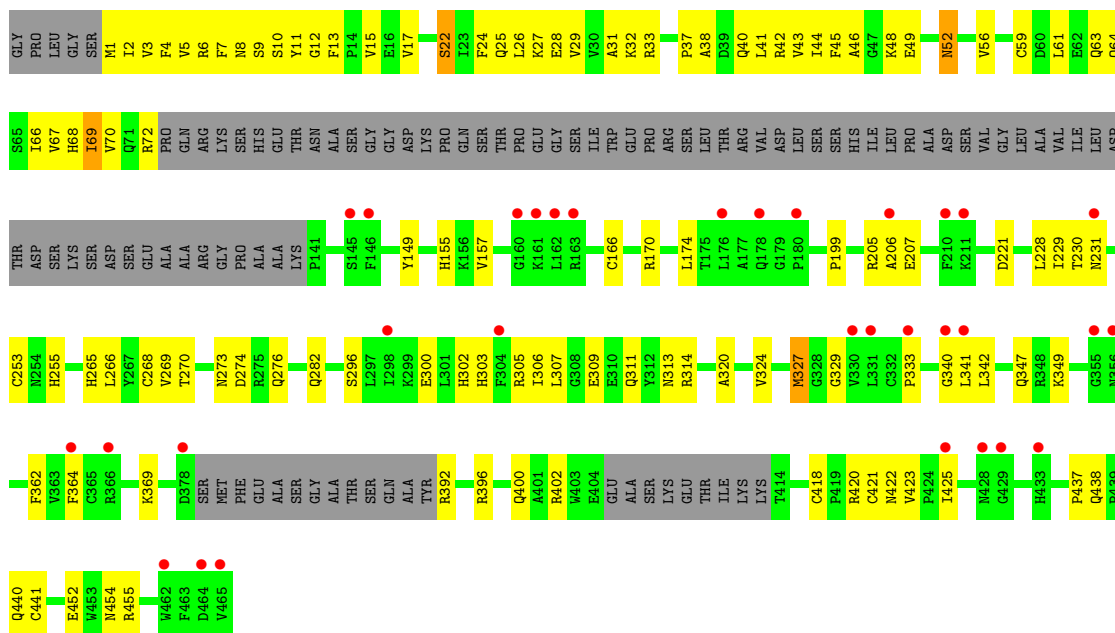


• Molecule 1: E3 ubiquitin-protein ligase parkin

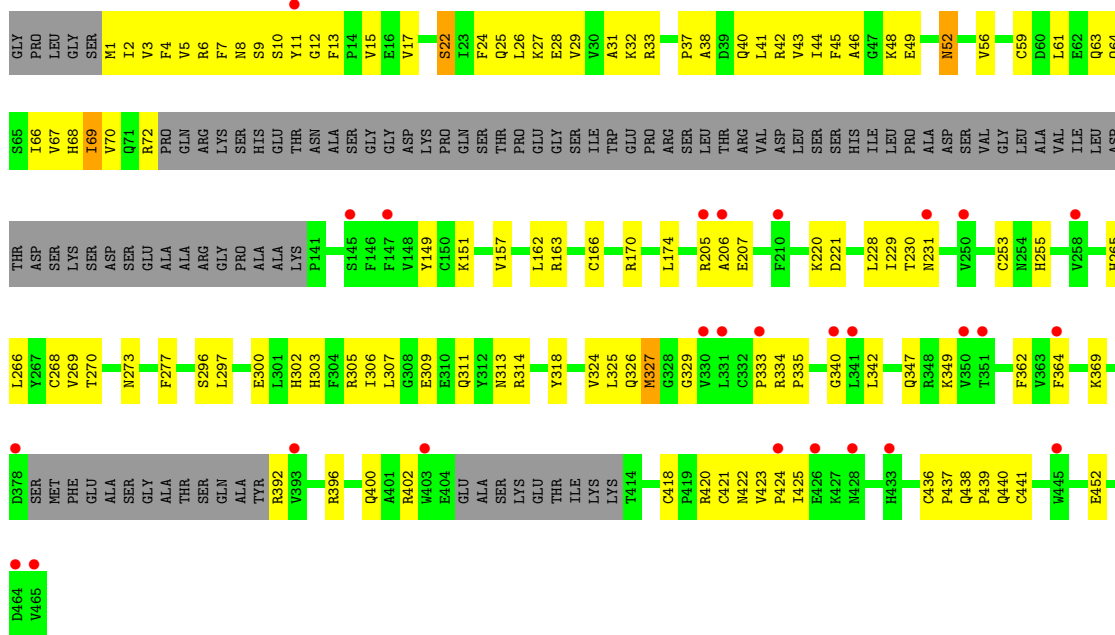


• Molecule 1: E3 ubiquitin-protein ligase parkin

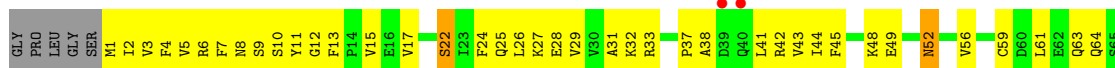


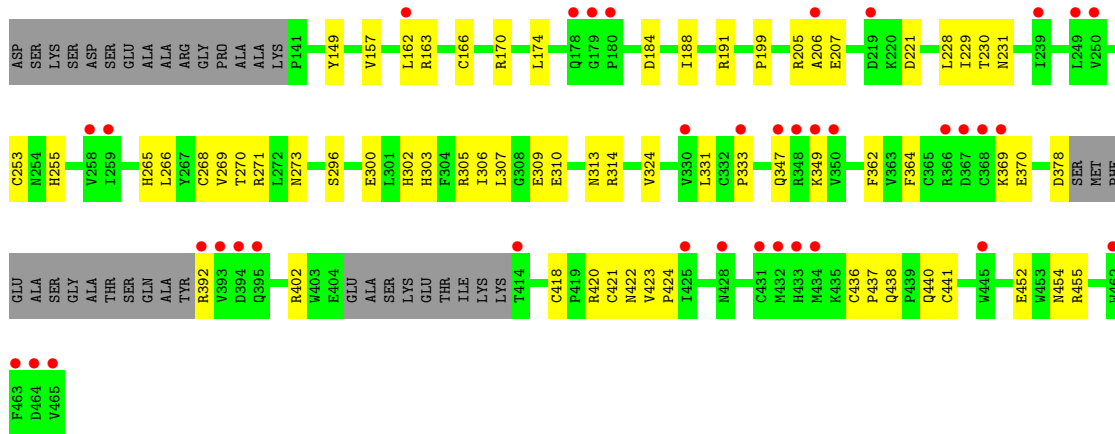


- Molecule 1: E3 ubiquitin-protein ligase parkin

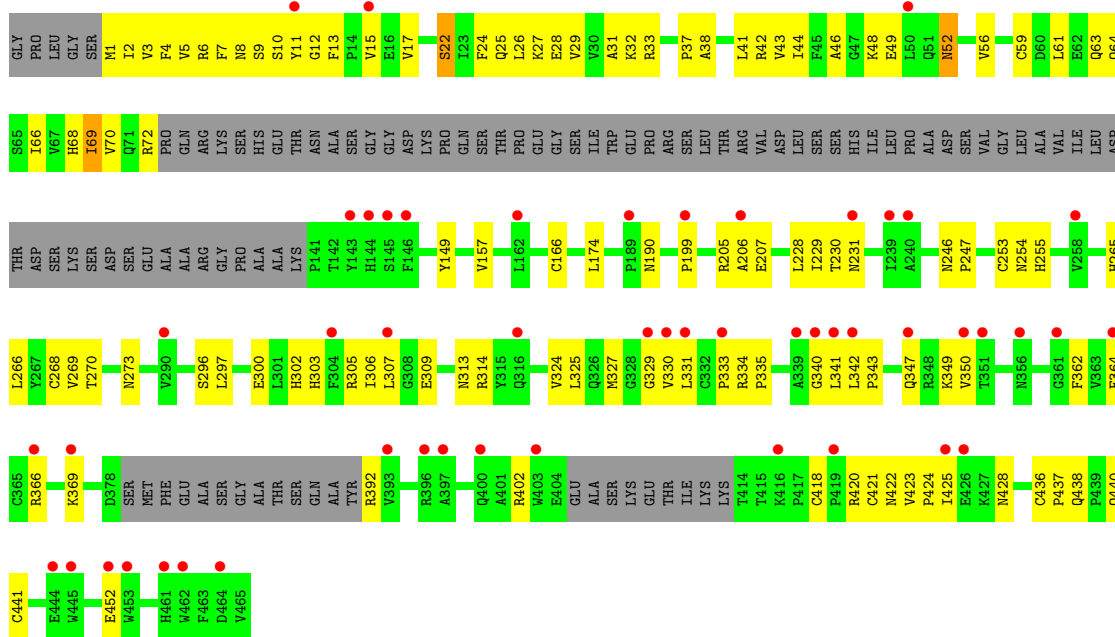


- Molecule 1: E3 ubiquitin-protein ligase parkin

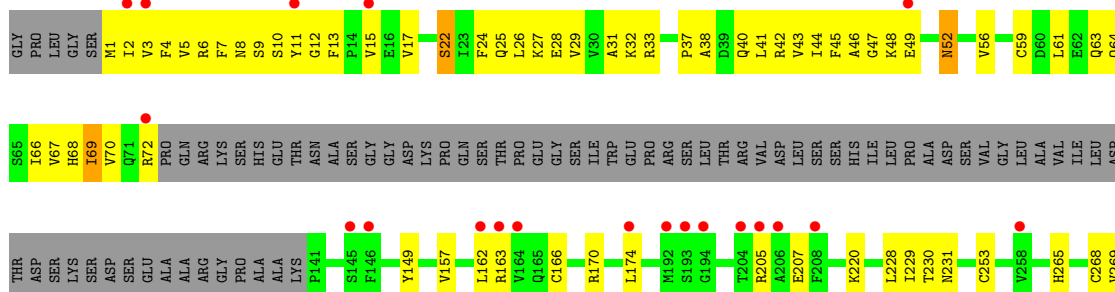


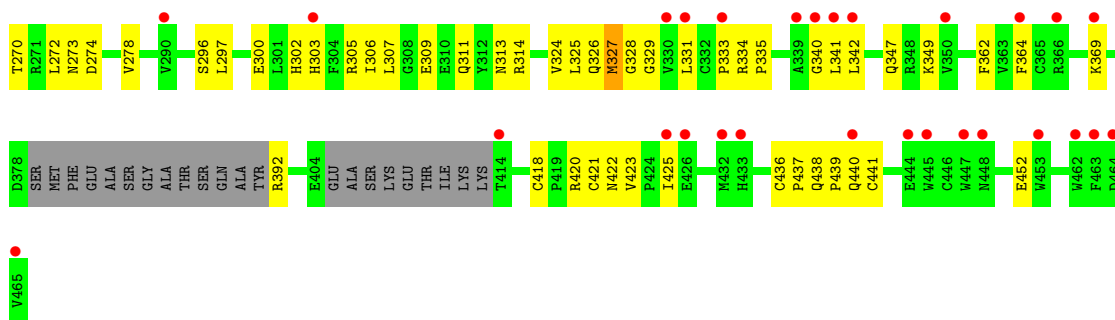


• Molecule 1: E3 ubiquitin-protein ligase parkin

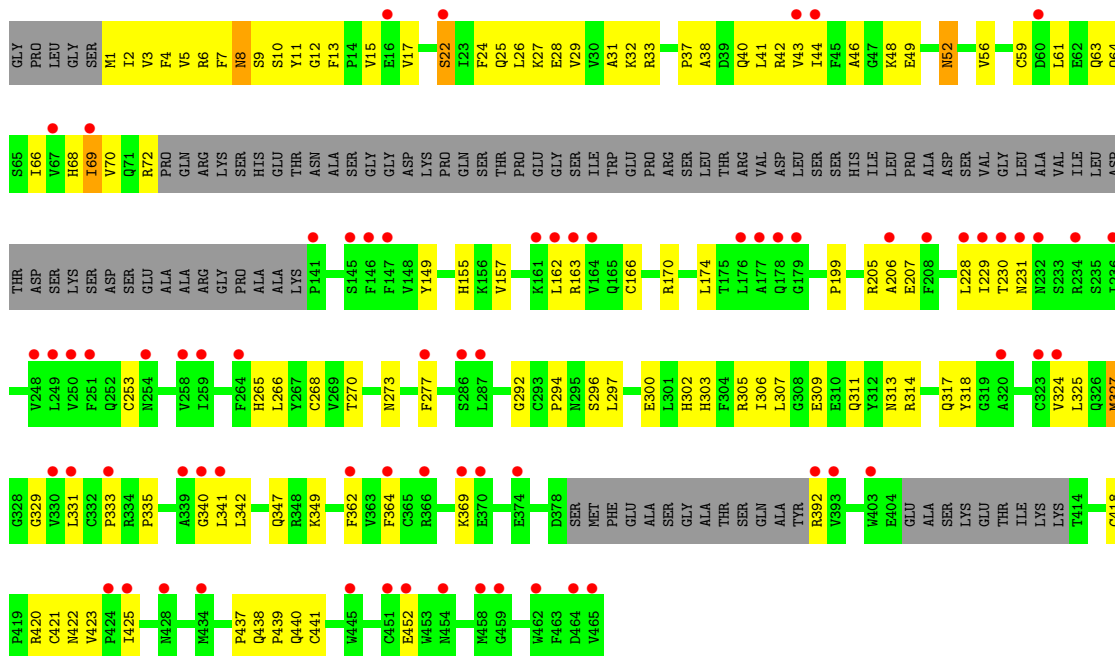


• Molecule 1: E3 ubiquitin-protein ligase parkin





• Molecule 1: E3 ubiquitin-protein ligase parkin



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 2	Depositor
Cell constants a, b, c, α , β , γ	208.60Å 277.44Å 125.89Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.33 – 6.50 49.33 – 6.50	Depositor EDS
% Data completeness (in resolution range)	99.4 (49.33-6.50) 692.9 (49.33-6.50)	Depositor EDS
R_{merge}	0.17	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	3.29 (at 6.68Å)	Xtrriage
Refinement program	PHENIX (phenix.refine: 1.8.2_1309)	Depositor
R, R_{free}	0.307 , 0.327 0.296 , 0.323	Depositor DCC
R_{free} test set	749 reflections (5.02%)	DCC
Wilson B-factor (Å ²)	237.2	Xtrriage
Anisotropy	0.198	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.35 , 212.4	EDS
L-test for twinning ²	$\langle L \rangle = 0.43$, $\langle L^2 \rangle = 0.26$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.77	EDS
Total number of atoms	35796	wwPDB-VP
Average B, all atoms (Å ²)	88.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.95% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality i

5.1 Standard geometry i

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	A	0.43	1/3051 (0.0%)	0.59	2/4125 (0.0%)
1	B	0.43	1/3051 (0.0%)	0.60	2/4125 (0.0%)
1	C	0.43	0/3051	0.60	3/4125 (0.1%)
1	D	0.43	0/3051	0.59	2/4125 (0.0%)
1	E	0.43	0/3051	0.59	2/4125 (0.0%)
1	F	0.44	1/3051 (0.0%)	0.60	2/4125 (0.0%)
1	G	0.43	0/3051	0.60	2/4125 (0.0%)
1	H	0.43	1/3051 (0.0%)	0.59	2/4125 (0.0%)
1	I	0.43	1/3051 (0.0%)	0.59	2/4125 (0.0%)
1	J	0.43	1/3051 (0.0%)	0.59	2/4125 (0.0%)
1	K	0.44	0/3051	0.61	3/4125 (0.1%)
1	L	0.43	0/3051	0.59	2/4125 (0.0%)
All	All	0.43	6/36612 (0.0%)	0.60	26/49500 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	F	0	1
1	K	0	1
All	All	0	2

All (6) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	H	424	PRO	N-CD	5.07	1.54	1.47
1	J	424	PRO	N-CD	5.03	1.54	1.47
1	A	424	PRO	N-CD	5.02	1.54	1.47
1	I	424	PRO	N-CD	5.01	1.54	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	424	PRO	N-CD	5.01	1.54	1.47
1	B	424	PRO	N-CD	5.01	1.54	1.47

All (26) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	423	VAL	C-N-CD	5.82	140.63	128.40
1	J	423	VAL	C-N-CD	5.82	140.62	128.40
1	F	423	VAL	C-N-CD	5.82	140.61	128.40
1	L	423	VAL	C-N-CD	5.82	140.61	128.40
1	G	423	VAL	C-N-CD	5.81	140.61	128.40
1	I	423	VAL	C-N-CD	5.81	140.61	128.40
1	E	423	VAL	C-N-CD	5.81	140.59	128.40
1	A	423	VAL	C-N-CD	5.80	140.59	128.40
1	H	423	VAL	C-N-CD	5.80	140.57	128.40
1	C	423	VAL	C-N-CD	5.79	140.56	128.40
1	K	423	VAL	C-N-CD	5.79	140.55	128.40
1	B	423	VAL	C-N-CD	5.78	140.54	128.40
1	C	69	ILE	CB-CA-C	-5.52	100.57	111.60
1	F	69	ILE	CB-CA-C	-5.51	100.59	111.60
1	E	69	ILE	CB-CA-C	-5.50	100.60	111.60
1	L	69	ILE	CB-CA-C	-5.50	100.60	111.60
1	B	69	ILE	CB-CA-C	-5.48	100.63	111.60
1	K	69	ILE	CB-CA-C	-5.48	100.63	111.60
1	G	69	ILE	CB-CA-C	-5.48	100.64	111.60
1	D	69	ILE	CB-CA-C	-5.48	100.64	111.60
1	A	69	ILE	CB-CA-C	-5.48	100.65	111.60
1	H	69	ILE	CB-CA-C	-5.48	100.65	111.60
1	I	69	ILE	CB-CA-C	-5.47	100.66	111.60
1	J	69	ILE	CB-CA-C	-5.46	100.69	111.60
1	C	329	GLY	N-CA-C	5.44	126.70	113.10
1	K	328	GLY	N-CA-C	-5.04	100.50	113.10

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	F	327	MET	Mainchain
1	K	327	MET	Mainchain

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	2975	0	2830	144	0
1	B	2975	0	2830	208	12
1	C	2975	0	2826	160	4
1	D	2975	0	2831	160	6
1	E	2975	0	2831	193	3
1	F	2975	0	2829	195	8
1	G	2975	0	2832	137	8
1	H	2975	0	2828	151	0
1	I	2975	0	2831	188	1
1	J	2975	0	2831	186	1
1	K	2975	0	2829	162	12
1	L	2975	0	2832	192	6
2	A	8	0	0	0	0
2	B	8	0	0	0	0
2	C	8	0	0	0	0
2	D	8	0	0	0	0
2	E	8	0	0	0	0
2	F	8	0	0	0	0
2	G	8	0	0	0	0
2	H	8	0	0	0	0
2	I	8	0	0	0	0
2	J	8	0	0	0	0
2	K	8	0	0	0	0
2	L	8	0	0	0	0
All	All	35796	0	33960	1886	31

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 27.

All (1886) 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:E:46:ALA:CA	1:E:392:ARG:HH11	1.05	1.64
1:D:46:ALA:CA	1:D:392:ARG:HH11	1.09	1.58
1:C:44:ILE:CD1	1:C:266:LEU:CD2	1.77	1.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:11:TYR:CZ	1:L:333:PRO:HB2	1.34	1.58
1:J:44:ILE:HD13	1:J:266:LEU:CD2	1.12	1.54
1:B:44:ILE:HD13	1:B:266:LEU:CD2	1.06	1.54
1:C:44:ILE:HD13	1:C:266:LEU:CD2	1.10	1.52
1:H:46:ALA:CA	1:H:392:ARG:HH11	1.20	1.51
1:F:46:ALA:CA	1:F:392:ARG:HH11	0.87	1.51
1:J:44:ILE:CD1	1:J:266:LEU:HD22	1.40	1.49
1:F:44:ILE:HD13	1:F:266:LEU:CD2	1.37	1.48
1:C:44:ILE:CG1	1:C:266:LEU:HD21	1.44	1.47
1:J:46:ALA:HA	1:J:392:ARG:CD	1.45	1.46
1:F:46:ALA:CA	1:F:392:ARG:NH1	1.72	1.46
1:D:46:ALA:CB	1:D:392:ARG:NH1	1.79	1.45
1:D:11:TYR:CD1	1:D:369:LYS:CE	1.98	1.44
1:B:396:ARG:NH1	1:F:396:ARG:C	1.67	1.43
1:J:46:ALA:CA	1:J:392:ARG:HH11	1.28	1.43
1:E:46:ALA:HB2	1:E:392:ARG:NH1	1.27	1.43
1:E:44:ILE:HD13	1:E:266:LEU:CD2	1.49	1.42
1:B:44:ILE:CD1	1:B:266:LEU:CD2	1.94	1.42
1:H:11:TYR:CD1	1:H:369:LYS:CE	2.03	1.41
1:C:11:TYR:CD1	1:C:369:LYS:CE	2.03	1.41
1:E:46:ALA:CB	1:E:392:ARG:NH1	1.81	1.40
1:F:46:ALA:CB	1:F:392:ARG:NH1	1.83	1.38
1:C:11:TYR:CD1	1:C:369:LYS:HE2	1.59	1.37
1:J:44:ILE:CD1	1:J:266:LEU:CD2	1.96	1.36
1:C:44:ILE:CD1	1:C:266:LEU:HD21	1.45	1.35
1:B:46:ALA:CA	1:B:392:ARG:CD	2.02	1.35
1:I:11:TYR:CZ	1:I:333:PRO:HB2	1.59	1.35
1:C:11:TYR:CZ	1:C:333:PRO:HB2	1.61	1.35
1:E:327:MET:CB	1:E:342:LEU:HD21	1.55	1.35
1:E:327:MET:HB3	1:E:342:LEU:CD2	1.57	1.34
1:D:46:ALA:HA	1:D:392:ARG:NH1	1.29	1.34
1:L:46:ALA:CA	1:L:392:ARG:HH11	1.39	1.34
1:I:11:TYR:CZ	1:I:333:PRO:CB	2.12	1.33
1:L:11:TYR:CE1	1:L:333:PRO:CB	2.12	1.33
1:H:44:ILE:HD13	1:H:266:LEU:CD2	1.59	1.32
1:E:46:ALA:CB	1:E:392:ARG:HH11	1.35	1.32
1:B:46:ALA:C	1:B:392:ARG:CD	1.98	1.32
1:C:44:ILE:HD13	1:C:266:LEU:CG	1.60	1.32
1:D:11:TYR:CD1	1:D:369:LYS:HE2	1.58	1.31
1:F:46:ALA:HB2	1:F:392:ARG:NH1	1.44	1.31
1:A:44:ILE:HD13	1:A:266:LEU:CD2	1.60	1.30

