



Full wwPDB X-ray Structure Validation Report ⓘ

May 13, 2020 – 10:42 pm BST

PDB ID : 3SHM
Title : Structure-function Analysis of Receptor Binding in Adeno-Associated Virus Serotype 6 (AAV-6)
Authors : Xie, Q.; Lerch, T.F.; Meyer, N.L.; Chapman, M.S.
Deposited on : 2011-06-16
Resolution : 3.02 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Xtriage (Phenix) : 1.13
EDS : 2.11
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.11

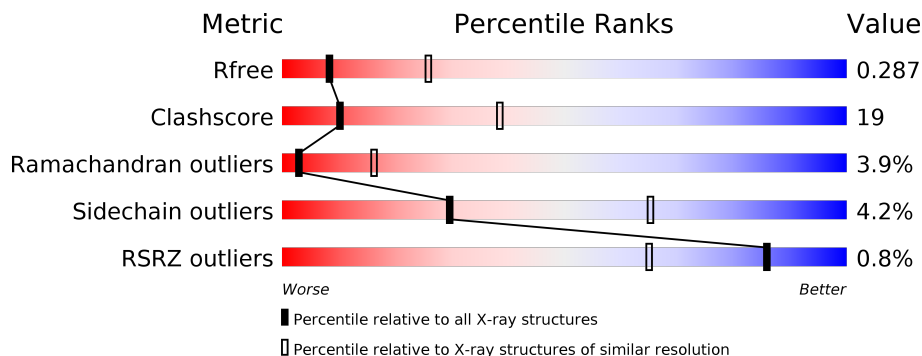
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.02 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}	130704	2399 (3.04-3.00)
Clashscore	141614	2734 (3.04-3.00)
Ramachandran outliers	138981	2640 (3.04-3.00)
Sidechain outliers	138945	2643 (3.04-3.00)
RSRZ outliers	127900	2287 (3.04-3.00)

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 respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	516	
1	B	516	
1	C	516	
1	D	516	
1	E	516	
1	F	516	

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Mol	Chain	Length	Quality of chain
1	G	516	<p>60% 36%</p>
1	H	516	<p>58% 38%</p>
1	I	516	<p>58% 38%</p>
1	J	516	<p>58% 38%</p>
1	K	516	<p>61% 36%</p>
1	L	516	<p>61% 35%</p>
1	M	516	<p>63% 33%</p>
1	N	516	<p>59% 37%</p>
1	O	516	<p>61% 36%</p>
1	P	516	<p>58% 38%</p>
1	Q	516	<p>59% 37%</p>
1	R	516	<p>58% 38%</p>
1	S	516	<p>64% 33%</p>
1	T	516	<p>61% 35%</p>

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 82000 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 Capsid protein VP1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	516	4100	2596	708	780	16	0	0	0
1	B	516	4100	2596	708	780	16	0	0	0
1	C	516	4100	2596	708	780	16	0	0	0
1	D	516	4100	2596	708	780	16	0	0	0
1	E	516	4100	2596	708	780	16	0	0	0
1	F	516	4100	2596	708	780	16	0	0	0
1	G	516	4100	2596	708	780	16	0	0	0
1	H	516	4100	2596	708	780	16	0	0	0
1	I	516	4100	2596	708	780	16	0	0	0
1	J	516	4100	2596	708	780	16	0	0	0
1	K	516	4100	2596	708	780	16	0	0	0
1	L	516	4100	2596	708	780	16	0	0	0
1	M	516	4100	2596	708	780	16	0	0	0
1	N	516	4100	2596	708	780	16	0	0	0
1	O	516	4100	2596	708	780	16	0	0	0
1	P	516	4100	2596	708	780	16	0	0	0