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:46:ALA:HA	1:H:392:ARG:NH1	1.47	1.30
1:D:11:TYR:CE1	1:D:369:LYS:HE3	1.65	1.29
1:K:327:MET:O	1:K:342:LEU:HD22	1.20	1.29
1:D:6:ARG:NE	1:D:66:ILE:HD11	1.47	1.29
1:J:6:ARG:NE	1:J:66:ILE:HD11	1.47	1.29
1:B:11:TYR:CZ	1:B:333:PRO:HB2	1.67	1.29
1:L:6:ARG:NE	1:L:66:ILE:HD11	1.47	1.28
1:H:6:ARG:NH1	1:H:273:ASN:CB	1.95	1.28
1:K:6:ARG:NE	1:K:66:ILE:HD11	1.47	1.28
1:C:72:ARG:NH2	1:C:265:HIS:HD2	1.29	1.27
1:F:6:ARG:NE	1:F:66:ILE:HD11	1.47	1.27
1:D:46:ALA:CA	1:D:392:ARG:NH1	1.79	1.27
1:E:6:ARG:NE	1:E:66:ILE:HD11	1.47	1.27
1:B:6:ARG:NE	1:B:66:ILE:HD11	1.47	1.26
1:G:6:ARG:NE	1:G:66:ILE:HD11	1.47	1.26
1:I:11:TYR:OH	1:I:333:PRO:HB2	1.15	1.26
1:B:11:TYR:OH	1:B:333:PRO:HB2	1.34	1.26
1:I:184:ASP:O	1:I:188:ILE:HG22	1.33	1.26
1:A:6:ARG:NE	1:A:66:ILE:HD11	1.47	1.26
1:I:6:ARG:NE	1:I:66:ILE:HD11	1.47	1.26
1:C:11:TYR:CZ	1:C:333:PRO:CB	2.16	1.25
1:J:327:MET:O	1:J:342:LEU:HD21	1.16	1.25
1:F:11:TYR:OH	1:F:333:PRO:HB2	1.23	1.25
1:L:11:TYR:CE1	1:L:333:PRO:HB2	1.69	1.25
1:C:11:TYR:OH	1:C:333:PRO:CB	1.85	1.25
1:H:6:ARG:NH1	1:H:273:ASN:HB3	1.50	1.25
1:B:44:ILE:CD1	1:B:266:LEU:HD21	1.55	1.25
1:E:46:ALA:CA	1:E:392:ARG:NH1	1.91	1.24
1:J:190:ASN:OD1	1:J:205:ARG:HD2	1.20	1.24
1:J:327:MET:O	1:J:342:LEU:CD2	1.84	1.24
1:K:327:MET:O	1:K:342:LEU:CD2	1.82	1.24
1:H:11:TYR:CD1	1:H:369:LYS:HE2	1.66	1.24
1:D:11:TYR:CD1	1:D:369:LYS:HE3	1.64	1.23
1:B:46:ALA:C	1:B:392:ARG:HD2	1.58	1.23
1:I:188:ILE:HD13	1:I:191:ARG:NH2	1.51	1.22
1:E:327:MET:CG	1:E:342:LEU:HD11	1.68	1.22
1:B:396:ARG:NH1	1:F:396:ARG:O	1.72	1.22
1:C:11:TYR:CE1	1:C:333:PRO:CB	2.22	1.22
1:H:46:ALA:CA	1:H:392:ARG:NH1	1.98	1.22
1:B:420:ARG:NE	1:D:313:ASN:OD1	1.71	1.22
1:H:11:TYR:CD1	1:H:369:LYS:HE3	1.70	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:11:TYR:OH	1:I:333:PRO:CB	1.85	1.21
1:D:44:ILE:HD13	1:D:266:LEU:CD2	1.70	1.21
1:G:44:ILE:HD13	1:G:266:LEU:CD1	1.71	1.21
1:L:11:TYR:CE1	1:L:333:PRO:O	1.95	1.20
1:H:14:PRO:CD	1:H:370:GLU:OE1	1.89	1.20
1:F:44:ILE:CD1	1:F:266:LEU:HD22	1.71	1.19
1:F:46:ALA:CB	1:F:392:ARG:HH11	1.48	1.19
1:E:327:MET:HG2	1:E:342:LEU:CD1	1.73	1.19
1:B:44:ILE:CD1	1:B:266:LEU:HD22	1.66	1.18
1:E:46:ALA:HA	1:E:392:ARG:CD	1.73	1.18
1:C:11:TYR:CE1	1:C:333:PRO:HB3	1.78	1.18
1:J:46:ALA:HB2	1:J:392:ARG:NH1	1.56	1.18
1:L:324:VAL:HG11	1:L:340:GLY:CA	1.71	1.18
1:H:44:ILE:HD13	1:H:266:LEU:HD22	1.21	1.17
1:K:11:TYR:CZ	1:K:333:PRO:HB2	1.78	1.17
1:A:313:ASN:OD1	1:F:420:ARG:NE	1.76	1.17
1:L:324:VAL:HG11	1:L:340:GLY:HA3	1.22	1.17
1:F:44:ILE:CD1	1:F:266:LEU:CD2	2.21	1.17
1:G:6:ARG:NE	1:G:66:ILE:CD1	2.08	1.17
1:L:11:TYR:CE1	1:L:333:PRO:CA	2.27	1.17
1:B:199:PRO:HD3	1:D:170:ARG:NE	1.59	1.17
1:B:11:TYR:CZ	1:B:333:PRO:CB	2.27	1.16
1:C:44:ILE:CD1	1:C:266:LEU:HD22	1.56	1.16
1:J:6:ARG:NE	1:J:66:ILE:CD1	2.08	1.16
1:L:6:ARG:NE	1:L:66:ILE:CD1	2.09	1.16
1:L:44:ILE:HD13	1:L:266:LEU:CD2	1.75	1.16
1:K:11:TYR:OH	1:K:333:PRO:O	1.62	1.16
1:E:327:MET:HG2	1:E:342:LEU:HD11	1.20	1.16
1:F:6:ARG:NE	1:F:66:ILE:CD1	2.08	1.16
1:L:11:TYR:CZ	1:L:333:PRO:CB	2.26	1.16
1:L:11:TYR:HE1	1:L:333:PRO:CA	1.59	1.16
1:I:44:ILE:HD13	1:I:266:LEU:CD2	1.76	1.15
1:F:46:ALA:HA	1:F:392:ARG:NH1	1.41	1.15
1:E:44:ILE:CD1	1:E:266:LEU:HD22	1.76	1.15
1:D:6:ARG:NE	1:D:66:ILE:CD1	2.09	1.15
1:E:329:GLY:HA3	1:E:341:LEU:O	1.44	1.15
1:E:6:ARG:NE	1:E:66:ILE:CD1	2.08	1.14
1:K:6:ARG:NE	1:K:66:ILE:CD1	2.08	1.14
1:G:11:TYR:CE1	1:G:333:PRO:HB2	1.81	1.14
1:B:6:ARG:NE	1:B:66:ILE:CD1	2.09	1.14
1:A:6:ARG:NE	1:A:66:ILE:CD1	2.09	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:324:VAL:HG11	1:K:340:GLY:HA3	1.28	1.14
1:J:452:GLU:CG	1:L:309:GLU:OE2	1.95	1.14
1:B:44:ILE:CG1	1:B:266:LEU:HD21	1.78	1.13
1:I:6:ARG:NE	1:I:66:ILE:CD1	2.08	1.13
1:J:325:LEU:HD21	1:J:331:LEU:CD1	1.76	1.13
1:J:325:LEU:CD2	1:J:331:LEU:HD11	1.78	1.13
1:J:452:GLU:CD	1:L:309:GLU:OE2	1.85	1.13
1:K:327:MET:HB3	1:K:342:LEU:HD21	1.31	1.12
1:J:46:ALA:CA	1:J:392:ARG:NH1	2.12	1.12
1:K:309:GLU:OE2	1:L:452:GLU:HG2	1.48	1.12
1:D:72:ARG:HH22	1:D:265:HIS:CD2	1.68	1.12
1:B:46:ALA:C	1:B:392:ARG:HD3	1.62	1.12
1:K:47:GLY:HA3	1:K:392:ARG:HB3	1.25	1.12
1:J:44:ILE:CG1	1:J:266:LEU:HD21	1.79	1.12
1:E:46:ALA:HA	1:E:392:ARG:HD2	1.20	1.12
1:G:11:TYR:CE1	1:G:333:PRO:CB	2.31	1.12
1:K:327:MET:HB3	1:K:342:LEU:CD2	1.78	1.12
1:C:72:ARG:NH2	1:C:265:HIS:CD2	2.17	1.11
1:J:44:ILE:CB	1:J:266:LEU:HD21	1.80	1.11
1:C:11:TYR:CD1	1:C:369:LYS:HE3	1.75	1.11
1:C:44:ILE:HD13	1:C:266:LEU:CD1	1.78	1.11
1:J:46:ALA:CA	1:J:392:ARG:CD	2.26	1.11
1:F:327:MET:HB3	1:F:342:LEU:HD21	1.32	1.11
1:I:11:TYR:OH	1:I:333:PRO:O	1.68	1.11
1:I:14:PRO:HD2	1:I:370:GLU:OE1	1.48	1.11
1:D:2:ILE:HD12	1:D:378:ASP:OD2	1.52	1.10
1:G:44:ILE:HD13	1:G:266:LEU:CD2	1.82	1.10
1:D:46:ALA:HB2	1:D:392:ARG:NH1	1.60	1.09
1:J:325:LEU:HD21	1:J:331:LEU:HD11	1.31	1.09
1:J:46:ALA:CB	1:J:392:ARG:NH1	2.15	1.09
1:D:46:ALA:HB2	1:D:392:ARG:HH12	1.14	1.09
1:D:46:ALA:CB	1:D:392:ARG:HH11	1.51	1.08
1:J:46:ALA:CB	1:J:392:ARG:HH11	1.66	1.08
1:H:6:ARG:HH11	1:H:273:ASN:HB3	1.01	1.08
1:I:72:ARG:NH2	1:I:265:HIS:HD2	1.51	1.08
1:L:10:SER:HA	1:L:273:ASN:O	1.52	1.08
1:L:324:VAL:CG1	1:L:340:GLY:HA3	1.82	1.08
1:B:420:ARG:NH2	1:D:313:ASN:OD1	1.87	1.08
1:C:313:ASN:OD1	1:H:420:ARG:NE	1.87	1.08
1:H:6:ARG:HH12	1:H:273:ASN:HB2	1.12	1.08
1:C:11:TYR:OH	1:C:333:PRO:HB2	0.90	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:10:SER:HA	1:E:273:ASN:O	1.51	1.07
1:B:420:ARG:HE	1:D:313:ASN:CG	1.58	1.07
1:H:6:ARG:NH1	1:H:273:ASN:HB2	1.66	1.06
1:B:46:ALA:O	1:B:392:ARG:HD3	1.53	1.06
1:B:420:ARG:CZ	1:D:313:ASN:OD1	2.03	1.06
1:K:327:MET:C	1:K:342:LEU:CD2	2.23	1.06
1:I:44:ILE:HD13	1:I:266:LEU:CD1	1.85	1.06
1:J:452:GLU:HG2	1:L:309:GLU:OE2	1.54	1.06
1:L:46:ALA:HA	1:L:392:ARG:HH11	0.93	1.06
1:I:11:TYR:OH	1:I:333:PRO:C	1.95	1.05
1:D:72:ARG:NH2	1:D:265:HIS:CD2	2.24	1.05
1:D:44:ILE:CD1	1:D:266:LEU:HD22	1.86	1.05
1:F:46:ALA:HA	1:F:392:ARG:CD	1.87	1.05
1:I:188:ILE:HG23	1:I:191:ARG:HB2	1.36	1.05
1:I:72:ARG:NH2	1:I:265:HIS:CD2	2.25	1.05
1:D:44:ILE:HD13	1:D:266:LEU:HD22	1.06	1.04
1:J:46:ALA:CA	1:J:392:ARG:HD2	1.84	1.04
1:G:11:TYR:HE1	1:G:333:PRO:CB	1.67	1.04
1:L:327:MET:CB	1:L:342:LEU:HD21	1.87	1.04
1:E:46:ALA:HA	1:E:392:ARG:HH11	1.06	1.04
1:K:327:MET:CB	1:K:342:LEU:HD21	1.87	1.04
1:B:11:TYR:HE1	1:B:333:PRO:HA	1.24	1.03
1:B:396:ARG:NH1	1:F:396:ARG:CA	2.13	1.03
1:K:324:VAL:HG11	1:K:340:GLY:CA	1.88	1.03
1:L:46:ALA:CA	1:L:392:ARG:NH1	2.21	1.03
1:B:309:GLU:OE2	1:I:452:GLU:HG2	1.58	1.03
1:H:14:PRO:HD3	1:H:370:GLU:OE1	1.56	1.03
1:L:46:ALA:HB2	1:L:392:ARG:NH1	1.72	1.03
1:C:44:ILE:HD11	1:C:266:LEU:HD22	1.41	1.03
1:H:44:ILE:HD13	1:H:266:LEU:HD21	1.41	1.03
1:L:46:ALA:HA	1:L:392:ARG:NH1	1.74	1.03
1:F:72:ARG:NH2	1:F:265:HIS:HD2	1.56	1.02
1:A:44:ILE:CD1	1:A:266:LEU:HD22	1.88	1.02
1:D:72:ARG:NH2	1:D:265:HIS:HD2	1.58	1.02
1:F:11:TYR:OH	1:F:333:PRO:CB	2.07	1.02
1:L:44:ILE:HD13	1:L:266:LEU:HD22	1.06	1.02
1:E:327:MET:SD	1:E:342:LEU:HD11	1.98	1.02
1:L:46:ALA:CB	1:L:392:ARG:NH1	2.23	1.01
1:B:11:TYR:CE1	1:B:333:PRO:CB	2.43	1.01
1:J:324:VAL:HG12	1:J:331:LEU:HD21	1.41	1.01
1:E:44:ILE:CD1	1:E:266:LEU:CD2	2.32	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:329:GLY:HA3	1:L:341:LEU:O	1.61	1.01
1:I:72:ARG:HH22	1:I:265:HIS:HD2	1.04	1.01
1:B:46:ALA:HA	1:B:392:ARG:CD	1.53	1.01
1:H:14:PRO:HD2	1:H:370:GLU:OE1	1.55	1.01
1:H:68:HIS:CE1	1:H:270:THR:HA	1.95	1.01
1:B:46:ALA:CA	1:B:392:ARG:HD2	1.74	1.00
1:K:11:TYR:CE1	1:K:333:PRO:CA	2.43	1.00
1:J:44:ILE:CD1	1:J:266:LEU:HD21	1.83	1.00
1:L:325:LEU:HD21	1:L:331:LEU:HG	1.39	1.00
1:G:420:ARG:NE	1:H:313:ASN:OD1	1.93	1.00
1:J:46:ALA:HA	1:J:392:ARG:HD2	1.02	1.00
1:A:44:ILE:HD13	1:A:266:LEU:HD22	1.02	1.00
1:L:46:ALA:CB	1:L:392:ARG:HH11	1.75	1.00
1:C:44:ILE:HG12	1:C:266:LEU:HD21	1.40	1.00
1:F:6:ARG:HE	1:F:66:ILE:HD11	1.10	1.00
1:L:11:TYR:HE1	1:L:333:PRO:C	1.65	1.00
1:J:199:PRO:HD3	1:L:170:ARG:CZ	1.92	0.99
1:A:6:ARG:HE	1:A:66:ILE:HD11	1.10	0.99
1:F:44:ILE:CG1	1:F:266:LEU:HD21	1.93	0.99
1:I:188:ILE:CD1	1:I:191:ARG:NH2	2.25	0.99
1:B:44:ILE:HD13	1:B:266:LEU:HD22	0.99	0.99
1:E:11:TYR:OH	1:E:333:PRO:HB2	1.63	0.99
1:F:327:MET:O	1:F:342:LEU:HD22	1.62	0.99
1:J:46:ALA:N	1:J:392:ARG:HH11	1.59	0.99
1:C:400:GLN:HG2	1:E:396:ARG:NH1	1.76	0.99
1:D:24:PHE:CE2	1:D:25:GLN:HG3	1.98	0.99
1:I:24:PHE:CE2	1:I:25:GLN:HG3	1.98	0.98
1:L:24:PHE:CE2	1:L:25:GLN:HG3	1.98	0.98
1:E:329:GLY:CA	1:E:341:LEU:O	2.11	0.98
1:G:24:PHE:CE2	1:G:25:GLN:HG3	1.98	0.98
1:I:14:PRO:CD	1:I:370:GLU:OE1	2.12	0.98
1:B:11:TYR:OH	1:B:333:PRO:O	1.79	0.98
1:J:24:PHE:CE2	1:J:25:GLN:HG3	1.98	0.98
1:A:24:PHE:CE2	1:A:25:GLN:HG3	1.98	0.98
1:F:24:PHE:CE2	1:F:25:GLN:HG3	1.98	0.98
1:B:396:ARG:C	1:F:396:ARG:NH2	2.12	0.98
1:H:24:PHE:CE2	1:H:25:GLN:HG3	1.98	0.97
1:H:11:TYR:CG	1:H:369:LYS:CE	2.47	0.97
1:K:24:PHE:CE2	1:K:25:GLN:HG3	1.98	0.97
1:B:24:PHE:CE2	1:B:25:GLN:HG3	1.98	0.97
1:L:327:MET:HB3	1:L:342:LEU:CD2	1.95	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:24:PHE:CE2	1:C:25:GLN:HG3	1.98	0.97
1:B:44:ILE:HD13	1:B:266:LEU:HD21	1.00	0.97
1:F:46:ALA:HA	1:F:392:ARG:HD2	1.45	0.97
1:E:324:VAL:HG11	1:E:340:GLY:HA3	1.45	0.96
1:L:327:MET:HB3	1:L:342:LEU:HD21	0.99	0.96
1:L:327:MET:HG2	1:L:342:LEU:HD11	1.47	0.96
1:E:24:PHE:CE2	1:E:25:GLN:HG3	1.98	0.96
1:C:11:TYR:CG	1:C:369:LYS:HE2	1.99	0.96
1:F:327:MET:O	1:F:342:LEU:CD2	2.14	0.96
1:I:72:ARG:HH22	1:I:265:HIS:CD2	1.81	0.96
1:B:11:TYR:CD1	1:B:369:LYS:CE	2.49	0.96
1:K:6:ARG:HE	1:K:66:ILE:HD11	1.09	0.96
1:E:72:ARG:HH22	1:E:265:HIS:HD2	1.14	0.96
1:G:11:TYR:CZ	1:G:333:PRO:HB2	1.99	0.95
1:G:44:ILE:HD13	1:G:266:LEU:HD11	1.49	0.95
1:B:11:TYR:CD1	1:B:369:LYS:HE2	2.02	0.95
1:J:72:ARG:HH22	1:J:265:HIS:HD2	1.04	0.95
1:F:72:ARG:NH2	1:F:265:HIS:CD2	2.34	0.95
1:C:11:TYR:CE1	1:C:369:LYS:HE3	2.02	0.95
1:C:313:ASN:OD1	1:H:420:ARG:NH2	2.00	0.95
1:C:72:ARG:HH22	1:C:265:HIS:HD2	1.06	0.94
1:A:44:ILE:CD1	1:A:266:LEU:CD2	2.45	0.94
1:F:327:MET:HB3	1:F:342:LEU:CD2	1.97	0.94
1:I:6:ARG:HE	1:I:66:ILE:HD11	1.10	0.94
1:A:11:TYR:OH	1:A:333:PRO:HB2	1.66	0.94
1:J:420:ARG:HE	1:L:313:ASN:CG	1.64	0.94
1:L:325:LEU:CD2	1:L:331:LEU:HG	1.98	0.94
1:E:46:ALA:CA	1:E:392:ARG:HD2	1.97	0.94
1:K:68:HIS:CE1	1:K:274:ASP:OD1	2.21	0.94
1:I:44:ILE:HD13	1:I:266:LEU:HD22	1.49	0.94
1:I:11:TYR:CE1	1:I:333:PRO:HA	2.02	0.94
1:C:70:VAL:CG1	1:C:269:VAL:HG11	1.97	0.94
1:L:44:ILE:CD1	1:L:266:LEU:HD22	1.96	0.94
1:I:11:TYR:HH	1:I:333:PRO:C	1.69	0.94
1:K:11:TYR:CZ	1:K:333:PRO:CB	2.50	0.93
1:G:72:ARG:NH2	1:G:265:HIS:HD2	1.65	0.93
1:K:11:TYR:CZ	1:K:333:PRO:O	2.21	0.93
1:C:11:TYR:HE1	1:C:333:PRO:CA	1.81	0.93
1:E:44:ILE:CB	1:E:266:LEU:HD21	1.98	0.93
1:B:313:ASN:HB3	1:I:420:ARG:HG3	1.47	0.93
1:F:44:ILE:CD1	1:F:266:LEU:HD21	1.99	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:188:ILE:HD13	1:I:191:ARG:HH21	1.32	0.93
1:A:313:ASN:CG	1:F:420:ARG:HE	1.71	0.93
1:F:44:ILE:HD13	1:F:266:LEU:HD21	1.47	0.93
1:L:325:LEU:HD21	1:L:331:LEU:CG	1.97	0.93
1:C:44:ILE:CD1	1:C:266:LEU:CD1	2.44	0.93
1:D:44:ILE:HG21	1:D:266:LEU:HD21	1.48	0.93
1:C:11:TYR:HE1	1:C:333:PRO:HA	1.30	0.93
1:F:72:ARG:HH22	1:F:265:HIS:HD2	0.99	0.92
1:K:11:TYR:CE1	1:K:333:PRO:CB	2.53	0.92
1:F:72:ARG:HH22	1:F:265:HIS:CD2	1.87	0.92
1:J:6:ARG:HE	1:J:66:ILE:HD11	1.10	0.92
1:B:11:TYR:CE1	1:B:333:PRO:CA	2.52	0.92
1:C:11:TYR:CG	1:C:369:LYS:CE	2.52	0.92
1:F:46:ALA:HA	1:F:392:ARG:CZ	2.00	0.92
1:I:11:TYR:OH	1:I:333:PRO:CA	2.18	0.92
1:D:6:ARG:HE	1:D:66:ILE:CD1	1.78	0.92
1:K:70:VAL:CG1	1:K:269:VAL:HG11	1.99	0.92
1:F:10:SER:HA	1:F:273:ASN:O	1.68	0.92
1:L:324:VAL:CG1	1:L:340:GLY:CA	2.45	0.92
1:G:328:GLY:O	1:G:366:ARG:NH2	2.03	0.92
1:J:452:GLU:OE2	1:L:309:GLU:CD	2.07	0.92
1:L:6:ARG:HE	1:L:66:ILE:HD11	1.10	0.92
1:J:46:ALA:CA	1:J:392:ARG:HD3	1.98	0.91
1:K:313:ASN:OD1	1:L:420:ARG:NH2	2.03	0.91
1:B:199:PRO:HD3	1:D:170:ARG:HE	1.28	0.91
1:D:11:TYR:HD1	1:D:369:LYS:HE2	1.16	0.91
1:F:44:ILE:HD13	1:F:266:LEU:HD22	0.92	0.91
1:H:11:TYR:CE1	1:H:369:LYS:HE3	2.04	0.91
1:L:11:TYR:CE1	1:L:333:PRO:C	2.39	0.91
1:C:313:ASN:CG	1:H:420:ARG:HE	1.72	0.91
1:A:6:ARG:HE	1:A:66:ILE:CD1	1.78	0.91
1:E:46:ALA:CA	1:E:392:ARG:CD	2.47	0.91
1:F:46:ALA:HA	1:F:392:ARG:HH11	0.77	0.91
1:B:309:GLU:OE2	1:I:452:GLU:CG	2.19	0.91
1:K:11:TYR:CE1	1:K:333:PRO:HA	2.04	0.91
1:I:11:TYR:HE1	1:I:333:PRO:HA	1.34	0.91
1:K:47:GLY:CA	1:K:392:ARG:HB3	2.01	0.91
1:C:72:ARG:CZ	1:C:265:HIS:CD2	2.54	0.90
1:E:44:ILE:CG1	1:E:266:LEU:HD21	2.00	0.90
1:G:44:ILE:CD1	1:G:266:LEU:CD2	2.49	0.90
1:L:11:TYR:OH	1:L:333:PRO:HB2	1.70	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:11:TYR:OH	1:B:333:PRO:CB	2.14	0.90
1:I:44:ILE:CD1	1:I:266:LEU:CD2	2.49	0.90
1:J:72:ARG:NH2	1:J:265:HIS:HD2	1.68	0.90
1:B:44:ILE:HD13	1:B:266:LEU:CG	2.02	0.90
1:B:6:ARG:HE	1:B:66:ILE:CD1	1.77	0.90
1:E:6:ARG:HE	1:E:66:ILE:HD11	1.10	0.90
1:J:199:PRO:CG	1:L:170:ARG:HE	1.85	0.90
1:G:6:ARG:HE	1:G:66:ILE:CD1	1.77	0.89
1:I:6:ARG:HE	1:I:66:ILE:CD1	1.77	0.89
1:E:44:ILE:HD13	1:E:266:LEU:HD22	0.91	0.89
1:H:46:ALA:HA	1:H:392:ARG:CD	2.01	0.89
1:B:11:TYR:CE1	1:B:333:PRO:HA	2.07	0.89
1:D:6:ARG:HE	1:D:66:ILE:HD11	1.10	0.89
1:D:400:GLN:HG2	1:H:396:ARG:CZ	2.02	0.89
1:J:44:ILE:CG1	1:J:266:LEU:CD2	2.44	0.89
1:I:11:TYR:CE1	1:I:333:PRO:CA	2.56	0.89
1:C:440:GLN:N	1:C:440:GLN:OE1	2.06	0.89
1:E:440:GLN:N	1:E:440:GLN:OE1	2.06	0.89
1:G:440:GLN:OE1	1:G:440:GLN:N	2.06	0.89
1:D:440:GLN:OE1	1:D:440:GLN:N	2.06	0.88
1:H:11:TYR:CG	1:H:369:LYS:HE3	2.07	0.88
1:I:44:ILE:CG1	1:I:266:LEU:HD21	2.03	0.88
1:L:440:GLN:OE1	1:L:440:GLN:N	2.06	0.88
1:C:400:GLN:HG2	1:E:396:ARG:HH11	1.35	0.88
1:G:11:TYR:CE1	1:G:333:PRO:HB3	2.07	0.88
1:B:155:HIS:CE1	1:I:452:GLU:HG3	2.09	0.88
1:C:313:ASN:OD1	1:H:420:ARG:CZ	2.22	0.88
1:K:11:TYR:HE1	1:K:333:PRO:HA	1.37	0.88
1:F:46:ALA:N	1:F:392:ARG:NH1	2.21	0.88
1:J:440:GLN:N	1:J:440:GLN:OE1	2.06	0.88
1:L:324:VAL:HG11	1:L:340:GLY:HA2	1.55	0.88
1:B:47:GLY:N	1:B:392:ARG:HD2	1.89	0.88
1:F:440:GLN:OE1	1:F:440:GLN:N	2.06	0.88
1:H:46:ALA:CB	1:H:392:ARG:NH1	2.36	0.88
1:J:325:LEU:CD2	1:J:331:LEU:CD1	2.46	0.88
1:K:11:TYR:CE1	1:K:333:PRO:O	2.27	0.88
1:L:325:LEU:HD21	1:L:331:LEU:CD1	2.03	0.87
1:B:440:GLN:N	1:B:440:GLN:OE1	2.06	0.87
1:G:6:ARG:HE	1:G:66:ILE:HD11	1.09	0.87
1:H:440:GLN:OE1	1:H:440:GLN:N	2.06	0.87
1:L:8:ASN:O	1:L:335:PRO:HB3	1.75	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:6:ARG:HE	1:B:66:ILE:HD11	1.10	0.87
1:F:46:ALA:N	1:F:392:ARG:HH11	1.71	0.87
1:A:440:GLN:OE1	1:A:440:GLN:N	2.06	0.87
1:F:44:ILE:CB	1:F:266:LEU:HD21	2.05	0.87
1:K:440:GLN:OE1	1:K:440:GLN:N	2.06	0.87
1:F:11:TYR:CD1	1:F:369:LYS:HE2	2.09	0.87
1:L:6:ARG:HE	1:L:66:ILE:CD1	1.77	0.87
1:H:6:ARG:HH11	1:H:273:ASN:CB	1.75	0.86
1:J:10:SER:HA	1:J:273:ASN:O	1.75	0.86
1:H:46:ALA:HA	1:H:392:ARG:HH11	0.71	0.86
1:I:440:GLN:OE1	1:I:440:GLN:N	2.06	0.86
1:D:400:GLN:HE21	1:H:396:ARG:HD3	1.40	0.86
1:J:72:ARG:HH22	1:J:265:HIS:CD2	1.93	0.86
1:D:72:ARG:HH22	1:D:265:HIS:HD2	0.88	0.86
1:F:327:MET:CB	1:F:342:LEU:HD21	2.06	0.86
1:D:400:GLN:HG2	1:H:396:ARG:NH1	1.90	0.86
1:J:6:ARG:HE	1:J:66:ILE:CD1	1.78	0.86
1:C:11:TYR:CZ	1:C:333:PRO:HB3	1.99	0.86
1:H:46:ALA:N	1:H:392:ARG:HH11	1.73	0.86
1:J:313:ASN:OD1	1:K:420:ARG:NE	2.08	0.86
1:J:72:ARG:NH2	1:J:265:HIS:CD2	2.44	0.86
1:C:396:ARG:NE	1:E:400:GLN:HE21	1.74	0.86
1:F:6:ARG:HE	1:F:66:ILE:CD1	1.77	0.86
1:G:44:ILE:CG1	1:G:266:LEU:HD21	2.06	0.86
1:H:11:TYR:CG	1:H:369:LYS:HE2	2.09	0.86
1:D:46:ALA:HA	1:D:392:ARG:HH11	0.70	0.85
1:K:6:ARG:HE	1:K:66:ILE:CD1	1.77	0.85
1:D:44:ILE:CG2	1:D:266:LEU:HD21	2.06	0.85
1:D:44:ILE:CB	1:D:266:LEU:HD21	2.06	0.85
1:C:44:ILE:HD13	1:C:266:LEU:HD22	1.19	0.85
1:K:327:MET:C	1:K:342:LEU:HD21	1.96	0.85
1:I:188:ILE:CD1	1:I:191:ARG:HH21	1.87	0.85
1:J:440:GLN:O	1:L:317:GLN:NE2	2.08	0.85
1:J:330:VAL:HG11	1:J:350:VAL:HG11	1.57	0.84
1:F:11:TYR:CZ	1:F:333:PRO:HB2	2.12	0.84
1:I:11:TYR:CE1	1:I:333:PRO:CB	2.60	0.84
1:B:345:GLN:OE1	1:B:347:GLN:HB2	1.77	0.84
1:F:46:ALA:HB2	1:F:392:ARG:HH12	1.39	0.84
1:H:68:HIS:HE1	1:H:270:THR:HA	1.42	0.84
1:B:317:GLN:NE2	1:I:440:GLN:O	2.10	0.84
1:J:199:PRO:CG	1:L:170:ARG:NE	2.40	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:199:PRO:HG2	1:E:170:ARG:HG3	1.60	0.84
1:J:46:ALA:HA	1:J:392:ARG:HH11	1.26	0.84
1:C:11:TYR:HD1	1:C:369:LYS:HE2	1.34	0.84
1:G:44:ILE:CD1	1:G:266:LEU:HD21	2.07	0.84
1:L:72:ARG:HH22	1:L:265:HIS:HD2	1.24	0.84
1:A:327:MET:HB3	1:A:342:LEU:HD21	1.59	0.84
1:A:72:ARG:HH22	1:A:265:HIS:HD2	1.25	0.84
1:G:44:ILE:HD13	1:G:266:LEU:HD21	1.60	0.84
1:J:190:ASN:OD1	1:J:205:ARG:CD	2.16	0.84
1:C:44:ILE:CG1	1:C:266:LEU:CD2	2.32	0.84
1:B:24:PHE:HB3	1:B:52:ASN:HD21	1.43	0.83
1:A:24:PHE:HB3	1:A:52:ASN:HD21	1.43	0.83
1:I:24:PHE:HB3	1:I:52:ASN:HD21	1.43	0.83
1:G:72:ARG:NH2	1:G:265:HIS:CD2	2.46	0.83
1:J:24:PHE:HB3	1:J:52:ASN:HD21	1.43	0.83
1:L:329:GLY:CA	1:L:341:LEU:O	2.26	0.83
1:H:24:PHE:HB3	1:H:52:ASN:HD21	1.43	0.83
1:J:325:LEU:HD21	1:J:331:LEU:HD12	1.57	0.83
1:C:11:TYR:CE1	1:C:333:PRO:CA	2.58	0.83
1:E:46:ALA:N	1:E:392:ARG:HH11	1.75	0.83
1:G:24:PHE:HB3	1:G:52:ASN:HD21	1.43	0.83
1:C:24:PHE:HB3	1:C:52:ASN:HD21	1.43	0.83
1:L:11:TYR:CZ	1:L:333:PRO:O	2.31	0.83
1:E:72:ARG:HH22	1:E:265:HIS:CD2	1.96	0.82
1:G:44:ILE:CD1	1:G:266:LEU:CD1	2.57	0.82
1:I:44:ILE:HD13	1:I:266:LEU:HD13	1.59	0.82
1:K:324:VAL:CG1	1:K:340:GLY:HA3	2.07	0.82
1:E:46:ALA:HA	1:E:392:ARG:NH1	1.69	0.82
1:G:327:MET:HB3	1:G:342:LEU:HD21	1.62	0.82
1:B:11:TYR:HE1	1:B:333:PRO:CA	1.90	0.82
1:C:47:GLY:HA3	1:C:392:ARG:HB3	1.62	0.82
1:L:24:PHE:HB3	1:L:52:ASN:HD21	1.43	0.82
1:E:6:ARG:HE	1:E:66:ILE:CD1	1.77	0.82
1:K:72:ARG:NH2	1:K:265:HIS:HD2	1.77	0.82
1:L:44:ILE:CB	1:L:266:LEU:HD21	2.10	0.82
1:D:24:PHE:HB3	1:D:52:ASN:HD21	1.43	0.82
1:F:6:ARG:CD	1:F:66:ILE:HD11	2.10	0.82
1:L:327:MET:CG	1:L:342:LEU:HD11	2.10	0.82
1:D:2:ILE:CD1	1:D:378:ASP:OD2	2.28	0.82
1:D:199:PRO:HG2	1:I:170:ARG:HG3	1.61	0.81
1:E:44:ILE:HD13	1:E:266:LEU:HD21	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:24:PHE:HB3	1:K:52:ASN:HD21	1.43	0.81
1:H:46:ALA:N	1:H:392:ARG:NH1	2.28	0.81
1:I:324:VAL:HG11	1:I:331:LEU:HD21	1.60	0.81
1:E:6:ARG:CD	1:E:66:ILE:HD11	2.10	0.81
1:E:38:ALA:HA	1:E:41:LEU:HD12	1.63	0.81
1:I:11:TYR:CZ	1:I:333:PRO:CA	2.64	0.81
1:A:6:ARG:CD	1:A:66:ILE:HD11	2.11	0.81
1:F:24:PHE:HB3	1:F:52:ASN:HD21	1.43	0.81
1:J:38:ALA:HA	1:J:41:LEU:HD12	1.63	0.81
1:D:38:ALA:HA	1:D:41:LEU:HD12	1.63	0.81
1:F:38:ALA:HA	1:F:41:LEU:HD12	1.63	0.81
1:L:6:ARG:CD	1:L:66:ILE:HD11	2.11	0.81
1:B:46:ALA:HA	1:B:392:ARG:HD2	1.36	0.81
1:E:420:ARG:NE	1:F:313:ASN:OD1	2.13	0.81
1:C:452:GLU:HG2	1:G:309:GLU:OE2	1.79	0.81
1:G:44:ILE:HD13	1:G:266:LEU:CG	2.11	0.81
1:G:6:ARG:CD	1:G:66:ILE:HD11	2.10	0.81
1:I:6:ARG:CD	1:I:66:ILE:HD11	2.10	0.81
1:A:38:ALA:HA	1:A:41:LEU:HD12	1.63	0.80
1:C:396:ARG:HE	1:E:400:GLN:HE21	1.27	0.80
1:J:199:PRO:HG3	1:L:170:ARG:HE	1.45	0.80
1:D:6:ARG:CD	1:D:66:ILE:HD11	2.11	0.80
1:K:309:GLU:OE2	1:L:452:GLU:CG	2.28	0.80
1:G:11:TYR:OH	1:G:333:PRO:HB2	1.80	0.80
1:B:317:GLN:HE22	1:I:440:GLN:C	1.84	0.80
1:J:324:VAL:CG1	1:J:331:LEU:HD21	2.10	0.80
1:E:24:PHE:HB3	1:E:52:ASN:HD21	1.43	0.80
1:L:38:ALA:HA	1:L:41:LEU:HD12	1.63	0.80
1:B:6:ARG:CD	1:B:66:ILE:HD11	2.11	0.80
1:K:6:ARG:CD	1:K:66:ILE:HD11	2.11	0.80
1:K:68:HIS:HE1	1:K:274:ASP:OD1	1.64	0.80
1:L:11:TYR:HE1	1:L:333:PRO:HA	1.46	0.80
1:C:38:ALA:HA	1:C:41:LEU:HD12	1.63	0.80
1:D:44:ILE:CD1	1:D:266:LEU:CD2	2.49	0.80
1:E:324:VAL:HG11	1:E:340:GLY:CA	2.11	0.80
1:B:38:ALA:HA	1:B:41:LEU:HD12	1.63	0.80
1:L:11:TYR:HE1	1:L:333:PRO:O	1.46	0.80
1:D:420:ARG:NE	1:I:313:ASN:OD1	2.15	0.80
1:G:452:GLU:HG2	1:H:309:GLU:OE2	1.81	0.80
1:A:44:ILE:CB	1:A:266:LEU:HD21	2.12	0.80
1:J:44:ILE:HB	1:J:266:LEU:HD21	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:38:ALA:HA	1:I:41:LEU:HD12	1.63	0.80
1:K:329:GLY:HA2	1:K:341:LEU:O	1.82	0.79
1:K:38:ALA:HA	1:K:41:LEU:HD12	1.63	0.79
1:F:11:TYR:CZ	1:F:333:PRO:CB	2.65	0.79
1:J:6:ARG:CD	1:J:66:ILE:HD11	2.10	0.79
1:H:11:TYR:HD1	1:H:369:LYS:HE2	1.40	0.79
1:I:11:TYR:CZ	1:I:333:PRO:HB3	2.14	0.79
1:I:44:ILE:CD1	1:I:266:LEU:HD22	2.10	0.79
1:A:11:TYR:CZ	1:A:333:PRO:HB2	2.16	0.79
1:A:44:ILE:CG1	1:A:266:LEU:HD21	2.13	0.79
1:G:11:TYR:CD1	1:G:369:LYS:HE3	2.18	0.79
1:H:38:ALA:HA	1:H:41:LEU:HD12	1.63	0.79
1:C:309:GLU:OE2	1:H:452:GLU:HG2	1.82	0.79
1:E:324:VAL:CG1	1:E:340:GLY:HA3	2.12	0.79
1:G:38:ALA:HA	1:G:41:LEU:HD12	1.63	0.79
1:E:46:ALA:HB2	1:E:392:ARG:HH12	1.39	0.78
1:H:10:SER:HA	1:H:273:ASN:O	1.82	0.78
1:B:72:ARG:NH2	1:B:265:HIS:HD2	1.81	0.78
1:C:72:ARG:HH22	1:C:265:HIS:CD2	1.91	0.78
1:A:452:GLU:HG2	1:E:309:GLU:OE2	1.82	0.78
1:H:44:ILE:CD1	1:H:266:LEU:CD2	2.52	0.78
1:J:452:GLU:OE2	1:L:309:GLU:OE2	2.00	0.78
1:L:46:ALA:HA	1:L:392:ARG:HD2	1.64	0.78
1:B:11:TYR:CD1	1:B:369:LYS:HE3	2.18	0.78
1:E:72:ARG:NH2	1:E:265:HIS:HD2	1.81	0.78
1:G:397:ALA:O	1:G:400:GLN:HG2	1.83	0.78
1:H:46:ALA:HB2	1:H:392:ARG:NH1	1.98	0.78
1:E:11:TYR:CZ	1:E:333:PRO:HB2	2.17	0.78
1:H:44:ILE:CD1	1:H:266:LEU:HD22	2.10	0.78
1:K:11:TYR:OH	1:K:333:PRO:HB2	1.83	0.78
1:I:188:ILE:HG23	1:I:191:ARG:CB	2.12	0.77
1:K:11:TYR:OH	1:K:333:PRO:C	2.22	0.77
1:D:44:ILE:CG1	1:D:266:LEU:HD21	2.14	0.77
1:E:452:GLU:HG2	1:F:309:GLU:OE2	1.84	0.77
1:G:70:VAL:CG1	1:G:269:VAL:HG11	2.13	0.77
1:F:6:ARG:CZ	1:F:66:ILE:HD13	2.14	0.77
1:J:199:PRO:CD	1:L:170:ARG:NE	2.47	0.77
1:B:11:TYR:CE1	1:B:333:PRO:HB3	2.17	0.77
1:B:72:ARG:HH22	1:B:265:HIS:HD2	1.32	0.77
1:D:452:GLU:HG2	1:I:309:GLU:OE2	1.84	0.77
1:J:199:PRO:HD3	1:L:170:ARG:NE	1.99	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:44:ILE:CD1	1:E:266:LEU:HD21	2.13	0.77
1:G:6:ARG:CZ	1:G:66:ILE:HD13	2.14	0.77
1:L:11:TYR:CE1	1:L:333:PRO:HA	2.19	0.77
1:E:72:ARG:NH2	1:E:265:HIS:CD2	2.52	0.77
1:B:400:GLN:CD	1:F:396:ARG:HG2	2.05	0.77
1:J:6:ARG:CZ	1:J:66:ILE:HD13	2.15	0.77
1:D:6:ARG:CZ	1:D:66:ILE:HD13	2.15	0.77
1:E:6:ARG:CZ	1:E:66:ILE:HD13	2.15	0.77
1:J:327:MET:C	1:J:342:LEU:HD21	2.04	0.77
1:K:6:ARG:CZ	1:K:66:ILE:HD13	2.15	0.77
1:A:46:ALA:HA	1:A:392:ARG:HD2	1.66	0.76
1:B:27:LYS:NZ	1:B:41:LEU:O	2.18	0.76
1:E:46:ALA:N	1:E:392:ARG:NH1	2.31	0.76
1:F:27:LYS:NZ	1:F:41:LEU:O	2.19	0.76
1:F:324:VAL:HG11	1:F:340:GLY:CA	2.16	0.76
1:H:27:LYS:NZ	1:H:41:LEU:O	2.18	0.76
1:J:46:ALA:N	1:J:392:ARG:NH1	2.28	0.76
1:B:11:TYR:OH	1:B:333:PRO:C	2.23	0.76
1:E:11:TYR:CZ	1:E:333:PRO:CB	2.69	0.76
1:J:329:GLY:HA2	1:J:366:ARG:HH22	1.49	0.76
1:A:22:SER:HB2	1:A:24:PHE:CE1	2.21	0.76
1:G:27:LYS:NZ	1:G:41:LEU:O	2.19	0.76
1:I:6:ARG:CZ	1:I:66:ILE:HD13	2.15	0.76
1:I:188:ILE:HD13	1:I:191:ARG:CZ	2.16	0.76
1:K:22:SER:HB2	1:K:24:PHE:CE1	2.21	0.76
1:A:72:ARG:HH22	1:A:265:HIS:CD2	2.04	0.76
1:B:6:ARG:CZ	1:B:66:ILE:HD13	2.15	0.76
1:G:22:SER:HB2	1:G:24:PHE:CE1	2.21	0.76
1:F:46:ALA:CA	1:F:392:ARG:CD	2.60	0.76
1:G:44:ILE:HG12	1:G:266:LEU:HD21	1.67	0.76
1:I:188:ILE:CG2	1:I:191:ARG:HB2	2.13	0.76
1:I:22:SER:HB2	1:I:24:PHE:CE1	2.21	0.76
1:I:44:ILE:HD13	1:I:266:LEU:CG	2.15	0.76
1:A:27:LYS:NZ	1:A:41:LEU:O	2.19	0.75
1:I:44:ILE:HG21	1:I:266:LEU:HD21	1.67	0.75
1:C:22:SER:HB2	1:C:24:PHE:CE1	2.21	0.75
1:L:22:SER:HB2	1:L:24:PHE:CE1	2.21	0.75
1:E:22:SER:HB2	1:E:24:PHE:CE1	2.21	0.75
1:J:22:SER:HB2	1:J:24:PHE:CE1	2.21	0.75
1:L:72:ARG:HH22	1:L:265:HIS:CD2	2.03	0.75
1:A:313:ASN:OD1	1:F:420:ARG:CZ	2.35	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:6:ARG:CZ	1:A:66:ILE:HD13	2.15	0.75
1:D:27:LYS:NZ	1:D:41:LEU:O	2.18	0.75
1:F:22:SER:HB2	1:F:24:PHE:CE1	2.21	0.75
1:L:6:ARG:CZ	1:L:66:ILE:HD13	2.15	0.75
1:K:11:TYR:HE1	1:K:333:PRO:CA	1.89	0.75
1:H:22:SER:HB2	1:H:24:PHE:CE1	2.21	0.75
1:I:27:LYS:NZ	1:I:41:LEU:O	2.18	0.75
1:A:46:ALA:HA	1:A:392:ARG:CD	2.17	0.74
1:C:44:ILE:CB	1:C:266:LEU:HD21	2.16	0.74
1:E:27:LYS:NZ	1:E:41:LEU:O	2.18	0.74
1:A:44:ILE:HG21	1:A:266:LEU:HD21	1.69	0.74
1:B:22:SER:HB2	1:B:24:PHE:CE1	2.21	0.74
1:D:22:SER:HB2	1:D:24:PHE:CE1	2.21	0.74
1:H:11:TYR:CE1	1:H:369:LYS:CE	2.67	0.74
1:F:46:ALA:CA	1:F:392:ARG:HD2	2.16	0.74
1:K:70:VAL:HG12	1:K:269:VAL:HG11	1.69	0.74
1:L:27:LYS:NZ	1:L:41:LEU:O	2.19	0.74
1:B:46:ALA:CA	1:B:392:ARG:HD3	1.94	0.74
1:K:170:ARG:NE	1:L:199:PRO:HD3	2.01	0.74
1:J:27:LYS:NZ	1:J:41:LEU:O	2.19	0.74
1:J:6:ARG:NE	1:J:66:ILE:HD13	2.03	0.74
1:L:6:ARG:NE	1:L:66:ILE:HD13	2.03	0.74
1:D:199:PRO:CG	1:I:170:ARG:HG3	2.17	0.74
1:I:44:ILE:CD1	1:I:266:LEU:CD1	2.64	0.74
1:A:452:GLU:HG3	1:E:155:HIS:CE1	2.23	0.73
1:L:46:ALA:HA	1:L:392:ARG:CD	2.18	0.73
1:A:420:ARG:HG3	1:E:313:ASN:HB3	1.69	0.73
1:A:199:PRO:HD3	1:E:170:ARG:NE	2.02	0.73
1:G:6:ARG:NE	1:G:66:ILE:HD13	2.03	0.73
1:K:327:MET:HB3	1:K:342:LEU:CD1	2.18	0.73
1:A:6:ARG:NE	1:A:66:ILE:HD13	2.03	0.73
1:K:27:LYS:NZ	1:K:41:LEU:O	2.19	0.73
1:B:11:TYR:HH	1:B:333:PRO:C	1.91	0.73
1:G:44:ILE:CD1	1:G:266:LEU:HD11	2.17	0.73
1:C:27:LYS:NZ	1:C:41:LEU:O	2.19	0.73
1:I:11:TYR:CD1	1:I:369:LYS:HE2	2.23	0.73
1:G:44:ILE:HD13	1:G:266:LEU:HD13	1.67	0.73
1:H:44:ILE:CD1	1:H:266:LEU:HD21	2.14	0.73
1:C:324:VAL:O	1:C:342:LEU:HD21	1.89	0.73
1:B:199:PRO:CD	1:D:170:ARG:HE	2.00	0.73
1:D:46:ALA:HB1	1:D:392:ARG:NH1	1.96	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:44:ILE:HG12	1:I:266:LEU:HD21	1.70	0.73
1:H:46:ALA:HA	1:H:392:ARG:CZ	2.19	0.72
1:F:44:ILE:HD13	1:F:266:LEU:CG	2.19	0.72
1:L:44:ILE:CD1	1:L:266:LEU:CD2	2.59	0.72
1:B:197:GLN:O	1:D:170:ARG:NH2	2.21	0.72
1:A:155:HIS:HE1	1:F:452:GLU:HG3	1.55	0.72
1:E:46:ALA:HA	1:E:392:ARG:CZ	2.19	0.72
1:D:11:TYR:CE1	1:D:369:LYS:CE	2.44	0.72
1:B:400:GLN:OE1	1:F:396:ARG:HG2	1.89	0.72
1:J:46:ALA:HA	1:J:392:ARG:NH1	1.89	0.72
1:D:14:PRO:HD2	1:D:370:GLU:OE1	1.89	0.72
1:F:70:VAL:CG1	1:F:269:VAL:HG11	2.20	0.72
1:B:199:PRO:CD	1:D:170:ARG:NE	2.46	0.72
1:G:70:VAL:HG11	1:G:269:VAL:HG11	1.72	0.71
1:L:44:ILE:HG21	1:L:266:LEU:HD21	1.72	0.71
1:E:327:MET:HG2	1:E:342:LEU:HD13	1.70	0.71
1:E:44:ILE:HG21	1:E:266:LEU:HD21	1.72	0.71
1:E:44:ILE:CG2	1:E:266:LEU:HD21	2.20	0.71
1:L:327:MET:HG2	1:L:342:LEU:CD1	2.18	0.71
1:D:11:TYR:CG	1:D:369:LYS:CE	2.73	0.71
1:F:324:VAL:HG11	1:F:340:GLY:HA3	1.71	0.71
1:E:6:ARG:NE	1:E:66:ILE:HD13	2.03	0.71
1:B:452:GLU:HG2	1:D:309:GLU:OE2	1.90	0.71
1:B:155:HIS:HD1	1:I:452:GLU:CD	1.94	0.71
1:C:396:ARG:CD	1:E:400:GLN:CG	2.69	0.70
1:A:155:HIS:CE1	1:F:452:GLU:HG3	2.26	0.70
1:K:327:MET:SD	1:K:342:LEU:HD11	2.31	0.70
1:G:327:MET:HB3	1:G:342:LEU:CD2	2.22	0.70
1:I:8:ASN:OD1	1:I:310:GLU:OE2	2.09	0.70
1:F:6:ARG:CZ	1:F:66:ILE:CD1	2.70	0.70
1:J:327:MET:O	1:J:342:LEU:HD22	1.91	0.70
1:C:396:ARG:CD	1:E:400:GLN:HE21	2.05	0.70
1:H:46:ALA:HA	1:H:392:ARG:HD2	1.74	0.70
1:J:6:ARG:CZ	1:J:66:ILE:CD1	2.70	0.70
1:D:6:ARG:CZ	1:D:66:ILE:CD1	2.70	0.69
1:E:6:ARG:CZ	1:E:66:ILE:CD1	2.70	0.69
1:E:68:HIS:CD2	1:E:270:THR:HG23	2.27	0.69
1:I:184:ASP:O	1:I:188:ILE:CG2	2.26	0.69
1:I:44:ILE:CD1	1:I:266:LEU:HD21	2.21	0.69
1:G:6:ARG:CZ	1:G:66:ILE:CD1	2.69	0.69
1:I:6:ARG:CZ	1:I:66:ILE:CD1	2.70	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:46:ALA:HA	1:J:392:ARG:NE	2.07	0.69
1:G:420:ARG:HE	1:H:313:ASN:CG	1.96	0.69
1:L:6:ARG:CZ	1:L:66:ILE:CD1	2.70	0.69
1:B:44:ILE:CB	1:B:266:LEU:HD21	2.22	0.69
1:I:1:MET:N	1:I:17:VAL:O	2.25	0.69
1:K:6:ARG:CZ	1:K:66:ILE:CD1	2.70	0.69
1:K:72:ARG:HH22	1:K:265:HIS:HD2	1.40	0.69
1:A:452:GLU:OE2	1:E:155:HIS:ND1	2.21	0.69
1:F:11:TYR:CD1	1:F:369:LYS:CE	2.75	0.69
1:A:6:ARG:CZ	1:A:66:ILE:CD1	2.70	0.68
1:I:324:VAL:HG11	1:I:331:LEU:CD2	2.23	0.68
1:C:44:ILE:CD1	1:C:266:LEU:HD11	2.21	0.68
1:I:11:TYR:CD1	1:I:369:LYS:CE	2.76	0.68
1:D:8:ASN:OD1	1:D:310:GLU:OE2	2.12	0.68
1:A:155:HIS:CE1	1:F:452:GLU:CG	2.76	0.68
1:K:327:MET:CB	1:K:342:LEU:CD2	2.59	0.68
1:A:8:ASN:OD1	1:A:310:GLU:OE2	2.11	0.68
1:A:44:ILE:CG2	1:A:266:LEU:HD21	2.24	0.68
1:B:1:MET:N	1:B:17:VAL:O	2.25	0.68
1:D:46:ALA:HA	1:D:392:ARG:CZ	2.20	0.68
1:K:324:VAL:CG1	1:K:340:GLY:CA	2.68	0.68
1:J:44:ILE:HD13	1:J:266:LEU:CG	2.16	0.68
1:L:44:ILE:CG2	1:L:266:LEU:HD21	2.24	0.67
1:A:46:ALA:C	1:A:392:ARG:HD2	2.14	0.67
1:F:44:ILE:CG1	1:F:266:LEU:CD2	2.64	0.67
1:L:1:MET:N	1:L:17:VAL:O	2.25	0.67
1:D:44:ILE:HG21	1:D:266:LEU:CD2	2.24	0.67
1:E:11:TYR:OH	1:E:333:PRO:CB	2.31	0.67
1:A:46:ALA:CA	1:A:392:ARG:HD2	2.24	0.67
1:B:440:GLN:HB2	1:D:320:ALA:HB2	1.77	0.67
1:C:420:ARG:NE	1:G:313:ASN:OD1	2.25	0.67
1:E:1:MET:N	1:E:17:VAL:O	2.25	0.67
1:G:420:ARG:CZ	1:H:313:ASN:OD1	2.42	0.67
1:K:1:MET:N	1:K:17:VAL:O	2.25	0.67
1:C:400:GLN:CG	1:E:396:ARG:NH1	2.57	0.67
1:F:7:PHE:HD1	1:F:69:ILE:HB	1.60	0.67
1:G:327:MET:C	1:G:329:GLY:H	1.97	0.67
1:J:325:LEU:HD23	1:J:331:LEU:HD11	1.77	0.67
1:L:72:ARG:NH2	1:L:265:HIS:CD2	2.62	0.67
1:B:44:ILE:HD11	1:B:266:LEU:HD22	1.72	0.67
1:C:7:PHE:HD1	1:C:69:ILE:HB	1.60	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:7:PHE:HD1	1:E:69:ILE:HB	1.60	0.67
1:E:455:ARG:HD2	1:F:221:ASP:OD1	1.95	0.66
1:C:44:ILE:HD13	1:C:266:LEU:HD21	1.16	0.66
1:E:11:TYR:CE1	1:E:333:PRO:HA	2.29	0.66
1:K:7:PHE:HD1	1:K:69:ILE:HB	1.60	0.66
1:L:7:PHE:HD1	1:L:69:ILE:HB	1.60	0.66
1:J:46:ALA:CB	1:J:392:ARG:HD3	2.26	0.66
1:I:6:ARG:NE	1:I:66:ILE:HD13	2.03	0.66
1:A:7:PHE:HD1	1:A:69:ILE:HB	1.60	0.66
1:B:11:TYR:CG	1:B:369:LYS:HE2	2.31	0.66
1:E:44:ILE:CG1	1:E:266:LEU:CD2	2.68	0.66
1:A:155:HIS:ND1	1:F:452:GLU:OE2	2.18	0.66
1:A:63:GLN:NE2	1:A:64:GLN:HG3	2.11	0.66
1:D:7:PHE:HD1	1:D:69:ILE:HB	1.60	0.66
1:G:7:PHE:HD1	1:G:69:ILE:HB	1.60	0.66
1:D:400:GLN:NE2	1:H:396:ARG:HD3	2.11	0.66
1:J:313:ASN:OD1	1:K:420:ARG:NH2	2.28	0.66
1:A:199:PRO:CG	1:E:170:ARG:HG3	2.26	0.66
1:C:63:GLN:NE2	1:C:64:GLN:HG3	2.11	0.66
1:A:1:MET:N	1:A:17:VAL:O	2.25	0.66
1:I:7:PHE:HD1	1:I:69:ILE:HB	1.60	0.66
1:D:63:GLN:NE2	1:D:64:GLN:HG3	2.11	0.65
1:H:63:GLN:NE2	1:H:64:GLN:HG3	2.11	0.65
1:K:170:ARG:HG3	1:L:199:PRO:HG2	1.78	0.65
1:G:63:GLN:NE2	1:G:64:GLN:HG3	2.11	0.65
1:J:1:MET:N	1:J:17:VAL:O	2.25	0.65
1:K:63:GLN:NE2	1:K:64:GLN:HG3	2.11	0.65
1:L:27:LYS:HE3	1:L:41:LEU:HB2	1.78	0.65
1:B:63:GLN:NE2	1:B:64:GLN:HG3	2.11	0.65
1:E:27:LYS:HE3	1:E:41:LEU:HB2	1.79	0.65
1:H:27:LYS:HE3	1:H:41:LEU:HB2	1.78	0.65
1:J:7:PHE:HD1	1:J:69:ILE:HB	1.60	0.65
1:J:324:VAL:CG1	1:J:331:LEU:CD2	2.74	0.65
1:B:6:ARG:CZ	1:B:66:ILE:CD1	2.70	0.65
1:B:7:PHE:HD1	1:B:69:ILE:HB	1.60	0.65
1:D:27:LYS:HE3	1:D:41:LEU:HB2	1.78	0.65
1:F:27:LYS:HE3	1:F:41:LEU:HB2	1.79	0.65
1:F:63:GLN:NE2	1:F:64:GLN:HG3	2.11	0.65
1:D:229:ILE:HD11	1:D:306:ILE:HD11	1.79	0.65
1:D:44:ILE:CG1	1:D:266:LEU:CD2	2.74	0.65
1:H:7:PHE:HD1	1:H:69:ILE:HB	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:331:LEU:HD23	1:J:340:GLY:HA2	1.79	0.65
1:K:229:ILE:HD11	1:K:306:ILE:HD11	1.79	0.65
1:L:327:MET:SD	1:L:342:LEU:HD11	2.36	0.65
1:L:63:GLN:NE2	1:L:64:GLN:HG3	2.11	0.65
1:K:327:MET:CA	1:K:342:LEU:HD21	2.26	0.65
1:B:11:TYR:CZ	1:B:333:PRO:HB3	2.30	0.65
1:C:44:ILE:HG12	1:C:266:LEU:CD2	2.14	0.65
1:C:27:LYS:HE3	1:C:41:LEU:HB2	1.78	0.65
1:J:63:GLN:NE2	1:J:64:GLN:HG3	2.11	0.65
1:K:27:LYS:HE3	1:K:41:LEU:HB2	1.79	0.65
1:A:27:LYS:HE3	1:A:41:LEU:HB2	1.79	0.65
1:H:70:VAL:HG21	1:H:72:ARG:CZ	2.27	0.65
1:C:1:MET:N	1:C:17:VAL:O	2.25	0.64
1:C:70:VAL:HG21	1:C:72:ARG:CZ	2.27	0.64
1:G:27:LYS:HE3	1:G:41:LEU:HB2	1.78	0.64
1:I:63:GLN:NE2	1:I:64:GLN:HG3	2.11	0.64
1:J:68:HIS:CD2	1:J:270:THR:HG23	2.33	0.64
1:C:229:ILE:HD11	1:C:306:ILE:HD11	1.79	0.64
1:C:396:ARG:CD	1:E:400:GLN:HG2	2.26	0.64
1:F:229:ILE:HD11	1:F:306:ILE:HD11	1.79	0.64
1:G:229:ILE:HD11	1:G:306:ILE:HD11	1.79	0.64
1:H:14:PRO:CD	1:H:370:GLU:CD	2.65	0.64
1:B:155:HIS:ND1	1:I:452:GLU:OE2	2.25	0.64
1:E:6:ARG:HG2	1:E:11:TYR:O	1.98	0.64
1:I:27:LYS:HE3	1:I:41:LEU:HB2	1.78	0.64
1:J:229:ILE:HD11	1:J:306:ILE:HD11	1.79	0.64
1:A:6:ARG:HG2	1:A:11:TYR:O	1.98	0.64
1:A:70:VAL:HG21	1:A:72:ARG:CZ	2.28	0.64
1:A:72:ARG:NH2	1:A:265:HIS:CD2	2.66	0.64
1:E:9:SER:O	1:E:273:ASN:HA	1.96	0.64
1:K:6:ARG:HG2	1:K:11:TYR:O	1.98	0.64
1:A:46:ALA:CA	1:A:392:ARG:CD	2.76	0.64
1:B:6:ARG:HG2	1:B:11:TYR:O	1.98	0.64
1:B:229:ILE:HD11	1:B:306:ILE:HD11	1.79	0.64
1:B:273:ASN:OD1	1:B:314:ARG:NH2	2.31	0.64
1:C:327:MET:O	1:C:342:LEU:HD22	1.96	0.64
1:C:6:ARG:HD2	1:C:9:SER:O	1.97	0.64
1:D:70:VAL:HG21	1:D:72:ARG:CZ	2.28	0.64
1:F:273:ASN:OD1	1:F:314:ARG:NH2	2.31	0.64
1:B:27:LYS:HE3	1:B:41:LEU:HB2	1.78	0.64
1:E:63:GLN:NE2	1:E:64:GLN:HG3	2.11	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:6:ARG:HD2	1:H:9:SER:O	1.97	0.64
1:I:229:ILE:HD11	1:I:306:ILE:HD11	1.79	0.64
1:J:309:GLU:OE2	1:K:452:GLU:HG2	1.98	0.64
1:L:72:ARG:NH2	1:L:265:HIS:HD2	1.94	0.64
1:L:273:ASN:OD1	1:L:314:ARG:NH2	2.31	0.64
1:E:46:ALA:CB	1:E:392:ARG:CZ	2.73	0.64
1:G:6:ARG:HG2	1:G:11:TYR:O	1.98	0.64
1:H:229:ILE:HD11	1:H:306:ILE:HD11	1.79	0.64
1:F:1:MET:N	1:F:17:VAL:O	2.25	0.64
1:J:46:ALA:HA	1:J:392:ARG:CZ	2.27	0.64
1:D:6:ARG:HG2	1:D:11:TYR:O	1.98	0.64
1:I:273:ASN:OD1	1:I:314:ARG:NH2	2.31	0.64
1:J:6:ARG:HG2	1:J:11:TYR:O	1.98	0.64
1:E:229:ILE:HD11	1:E:306:ILE:HD11	1.79	0.63
1:E:70:VAL:HG21	1:E:72:ARG:CZ	2.28	0.63
1:G:44:ILE:CD1	1:G:266:LEU:HD22	2.27	0.63
1:G:70:VAL:HG21	1:G:72:ARG:CZ	2.28	0.63
1:G:420:ARG:NH2	1:H:313:ASN:OD1	2.30	0.63
1:H:273:ASN:OD1	1:H:314:ARG:NH2	2.31	0.63
1:A:273:ASN:OD1	1:A:314:ARG:NH2	2.31	0.63
1:I:6:ARG:HG2	1:I:11:TYR:O	1.98	0.63
1:I:70:VAL:HG21	1:I:72:ARG:CZ	2.28	0.63
1:K:273:ASN:OD1	1:K:314:ARG:NH2	2.31	0.63
1:L:70:VAL:HG21	1:L:72:ARG:CZ	2.27	0.63
1:F:70:VAL:HG21	1:F:72:ARG:CZ	2.27	0.63
1:B:70:VAL:HG21	1:B:72:ARG:CZ	2.28	0.63
1:I:44:ILE:CD1	1:I:266:LEU:HD13	2.28	0.63
1:J:27:LYS:HE3	1:J:41:LEU:HB2	1.78	0.63
1:J:70:VAL:HG21	1:J:72:ARG:CZ	2.28	0.63
1:K:70:VAL:HG21	1:K:72:ARG:CZ	2.28	0.63
1:L:325:LEU:CD2	1:L:331:LEU:CG	2.69	0.63
1:L:325:LEU:HD21	1:L:331:LEU:HD11	1.80	0.63
1:F:46:ALA:HA	1:F:392:ARG:NE	2.13	0.63
1:H:14:PRO:HD2	1:H:370:GLU:CD	2.18	0.63
1:D:455:ARG:HD2	1:I:221:ASP:OD1	1.99	0.63
1:A:229:ILE:HD11	1:A:306:ILE:HD11	1.79	0.63
1:F:72:ARG:CZ	1:F:265:HIS:CD2	2.81	0.63
1:J:273:ASN:OD1	1:J:314:ARG:NH2	2.31	0.63
1:L:63:GLN:HE21	1:L:64:GLN:HE21	1.47	0.63
1:C:396:ARG:HD2	1:E:400:GLN:NE2	2.13	0.63
1:H:63:GLN:HE21	1:H:64:GLN:HE21	1.47	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:6:ARG:HG2	1:L:11:TYR:O	1.98	0.63
1:G:273:ASN:OD1	1:G:314:ARG:NH2	2.31	0.62
1:J:199:PRO:HG2	1:L:170:ARG:HG3	1.81	0.62
1:B:72:ARG:NH2	1:B:265:HIS:CD2	2.65	0.62
1:C:273:ASN:OD1	1:C:314:ARG:NH2	2.31	0.62
1:E:63:GLN:HE21	1:E:64:GLN:HE21	1.47	0.62
1:F:63:GLN:HE21	1:F:64:GLN:HE21	1.47	0.62
1:F:6:ARG:HG2	1:F:11:TYR:O	1.98	0.62
1:I:63:GLN:HE21	1:I:64:GLN:HE21	1.47	0.62
1:L:229:ILE:HD11	1:L:306:ILE:HD11	1.79	0.62
1:B:155:HIS:CE1	1:I:452:GLU:CG	2.82	0.62
1:E:273:ASN:OD1	1:E:314:ARG:NH2	2.31	0.62
1:D:273:ASN:OD1	1:D:314:ARG:NH2	2.31	0.62
1:F:327:MET:SD	1:F:342:LEU:HD11	2.40	0.62
1:B:6:ARG:NE	1:B:66:ILE:HD13	2.03	0.62
1:D:63:GLN:HE21	1:D:64:GLN:HE21	1.47	0.62
1:K:63:GLN:HE21	1:K:64:GLN:HE21	1.47	0.62
1:G:11:TYR:CD1	1:G:369:LYS:CE	2.83	0.62
1:I:11:TYR:CZ	1:I:333:PRO:O	2.53	0.62
1:K:11:TYR:CE1	1:K:333:PRO:C	2.72	0.62
1:B:396:ARG:O	1:F:396:ARG:CZ	2.27	0.62
1:A:313:ASN:OD1	1:F:420:ARG:NH2	2.32	0.62
1:K:170:ARG:CZ	1:L:199:PRO:HD3	2.30	0.62
1:C:327:MET:HB3	1:C:342:LEU:HD22	1.82	0.62
1:G:63:GLN:HE21	1:G:64:GLN:HE21	1.47	0.62
1:I:324:VAL:CG1	1:I:331:LEU:HD21	2.29	0.62
1:J:420:ARG:HE	1:L:313:ASN:CB	2.12	0.62
1:A:44:ILE:HD13	1:A:266:LEU:HD21	1.68	0.61
1:C:63:GLN:HE21	1:C:64:GLN:HE21	1.47	0.61
1:D:1:MET:N	1:D:17:VAL:O	2.25	0.61
1:F:327:MET:C	1:F:342:LEU:CD2	2.68	0.61
1:H:2:ILE:HB	1:H:63:GLN:HE22	1.65	0.61
1:A:11:TYR:OH	1:A:333:PRO:O	2.15	0.61
1:B:2:ILE:HB	1:B:63:GLN:HE22	1.65	0.61
1:F:44:ILE:HG21	1:F:266:LEU:HD21	1.81	0.61
1:G:1:MET:N	1:G:17:VAL:O	2.25	0.61
1:A:11:TYR:CZ	1:A:333:PRO:CB	2.83	0.61
1:C:2:ILE:HB	1:C:63:GLN:HE22	1.65	0.61
1:C:327:MET:HB3	1:C:342:LEU:CD2	2.31	0.61
1:H:1:MET:N	1:H:17:VAL:O	2.25	0.61
1:C:418:CYS:O	1:C:422:ASN:N	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2:ILE:HB	1:E:63:GLN:HE22	1.65	0.61
1:K:2:ILE:HB	1:K:63:GLN:HE22	1.65	0.61
1:K:325:LEU:HD21	1:K:331:LEU:HG	1.83	0.61
1:L:11:TYR:OH	1:L:333:PRO:C	2.39	0.61
1:A:72:ARG:NH2	1:A:265:HIS:HD2	1.98	0.61
1:L:2:ILE:HB	1:L:63:GLN:HE22	1.65	0.61
1:A:2:ILE:HB	1:A:63:GLN:HE22	1.65	0.61
1:B:44:ILE:HD13	1:B:266:LEU:CD1	2.29	0.61
1:F:44:ILE:CG2	1:F:266:LEU:HD21	2.30	0.61
1:F:2:ILE:HB	1:F:63:GLN:HE22	1.65	0.61
1:B:63:GLN:HE21	1:B:64:GLN:HE21	1.47	0.61
1:C:44:ILE:CD1	1:C:266:LEU:HD13	2.30	0.61
1:E:46:ALA:HB2	1:E:392:ARG:CZ	2.21	0.61
1:G:271:ARG:HH12	1:G:392:ARG:NH1	1.99	0.61
1:H:418:CYS:O	1:H:422:ASN:N	2.30	0.61
1:I:2:ILE:HB	1:I:63:GLN:HE22	1.65	0.61
1:J:2:ILE:HB	1:J:63:GLN:HE22	1.65	0.61
1:B:11:TYR:CG	1:B:369:LYS:CE	2.84	0.61
1:C:72:ARG:NH1	1:C:265:HIS:CD2	2.68	0.61
1:E:46:ALA:HA	1:E:392:ARG:NE	2.16	0.61
1:B:199:PRO:HD3	1:D:170:ARG:CZ	2.30	0.60
1:C:11:TYR:CB	1:C:369:LYS:HE2	2.31	0.60
1:G:397:ALA:O	1:G:400:GLN:CG	2.49	0.60
1:B:170:ARG:CZ	1:I:199:PRO:HD3	2.31	0.60
1:J:24:PHE:CD2	1:J:25:GLN:HG3	2.36	0.60
1:J:63:GLN:HE21	1:J:64:GLN:HE21	1.47	0.60
1:L:24:PHE:CD2	1:L:25:GLN:HG3	2.36	0.60
1:B:396:ARG:HG2	1:F:400:GLN:NE2	2.16	0.60
1:E:29:VAL:O	1:E:33:ARG:HB2	2.02	0.60
1:I:24:PHE:CD2	1:I:25:GLN:HG3	2.36	0.60
1:A:63:GLN:HE21	1:A:64:GLN:HE21	1.47	0.60
1:E:199:PRO:HG2	1:F:170:ARG:HG3	1.83	0.60
1:F:44:ILE:HD13	1:F:266:LEU:CD1	2.31	0.60
1:D:2:ILE:HB	1:D:63:GLN:HE22	1.65	0.60
1:K:327:MET:HB3	1:K:342:LEU:HD11	1.81	0.60
1:C:24:PHE:CD2	1:C:25:GLN:HG3	2.36	0.60
1:F:29:VAL:O	1:F:33:ARG:HB2	2.02	0.60
1:A:452:GLU:HG3	1:E:155:HIS:HE1	1.65	0.60
1:G:2:ILE:HB	1:G:63:GLN:HE22	1.65	0.60
1:K:29:VAL:O	1:K:33:ARG:HB2	2.02	0.60
1:E:24:PHE:CD2	1:E:25:GLN:HG3	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:396:ARG:HD2	1:E:400:GLN:HE21	1.66	0.60
1:H:24:PHE:CD2	1:H:25:GLN:HG3	2.36	0.60
1:J:44:ILE:CG2	1:J:266:LEU:HD21	2.32	0.60
1:G:9:SER:OG	1:G:10:SER:N	2.35	0.60
1:J:313:ASN:OD1	1:K:420:ARG:CZ	2.50	0.60
1:L:44:ILE:CG1	1:L:266:LEU:HD21	2.31	0.60
1:A:327:MET:HB3	1:A:342:LEU:CD2	2.30	0.60
1:I:70:VAL:CG1	1:I:269:VAL:HG11	2.30	0.60
1:K:324:VAL:HG11	1:K:340:GLY:HA2	1.81	0.60
1:A:452:GLU:CG	1:E:309:GLU:OE2	2.50	0.60
1:I:9:SER:OG	1:I:10:SER:N	2.35	0.60
1:L:29:VAL:O	1:L:33:ARG:HB2	2.02	0.60
1:C:9:SER:OG	1:C:10:SER:N	2.35	0.59
1:D:24:PHE:CD2	1:D:25:GLN:HG3	2.36	0.59
1:D:29:VAL:O	1:D:33:ARG:HB2	2.01	0.59
1:I:188:ILE:O	1:I:188:ILE:HG23	2.01	0.59
1:J:313:ASN:CG	1:K:420:ARG:HE	2.04	0.59
1:B:24:PHE:CD2	1:B:25:GLN:HG3	2.36	0.59
1:A:452:GLU:CD	1:E:155:HIS:HD1	2.04	0.59
1:A:455:ARG:HD2	1:E:221:ASP:OD1	2.01	0.59
1:G:24:PHE:CD2	1:G:25:GLN:HG3	2.36	0.59
1:I:72:ARG:CZ	1:I:265:HIS:CD2	2.85	0.59
1:I:29:VAL:O	1:I:33:ARG:HB2	2.02	0.59
1:J:29:VAL:O	1:J:33:ARG:HB2	2.01	0.59
1:J:440:GLN:C	1:L:317:GLN:HE22	2.06	0.59
1:C:22:SER:CB	1:C:24:PHE:CE1	2.86	0.59
1:D:72:ARG:CZ	1:D:265:HIS:CD2	2.85	0.59
1:F:24:PHE:HB3	1:F:52:ASN:ND2	2.17	0.59
1:F:9:SER:OG	1:F:10:SER:N	2.35	0.59
1:I:271:ARG:HH12	1:I:392:ARG:NH1	2.00	0.59
1:B:317:GLN:NE2	1:I:440:GLN:C	2.52	0.59
1:K:24:PHE:CD2	1:K:25:GLN:HG3	2.36	0.59
1:L:324:VAL:HG13	1:L:340:GLY:HA3	1.82	0.59
1:A:24:PHE:CD2	1:A:25:GLN:HG3	2.36	0.59
1:C:29:VAL:O	1:C:33:ARG:HB2	2.02	0.59
1:J:324:VAL:CG1	1:J:340:GLY:HA3	2.32	0.59
1:D:22:SER:CB	1:D:24:PHE:CE1	2.86	0.59
1:I:44:ILE:CG2	1:I:266:LEU:HD21	2.33	0.59
1:I:68:HIS:CE1	1:I:273:ASN:CB	2.86	0.59
1:E:22:SER:CB	1:E:24:PHE:CE1	2.86	0.59
1:E:46:ALA:CA	1:E:392:ARG:HD3	2.30	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:24:PHE:CD2	1:F:25:GLN:HG3	2.36	0.59
1:B:29:VAL:O	1:B:33:ARG:HB2	2.01	0.59
1:B:6:ARG:NH2	1:B:66:ILE:HD13	2.18	0.59
1:D:9:SER:OG	1:D:10:SER:N	2.35	0.59
1:C:396:ARG:NE	1:E:400:GLN:HG2	2.17	0.59
1:H:29:VAL:O	1:H:33:ARG:HB2	2.01	0.59
1:H:46:ALA:H	1:H:392:ARG:NH1	1.99	0.59
1:J:324:VAL:HG12	1:J:331:LEU:CD2	2.25	0.59
1:A:29:VAL:O	1:A:33:ARG:HB2	2.02	0.59
1:D:6:ARG:NH2	1:D:66:ILE:HD13	2.18	0.59
1:E:9:SER:OG	1:E:10:SER:N	2.35	0.59
1:E:11:TYR:HE1	1:E:333:PRO:HA	1.68	0.59
1:G:29:VAL:O	1:G:33:ARG:HB2	2.02	0.59
1:K:6:ARG:NH2	1:K:66:ILE:HD13	2.18	0.59
1:J:420:ARG:NE	1:L:313:ASN:CG	2.34	0.59
1:A:44:ILE:CD1	1:A:266:LEU:HD21	2.24	0.59
1:C:70:VAL:HG13	1:C:269:VAL:HG11	1.85	0.59
1:C:3:VAL:HG22	1:C:15:VAL:O	2.03	0.59