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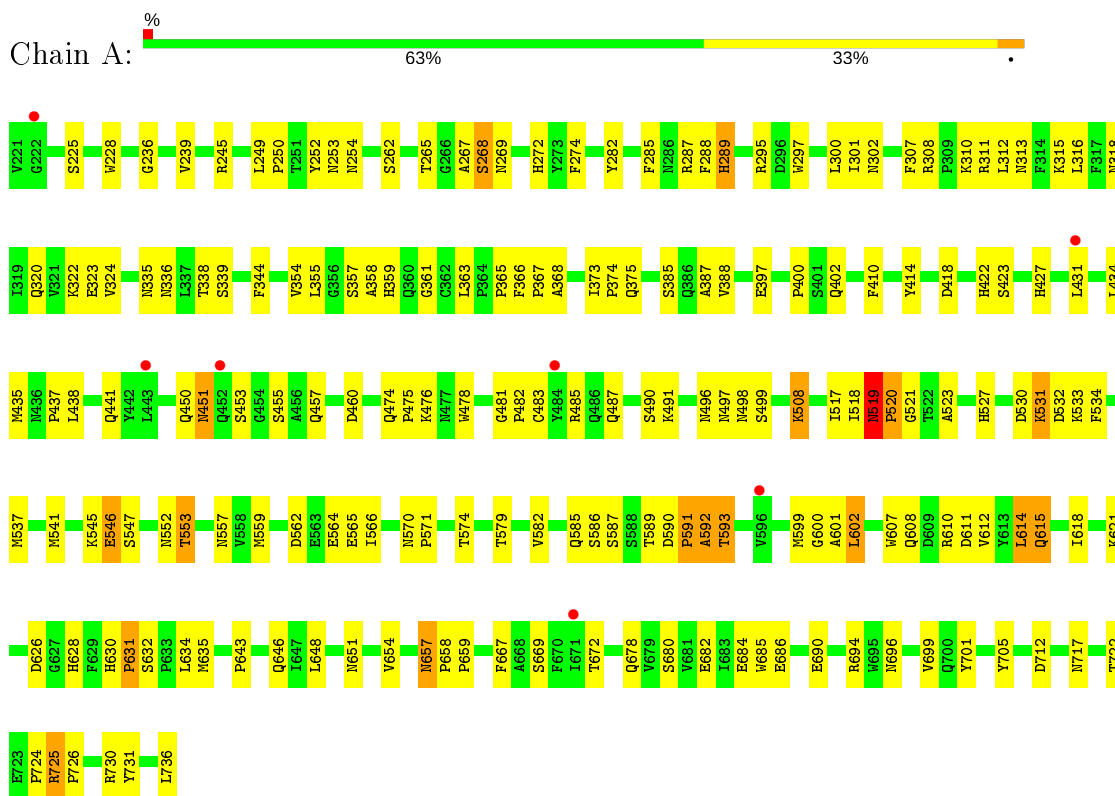
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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	Q	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			
1	R	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			
1	S	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			
1	T	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			

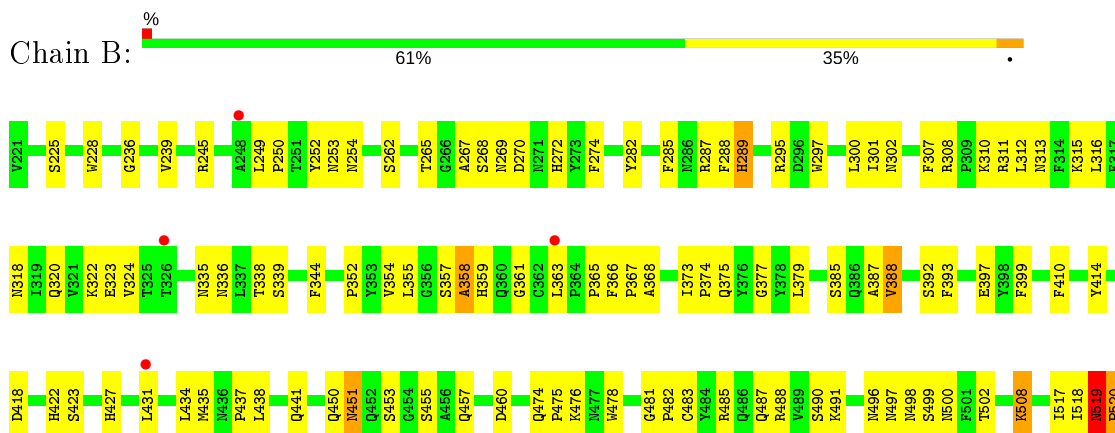
3 Residue-property plots [i](#)

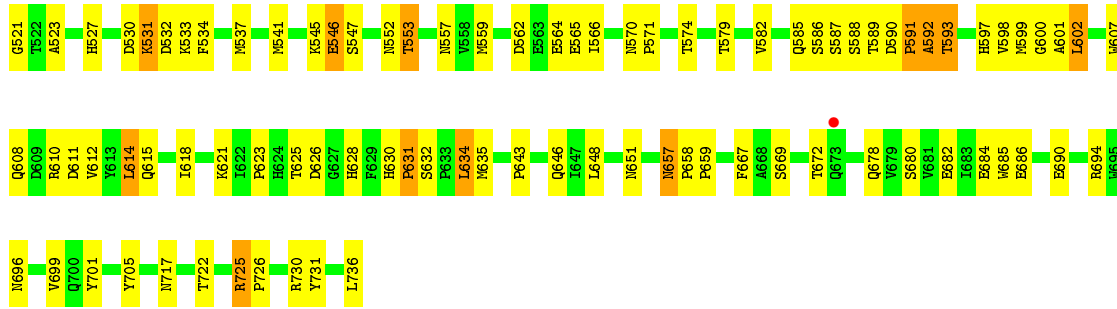
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are 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: Capsid protein VP1