1:F:22:SER:CB	1:F:24:PHE:CE1	2.86	0.59
1:G:6:ARG:NH2	1:G:66:ILE:HD13	2.17	0.59
1:J:9:SER:OG	1:J:10:SER:N	2.35	0.59
1:L:22:SER:CB	1:L:24:PHE:CE1	2.86	0.59
1:B:455:ARG:HD2	1:D:221:ASP:OD1	2.03	0.58
1:C:24:PHE:HB3	1:C:52:ASN:ND2	2.17	0.58
1:G:24:PHE:HB3	1:G:52:ASN:ND2	2.17	0.58
1:K:72:ARG:NH1	1:K:265:HIS:CD2	2.71	0.58
1:A:22:SER:CB	1:A:24:PHE:CE1	2.86	0.58
1:B:47:GLY:HA3	1:B:392:ARG:HB3	1.85	0.58
1:E:24:PHE:HB3	1:E:52:ASN:ND2	2.17	0.58
1:G:44:ILE:HD13	1:G:266:LEU:HD22	1.78	0.58
1:I:3:VAL:HG22	1:I:15:VAL:O	2.03	0.58
1:L:6:ARG:NH2	1:L:66:ILE:HD13	2.18	0.58
1:A:9:SER:OG	1:A:10:SER:N	2.35	0.58
1:B:155:HIS:ND1	1:I:452:GLU:CG	2.67	0.58
1:C:11:TYR:HB3	1:C:369:LYS:HE2	1.84	0.58
1:I:22:SER:CB	1:I:24:PHE:CE1	2.86	0.58
1:K:22:SER:CB	1:K:24:PHE:CE1	2.86	0.58
1:L:3:VAL:HG22	1:L:15:VAL:O	2.03	0.58
1:F:3:VAL:HG22	1:F:15:VAL:O	2.03	0.58
1:G:3:VAL:HG22	1:G:15:VAL:O	2.03	0.58
1:H:22:SER:CB	1:H:24:PHE:CE1	2.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:3:VAL:HG22	1:J:15:VAL:O	2.03	0.58
1:B:22:SER:CB	1:B:24:PHE:CE1	2.86	0.58
1:E:327:MET:CG	1:E:342:LEU:CD1	2.49	0.58
1:E:6:ARG:NH2	1:E:66:ILE:HD13	2.18	0.58
1:I:6:ARG:NH2	1:I:66:ILE:HD13	2.18	0.58
1:J:6:ARG:NH2	1:J:66:ILE:HD13	2.18	0.58
1:A:418:CYS:O	1:A:422:ASN:N	2.31	0.58
1:E:3:VAL:HG22	1:E:15:VAL:O	2.03	0.58
1:G:72:ARG:CZ	1:G:265:HIS:CD2	2.86	0.58
1:J:22:SER:CB	1:J:24:PHE:CE1	2.86	0.58
1:F:6:ARG:NH2	1:F:66:ILE:HD13	2.17	0.58
1:G:22:SER:CB	1:G:24:PHE:CE1	2.86	0.58
1:K:72:ARG:NH2	1:K:265:HIS:CD2	2.67	0.58
1:C:24:PHE:CB	1:C:52:ASN:HD21	2.17	0.58
1:C:44:ILE:HD12	1:C:266:LEU:CD1	2.33	0.58
1:E:44:ILE:HB	1:E:266:LEU:HD21	1.86	0.58
1:H:24:PHE:HB3	1:H:52:ASN:ND2	2.17	0.58
1:J:330:VAL:CG1	1:J:350:VAL:HG11	2.30	0.58
1:K:72:ARG:CZ	1:K:265:HIS:CD2	2.87	0.58
1:B:3:VAL:HG22	1:B:15:VAL:O	2.03	0.58
1:E:418:CYS:O	1:E:422:ASN:N	2.31	0.58
1:G:418:CYS:O	1:G:422:ASN:N	2.30	0.58
1:H:9:SER:OG	1:H:10:SER:N	2.35	0.58
1:I:68:HIS:CE1	1:I:273:ASN:HB3	2.39	0.58
1:I:11:TYR:CE2	1:I:333:PRO:HB2	2.34	0.58
1:I:44:ILE:HD13	1:I:266:LEU:HD21	1.74	0.58
1:B:420:ARG:HG3	1:D:313:ASN:HB3	1.86	0.57
1:H:3:VAL:HG22	1:H:15:VAL:O	2.03	0.57
1:K:9:SER:OG	1:K:10:SER:N	2.35	0.57
1:D:3:VAL:HG22	1:D:15:VAL:O	2.03	0.57
1:K:418:CYS:O	1:K:422:ASN:N	2.31	0.57
1:L:46:ALA:HB2	1:L:392:ARG:HH12	1.65	0.57
1:A:6:ARG:NH2	1:A:66:ILE:HD13	2.18	0.57
1:B:9:SER:OG	1:B:10:SER:N	2.35	0.57
1:B:24:PHE:HB3	1:B:52:ASN:ND2	2.17	0.57
1:A:3:VAL:HG22	1:A:15:VAL:O	2.03	0.57
1:B:199:PRO:HG2	1:D:170:ARG:HG3	1.87	0.57
1:D:24:PHE:HB3	1:D:52:ASN:ND2	2.17	0.57
1:K:3:VAL:HG22	1:K:15:VAL:O	2.03	0.57
1:B:24:PHE:CB	1:B:52:ASN:HD21	2.17	0.57
1:J:418:CYS:O	1:J:422:ASN:N	2.30	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:2:ILE:HG13	1:I:378:ASP:OD2	2.04	0.57
1:L:9:SER:OG	1:L:10:SER:N	2.35	0.57
1:L:24:PHE:HB3	1:L:52:ASN:ND2	2.17	0.57
1:D:400:GLN:HE21	1:H:396:ARG:CD	2.14	0.57
1:D:418:CYS:O	1:D:422:ASN:N	2.30	0.57
1:G:327:MET:C	1:G:329:GLY:N	2.58	0.57
1:I:44:ILE:CG1	1:I:266:LEU:CD2	2.79	0.57
1:I:11:TYR:CE1	1:I:333:PRO:HB3	2.37	0.57
1:B:155:HIS:HE1	1:I:452:GLU:HG3	1.63	0.57
1:J:452:GLU:OE2	1:L:155:HIS:ND1	2.36	0.57
1:A:11:TYR:CD1	1:A:369:LYS:HE2	2.40	0.57
1:J:46:ALA:C	1:J:392:ARG:CD	2.72	0.57
1:F:324:VAL:HG11	1:F:340:GLY:HA2	1.87	0.57
1:J:46:ALA:HB1	1:J:392:ARG:HD3	1.85	0.56
1:A:44:ILE:CG1	1:A:266:LEU:CD2	2.81	0.56
1:A:24:PHE:HB3	1:A:52:ASN:ND2	2.17	0.56
1:C:72:ARG:NH1	1:C:265:HIS:NE2	2.54	0.56
1:J:24:PHE:HB3	1:J:52:ASN:ND2	2.17	0.56
1:B:418:CYS:O	1:B:422:ASN:N	2.31	0.56
1:H:255:HIS:CE1	1:H:402:ARG:NH2	2.73	0.56
1:I:11:TYR:CG	1:I:369:LYS:HE2	2.40	0.56
1:A:46:ALA:C	1:A:392:ARG:CD	2.73	0.56
1:D:420:ARG:NH2	1:I:313:ASN:OD1	2.38	0.56
1:E:27:LYS:HE2	1:E:38:ALA:HB1	1.88	0.56
1:H:27:LYS:HE2	1:H:38:ALA:HB1	1.88	0.56
1:L:44:ILE:HB	1:L:266:LEU:HD21	1.86	0.56
1:C:396:ARG:HD2	1:E:400:GLN:CG	2.34	0.56
1:F:27:LYS:HE2	1:F:38:ALA:HB1	1.88	0.56
1:G:6:ARG:HG2	1:G:11:TYR:C	2.26	0.56
1:J:6:ARG:HG2	1:J:11:TYR:C	2.26	0.56
1:K:6:ARG:HG2	1:K:11:TYR:C	2.26	0.56
1:L:418:CYS:O	1:L:422:ASN:N	2.31	0.56
1:D:27:LYS:HE2	1:D:38:ALA:HB1	1.88	0.56
1:E:6:ARG:HG2	1:E:11:TYR:C	2.26	0.56
1:B:396:ARG:HG2	1:F:400:GLN:CD	2.25	0.56
1:F:68:HIS:CD2	1:F:270:THR:HG23	2.41	0.56
1:F:6:ARG:NE	1:F:66:ILE:HD13	2.02	0.56
1:I:27:LYS:HE2	1:I:38:ALA:HB1	1.88	0.56
1:I:418:CYS:O	1:I:422:ASN:N	2.31	0.56
1:K:27:LYS:HE2	1:K:38:ALA:HB1	1.88	0.56
1:L:6:ARG:HG2	1:L:11:TYR:C	2.26	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:27:LYS:HE2	1:B:38:ALA:HB1	1.88	0.56
1:D:24:PHE:CB	1:D:52:ASN:HD21	2.17	0.56
1:F:24:PHE:CB	1:F:52:ASN:HD21	2.17	0.56
1:G:242:THR:HG22	1:G:400:GLN:NE2	2.21	0.56
1:L:11:TYR:CZ	1:L:333:PRO:C	2.77	0.56
1:F:418:CYS:O	1:F:422:ASN:N	2.30	0.56
1:B:44:ILE:CG1	1:B:266:LEU:CD2	2.61	0.55
1:J:24:PHE:CB	1:J:52:ASN:HD21	2.17	0.55
1:A:452:GLU:CG	1:E:155:HIS:CE1	2.89	0.55
1:B:46:ALA:CB	1:B:392:ARG:CD	2.80	0.55
1:B:6:ARG:HG2	1:B:11:TYR:C	2.27	0.55
1:C:420:ARG:NH2	1:G:313:ASN:OD1	2.38	0.55
1:K:24:PHE:HB3	1:K:52:ASN:ND2	2.17	0.55
1:L:27:LYS:HE2	1:L:38:ALA:HB1	1.88	0.55
1:A:328:GLY:O	1:A:366:ARG:NH2	2.40	0.55
1:B:11:TYR:OH	1:B:333:PRO:CA	2.55	0.55
1:E:455:ARG:CD	1:F:221:ASP:OD1	2.54	0.55
1:H:46:ALA:HA	1:H:392:ARG:HD3	1.86	0.55
1:L:11:TYR:OH	1:L:333:PRO:O	2.25	0.55
1:B:46:ALA:CB	1:B:392:ARG:HD3	2.35	0.55
1:B:221:ASP:OD1	1:I:455:ARG:HD2	2.06	0.55
1:J:27:LYS:HE2	1:J:38:ALA:HB1	1.88	0.55
1:A:27:LYS:HE2	1:A:38:ALA:HB1	1.88	0.55
1:A:6:ARG:HG2	1:A:11:TYR:C	2.26	0.55
1:K:313:ASN:OD1	1:L:420:ARG:CZ	2.55	0.55
1:D:6:ARG:HG2	1:D:11:TYR:C	2.26	0.55
1:I:6:ARG:HG2	1:I:11:TYR:C	2.26	0.55
1:K:24:PHE:CB	1:K:52:ASN:HD21	2.17	0.55
1:C:27:LYS:HE2	1:C:38:ALA:HB1	1.88	0.55
1:F:6:ARG:HG2	1:F:11:TYR:C	2.26	0.55
1:C:155:HIS:CE1	1:H:452:GLU:HG3	2.42	0.54
1:K:11:TYR:HH	1:K:333:PRO:C	1.93	0.54
1:A:24:PHE:CB	1:A:52:ASN:HD21	2.17	0.54
1:E:46:ALA:C	1:E:392:ARG:HD2	2.28	0.54
1:G:24:PHE:CB	1:G:52:ASN:HD21	2.17	0.54
1:B:11:TYR:HB3	1:B:369:LYS:HE2	1.88	0.54
1:C:11:TYR:CG	1:C:369:LYS:HE3	2.28	0.54
1:E:11:TYR:CE1	1:E:333:PRO:CA	2.90	0.54
1:L:4:PHE:HB2	1:L:66:ILE:HA	1.90	0.54
1:J:324:VAL:HG13	1:J:340:GLY:HA3	1.88	0.54
1:J:4:PHE:HB2	1:J:66:ILE:HA	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:72:ARG:CZ	1:K:265:HIS:HD2	2.19	0.54
1:K:4:PHE:HB2	1:K:66:ILE:HA	1.90	0.54
1:B:4:PHE:HB2	1:B:66:ILE:HA	1.90	0.54
1:G:27:LYS:HE2	1:G:38:ALA:HB1	1.88	0.54
1:G:4:PHE:HB2	1:G:66:ILE:HA	1.90	0.54
1:D:4:PHE:HB2	1:D:66:ILE:HA	1.90	0.54
1:I:24:PHE:CB	1:I:52:ASN:HD21	2.17	0.54
1:L:24:PHE:CB	1:L:52:ASN:HD21	2.17	0.54
1:B:397:ALA:N	1:F:396:ARG:NH2	2.55	0.54
1:C:309:GLU:OE2	1:H:452:GLU:CG	2.55	0.54
1:B:170:ARG:NE	1:I:199:PRO:HD3	2.23	0.54
1:L:11:TYR:CE1	1:L:333:PRO:HB3	2.32	0.54
1:E:44:ILE:HG21	1:E:266:LEU:CD2	2.38	0.53
1:F:157:VAL:HG21	1:F:306:ILE:HG12	1.91	0.53
1:G:157:VAL:HG21	1:G:306:ILE:HG12	1.91	0.53
1:H:68:HIS:CE1	1:H:273:ASN:HB2	2.43	0.53
1:K:327:MET:CB	1:K:342:LEU:HD11	2.38	0.53
1:K:327:MET:HB3	1:K:342:LEU:HD22	1.83	0.53
1:L:157:VAL:HG21	1:L:306:ILE:HG12	1.91	0.53
1:C:44:ILE:HD13	1:C:266:LEU:HD13	1.84	0.53
1:J:46:ALA:C	1:J:392:ARG:HD2	2.28	0.53
1:A:56:VAL:HA	1:A:59:CYS:SG	2.49	0.53
1:B:345:GLN:CD	1:B:345:GLN:H	2.11	0.53
1:E:24:PHE:CB	1:E:52:ASN:HD21	2.17	0.53
1:E:4:PHE:HB2	1:E:66:ILE:HA	1.90	0.53
1:K:327:MET:HB3	1:K:342:LEU:CG	2.37	0.53
1:C:4:PHE:HB2	1:C:66:ILE:HA	1.90	0.53
1:E:268:CYS:HB2	1:E:307:LEU:HD21	1.91	0.53
1:I:4:PHE:HB2	1:I:66:ILE:HA	1.90	0.53
1:K:170:ARG:NE	1:L:199:PRO:CD	2.69	0.53
1:L:325:LEU:HD23	1:L:331:LEU:HG	1.87	0.53
1:L:56:VAL:HA	1:L:59:CYS:SG	2.49	0.53
1:B:56:VAL:HA	1:B:59:CYS:SG	2.49	0.53
1:D:6:ARG:NE	1:D:66:ILE:HD13	2.03	0.53
1:E:329:GLY:N	1:E:342:LEU:HD23	2.24	0.53
1:G:268:CYS:HB2	1:G:307:LEU:HD21	1.91	0.53
1:G:56:VAL:HA	1:G:59:CYS:SG	2.49	0.53
1:D:199:PRO:HD3	1:I:170:ARG:NE	2.23	0.53
1:I:56:VAL:HA	1:I:59:CYS:SG	2.49	0.53
1:K:56:VAL:HA	1:K:59:CYS:SG	2.49	0.53
1:A:268:CYS:HB2	1:A:307:LEU:HD21	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:320:ALA:HB2	1:I:440:GLN:HB2	1.91	0.53
1:C:268:CYS:HB2	1:C:307:LEU:HD21	1.91	0.53
1:C:56:VAL:HA	1:C:59:CYS:SG	2.49	0.53
1:J:46:ALA:HB2	1:J:392:ARG:CZ	2.35	0.53
1:D:157:VAL:HG21	1:D:306:ILE:HG12	1.91	0.53
1:D:56:VAL:HA	1:D:59:CYS:SG	2.49	0.53
1:E:157:VAL:HG21	1:E:306:ILE:HG12	1.91	0.53
1:H:268:CYS:HB2	1:H:307:LEU:HD21	1.91	0.53
1:H:56:VAL:HA	1:H:59:CYS:SG	2.49	0.53
1:F:46:ALA:C	1:F:392:ARG:HD2	2.30	0.53
1:L:268:CYS:HB2	1:L:307:LEU:HD21	1.91	0.53
1:F:11:TYR:CE1	1:F:369:LYS:HE3	2.44	0.53
1:H:44:ILE:CG1	1:H:266:LEU:HD21	2.39	0.53
1:J:157:VAL:HG21	1:J:306:ILE:HG12	1.91	0.53
1:J:46:ALA:H	1:J:392:ARG:NH1	2.06	0.53
1:J:44:ILE:HD13	1:J:266:LEU:HD22	0.53	0.53
1:B:268:CYS:HB2	1:B:307:LEU:HD21	1.91	0.52
1:F:56:VAL:HA	1:F:59:CYS:SG	2.49	0.52
1:H:24:PHE:CB	1:H:52:ASN:HD21	2.17	0.52
1:H:68:HIS:ND1	1:H:270:THR:HA	2.20	0.52
1:B:157:VAL:HG21	1:B:306:ILE:HG12	1.91	0.52
1:F:11:TYR:CE1	1:F:333:PRO:CB	2.92	0.52
1:F:4:PHE:HB2	1:F:66:ILE:HA	1.90	0.52
1:I:157:VAL:HG21	1:I:306:ILE:HG12	1.91	0.52
1:K:11:TYR:HE1	1:K:333:PRO:C	2.10	0.52
1:K:313:ASN:OD1	1:L:420:ARG:NE	2.42	0.52
1:G:44:ILE:CD1	1:G:266:LEU:HD13	2.35	0.52
1:H:4:PHE:HB2	1:H:66:ILE:HA	1.90	0.52
1:K:157:VAL:HG21	1:K:306:ILE:HG12	1.91	0.52
1:C:70:VAL:HG11	1:C:269:VAL:HG11	1.89	0.52
1:F:9:SER:O	1:F:273:ASN:HA	2.10	0.52
1:I:24:PHE:HB3	1:I:52:ASN:ND2	2.17	0.52
1:L:9:SER:O	1:L:273:ASN:HA	2.09	0.52
1:A:4:PHE:HB2	1:A:66:ILE:HA	1.90	0.52
1:E:56:VAL:HA	1:E:59:CYS:SG	2.49	0.52
1:J:72:ARG:CZ	1:J:265:HIS:CD2	2.93	0.52
1:K:68:HIS:CD2	1:K:270:THR:HG23	2.44	0.52
1:A:157:VAL:HG21	1:A:306:ILE:HG12	1.91	0.52
1:G:397:ALA:HA	1:G:400:GLN:HG2	1.91	0.52
1:H:11:TYR:HB3	1:H:369:LYS:HE2	1.91	0.52
1:F:327:MET:C	1:F:342:LEU:HD21	2.29	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:397:ALA:C	1:G:400:GLN:HG2	2.30	0.52
1:I:268:CYS:HB2	1:I:307:LEU:HD21	1.91	0.52
1:J:56:VAL:HA	1:J:59:CYS:SG	2.49	0.52
1:F:268:CYS:HB2	1:F:307:LEU:HD21	1.91	0.52
1:I:68:HIS:CE1	1:I:273:ASN:HB2	2.45	0.52
1:C:157:VAL:HG21	1:C:306:ILE:HG12	1.91	0.52
1:D:44:ILE:HD13	1:D:266:LEU:CD1	2.39	0.52
1:J:268:CYS:HB2	1:J:307:LEU:HD21	1.91	0.52
1:E:421:CYS:HB3	1:E:441:CYS:SG	2.50	0.51
1:H:157:VAL:HG21	1:H:306:ILE:HG12	1.91	0.51
1:K:11:TYR:HB3	1:K:369:LYS:HE2	1.92	0.51
1:C:15:VAL:HG11	1:C:26:LEU:HD13	1.92	0.51
1:D:268:CYS:HB2	1:D:307:LEU:HD21	1.91	0.51
1:K:11:TYR:CZ	1:K:333:PRO:CA	2.92	0.51
1:A:421:CYS:HB3	1:A:441:CYS:SG	2.50	0.51
1:B:420:ARG:NE	1:D:313:ASN:CG	2.40	0.51
1:E:9:SER:O	1:E:273:ASN:CA	2.59	0.51
1:E:454:ASN:HB3	1:F:151:LYS:O	2.10	0.51
1:F:15:VAL:HG11	1:F:26:LEU:HD13	1.92	0.51
1:G:421:CYS:HB3	1:G:441:CYS:SG	2.50	0.51
1:I:421:CYS:HB3	1:I:441:CYS:SG	2.50	0.51
1:J:421:CYS:HB3	1:J:441:CYS:SG	2.50	0.51
1:B:11:TYR:CZ	1:B:333:PRO:O	2.63	0.51
1:B:421:CYS:HB3	1:B:441:CYS:SG	2.50	0.51
1:E:324:VAL:O	1:E:327:MET:HB2	2.10	0.51
1:G:15:VAL:HG11	1:G:26:LEU:HD13	1.92	0.51
1:H:421:CYS:HB3	1:H:441:CYS:SG	2.50	0.51
1:I:6:ARG:CG	1:I:66:ILE:HD11	2.41	0.51
1:J:15:VAL:HG11	1:J:26:LEU:HD13	1.92	0.51
1:K:15:VAL:HG11	1:K:26:LEU:HD13	1.92	0.51
1:L:6:ARG:CG	1:L:66:ILE:HD11	2.41	0.51
1:G:242:THR:HG22	1:G:400:GLN:HE22	1.76	0.51
1:K:268:CYS:HB2	1:K:307:LEU:HD21	1.91	0.51
1:B:70:VAL:CG1	1:B:269:VAL:HG11	2.41	0.51
1:E:43:VAL:HG13	1:E:68:HIS:O	2.11	0.51
1:J:6:ARG:CG	1:J:66:ILE:HD11	2.41	0.51
1:K:421:CYS:HB3	1:K:441:CYS:SG	2.50	0.51
1:K:43:VAL:HG13	1:K:68:HIS:O	2.11	0.51
1:B:341:LEU:C	1:B:343:PRO:HD3	2.31	0.51
1:F:421:CYS:HB3	1:F:441:CYS:SG	2.50	0.51
1:H:6:ARG:HH12	1:H:68:HIS:CE1	2.28	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:421:CYS:HB3	1:L:441:CYS:SG	2.50	0.51
1:B:6:ARG:CG	1:B:66:ILE:HD11	2.41	0.51
1:C:11:TYR:CE1	1:C:369:LYS:CE	2.71	0.51
1:C:400:GLN:HA	1:E:396:ARG:NH1	2.26	0.51
1:F:6:ARG:CG	1:F:66:ILE:HD11	2.41	0.51
1:I:43:VAL:HG13	1:I:68:HIS:O	2.11	0.51
1:C:327:MET:C	1:C:342:LEU:HD22	2.32	0.51
1:C:396:ARG:NE	1:E:400:GLN:NE2	2.54	0.51
1:D:421:CYS:HB3	1:D:441:CYS:SG	2.50	0.51
1:F:43:VAL:HG13	1:F:68:HIS:O	2.11	0.51
1:L:11:TYR:OH	1:L:333:PRO:CB	2.46	0.51
1:C:421:CYS:HB3	1:C:441:CYS:SG	2.50	0.50
1:F:46:ALA:C	1:F:392:ARG:CD	2.79	0.50
1:A:6:ARG:CG	1:A:66:ILE:HD11	2.41	0.50
1:C:43:VAL:HG13	1:C:68:HIS:O	2.11	0.50
1:D:11:TYR:HE1	1:D:333:PRO:HA	1.76	0.50
1:D:6:ARG:CG	1:D:66:ILE:HD11	2.41	0.50
1:L:15:VAL:HG11	1:L:26:LEU:HD13	1.92	0.50
1:B:15:VAL:HG11	1:B:26:LEU:HD13	1.92	0.50
1:E:15:VAL:HG11	1:E:26:LEU:HD13	1.92	0.50
1:F:46:ALA:CA	1:F:392:ARG:HD3	2.40	0.50
1:H:11:TYR:CB	1:H:369:LYS:HE2	2.41	0.50
1:I:44:ILE:HD13	1:I:266:LEU:HD11	1.83	0.50
1:J:329:GLY:CA	1:J:366:ARG:HH22	2.23	0.50
1:L:43:VAL:HG13	1:L:68:HIS:O	2.11	0.50
1:A:43:VAL:HG13	1:A:68:HIS:O	2.11	0.50
1:B:43:VAL:HG13	1:B:68:HIS:O	2.11	0.50
1:C:44:ILE:HD12	1:C:266:LEU:HD11	1.94	0.50
1:F:327:MET:C	1:F:329:GLY:H	2.07	0.50
1:J:46:ALA:C	1:J:392:ARG:HD3	2.29	0.50
1:J:43:VAL:HG13	1:J:68:HIS:O	2.11	0.50
1:K:11:TYR:HE1	1:K:333:PRO:O	1.86	0.50
1:K:6:ARG:CG	1:K:66:ILE:HD11	2.41	0.50
1:A:15:VAL:HG11	1:A:26:LEU:HD13	1.92	0.50
1:D:15:VAL:HG11	1:D:26:LEU:HD13	1.92	0.50
1:I:15:VAL:HG11	1:I:26:LEU:HD13	1.92	0.50
1:J:324:VAL:HG11	1:J:331:LEU:CD2	2.41	0.50
1:L:44:ILE:HG21	1:L:266:LEU:CD2	2.39	0.50
1:B:455:ARG:CD	1:D:221:ASP:OD1	2.60	0.50
1:G:6:ARG:CG	1:G:66:ILE:HD11	2.41	0.50
1:H:15:VAL:HG11	1:H:26:LEU:HD13	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:43:VAL:HG13	1:H:68:HIS:O	2.11	0.50
1:H:347:GLN:HG3	1:H:349:LYS:H	1.77	0.50
1:D:43:VAL:HG13	1:D:68:HIS:O	2.11	0.50
1:E:199:PRO:CG	1:F:170:ARG:HG3	2.41	0.50
1:G:43:VAL:HG13	1:G:68:HIS:O	2.11	0.50
1:J:347:GLN:HG3	1:J:349:LYS:H	1.77	0.49
1:K:68:HIS:NE2	1:K:274:ASP:OD2	2.45	0.49
1:B:44:ILE:HG12	1:B:266:LEU:HD21	1.87	0.49
1:E:324:VAL:CG1	1:E:340:GLY:CA	2.82	0.49
1:E:6:ARG:CG	1:E:66:ILE:HD11	2.41	0.49
1:I:14:PRO:HD3	1:I:370:GLU:OE1	2.09	0.49
1:B:155:HIS:HD1	1:I:452:GLU:CG	2.24	0.49
1:E:46:ALA:C	1:E:392:ARG:CD	2.80	0.49
1:G:420:ARG:HG3	1:H:313:ASN:HB3	1.95	0.49
1:I:44:ILE:CD1	1:I:266:LEU:HD11	2.38	0.49
1:K:347:GLN:HG3	1:K:349:LYS:H	1.77	0.49
1:D:347:GLN:HG3	1:D:349:LYS:H	1.77	0.49
1:E:347:GLN:HG3	1:E:349:LYS:H	1.77	0.49
1:F:347:GLN:HG3	1:F:349:LYS:H	1.77	0.49
1:D:420:ARG:CZ	1:I:313:ASN:OD1	2.60	0.49
1:K:24:PHE:CE2	1:K:25:GLN:CG	2.87	0.49
1:I:44:ILE:CB	1:I:266:LEU:HD21	2.42	0.49
1:K:170:ARG:HE	1:L:199:PRO:CG	2.25	0.49
1:I:11:TYR:CG	1:I:369:LYS:CE	2.95	0.49
1:H:72:ARG:HH22	1:H:265:HIS:HD2	1.59	0.49
1:K:68:HIS:NE2	1:K:274:ASP:OD1	2.46	0.49
1:A:11:TYR:CE1	1:A:333:PRO:CB	2.95	0.49
1:D:70:VAL:HG21	1:D:72:ARG:NH2	2.28	0.49
1:G:24:PHE:O	1:G:28:GLU:HG3	2.13	0.49
1:G:347:GLN:HG3	1:G:349:LYS:H	1.77	0.49
1:K:24:PHE:O	1:K:28:GLU:HG3	2.13	0.49
1:K:327:MET:O	1:K:342:LEU:HD23	2.00	0.49
1:A:24:PHE:O	1:A:28:GLU:HG3	2.13	0.49
1:A:347:GLN:HG3	1:A:349:LYS:H	1.77	0.49
1:A:70:VAL:HG21	1:A:72:ARG:NH2	2.28	0.49
1:B:24:PHE:O	1:B:28:GLU:HG3	2.13	0.49
1:I:44:ILE:HB	1:I:266:LEU:HD11	1.95	0.49
1:J:24:PHE:O	1:J:28:GLU:HG3	2.13	0.49
1:A:10:SER:HA	1:A:273:ASN:O	2.12	0.48
1:I:24:PHE:O	1:I:28:GLU:HG3	2.13	0.48
1:A:324:VAL:HG11	1:A:331:LEU:CD2	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:70:VAL:HG21	1:G:72:ARG:NH2	2.28	0.48
1:L:24:PHE:O	1:L:28:GLU:HG3	2.13	0.48
1:L:44:ILE:CD1	1:L:266:LEU:HD21	2.43	0.48
1:L:70:VAL:HG21	1:L:72:ARG:NH2	2.28	0.48
1:B:452:GLU:CG	1:D:309:GLU:OE2	2.60	0.48
1:B:46:ALA:HB1	1:B:392:ARG:HD3	1.95	0.48
1:H:70:VAL:HG21	1:H:72:ARG:NH2	2.28	0.48
1:I:11:TYR:CD1	1:I:369:LYS:HE3	2.49	0.48
1:I:70:VAL:HG13	1:I:269:VAL:HG11	1.94	0.48
1:J:46:ALA:CB	1:J:392:ARG:CD	2.89	0.48
1:E:24:PHE:O	1:E:28:GLU:HG3	2.13	0.48
1:E:327:MET:CG	1:E:342:LEU:HD21	2.36	0.48
1:I:347:GLN:HG3	1:I:349:LYS:H	1.77	0.48
1:L:347:GLN:HG3	1:L:349:LYS:H	1.77	0.48
1:C:347:GLN:HG3	1:C:349:LYS:H	1.77	0.48
1:B:396:ARG:HH11	1:F:396:ARG:HD2	1.25	0.48
1:E:68:HIS:NE2	1:E:270:THR:HG23	2.29	0.48
1:H:149:TYR:CD2	1:H:305[A]:ARG:HD3	2.49	0.48
1:H:9:SER:O	1:H:273:ASN:HB3	2.14	0.48
1:J:333:PRO:HB3	1:J:369:LYS:HE3	1.96	0.48
1:C:70:VAL:HG21	1:C:72:ARG:NH2	2.28	0.48
1:D:420:ARG:HE	1:I:313:ASN:CG	2.15	0.48
1:E:70:VAL:HG21	1:E:72:ARG:NH2	2.28	0.48
1:F:24:PHE:O	1:F:28:GLU:HG3	2.13	0.48
1:H:24:PHE:CE2	1:H:25:GLN:CG	2.87	0.48
1:J:70:VAL:CG1	1:J:269:VAL:HG11	2.43	0.48
1:K:170:ARG:HE	1:L:199:PRO:HG3	1.78	0.48
1:B:334:ARG:HA	1:B:335:PRO:HD3	1.77	0.48
1:E:149:TYR:CD2	1:E:305[A]:ARG:HD3	2.49	0.48
1:E:24:PHE:CE2	1:E:25:GLN:CG	2.87	0.48
1:F:149:TYR:CD2	1:F:305[A]:ARG:HD3	2.49	0.48
1:F:70:VAL:HG21	1:F:72:ARG:NH2	2.28	0.48
1:H:333:PRO:HB3	1:H:369:LYS:HE3	1.96	0.48
1:I:149:TYR:CD2	1:I:305[A]:ARG:HD3	2.49	0.48
1:I:70:VAL:HG21	1:I:72:ARG:NH2	2.28	0.48
1:A:149:TYR:CD2	1:A:305[A]:ARG:HD3	2.49	0.48
1:B:70:VAL:HG21	1:B:72:ARG:NH2	2.28	0.48
1:C:149:TYR:CD2	1:C:305[A]:ARG:HD3	2.49	0.48
1:D:149:TYR:CD2	1:D:305[A]:ARG:HD3	2.49	0.48
1:F:72:ARG:NH1	1:F:265:HIS:CD2	2.82	0.48
1:F:324:VAL:CG1	1:F:340:GLY:HA3	2.40	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:24:PHE:O	1:H:28:GLU:HG3	2.13	0.48
1:J:149:TYR:CD2	1:J:305[A]:ARG:HD3	2.49	0.48
1:K:70:VAL:HG21	1:K:72:ARG:NH2	2.28	0.48
1:L:9:SER:O	1:L:273:ASN:CA	2.62	0.48
1:L:327:MET:CG	1:L:342:LEU:HD21	2.43	0.48
1:B:151:LYS:O	1:I:454:ASN:HB3	2.14	0.47
1:D:24:PHE:O	1:D:28:GLU:HG3	2.13	0.47
1:J:70:VAL:HG21	1:J:72:ARG:NH2	2.28	0.47
1:C:40:GLN:O	1:C:72:ARG:N	2.34	0.47
1:F:333:PRO:HB3	1:F:369:LYS:HE3	1.96	0.47
1:D:11:TYR:HE1	1:D:333:PRO:CA	2.15	0.47
1:H:228:LEU:HG	1:H:303:HIS:CE1	2.50	0.47
1:J:302:HIS:HB3	1:J:305[B]:ARG:HH11	1.80	0.47
1:K:333:PRO:HB3	1:K:369:LYS:HE3	1.96	0.47
1:A:11:TYR:CD1	1:A:369:LYS:CE	2.98	0.47
1:B:302:HIS:HB3	1:B:305[B]:ARG:HH11	1.80	0.47
1:B:333:PRO:HB3	1:B:369:LYS:HE3	1.96	0.47
1:F:228:LEU:HG	1:F:303:HIS:CE1	2.50	0.47
1:G:270:THR:HG21	1:G:392:ARG:HH12	1.79	0.47
1:G:42:ARG:HD2	1:G:49:GLU:OE1	2.15	0.47
1:H:302:HIS:HB3	1:H:305[B]:ARG:HH11	1.80	0.47
1:I:436:CYS:HA	1:I:437:PRO:HD3	1.71	0.47
1:J:46:ALA:CB	1:J:392:ARG:CZ	2.91	0.47
1:K:327:MET:SD	1:K:342:LEU:CD1	3.00	0.47
1:K:40:GLN:O	1:K:72:ARG:N	2.34	0.47
1:E:333:PRO:HB3	1:E:369:LYS:HE3	1.96	0.47
1:F:46:ALA:CB	1:F:392:ARG:CZ	2.78	0.47
1:G:149:TYR:CD2	1:G:305[A]:ARG:HD3	2.49	0.47
1:G:302:HIS:HB3	1:G:305[B]:ARG:HH11	1.80	0.47
1:I:270:THR:HG21	1:I:392:ARG:HH12	1.79	0.47
1:I:333:PRO:HB3	1:I:369:LYS:HE3	1.96	0.47
1:L:228:LEU:HG	1:L:303:HIS:CE1	2.50	0.47
1:L:44:ILE:CG1	1:L:266:LEU:CD2	2.91	0.47
1:B:228:LEU:HG	1:B:303:HIS:CE1	2.50	0.47
1:C:24:PHE:O	1:C:28:GLU:HG3	2.13	0.47
1:C:333:PRO:HB3	1:C:369:LYS:HE3	1.96	0.47
1:B:452:GLU:HG3	1:D:155:HIS:CE1	2.49	0.47
1:D:228:LEU:HG	1:D:303:HIS:CE1	2.50	0.47
1:F:302:HIS:HB3	1:F:305[B]:ARG:HH11	1.80	0.47
1:K:68:HIS:CE1	1:K:274:ASP:CG	2.88	0.47
1:L:42:ARG:HD2	1:L:49:GLU:OE1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:149:TYR:CD2	1:B:305[A]:ARG:HD3	2.49	0.47
1:B:42:ARG:HD2	1:B:49:GLU:OE1	2.15	0.47
1:L:325:LEU:HD11	1:L:331:LEU:HD11	1.96	0.47
1:A:228:LEU:HG	1:A:303:HIS:CE1	2.50	0.47
1:D:42:ARG:HD2	1:D:49:GLU:OE1	2.15	0.47
1:G:228:LEU:HG	1:G:303:HIS:CE1	2.50	0.47
1:A:333:PRO:HB3	1:A:369:LYS:HE3	1.96	0.47
1:D:302:HIS:HB3	1:D:305[B]:ARG:HH11	1.80	0.47
1:E:40:GLN:O	1:E:72:ARG:N	2.34	0.47
1:E:46:ALA:HB1	1:E:392:ARG:HD3	1.97	0.47
1:L:333:PRO:HB3	1:L:369:LYS:HE3	1.96	0.47
1:C:42:ARG:HD2	1:C:49:GLU:OE1	2.15	0.47
1:D:10:SER:HA	1:D:273:ASN:O	2.15	0.47
1:E:228:LEU:HG	1:E:303:HIS:CE1	2.50	0.47
1:G:297:LEU:HD23	1:G:297:LEU:HA	1.78	0.47
1:H:72:ARG:NH2	1:H:265:HIS:HD2	2.13	0.47
1:B:155:HIS:ND1	1:I:452:GLU:HG3	2.29	0.47
1:K:228:LEU:HG	1:K:303:HIS:CE1	2.50	0.47
1:C:228:LEU:HG	1:C:303:HIS:CE1	2.50	0.47
1:E:11:TYR:CZ	1:E:333:PRO:CA	2.97	0.47
1:E:302:HIS:HB3	1:E:305[B]:ARG:HH11	1.80	0.47
1:E:42:ARG:HD2	1:E:49:GLU:OE1	2.15	0.47
1:H:42:ARG:HD2	1:H:49:GLU:OE1	2.15	0.47
1:K:149:TYR:CD2	1:K:305[A]:ARG:HD3	2.49	0.47
1:C:24:PHE:CE2	1:C:25:GLN:CG	2.87	0.46
1:C:400:GLN:HA	1:E:396:ARG:HH12	1.78	0.46
1:C:396:ARG:CD	1:E:400:GLN:HG3	2.44	0.46
1:F:11:TYR:CZ	1:F:333:PRO:HB3	2.46	0.46
1:G:271:ARG:NH1	1:G:392:ARG:NH1	2.62	0.46
1:J:334:ARG:HA	1:J:335:PRO:HD3	1.77	0.46
1:B:396:ARG:HD3	1:F:400:GLN:HG2	1.96	0.46
1:F:42:ARG:HD2	1:F:49:GLU:OE1	2.15	0.46
1:L:149:TYR:CD2	1:L:305[A]:ARG:HD3	2.49	0.46
1:L:302:HIS:HB3	1:L:305[B]:ARG:HH11	1.80	0.46
1:A:40:GLN:O	1:A:72:ARG:N	2.34	0.46
1:B:40:GLN:O	1:B:72:ARG:N	2.34	0.46
1:K:327:MET:C	1:K:329:GLY:H	2.05	0.46
1:A:302:HIS:HB3	1:A:305[B]:ARG:HH11	1.80	0.46
1:A:327:MET:C	1:A:329:GLY:H	2.18	0.46
1:G:24:PHE:CE2	1:G:25:GLN:CG	2.87	0.46
1:G:333:PRO:HB3	1:G:369:LYS:HE3	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:302:HIS:HB3	1:K:305[B]:ARG:HH11	1.80	0.46
1:L:9:SER:O	1:L:273:ASN:CB	2.64	0.46
1:C:302:HIS:HB3	1:C:305[B]:ARG:HH11	1.80	0.46
1:D:24:PHE:CE2	1:D:25:GLN:CG	2.86	0.46
1:G:454:ASN:HB3	1:H:151:LYS:O	2.16	0.46
1:J:228:LEU:HG	1:J:303:HIS:CE1	2.50	0.46
1:A:42:ARG:HD2	1:A:49:GLU:OE1	2.15	0.46
1:C:5:VAL:O	1:C:12:GLY:HA2	2.16	0.46
1:E:27:LYS:O	1:E:31:ALA:N	2.49	0.46
1:E:199:PRO:HD3	1:F:170:ARG:NE	2.31	0.46
1:I:228:LEU:HG	1:I:303:HIS:CE1	2.50	0.46
1:J:329:GLY:HA3	1:J:343:PRO:HD2	1.98	0.46
1:K:42:ARG:HD2	1:K:49:GLU:OE1	2.15	0.46
1:C:436:CYS:HA	1:C:437:PRO:HD3	1.71	0.46
1:I:42:ARG:HD2	1:I:49:GLU:OE1	2.15	0.46
1:F:5:VAL:O	1:F:12:GLY:HA2	2.16	0.46
1:B:396:ARG:HD3	1:F:400:GLN:CG	2.46	0.46
1:H:334:ARG:HA	1:H:335:PRO:HD3	1.77	0.46
1:I:271:ARG:NH1	1:I:392:ARG:NH1	2.63	0.46
1:J:42:ARG:HD2	1:J:49:GLU:OE1	2.15	0.46
1:B:199:PRO:CD	1:D:170:ARG:HG3	2.46	0.46
1:D:333:PRO:HB3	1:D:369:LYS:HE3	1.96	0.46
1:J:5:VAL:O	1:J:12:GLY:HA2	2.16	0.46
1:K:436:CYS:HA	1:K:437:PRO:HD3	1.71	0.46
1:L:324:VAL:O	1:L:327:MET:HB2	2.16	0.46
1:A:27:LYS:O	1:A:31:ALA:N	2.49	0.45
1:A:440:GLN:HB2	1:E:320:ALA:HB2	1.98	0.45
1:C:27:LYS:O	1:C:31:ALA:N	2.49	0.45
1:C:11:TYR:CE1	1:C:333:PRO:HA	2.22	0.45
1:E:420:ARG:CZ	1:F:313:ASN:OD1	2.64	0.45
1:E:420:ARG:NH2	1:F:313:ASN:OD1	2.49	0.45
1:H:5:VAL:O	1:H:12:GLY:HA2	2.16	0.45
1:A:46:ALA:O	1:A:392:ARG:HD3	2.16	0.45
1:I:302:HIS:HB3	1:I:305[B]:ARG:HH11	1.80	0.45
1:J:27:LYS:O	1:J:31:ALA:N	2.49	0.45
1:B:11:TYR:CG	1:B:369:LYS:HE3	2.51	0.45
1:C:396:ARG:HE	1:E:400:GLN:NE2	2.04	0.45
1:J:9:SER:O	1:J:273:ASN:HB3	2.17	0.45
1:K:3:VAL:HG23	1:K:15:VAL:HB	1.99	0.45
1:L:324:VAL:CG1	1:L:340:GLY:HA2	2.29	0.45
1:B:3:VAL:HG23	1:B:15:VAL:HB	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:5:VAL:O	1:B:12:GLY:HA2	2.16	0.45
1:E:5:VAL:O	1:E:12:GLY:HA2	2.16	0.45
1:F:436:CYS:HA	1:F:437:PRO:HD3	1.71	0.45
1:H:46:ALA:CA	1:H:392:ARG:CD	2.85	0.45
1:C:313:ASN:HB3	1:H:420:ARG:HG3	1.99	0.45
1:B:320:ALA:CB	1:I:440:GLN:HB2	2.46	0.45
1:L:5:VAL:O	1:L:12:GLY:HA2	2.16	0.45
1:A:155:HIS:HD1	1:F:452:GLU:CD	2.12	0.45
1:A:3:VAL:HG23	1:A:15:VAL:HB	1.99	0.45
1:F:324:VAL:CG1	1:F:340:GLY:CA	2.93	0.45
1:A:155:HIS:CE1	1:F:452:GLU:HG2	2.51	0.45
1:I:40:GLN:O	1:I:72:ARG:N	2.34	0.45
1:J:44:ILE:HG21	1:J:266:LEU:HD21	1.99	0.45
1:G:3:VAL:HG23	1:G:15:VAL:HB	1.99	0.45
1:H:68:HIS:CE1	1:H:273:ASN:CB	2.98	0.45
1:B:11:TYR:CB	1:B:369:LYS:HE2	2.47	0.45
1:D:436:CYS:HA	1:D:437:PRO:HD3	1.71	0.45
1:G:11:TYR:HE1	1:G:333:PRO:CA	2.26	0.45
1:G:5:VAL:O	1:G:12:GLY:HA2	2.16	0.45
1:I:3:VAL:HG23	1:I:15:VAL:HB	1.99	0.45
1:J:325:LEU:HD23	1:J:331:LEU:CD1	2.40	0.45
1:A:5:VAL:O	1:A:12:GLY:HA2	2.16	0.45
1:D:3:VAL:HG23	1:D:15:VAL:HB	1.99	0.45
1:B:199:PRO:CG	1:D:170:ARG:HG3	2.46	0.45
1:J:324:VAL:HG11	1:J:340:GLY:HA3	1.99	0.45
1:K:297:LEU:HD23	1:K:297:LEU:HA	1.78	0.45
1:F:300:GLU:HB3	1:F:302:HIS:NE2	2.32	0.45
1:F:40:GLN:O	1:F:72:ARG:N	2.34	0.45
1:H:27:LYS:O	1:H:31:ALA:N	2.49	0.45
1:B:300:GLU:HB3	1:B:302:HIS:NE2	2.32	0.45
1:C:44:ILE:HG23	1:C:48:LYS:C	2.38	0.45
1:E:44:ILE:HG23	1:E:48:LYS:C	2.37	0.45
1:G:44:ILE:HG23	1:G:48:LYS:C	2.37	0.45
1:H:436:CYS:HA	1:H:437:PRO:HD3	1.71	0.45
1:I:5:VAL:O	1:I:12:GLY:HA2	2.16	0.45
1:A:44:ILE:HG23	1:A:48:LYS:C	2.38	0.44
1:B:44:ILE:HG23	1:B:48:LYS:C	2.38	0.44
1:D:44:ILE:HG23	1:D:48:LYS:C	2.38	0.44
1:E:300:GLU:HB3	1:E:302:HIS:NE2	2.32	0.44
1:E:6:ARG:NH1	1:E:274:ASP:OD1	2.51	0.44
1:J:3:VAL:HG23	1:J:15:VAL:HB	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:27:LYS:O	1:F:31:ALA:N	2.49	0.44
1:F:44:ILE:HG23	1:F:48:LYS:C	2.38	0.44
1:K:300:GLU:HB3	1:K:302:HIS:NE2	2.32	0.44
1:B:313:ASN:HB3	1:I:420:ARG:CG	2.33	0.44
1:D:5:VAL:O	1:D:12:GLY:HA2	2.16	0.44
1:E:44:ILE:HD13	1:E:266:LEU:CD1	2.46	0.44
1:H:300:GLU:HB3	1:H:302:HIS:NE2	2.32	0.44
1:L:3:VAL:HG23	1:L:15:VAL:HB	1.99	0.44
1:A:300:GLU:HB3	1:A:302:HIS:NE2	2.32	0.44
1:B:438:GLN:HB3	1:B:440:GLN:CD	2.38	0.44
1:B:46:ALA:O	1:B:392:ARG:CD	2.32	0.44
1:H:37:PRO:O	1:H:41:LEU:HG	2.18	0.44
1:K:5:VAL:O	1:K:12:GLY:HA2	2.16	0.44
1:J:199:PRO:HG2	1:L:170:ARG:HE	1.78	0.44
1:L:438:GLN:HB3	1:L:440:GLN:CD	2.38	0.44
1:A:24:PHE:CE2	1:A:25:GLN:CG	2.87	0.44
1:A:438:GLN:HB3	1:A:440:GLN:CD	2.38	0.44
1:D:37:PRO:O	1:D:41:LEU:HG	2.18	0.44
1:F:24:PHE:CE2	1:F:25:GLN:CG	2.87	0.44
1:G:11:TYR:HD1	1:G:369:LYS:CE	2.29	0.44
1:J:44:ILE:HG23	1:J:48:LYS:C	2.38	0.44
1:K:44:ILE:HG23	1:K:48:LYS:C	2.38	0.44
1:L:300:GLU:HB3	1:L:302:HIS:NE2	2.32	0.44
1:C:300:GLU:HB3	1:C:302:HIS:NE2	2.32	0.44
1:C:3:VAL:HG23	1:C:15:VAL:HB	1.99	0.44
1:D:27:LYS:O	1:D:31:ALA:N	2.49	0.44
1:E:37:PRO:O	1:E:41:LEU:HG	2.18	0.44
1:F:11:TYR:HE1	1:F:333:PRO:HA	1.80	0.44
1:H:44:ILE:CB	1:H:266:LEU:HD21	2.47	0.44
1:H:44:ILE:HG23	1:H:48:LYS:C	2.38	0.44
1:I:44:ILE:HG23	1:I:48:LYS:C	2.37	0.44
1:J:24:PHE:CE2	1:J:25:GLN:CG	2.87	0.44
1:J:37:PRO:O	1:J:41:LEU:HG	2.18	0.44
1:K:37:PRO:O	1:K:41:LEU:HG	2.18	0.44
1:L:37:PRO:O	1:L:41:LEU:HG	2.18	0.44
1:D:300:GLU:HB3	1:D:302:HIS:NE2	2.32	0.44
1:D:438:GLN:HB3	1:D:440:GLN:CD	2.38	0.44
1:E:3:VAL:HG23	1:E:15:VAL:HB	1.99	0.44
1:H:40:GLN:O	1:H:72:ARG:N	2.34	0.44
1:J:329:GLY:O	1:J:366:ARG:NH2	2.50	0.44
1:J:330:VAL:O	1:J:341:LEU:HB2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:27:LYS:O	1:K:31:ALA:N	2.49	0.44
1:K:438:GLN:HB3	1:K:440:GLN:CD	2.38	0.44
1:C:438:GLN:HB3	1:C:440:GLN:CD	2.38	0.44
1:J:452:GLU:OE2	1:L:309:GLU:CG	2.66	0.44
1:C:297:LEU:HD23	1:C:297:LEU:HA	1.78	0.44
1:C:37:PRO:O	1:C:41:LEU:HG	2.18	0.44
1:D:14:PRO:HD2	1:D:370:GLU:CD	2.38	0.44
1:D:46:ALA:HA	1:D:392:ARG:HD2	1.99	0.44
1:E:253:CYS:HB3	1:E:296:SER:HB3	2.00	0.44
1:F:3:VAL:HG23	1:F:15:VAL:HB	1.99	0.44
1:G:205:ARG:HH21	1:G:207:GLU:CG	2.31	0.44
1:A:44:ILE:HG21	1:A:266:LEU:CD2	2.43	0.43
1:B:4:PHE:HB3	1:B:66:ILE:HD12	2.00	0.43
1:F:11:TYR:OH	1:F:333:PRO:O	2.29	0.43
1:F:46:ALA:H	1:F:392:ARG:NH1	2.12	0.43
1:H:205:ARG:HH21	1:H:207:GLU:CG	2.31	0.43
1:I:300:GLU:HB3	1:I:302:HIS:NE2	2.33	0.43
1:K:11:TYR:CZ	1:K:333:PRO:C	2.85	0.43
1:B:205:ARG:HH21	1:B:207:GLU:CG	2.31	0.43
1:E:70:VAL:CG1	1:E:269:VAL:HG11	2.48	0.43
1:E:44:ILE:HD13	1:E:266:LEU:CG	2.35	0.43
1:F:37:PRO:O	1:F:41:LEU:HG	2.17	0.43
1:I:438:GLN:HB3	1:I:440:GLN:CD	2.38	0.43
1:J:205:ARG:HH21	1:J:207:GLU:CG	2.31	0.43
1:K:205:ARG:HH21	1:K:207:GLU:CG	2.31	0.43
1:L:44:ILE:HG23	1:L:48:LYS:C	2.38	0.43
1:B:37:PRO:O	1:B:41:LEU:HG	2.18	0.43
1:C:205:ARG:HH21	1:C:207:GLU:CG	2.31	0.43
1:E:4:PHE:HB3	1:E:66:ILE:HD12	2.00	0.43
1:F:11:TYR:CE1	1:F:369:LYS:CE	3.00	0.43
1:H:253:CYS:HB3	1:H:296:SER:HB3	2.00	0.43
1:J:300:GLU:HB3	1:J:302:HIS:NE2	2.32	0.43
1:C:253:CYS:HB3	1:C:296:SER:HB3	2.00	0.43
1:C:334:ARG:HA	1:C:335:PRO:HD3	1.77	0.43
1:D:334:ARG:HA	1:D:335:PRO:HD3	1.77	0.43
1:D:455:ARG:CD	1:I:221:ASP:OD1	2.64	0.43
1:E:438:GLN:HB3	1:E:440:GLN:CD	2.38	0.43
1:G:438:GLN:HB3	1:G:440:GLN:CD	2.38	0.43
1:J:436:CYS:HA	1:J:437:PRO:HD3	1.71	0.43
1:B:43:VAL:HG22	1:B:69:ILE:HG12	2.01	0.43
1:C:43:VAL:HG22	1:C:69:ILE:HG12	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:3:VAL:HG23	1:H:15:VAL:HB	1.99	0.43
1:J:438:GLN:HB3	1:J:440:GLN:CD	2.38	0.43
1:K:329:GLY:N	1:K:342:LEU:HD23	2.33	0.43
1:A:297:LEU:HD23	1:A:297:LEU:HA	1.78	0.43
1:F:220:LYS:HD3	1:F:220:LYS:HA	1.90	0.43
1:F:11:TYR:CE1	1:F:333:PRO:HB3	2.53	0.43
1:G:300:GLU:HB3	1:G:302:HIS:NE2	2.32	0.43
1:I:2:ILE:CD1	1:I:378:ASP:OD2	2.67	0.43
1:L:4:PHE:HB3	1:L:66:ILE:HD12	2.00	0.43
1:A:362:PHE:CE2	1:A:364:PHE:HB3	2.54	0.43
1:D:44:ILE:HD13	1:D:266:LEU:HD13	2.00	0.43
1:D:44:ILE:HD13	1:D:266:LEU:CG	2.41	0.43
1:A:199:PRO:HG3	1:E:170:ARG:HE	1.83	0.43
1:G:27:LYS:O	1:G:31:ALA:N	2.49	0.43
1:G:436:CYS:HA	1:G:437:PRO:HD3	1.71	0.43
1:G:4:PHE:HB3	1:G:66:ILE:HD12	2.01	0.43
1:H:438:GLN:HB3	1:H:440:GLN:CD	2.38	0.43
1:J:68:HIS:NE2	1:J:270:THR:HG23	2.33	0.43
1:L:205:ARG:HH21	1:L:207:GLU:CG	2.31	0.43
1:A:37:PRO:O	1:A:41:LEU:HG	2.18	0.43
1:B:220:LYS:HA	1:B:220:LYS:HD3	1.90	0.43
1:E:230:THR:HG22	1:E:231:ASN:O	2.19	0.43
1:F:205:ARG:HH21	1:F:207:GLU:CG	2.31	0.43
1:F:438:GLN:HB3	1:F:440:GLN:CD	2.38	0.43
1:G:397:ALA:CA	1:G:400:GLN:HG2	2.49	0.43
1:G:37:PRO:O	1:G:41:LEU:HG	2.18	0.43
1:G:43:VAL:HG22	1:G:69:ILE:HG12	2.01	0.43
1:H:255:HIS:ND1	1:H:402:ARG:NH2	2.67	0.43
1:H:362:PHE:CE2	1:H:364:PHE:HB3	2.54	0.43
1:I:362:PHE:CE2	1:I:364:PHE:HB3	2.54	0.43
1:I:37:PRO:O	1:I:41:LEU:HG	2.18	0.43
1:J:362:PHE:CE2	1:J:364:PHE:HB3	2.54	0.43
1:K:43:VAL:HG22	1:K:69:ILE:HG12	2.01	0.43
1:B:24:PHE:CE2	1:B:25:GLN:CG	2.87	0.43
1:D:230:THR:HG22	1:D:231:ASN:O	2.19	0.43
1:D:43:VAL:HG22	1:D:69:ILE:HG12	2.01	0.43
1:E:205:ARG:HH21	1:E:207:GLU:CG	2.31	0.43
1:G:362:PHE:CE2	1:G:364:PHE:HB3	2.54	0.43
1:I:188:ILE:CG2	1:I:191:ARG:CB	2.86	0.43
1:J:253:CYS:HB3	1:J:296:SER:HB3	2.00	0.43
1:A:205:ARG:HH21	1:A:207:GLU:CG	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:253:CYS:HB3	1:A:296:SER:HB3	2.00	0.43
1:A:4:PHE:HB3	1:A:66:ILE:HD12	2.00	0.43
1:B:253:CYS:HB3	1:B:296:SER:HB3	2.00	0.43
1:B:400:GLN:OE1	1:F:396:ARG:CG	2.64	0.43
1:F:362:PHE:CE2	1:F:364:PHE:HB3	2.54	0.43
1:H:46:ALA:CA	1:H:392:ARG:HD3	2.47	0.43
1:C:155:HIS:HE1	1:H:452:GLU:HG3	1.81	0.43
1:I:43:VAL:HG22	1:I:69:ILE:HG12	2.01	0.43
1:K:230:THR:HG22	1:K:231:ASN:O	2.19	0.43
1:K:362:PHE:CE2	1:K:364:PHE:HB3	2.54	0.43
1:L:438:GLN:HA	1:L:439:PRO:HD3	1.87	0.43
1:A:230:THR:HG22	1:A:231:ASN:O	2.19	0.42
1:B:11:TYR:CE1	1:B:369:LYS:HE3	2.54	0.42
1:D:362:PHE:CE2	1:D:364:PHE:HB3	2.54	0.42
1:E:166:CYS:HA	1:E:174:LEU:HD13	2.01	0.42
1:G:230:THR:HG22	1:G:231:ASN:O	2.19	0.42
1:H:11:TYR:HE1	1:H:333:PRO:HA	1.00	0.42
1:L:362:PHE:CE2	1:L:364:PHE:HB3	2.54	0.42
1:A:166:CYS:HA	1:A:174:LEU:HD13	2.01	0.42
1:D:253:CYS:HB3	1:D:296:SER:HB3	2.00	0.42
1:F:230:THR:HG22	1:F:231:ASN:O	2.19	0.42
1:I:230:THR:HG22	1:I:231:ASN:O	2.19	0.42
1:B:313:ASN:CB	1:I:420:ARG:HG3	2.34	0.42
1:K:13:PHE:CE2	1:K:33:ARG:CZ	3.03	0.42
1:L:24:PHE:CE2	1:L:25:GLN:CG	2.87	0.42
1:L:27:LYS:O	1:L:31:ALA:N	2.49	0.42
1:B:230:THR:HG22	1:B:231:ASN:O	2.19	0.42
1:B:362:PHE:CE2	1:B:364:PHE:HB3	2.54	0.42
1:F:166:CYS:HA	1:F:174:LEU:HD13	2.01	0.42
1:C:420:ARG:CZ	1:G:313:ASN:OD1	2.66	0.42
1:I:27:LYS:O	1:I:31:ALA:N	2.49	0.42
1:K:253:CYS:HB3	1:K:296:SER:HB3	2.00	0.42
1:A:334:ARG:HA	1:A:335:PRO:HD3	1.77	0.42
1:B:328:GLY:O	1:B:366:ARG:NH2	2.50	0.42
1:C:166:CYS:HA	1:C:174:LEU:HD13	2.01	0.42
1:D:438:GLN:HB3	1:D:440:GLN:NE2	2.35	0.42
1:E:59:CYS:SG	1:E:61:LEU:HB2	2.60	0.42
1:E:43:VAL:HG22	1:E:69:ILE:HG12	2.01	0.42
1:F:253:CYS:HB3	1:F:296:SER:HB3	2.00	0.42
1:F:438:GLN:HB3	1:F:440:GLN:NE2	2.35	0.42
1:I:253:CYS:HB3	1:I:296:SER:HB3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:230:THR:HG22	1:J:231:ASN:O	2.19	0.42
1:K:438:GLN:HB3	1:K:440:GLN:NE2	2.35	0.42
1:B:345:GLN:CD	1:B:345:GLN:N	2.73	0.42
1:C:362:PHE:CE2	1:C:364:PHE:HB3	2.54	0.42
1:C:438:GLN:HB3	1:C:440:GLN:NE2	2.35	0.42
1:E:362:PHE:CE2	1:E:364:PHE:HB3	2.54	0.42
1:G:253:CYS:HB3	1:G:296:SER:HB3	2.00	0.42
1:G:11:TYR:CE1	1:G:369:LYS:HE3	2.55	0.42
1:H:438:GLN:HB3	1:H:440:GLN:NE2	2.35	0.42
1:I:4:PHE:HB3	1:I:66:ILE:HD12	2.01	0.42
1:J:13:PHE:CE2	1:J:33:ARG:CZ	3.03	0.42
1:K:166:CYS:HA	1:K:174:LEU:HD13	2.01	0.42
1:K:72:ARG:HH12	1:K:265:HIS:CD2	2.37	0.42
1:L:166:CYS:HA	1:L:174:LEU:HD13	2.02	0.42
1:L:43:VAL:HG22	1:L:69:ILE:HG12	2.01	0.42
1:B:309:GLU:OE2	1:I:452:GLU:CB	2.67	0.42
1:B:59:CYS:SG	1:B:61:LEU:HB2	2.60	0.42
1:C:220:LYS:HA	1:C:220:LYS:HD3	1.90	0.42
1:F:44:ILE:CD1	1:F:266:LEU:CD1	2.97	0.42
1:F:4:PHE:HB3	1:F:66:ILE:HD12	2.01	0.42
1:F:43:VAL:HG22	1:F:69:ILE:HG12	2.01	0.42
1:G:13:PHE:CE2	1:G:33:ARG:CZ	3.03	0.42
1:G:68:HIS:CE1	1:G:274:ASP:OD1	2.73	0.42
1:G:334:ARG:HA	1:G:335:PRO:HD3	1.77	0.42
1:H:13:PHE:CE2	1:H:33:ARG:CZ	3.03	0.42
1:H:272:LEU:HA	1:H:272:LEU:HD23	1.91	0.42
1:H:43:VAL:HG22	1:H:69:ILE:HG12	2.01	0.42
1:I:205:ARG:HH21	1:I:207:GLU:CG	2.31	0.42
1:J:438:GLN:HB3	1:J:440:GLN:NE2	2.35	0.42
1:L:253:CYS:HB3	1:L:296:SER:HB3	2.00	0.42
1:L:59:CYS:SG	1:L:61:LEU:HB2	2.60	0.42
1:A:43:VAL:HG22	1:A:69:ILE:HG12	2.01	0.42
1:B:297:LEU:HD23	1:B:297:LEU:HA	1.78	0.42
1:B:438:GLN:HA	1:B:439:PRO:HD3	1.87	0.42
1:C:4:PHE:HB3	1:C:66:ILE:HD12	2.00	0.42
1:E:13:PHE:CE2	1:E:33:ARG:CZ	3.03	0.42
1:F:438:GLN:HA	1:F:439:PRO:HD3	1.87	0.42
1:H:230:THR:HG22	1:H:231:ASN:O	2.19	0.42
1:H:297:LEU:HD23	1:H:297:LEU:HA	1.78	0.42
1:H:4:PHE:HB3	1:H:66:ILE:HD12	2.00	0.42
1:H:59:CYS:SG	1:H:61:LEU:HB2	2.60	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:188:ILE:O	1:I:188:ILE:CG2	2.68	0.42
1:J:166:CYS:HA	1:J:174:LEU:HD13	2.01	0.42
1:K:10:SER:HA	1:K:273:ASN:O	2.19	0.42
1:K:334:ARG:HA	1:K:335:PRO:HD3	1.77	0.42
1:K:4:PHE:HB3	1:K:66:ILE:HD12	2.00	0.42
1:J:452:GLU:HG3	1:L:155:HIS:CE1	2.54	0.42
1:C:6:ARG:NH1	1:C:68:HIS:ND1	2.55	0.42
1:D:205:ARG:HH21	1:D:207:GLU:CG	2.31	0.42
1:D:4:PHE:HB3	1:D:66:ILE:HD12	2.00	0.42
1:E:425:ILE:HD12	1:E:437:PRO:HD3	2.02	0.42
1:G:166:CYS:HA	1:G:174:LEU:HD13	2.02	0.42
1:J:43:VAL:HG22	1:J:69:ILE:HG12	2.01	0.42
1:L:230:THR:HG22	1:L:231:ASN:O	2.19	0.42
1:L:438:GLN:HB3	1:L:440:GLN:NE2	2.35	0.42
1:A:438:GLN:HB3	1:A:440:GLN:NE2	2.35	0.42
1:B:13:PHE:CE2	1:B:33:ARG:CZ	3.03	0.42
1:C:13:PHE:CE2	1:C:33:ARG:CZ	3.03	0.42
1:E:329:GLY:H	1:E:342:LEU:HD23	1.83	0.42
1:H:166:CYS:HA	1:H:174:LEU:HD13	2.01	0.42
1:K:46:ALA:O	1:K:392:ARG:HA	2.19	0.42
1:D:13:PHE:CE2	1:D:33:ARG:CZ	3.03	0.42
1:E:174:LEU:HD22	1:E:206:ALA:HA	2.02	0.42
1:H:425:ILE:HD12	1:H:437:PRO:HD3	2.02	0.42
1:I:13:PHE:CE2	1:I:33:ARG:CZ	3.03	0.42
1:J:329:GLY:C	1:J:366:ARG:NH2	2.73	0.42
1:J:59:CYS:SG	1:J:61:LEU:HB2	2.60	0.42
1:L:13:PHE:CE2	1:L:33:ARG:CZ	3.03	0.42
1:L:68:HIS:CD2	1:L:270:THR:HG23	2.55	0.42
1:B:425:ILE:HD12	1:B:437:PRO:HD3	2.02	0.41
1:I:59:CYS:SG	1:I:61:LEU:HB2	2.60	0.41
1:B:27:LYS:O	1:B:31:ALA:N	2.49	0.41
1:B:307:LEU:HB3	1:B:311:GLN:HB2	2.03	0.41
1:D:59:CYS:SG	1:D:61:LEU:HB2	2.60	0.41
1:F:59:CYS:SG	1:F:61:LEU:HB2	2.60	0.41
1:G:59:CYS:SG	1:G:61:LEU:HB2	2.60	0.41
1:I:438:GLN:HB3	1:I:440:GLN:NE2	2.35	0.41
1:B:309:GLU:CD	1:I:452:GLU:HG2	2.37	0.41
1:J:246:ASN:HA	1:J:247:PRO:HA	1.91	0.41
1:K:272:LEU:HD23	1:K:272:LEU:HA	1.91	0.41
1:A:438:GLN:HA	1:A:439:PRO:HD3	1.87	0.41
1:B:166:CYS:HA	1:B:174:LEU:HD13	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:199:PRO:CG	1:D:170:ARG:HE	2.33	0.41
1:E:46:ALA:CB	1:E:392:ARG:HD3	2.49	0.41
1:F:162:LEU:HD12	1:F:163:ARG:H	1.86	0.41
1:G:438:GLN:HB3	1:G:440:GLN:NE2	2.35	0.41
1:H:220:LYS:HA	1:H:220:LYS:HD3	1.90	0.41
1:J:174:LEU:HD22	1:J:206:ALA:HA	2.02	0.41
1:J:329:GLY:HA2	1:J:366:ARG:NH2	2.26	0.41
1:K:438:GLN:HA	1:K:439:PRO:HD3	1.87	0.41
1:A:13:PHE:CE2	1:A:33:ARG:CZ	3.03	0.41
1:A:275:ARG:HE	1:A:275:ARG:HB3	1.71	0.41
1:B:452:GLU:OE2	1:D:155:HIS:ND1	2.32	0.41
1:C:59:CYS:SG	1:C:61:LEU:HB2	2.60	0.41
1:F:13:PHE:CE2	1:F:33:ARG:CZ	3.03	0.41
1:G:162:LEU:HD12	1:G:163:ARG:H	1.86	0.41
1:H:307:LEU:HB3	1:H:311:GLN:HB2	2.03	0.41
1:J:4:PHE:HB3	1:J:66:ILE:HD12	2.01	0.41
1:K:162:LEU:HD12	1:K:163:ARG:H	1.86	0.41
1:K:425:ILE:HD12	1:K:437:PRO:HD3	2.02	0.41
1:K:59:CYS:SG	1:K:61:LEU:HB2	2.60	0.41
1:B:438:GLN:HB3	1:B:440:GLN:NE2	2.35	0.41
1:E:307:LEU:HB3	1:E:311:GLN:HB2	2.03	0.41
1:F:297:LEU:HA	1:F:297:LEU:HD23	1.78	0.41
1:G:174:LEU:HD22	1:G:206:ALA:HA	2.02	0.41
1:I:24:PHE:CE2	1:I:25:GLN:CG	2.87	0.41
1:A:436:CYS:HA	1:A:437:PRO:HD3	1.71	0.41
1:A:59:CYS:SG	1:A:61:LEU:HB2	2.60	0.41
1:B:44:ILE:CD1	1:B:266:LEU:CD1	2.95	0.41
1:C:230:THR:HG22	1:C:231:ASN:O	2.19	0.41
1:D:166:CYS:HA	1:D:174:LEU:HD13	2.01	0.41
1:L:162:LEU:HD12	1:L:163:ARG:H	1.86	0.41
1:A:174:LEU:HD22	1:A:206:ALA:HA	2.02	0.41
1:B:309:GLU:OE2	1:I:452:GLU:CD	2.58	0.41
1:C:162:LEU:HD12	1:C:163:ARG:H	1.86	0.41
1:C:174:LEU:HD22	1:C:206:ALA:HA	2.02	0.41
1:C:45:PHE:HB2	1:C:67:VAL:HG12	2.03	0.41
1:F:174:LEU:HD22	1:F:206:ALA:HA	2.02	0.41
1:F:72:ARG:NH1	1:F:265:HIS:NE2	2.69	0.41
1:G:45:PHE:HB2	1:G:67:VAL:HG12	2.03	0.41
1:I:174:LEU:HD22	1:I:206:ALA:HA	2.02	0.41
1:F:9:SER:O	1:F:273:ASN:CA	2.68	0.41
1:F:327:MET:C	1:F:329:GLY:N	2.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:307:LEU:HB3	1:G:311:GLN:HB2	2.03	0.41
1:H:45:PHE:HB2	1:H:67:VAL:HG12	2.03	0.41
1:I:166:CYS:HA	1:I:174:LEU:HD13	2.02	0.41
1:L:11:TYR:HH	1:L:333:PRO:C	2.21	0.41
1:B:162:LEU:HD12	1:B:163:ARG:H	1.86	0.41
1:E:438:GLN:HB3	1:E:440:GLN:NE2	2.35	0.41
1:F:334:ARG:HA	1:F:335:PRO:HD3	1.77	0.41
1:H:11:TYR:OH	1:H:333:PRO:O	2.21	0.41
1:I:45:PHE:HB2	1:I:67:VAL:HG12	2.03	0.41
1:J:199:PRO:HG3	1:L:170:ARG:NE	2.15	0.41
1:L:425:ILE:HD12	1:L:437:PRO:HD3	2.03	0.41
1:A:255:HIS:HB3	1:A:402:ARG:HG2	2.03	0.41
1:D:425:ILE:HD12	1:D:437:PRO:HD3	2.02	0.41
1:E:255:HIS:HB3	1:E:402:ARG:HG2	2.03	0.41
1:E:45:PHE:HB2	1:E:67:VAL:HG12	2.03	0.41
1:F:307:LEU:HB3	1:F:311:GLN:HB2	2.03	0.41
1:F:46:ALA:C	1:F:392:ARG:HD3	2.40	0.41
1:H:255:HIS:HB3	1:H:402:ARG:HG2	2.03	0.41
1:K:329:GLY:CA	1:K:341:LEU:O	2.61	0.41
1:K:45:PHE:HB2	1:K:67:VAL:HG12	2.03	0.41
1:L:40:GLN:O	1:L:72:ARG:N	2.34	0.41
1:L:8:ASN:HB3	1:L:335:PRO:HB3	2.02	0.41
1:A:452:GLU:CG	1:E:155:HIS:ND1	2.84	0.41
1:A:45:PHE:HB2	1:A:67:VAL:HG12	2.03	0.41
1:B:277:PHE:HB2	1:B:318:TYR:CZ	2.56	0.41
1:D:45:PHE:HB2	1:D:67:VAL:HG12	2.03	0.41
1:E:42:ARG:CG	1:E:72:ARG:HG3	2.51	0.41
1:F:42:ARG:CG	1:F:72:ARG:HG3	2.51	0.41
1:I:162:LEU:HD12	1:I:163:ARG:H	1.86	0.41
1:J:44:ILE:HG21	1:J:266:LEU:CD2	2.51	0.41
1:L:9:SER:O	1:L:273:ASN:HB3	2.21	0.41
1:A:162:LEU:HD12	1:A:163:ARG:H	1.86	0.40
1:B:246:ASN:HA	1:B:247:PRO:HA	1.91	0.40
1:B:255:HIS:HB3	1:B:402:ARG:HG2	2.03	0.40
1:C:307:LEU:HB3	1:C:311:GLN:HB2	2.02	0.40
1:C:255:HIS:HB3	1:C:402:ARG:HG2	2.03	0.40
1:D:272:LEU:HD23	1:D:272:LEU:HA	1.91	0.40
1:F:255:HIS:HB3	1:F:402:ARG:HG2	2.03	0.40
1:F:277:PHE:HB2	1:F:318:TYR:CZ	2.56	0.40
1:F:425:ILE:HD12	1:F:437:PRO:HD3	2.02	0.40
1:G:425:ILE:HD12	1:G:437:PRO:HD3	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:42:ARG:CG	1:K:72:ARG:HG3	2.52	0.40
1:J:199:PRO:CD	1:L:170:ARG:CZ	2.76	0.40
1:L:174:LEU:HD22	1:L:206:ALA:HA	2.02	0.40
1:A:277:PHE:HB2	1:A:318:TYR:CZ	2.56	0.40
1:A:425:ILE:HD12	1:A:437:PRO:HD3	2.02	0.40
1:B:42:ARG:CG	1:B:72:ARG:HG3	2.52	0.40
1:C:42:ARG:CG	1:C:72:ARG:HG3	2.52	0.40
1:D:162:LEU:HD12	1:D:163:ARG:H	1.86	0.40
1:D:220:LYS:HD3	1:D:220:LYS:HA	1.90	0.40
1:D:42:ARG:CG	1:D:72:ARG:HG3	2.51	0.40
1:F:45:PHE:HB2	1:F:67:VAL:HG12	2.03	0.40
1:G:72:ARG:HH22	1:G:265:HIS:CD2	2.35	0.40
1:G:42:ARG:CG	1:G:72:ARG:HG3	2.52	0.40
1:I:255:HIS:HB3	1:I:402:ARG:HG2	2.03	0.40
1:J:72:ARG:NH1	1:J:265:HIS:CD2	2.90	0.40
1:J:255:HIS:HB3	1:J:402:ARG:HG2	2.03	0.40
1:K:220:LYS:HA	1:K:220:LYS:HD3	1.90	0.40
1:L:277:PHE:HB2	1:L:318:TYR:CZ	2.56	0.40
1:B:45:PHE:HB2	1:B:67:VAL:HG12	2.03	0.40
1:B:396:ARG:CG	1:F:400:GLN:CD	2.89	0.40
1:H:174:LEU:HD22	1:H:206:ALA:HA	2.02	0.40
1:I:42:ARG:CG	1:I:72:ARG:HG3	2.51	0.40
1:A:307:LEU:HB3	1:A:311:GLN:HB2	2.03	0.40
1:B:174:LEU:HD22	1:B:206:ALA:HA	2.02	0.40
1:C:277:PHE:HB2	1:C:318:TYR:CZ	2.56	0.40
1:C:425:ILE:HD12	1:C:437:PRO:HD3	2.02	0.40
1:D:174:LEU:HD22	1:D:206:ALA:HA	2.02	0.40
1:H:162:LEU:HD12	1:H:163:ARG:H	1.86	0.40
1:K:307:LEU:HB3	1:K:311:GLN:HB2	2.03	0.40
1:F:11:TYR:CD1	1:F:369:LYS:HE3	2.56	0.40
1:H:42:ARG:CG	1:H:72:ARG:HG3	2.52	0.40
1:J:297:LEU:HA	1:J:297:LEU:HD23	1.78	0.40
1:J:330:VAL:HG21	1:J:364:PHE:HE2	1.87	0.40
1:J:425:ILE:HD12	1:J:437:PRO:HD3	2.02	0.40
1:J:42:ARG:CG	1:J:72:ARG:HG3	2.51	0.40
1:L:297:LEU:HA	1:L:297:LEU:HD23	1.78	0.40
1:L:307:LEU:HB3	1:L:311:GLN:HB2	2.03	0.40
1:K:313:ASN:CG	1:L:420:ARG:HE	2.25	0.40

All (31) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:254:ASN:ND2	1:J:428:ASN:OD1[2_655]	1.25	0.95
1:F:326:GLN:O	1:G:282:GLN:CG[1_554]	1.30	0.90
1:D:327:MET:CG	1:L:294:PRO:CB[4_455]	1.35	0.85
1:C:282:GLN:NE2	1:E:276:GLN:NE2[2_555]	1.41	0.79
1:B:282:GLN:NE2	1:K:326:GLN:CA[1_554]	1.42	0.78
1:F:325:LEU:O	1:G:282:GLN:NE2[1_554]	1.55	0.65
1:D:326:GLN:O	1:L:292:GLY:O[4_455]	1.58	0.62
1:B:282:GLN:CB	1:K:326:GLN:OE1[1_554]	1.70	0.50
1:B:282:GLN:CG	1:K:326:GLN:OE1[1_554]	1.72	0.48
1:D:327:MET:O	1:L:294:PRO:CD[4_455]	1.75	0.45
1:F:326:GLN:C	1:G:282:GLN:CG[1_554]	1.82	0.38
1:B:282:GLN:CD	1:K:326:GLN:CG[1_554]	1.84	0.36
1:C:326:GLN:OE1	1:E:282:GLN:N[2_555]	1.87	0.33
1:B:282:GLN:CG	1:K:326:GLN:CB[1_554]	1.91	0.29
1:F:326:GLN:OE1	1:G:281:ALA:N[1_554]	1.92	0.28
1:D:327:MET:CB	1:L:294:PRO:CB[4_455]	1.93	0.27
1:B:282:GLN:CG	1:K:326:GLN:CG[1_554]	1.94	0.26
1:B:282:GLN:N	1:K:326:GLN:OE1[1_554]	1.95	0.25
1:B:282:GLN:NE2	1:K:326:GLN:CB[1_554]	1.96	0.24
1:B:282:GLN:NE2	1:K:326:GLN:CG[1_554]	1.98	0.22
1:D:327:MET:C	1:L:294:PRO:CD[4_455]	2.01	0.19
1:B:294:PRO:CB	1:K:278:VAL:CG2[1_554]	2.03	0.17
1:D:327:MET:O	1:L:294:PRO:CG[4_455]	2.03	0.17
1:B:282:GLN:CG	1:K:326:GLN:CD[1_554]	2.05	0.15
1:F:326:GLN:CA	1:G:282:GLN:CG[1_554]	2.07	0.13
1:C:342:LEU:O	1:I:191:ARG:NH2[4_455]	2.09	0.11
1:F:326:GLN:CD	1:G:280:ASP:OD1[1_554]	2.10	0.10
1:F:326:GLN:OE1	1:G:280:ASP:OD1[1_554]	2.11	0.09
1:B:282:GLN:CA	1:K:326:GLN:OE1[1_554]	2.18	0.02
1:F:326:GLN:OE1	1:G:280:ASP:C[1_554]	2.19	0.01
1:C:326:GLN:O	1:E:282:GLN:CG[2_555]	2.19	0.01

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 X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	371/470 (79%)	361 (97%)	10 (3%)	0	100	100
1	B	371/470 (79%)	358 (96%)	12 (3%)	1 (0%)	44	81
1	C	371/470 (79%)	361 (97%)	10 (3%)	0	100	100
1	D	371/470 (79%)	361 (97%)	10 (3%)	0	100	100
1	E	371/470 (79%)	361 (97%)	10 (3%)	0	100	100
1	F	371/470 (79%)	360 (97%)	11 (3%)	0	100	100
1	G	371/470 (79%)	361 (97%)	10 (3%)	0	100	100
1	H	371/470 (79%)	361 (97%)	10 (3%)	0	100	100
1	I	371/470 (79%)	361 (97%)	10 (3%)	0	100	100
1	J	371/470 (79%)	361 (97%)	10 (3%)	0	100	100
1	K	371/470 (79%)	360 (97%)	11 (3%)	0	100	100
1	L	371/470 (79%)	361 (97%)	10 (3%)	0	100	100
All	All	4452/5640 (79%)	4327 (97%)	124 (3%)	1 (0%)	100	100

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	344	GLU

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	331/403 (82%)	327 (99%)	4 (1%)	75	88
1	B	331/403 (82%)	325 (98%)	6 (2%)	64	84
1	C	331/403 (82%)	327 (99%)	4 (1%)	75	88
1	D	331/403 (82%)	327 (99%)	4 (1%)	75	88
1	E	331/403 (82%)	326 (98%)	5 (2%)	70	85
1	F	331/403 (82%)	327 (99%)	4 (1%)	75	88
1	G	331/403 (82%)	327 (99%)	4 (1%)	75	88

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	H	331/403 (82%)	327 (99%)	4 (1%)	75	88
1	I	331/403 (82%)	327 (99%)	4 (1%)	75	88
1	J	331/403 (82%)	327 (99%)	4 (1%)	75	88
1	K	331/403 (82%)	327 (99%)	4 (1%)	75	88
1	L	331/403 (82%)	326 (98%)	5 (2%)	70	85
All	All	3972/4836 (82%)	3920 (99%)	52 (1%)	73	87

All (52) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	8	ASN
1	A	22	SER
1	A	32	LYS
1	A	52	ASN
1	B	8	ASN
1	B	22	SER
1	B	32	LYS
1	B	52	ASN
1	B	345	GLN
1	B	347	GLN
1	C	8	ASN
1	C	22	SER
1	C	32	LYS
1	C	52	ASN
1	D	8	ASN
1	D	22	SER
1	D	32	LYS
1	D	52	ASN
1	E	8	ASN
1	E	22	SER
1	E	32	LYS
1	E	52	ASN
1	E	327	MET
1	F	8	ASN
1	F	22	SER
1	F	32	LYS
1	F	52	ASN
1	G	8	ASN
1	G	22	SER
1	G	32	LYS

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Mol	Chain	Res	Type
1	G	52	ASN
1	H	8	ASN
1	H	22	SER
1	H	32	LYS
1	H	52	ASN
1	I	8	ASN
1	I	22	SER
1	I	32	LYS
1	I	52	ASN
1	J	8	ASN
1	J	22	SER
1	J	32	LYS
1	J	52	ASN
1	K	8	ASN
1	K	22	SER
1	K	32	LYS
1	K	52	ASN
1	L	8	ASN
1	L	22	SER
1	L	32	LYS
1	L	52	ASN
1	L	327	MET

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (91) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	8	ASN
1	A	34	GLN
1	A	40	GLN
1	A	52	ASN
1	A	64	GLN
1	A	71	GLN
1	A	265	HIS
1	B	34	GLN
1	B	40	GLN
1	B	52	ASN
1	B	64	GLN
1	B	68	HIS
1	B	71	GLN
1	B	265	HIS
1	B	317	GLN
1	B	347	GLN

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Mol	Chain	Res	Type
1	C	34	GLN
1	C	40	GLN
1	C	52	ASN
1	C	64	GLN
1	C	68	HIS
1	C	71	GLN
1	C	265	HIS
1	D	8	ASN
1	D	34	GLN
1	D	40	GLN
1	D	52	ASN
1	D	64	GLN
1	D	71	GLN
1	D	265	HIS
1	D	317	GLN
1	D	400	GLN
1	E	8	ASN
1	E	34	GLN
1	E	40	GLN
1	E	52	ASN
1	E	64	GLN
1	E	71	GLN
1	E	265	HIS
1	E	317	GLN
1	E	400	GLN
1	F	8	ASN
1	F	34	GLN
1	F	40	GLN
1	F	52	ASN
1	F	64	GLN
1	F	68	HIS
1	F	71	GLN
1	F	265	HIS
1	G	34	GLN
1	G	40	GLN
1	G	52	ASN
1	G	64	GLN
1	G	71	GLN
1	G	265	HIS
1	G	400	GLN
1	H	34	GLN
1	H	40	GLN

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Mol	Chain	Res	Type
1	H	52	ASN
1	H	64	GLN
1	H	71	GLN
1	H	265	HIS
1	I	8	ASN
1	I	34	GLN
1	I	40	GLN
1	I	52	ASN
1	I	64	GLN
1	I	71	GLN
1	I	265	HIS
1	J	34	GLN
1	J	40	GLN
1	J	52	ASN
1	J	64	GLN
1	J	68	HIS
1	J	71	GLN
1	J	265	HIS
1	K	34	GLN
1	K	40	GLN
1	K	52	ASN
1	K	64	GLN
1	K	68	HIS
1	K	71	GLN
1	K	265	HIS
1	L	8	ASN
1	L	34	GLN
1	L	40	GLN
1	L	52	ASN
1	L	64	GLN
1	L	71	GLN
1	L	265	HIS
1	L	317	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 96 ligands modelled in this entry, 96 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

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

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

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	375/470 (79%)	0.49	28 (7%) 15 20	41, 41, 105, 105	0
1	B	375/470 (79%)	0.83	44 (11%) 5 13	71, 71, 152, 152	0
1	C	375/470 (79%)	0.47	21 (5%) 25 29	39, 39, 110, 110	0
1	D	375/470 (79%)	0.64	38 (10%) 8 14	55, 55, 154, 154	0
1	E	375/470 (79%)	0.53	32 (8%) 11 18	28, 28, 118, 118	0
1	F	375/470 (79%)	0.53	27 (7%) 16 21	38, 38, 116, 116	0
1	G	375/470 (79%)	0.78	49 (13%) 4 11	50, 50, 131, 131	0
1	H	375/470 (79%)	0.92	58 (15%) 2 10	75, 75, 206, 206	0
1	I	375/470 (79%)	0.65	38 (10%) 8 14	65, 65, 172, 172	0
1	J	375/470 (79%)	0.84	51 (13%) 3 11	102, 102, 172, 172	0
1	K	375/470 (79%)	0.77	48 (12%) 4 12	77, 77, 176, 176	0
1	L	375/470 (79%)	0.99	70 (18%) 1 8	140, 140, 214, 214	0
All	All	4500/5640 (79%)	0.70	504 (11%) 6 13	28, 75, 172, 214	0

All (504) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	L	340	GLY	7.3
1	J	330	VAL	7.3
1	L	330	VAL	6.9
1	D	330	VAL	6.6
1	H	369	LYS	6.4
1	G	350	VAL	6.3
1	F	333	PRO	6.1
1	L	162	LEU	6.1
1	H	351	THR	6.0
1	H	333	PRO	5.9
1	I	464[A]	ASP	5.9

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Mol	Chain	Res	Type	RSRZ
1	H	180	PRO	5.7
1	G	351	THR	5.7
1	D	465	VAL	5.6
1	K	330	VAL	5.6
1	E	428	ASN	5.5
1	F	464[A]	ASP	5.5
1	I	393	VAL	5.5
1	B	141	PRO	5.5
1	J	333	PRO	5.4
1	F	206	ALA	5.4
1	J	340	GLY	5.4
1	L	465	VAL	5.3
1	D	464[A]	ASP	5.3
1	B	330	VAL	5.3
1	L	250	VAL	5.2
1	D	340	GLY	5.2
1	L	249	LEU	5.2
1	J	331	LEU	5.2
1	L	176	LEU	5.1
1	K	340	GLY	5.1
1	H	462	TRP	5.1
1	G	453	TRP	4.9
1	D	343	PRO	4.9
1	D	378	ASP	4.9
1	J	145	SER	4.9
1	L	333	PRO	4.8
1	B	340	GLY	4.8
1	G	464[A]	ASP	4.7
1	H	350	VAL	4.7
1	G	435	LYS	4.6
1	K	464[A]	ASP	4.6
1	I	369	LYS	4.6
1	G	330	VAL	4.6
1	A	351	THR	4.6
1	A	378	ASP	4.6
1	K	465	VAL	4.6
1	K	333	PRO	4.6
1	L	403	TRP	4.5
1	B	355	GLY	4.5
1	H	11	TYR	4.5
1	H	179	GLY	4.4
1	G	145	SER	4.4

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Mol	Chain	Res	Type	RSRZ
1	H	342	LEU	4.4
1	G	366	ARG	4.4
1	I	179	GLY	4.4
1	I	433	HIS	4.4
1	K	206	ALA	4.4
1	H	397	ALA	4.4
1	G	340	GLY	4.4
1	H	160	GLY	4.4
1	L	331	LEU	4.4
1	L	145	SER	4.4
1	A	465	VAL	4.3
1	K	193	SER	4.3
1	L	392	ARG	4.3
1	E	333	PRO	4.3
1	K	208	PHE	4.3
1	B	464[A]	ASP	4.2
1	I	178	GLN	4.2
1	J	341	LEU	4.2
1	H	349	LYS	4.2
1	H	453	TRP	4.2
1	H	162	LEU	4.2
1	B	341	LEU	4.1
1	B	162	LEU	4.1
1	I	258	VAL	4.1
1	B	333	PRO	4.1
1	H	433	HIS	4.1
1	H	239	ILE	4.0
1	G	341	LEU	4.0
1	G	433	HIS	4.0
1	F	330	VAL	4.0
1	C	330	VAL	4.0
1	F	465	VAL	4.0
1	D	341	LEU	4.0
1	E	330	VAL	4.0
1	A	403	TRP	4.0
1	C	340	GLY	3.9
1	L	341	LEU	3.9
1	B	363	VAL	3.9
1	I	206	ALA	3.8
1	G	349	LYS	3.8
1	L	286	SER	3.8
1	B	426	GLU	3.8

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Mol	Chain	Res	Type	RSRZ
1	J	426	GLU	3.8
1	H	206	ALA	3.8
1	G	462	TRP	3.8
1	F	258	VAL	3.7
1	D	333	PRO	3.7
1	J	425	ILE	3.7
1	B	375	GLY	3.7
1	H	330	VAL	3.7
1	H	22	SER	3.7
1	G	458	MET	3.6
1	G	465	VAL	3.6
1	H	393	VAL	3.6
1	H	205	ARG	3.6
1	C	464[A]	ASP	3.6
1	H	193	SER	3.6
1	G	364	PHE	3.6
1	H	394	ASP	3.6
1	L	462	TRP	3.6
1	K	331	LEU	3.5
1	I	348	ARG	3.5
1	A	393	VAL	3.5
1	B	343	PRO	3.5
1	B	356	ASN	3.5
1	D	329	GLY	3.4
1	K	448	ASN	3.4
1	I	330	VAL	3.4
1	J	393	VAL	3.4
1	D	342	LEU	3.4
1	L	277	PHE	3.4
1	L	424	PRO	3.4
1	I	445	TRP	3.4
1	H	178	GLN	3.3
1	F	340	GLY	3.3
1	I	333	PRO	3.3
1	C	145	SER	3.3
1	G	444	GLU	3.3
1	L	163	ARG	3.3
1	L	254	ASN	3.3
1	I	249	LEU	3.3
1	A	162	LEU	3.2
1	L	164	VAL	3.2
1	I	180	PRO	3.2

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Mol	Chain	Res	Type	RSRZ
1	G	378	ASP	3.2
1	H	343	PRO	3.2
1	K	2	ILE	3.2
1	H	367	ASP	3.2
1	L	258	VAL	3.2
1	D	331	LEU	3.2
1	D	162	LEU	3.2
1	I	349	LYS	3.2
1	I	259	ILE	3.2
1	B	433	HIS	3.2
1	F	145	SER	3.2
1	J	350	VAL	3.2
1	E	180	PRO	3.2
1	E	340	GLY	3.2
1	J	50	LEU	3.2
1	J	445	TRP	3.2
1	E	160	GLY	3.1
1	H	194	GLY	3.1
1	K	433	HIS	3.1
1	J	369	LYS	3.1
1	C	428	ASN	3.1
1	E	378	ASP	3.1
1	J	146	PHE	3.1
1	I	434	MET	3.1
1	H	176	LEU	3.1
1	L	146	PHE	3.1
1	H	347	GLN	3.1
1	E	331	LEU	3.1
1	K	174	LEU	3.1
1	G	461	HIS	3.1
1	H	146	PHE	3.1
1	D	230	THR	3.1
1	D	403	TRP	3.1
1	K	369	LYS	3.1
1	J	258	VAL	3.1
1	L	230	THR	3.1
1	B	50	LEU	3.0
1	I	432	MET	3.0
1	B	350	VAL	3.0
1	E	145	SER	3.0
1	G	258	VAL	3.0
1	I	239	ILE	3.0

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Mol	Chain	Res	Type	RSRZ
1	F	378	ASP	3.0
1	J	342	LEU	3.0
1	L	206	ALA	3.0
1	K	3	VAL	3.0
1	K	164	VAL	3.0
1	H	425	ILE	3.0
1	L	452	GLU	3.0
1	I	366	ARG	3.0
1	B	364	PHE	3.0
1	E	211	LYS	3.0
1	J	231	ASN	3.0
1	D	462	TRP	2.9
1	G	331	LEU	2.9
1	D	344	GLU	2.9
1	J	452	GLU	2.9
1	K	194	GLY	2.9
1	D	339	ALA	2.9
1	F	341	LEU	2.9
1	D	143	TYR	2.9
1	J	461	HIS	2.9
1	G	434	MET	2.9
1	B	11	TYR	2.9
1	L	366	ARG	2.9
1	H	204	THR	2.9
1	B	145	SER	2.9
1	I	392	ARG	2.8
1	B	206	ALA	2.8
1	L	228	LEU	2.8
1	E	178	GLN	2.8
1	L	425	ILE	2.8
1	J	329	GLY	2.8
1	J	351	THR	2.8
1	J	356	ASN	2.8
1	E	146	PHE	2.8
1	J	453	TRP	2.8
1	A	206	ALA	2.8
1	K	440	GLN	2.8
1	B	16	GLU	2.8
1	J	400	GLN	2.8
1	D	248	VAL	2.8
1	L	236	ILE	2.8
1	I	462	TRP	2.8

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Mol	Chain	Res	Type	RSRZ
1	D	356	ASN	2.8
1	J	462	TRP	2.8
1	B	369	LYS	2.8
1	G	231	ASN	2.8
1	H	340	GLY	2.8
1	E	206	ALA	2.8
1	H	291	ALA	2.8
1	L	43	VAL	2.8
1	E	161	LYS	2.7
1	K	364	PHE	2.7
1	J	239	ILE	2.7
1	G	146	PHE	2.7
1	B	217	THR	2.7
1	H	398	ALA	2.7
1	I	347	GLN	2.7
1	L	362	PHE	2.7
1	G	445	TRP	2.7
1	I	394	ASP	2.7
1	E	366	ARG	2.7
1	F	205	ARG	2.7
1	G	454	ASN	2.7
1	G	361	GLY	2.7
1	L	320	ALA	2.7
1	J	144	HIS	2.7
1	I	350	VAL	2.7
1	B	295	ASN	2.7
1	E	231	ASN	2.7
1	K	145	SER	2.7
1	J	364	PHE	2.7
1	B	366	ARG	2.7
1	L	393	VAL	2.7
1	H	395	GLN	2.6
1	I	465	VAL	2.6
1	F	351	THR	2.6
1	F	231	ASN	2.6
1	K	366	ARG	2.6
1	J	143	TYR	2.6
1	H	364	PHE	2.6
1	G	295	ASN	2.6
1	H	435	LYS	2.6
1	H	167	GLY	2.6
1	K	341	LEU	2.6

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Mol	Chain	Res	Type	RSRZ
1	L	259	ILE	2.6
1	L	178	GLN	2.6
1	H	53	HIS	2.6
1	J	162	LEU	2.6
1	L	428	ASN	2.6
1	B	15	VAL	2.6
1	K	15	VAL	2.6
1	B	465	VAL	2.6
1	F	426	GLU	2.6
1	L	434	MET	2.6
1	J	444	GLU	2.6
1	K	425	ILE	2.6
1	B	205	ARG	2.6
1	B	462	TRP	2.6
1	K	205	ARG	2.5
1	K	453	TRP	2.5
1	C	206	ALA	2.5
1	E	364	PHE	2.5
1	G	369	LYS	2.5
1	C	247	PRO	2.5
1	K	258	VAL	2.5
1	L	339	ALA	2.5
1	B	435	LYS	2.5
1	F	428	ASN	2.5
1	E	464[A]	ASP	2.5
1	L	208	PHE	2.5
1	K	432	MET	2.5
1	D	355	GLY	2.5
1	I	395	GLN	2.5
1	K	444	GLU	2.5
1	I	428	ASN	2.5
1	D	39	ASP	2.5
1	B	211	LYS	2.5
1	L	16	GLU	2.5
1	H	396	ARG	2.5
1	C	341	LEU	2.5
1	G	426	GLU	2.5
1	D	179	GLY	2.5
1	C	434	MET	2.5
1	A	341	LEU	2.5
1	F	350	VAL	2.5
1	I	425	ILE	2.5

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Mol	Chain	Res	Type	RSRZ
1	A	350	VAL	2.5
1	E	341	LEU	2.5
1	L	451	CYS	2.5
1	A	340	GLY	2.5
1	B	285	TYR	2.5
1	B	344	GLU	2.5
1	G	363	VAL	2.5
1	L	251	PHE	2.5
1	C	347	GLN	2.5
1	B	163	ARG	2.5
1	J	366	ARG	2.4
1	F	424	PRO	2.4
1	A	248	VAL	2.4
1	L	234	ARG	2.4
1	A	207	GLU	2.4
1	L	369	LYS	2.4
1	A	208	PHE	2.4
1	E	465	VAL	2.4
1	L	69	ILE	2.4
1	A	363	VAL	2.4
1	G	143	TYR	2.4
1	A	163	ARG	2.4
1	A	258	VAL	2.4
1	E	162	LEU	2.4
1	F	403	TRP	2.4
1	D	5	VAL	2.4
1	L	67	VAL	2.4
1	I	463	PHE	2.4
1	H	363	VAL	2.4
1	F	433	HIS	2.4
1	H	370	GLU	2.4
1	E	210	PHE	2.4
1	C	346	GLY	2.4
1	K	414	THR	2.4
1	I	162	LEU	2.4
1	K	463	PHE	2.4
1	L	248	VAL	2.4
1	E	304	PHE	2.4
1	L	287	LEU	2.4
1	L	364	PHE	2.4
1	A	400	GLN	2.4
1	K	447	TRP	2.4

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Mol	Chain	Res	Type	RSRZ
1	A	230	THR	2.4
1	I	11	TYR	2.4
1	J	11	TYR	2.4
1	H	192	MET	2.4
1	A	333	PRO	2.3
1	G	347	GLN	2.3
1	E	356	ASN	2.3
1	C	299	LYS	2.3
1	L	324	VAL	2.3
1	H	341	LEU	2.3
1	J	304	PHE	2.3
1	G	333	PRO	2.3
1	J	339	ALA	2.3
1	I	431	CYS	2.3
1	L	177	ALA	2.3
1	E	355	GLY	2.3
1	B	14	PRO	2.3
1	J	464[A]	ASP	2.3
1	H	366	ARG	2.3
1	C	144	HIS	2.3
1	D	249	LEU	2.3
1	D	393	VAL	2.3
1	H	51	GLN	2.3
1	K	445	TRP	2.3
1	H	445	TRP	2.3
1	B	210	PHE	2.3
1	F	393	VAL	2.3
1	D	259	ILE	2.3
1	J	240	ALA	2.3
1	J	307	LEU	2.3
1	D	15	VAL	2.3
1	J	361	GLY	2.3
1	D	369	LYS	2.3
1	K	162	LEU	2.3
1	C	331	LEU	2.3
1	F	250	VAL	2.3
1	A	428	ASN	2.3
1	G	437	PRO	2.3
1	K	462	TRP	2.3
1	E	425	ILE	2.3
1	E	433	HIS	2.3
1	G	324	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
1	B	425	ILE	2.2
1	E	462	TRP	2.2
1	E	176	LEU	2.2
1	K	350	VAL	2.2
1	E	298	ILE	2.2
1	H	345	GLN	2.2
1	K	290	VAL	2.2
1	I	250	VAL	2.2
1	C	447	TRP	2.2
1	L	231	ASN	2.2
1	H	378	ASP	2.2
1	D	247	PRO	2.2
1	C	143	TYR	2.2
1	F	11	TYR	2.2
1	A	349	LYS	2.2
1	L	374	GLU	2.2
1	A	429	GLY	2.2
1	F	147	PHE	2.2
1	I	367	ASP	2.2
1	F	364	PHE	2.2
1	A	356	ASN	2.2
1	G	425	ILE	2.2
1	H	290	VAL	2.2
1	L	229	ILE	2.2
1	A	364	PHE	2.2
1	B	351	THR	2.2
1	F	210	PHE	2.2
1	K	11	TYR	2.2
1	A	462	TRP	2.2
1	H	415	THR	2.2
1	L	161	LYS	2.2
1	G	329	GLY	2.2
1	D	180	PRO	2.2
1	L	370	GLU	2.2
1	H	161	LYS	2.2
1	H	362	PHE	2.2
1	J	206	ALA	2.2
1	G	205	ARG	2.2
1	L	179	GLY	2.2
1	D	366	ARG	2.2
1	L	454	ASN	2.2
1	B	376	GLU	2.1

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Mol	Chain	Res	Type	RSRZ
1	K	146	PHE	2.1
1	J	397	ALA	2.1
1	G	72	ARG	2.1
1	J	189	PRO	2.1
1	B	17	VAL	2.1
1	F	445	TRP	2.1
1	G	141	PRO	2.1
1	G	335	PRO	2.1
1	A	210	PHE	2.1
1	B	392	ARG	2.1
1	E	429	GLY	2.1
1	G	432	MET	2.1
1	L	22	SER	2.1
1	J	316[A]	GLN	2.1
1	L	458	MET	2.1
1	H	458	MET	2.1
1	G	343	PRO	2.1
1	C	445	TRP	2.1
1	H	52	ASN	2.1
1	D	323	CYS	2.1
1	G	348	ARG	2.1
1	H	268	CYS	2.1
1	A	355	GLY	2.1
1	D	346	GLY	2.1
1	L	60	ASP	2.1
1	L	141	PRO	2.1
1	G	367	ASP	2.1
1	I	368	CYS	2.1
1	J	403	TRP	2.1
1	K	204	THR	2.1
1	C	333	PRO	2.1
1	J	396	ARG	2.1
1	B	231	ASN	2.1
1	D	448	ASN	2.1
1	J	15	VAL	2.1
1	J	290	VAL	2.1
1	D	145	SER	2.1
1	H	66	ILE	2.1
1	L	147	PHE	2.1
1	F	331	LEU	2.1
1	K	49	GLU	2.1
1	I	414	THR	2.1

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Mol	Chain	Res	Type	RSRZ
1	L	459	GLY	2.1
1	K	192	MET	2.1
1	C	199	PRO	2.1
1	C	282	GLN	2.1
1	D	206	ALA	2.1
1	C	350	VAL	2.0
1	K	72	ARG	2.0
1	K	342	LEU	2.0
1	A	250	VAL	2.0
1	B	193	SER	2.0
1	K	163	ARG	2.0
1	G	39	ASP	2.0
1	I	219	ASP	2.0
1	G	40	GLN	2.0
1	G	250	VAL	2.0
1	D	463	PHE	2.0
1	J	419	PRO	2.0
1	K	303	HIS	2.0
1	L	44	ILE	2.0
1	L	264	PHE	2.0
1	J	347	GLN	2.0
1	L	232	ASN	2.0
1	L	323	CYS	2.0
1	J	416	LYS	2.0
1	L	445	TRP	2.0
1	B	3	VAL	2.0
1	J	199	PRO	2.0
1	K	339	ALA	2.0
1	K	426	GLU	2.0
1	L	464[A]	ASP	2.0
1	E	163	ARG	2.0

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

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

6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

6.4 Ligands i

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q < 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å ²)	Q<0.9
2	ZN	F	501	1/1	0.93	0.28	-0.16	38,38,38,38	0
2	ZN	D	501	1/1	0.86	0.26	-0.32	54,54,54,54	0
2	ZN	J	501	1/1	0.95	0.29	-0.52	101,101,101,101	0
2	ZN	E	501	1/1	0.94	0.21	-0.56	28,28,28,28	0
2	ZN	I	506	1/1	0.75	0.51	-0.61	171,171,171,171	0
2	ZN	I	501	1/1	0.90	0.25	-0.62	65,65,65,65	0
2	ZN	C	503	1/1	0.97	0.17	-0.66	39,39,39,39	0
2	ZN	C	504	1/1	0.94	0.22	-0.74	39,39,39,39	0
2	ZN	J	508	1/1	0.72	0.29	-0.77	101,101,101,101	0
2	ZN	H	508	1/1	0.68	0.31	-0.82	75,75,75,75	0
2	ZN	J	503	1/1	0.91	0.12	-0.88	101,101,101,101	0
2	ZN	K	504	1/1	0.84	0.24	-0.91	77,77,77,77	0
2	ZN	B	506	1/1	0.90	0.37	-0.93	151,151,151,151	0
2	ZN	H	501	1/1	0.87	0.27	-0.94	75,75,75,75	0
2	ZN	C	508	1/1	0.61	0.22	-0.95	39,39,39,39	0
2	ZN	H	503	1/1	0.88	0.21	-0.95	75,75,75,75	0
2	ZN	A	505	1/1	0.66	0.22	-0.97	105,105,105,105	0
2	ZN	B	501	1/1	0.94	0.30	-0.97	70,70,70,70	0
2	ZN	K	501	1/1	0.93	0.17	-0.98	77,77,77,77	0
2	ZN	G	508	1/1	0.40	0.33	-0.98	49,49,49,49	0
2	ZN	H	505	1/1	0.31	0.27	-0.99	205,205,205,205	0
2	ZN	D	508	1/1	0.73	0.21	-1.00	54,54,54,54	0
2	ZN	A	501	1/1	0.81	0.17	-1.04	40,40,40,40	0
2	ZN	J	504	1/1	0.83	0.20	-1.06	101,101,101,101	0
2	ZN	G	505	1/1	0.60	0.30	-1.06	131,131,131,131	0
2	ZN	J	505	1/1	0.39	0.30	-1.09	171,171,171,171	0
2	ZN	H	504	1/1	0.94	0.17	-1.11	75,75,75,75	0
2	ZN	H	507	1/1	0.75	0.19	-1.11	75,75,75,75	0
2	ZN	E	503	1/1	0.92	0.18	-1.11	28,28,28,28	0
2	ZN	K	508	1/1	0.59	0.23	-1.15	77,77,77,77	0
2	ZN	E	508	1/1	0.77	0.17	-1.18	28,28,28,28	0
2	ZN	H	506	1/1	0.54	0.38	-1.20	205,205,205,205	0
2	ZN	I	504	1/1	0.92	0.14	-1.20	65,65,65,65	0
2	ZN	I	505	1/1	0.89	0.07	-1.21	171,171,171,171	0
2	ZN	A	503	1/1	0.77	0.16	-1.22	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
2	ZN	B	504	1/1	0.82	0.22	-1.22	70,70,70,70	0
2	ZN	A	507	1/1	0.86	0.14	-1.23	40,40,40,40	0
2	ZN	F	507	1/1	0.90	0.15	-1.25	38,38,38,38	0
2	ZN	C	506	1/1	0.93	0.06	-1.28	104,104,104,104	0
2	ZN	K	505	1/1	0.71	0.23	-1.28	176,176,176,176	0
2	ZN	L	507	1/1	0.67	0.07	-1.30	139,139,139,139	0
2	ZN	D	503	1/1	0.78	0.16	-1.35	54,54,54,54	0
2	ZN	F	505	1/1	0.71	0.12	-1.38	105,105,105,105	0
2	ZN	F	503	1/1	0.95	0.14	-1.38	38,38,38,38	0
2	ZN	C	501	1/1	0.92	0.20	-1.39	39,39,39,39	0
2	ZN	J	507	1/1	0.84	0.15	-1.40	101,101,101,101	0
2	ZN	L	504	1/1	0.75	0.11	-1.40	139,139,139,139	0
2	ZN	E	504	1/1	0.91	0.11	-1.42	28,28,28,28	0
2	ZN	I	507	1/1	0.90	0.14	-1.44	65,65,65,65	0
2	ZN	J	502	1/1	0.92	0.09	-1.44	101,101,101,101	0
2	ZN	B	505	1/1	0.87	0.10	-1.44	151,151,151,151	0
2	ZN	I	502	1/1	0.96	0.13	-1.48	65,65,65,65	0
2	ZN	E	505	1/1	0.37	0.15	-1.49	117,117,117,117	0
2	ZN	C	505	1/1	0.87	0.18	-1.51	104,104,104,104	0
2	ZN	A	504	1/1	0.88	0.10	-1.55	40,40,40,40	0
2	ZN	K	502	1/1	0.69	0.08	-1.57	77,77,77,77	0
2	ZN	F	504	1/1	0.92	0.16	-1.60	38,38,38,38	0
2	ZN	G	501	1/1	0.96	0.21	-1.60	49,49,49,49	0
2	ZN	G	503	1/1	0.93	0.17	-1.61	49,49,49,49	0
2	ZN	D	507	1/1	0.95	0.12	-1.64	54,54,54,54	0
2	ZN	G	504	1/1	0.90	0.21	-1.68	49,49,49,49	0
2	ZN	C	507	1/1	0.96	0.13	-1.71	39,39,39,39	0
2	ZN	B	508	1/1	0.61	0.16	-1.71	70,70,70,70	0
2	ZN	G	507	1/1	0.76	0.09	-1.75	49,49,49,49	0
2	ZN	G	502	1/1	0.85	0.09	-1.76	49,49,49,49	0
2	ZN	G	506	1/1	0.85	0.14	-1.76	131,131,131,131	0
2	ZN	E	502	1/1	0.96	0.05	-1.77	28,28,28,28	0
2	ZN	L	505	1/1	0.90	0.18	-1.82	213,213,213,213	0
2	ZN	K	507	1/1	0.96	0.11	-1.83	77,77,77,77	0
2	ZN	L	508	1/1	0.35	0.20	-1.83	139,139,139,139	0
2	ZN	B	503	1/1	0.95	0.15	-1.88	70,70,70,70	0
2	ZN	D	502	1/1	0.79	0.17	-1.91	54,54,54,54	0
2	ZN	D	505	1/1	0.88	0.10	-1.92	153,153,153,153	0
2	ZN	L	503	1/1	0.73	0.13	-1.94	139,139,139,139	0
2	ZN	D	504	1/1	0.96	0.05	-1.96	54,54,54,54	0
2	ZN	A	502	1/1	0.89	0.12	-1.97	40,40,40,40	0
2	ZN	L	502	1/1	0.93	0.10	-1.97	139,139,139,139	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å ²)	Q<0.9
2	ZN	A	508	1/1	0.78	0.15	-1.97	40,40,40,40	0
2	ZN	E	507	1/1	0.90	0.10	-2.03	28,28,28,28	0
2	ZN	F	502	1/1	0.88	0.07	-2.10	38,38,38,38	0
2	ZN	E	506	1/1	0.82	0.20	-2.12	117,117,117,117	0
2	ZN	A	506	1/1	0.76	0.08	-2.30	105,105,105,105	0
2	ZN	L	506	1/1	0.85	0.18	-2.32	213,213,213,213	0
2	ZN	C	502	1/1	0.87	0.10	-2.35	39,39,39,39	0
2	ZN	H	502	1/1	0.84	0.07	-2.37	75,75,75,75	0
2	ZN	B	507	1/1	0.79	0.09	-2.38	70,70,70,70	0
2	ZN	F	508	1/1	0.76	0.17	-2.38	38,38,38,38	0
2	ZN	D	506	1/1	0.93	0.10	-2.40	153,153,153,153	0
2	ZN	K	506	1/1	0.43	0.15	-2.43	176,176,176,176	0
2	ZN	I	503	1/1	0.85	0.10	-2.45	65,65,65,65	0
2	ZN	I	508	1/1	0.90	0.16	-2.46	65,65,65,65	0
2	ZN	L	501	1/1	0.92	0.17	-2.47	139,139,139,139	0
2	ZN	J	506	1/1	0.75	0.23	-2.68	171,171,171,171	0
2	ZN	B	502	1/1	0.91	0.06	-2.72	70,70,70,70	0
2	ZN	K	503	1/1	0.92	0.11	-2.77	77,77,77,77	0
2	ZN	F	506	1/1	0.88	0.08	-3.08	105,105,105,105	0

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

There are no such residues in this entry.