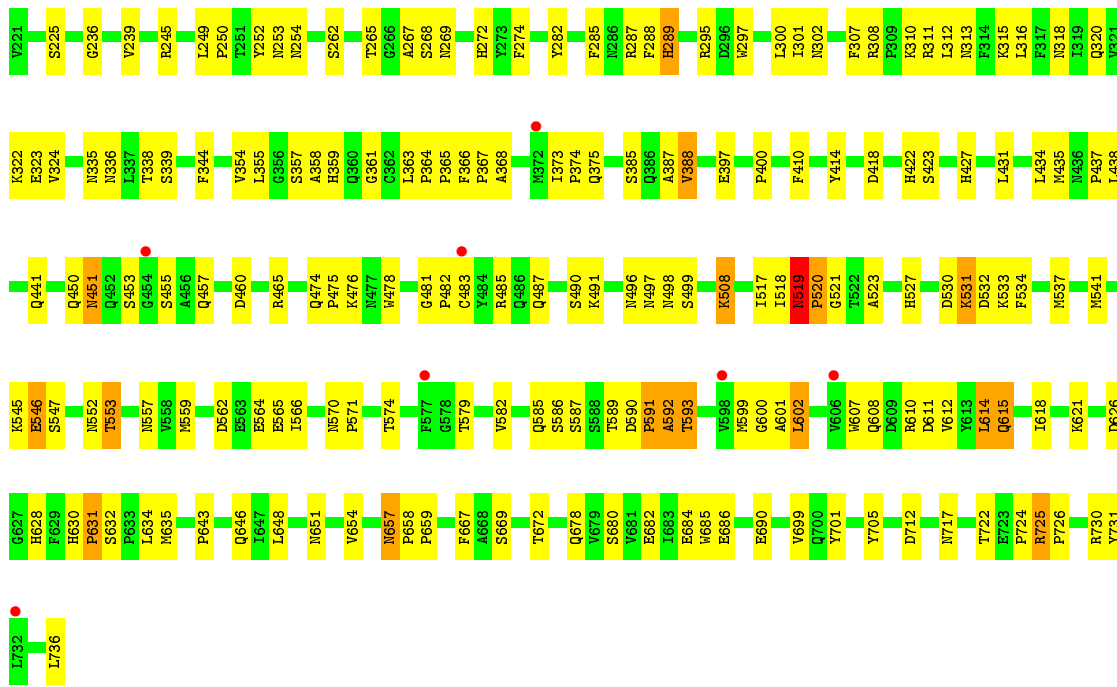


- Molecule 1: Capsid protein VP1

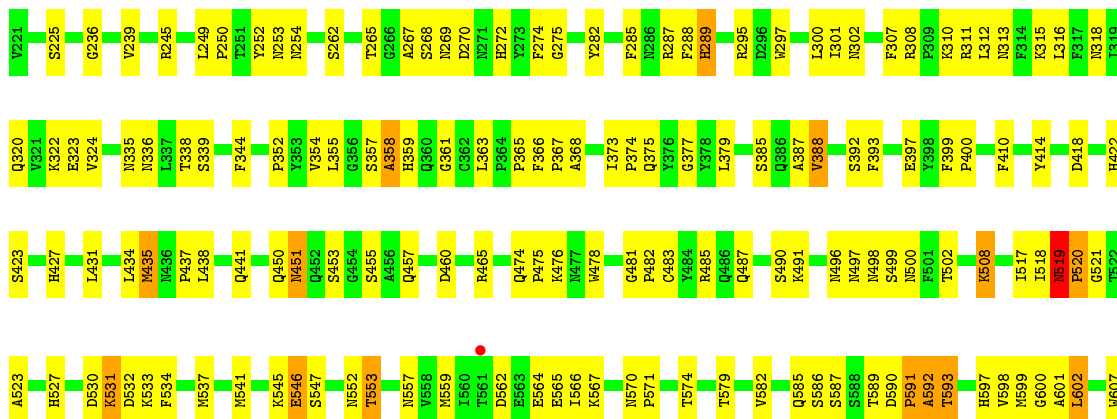


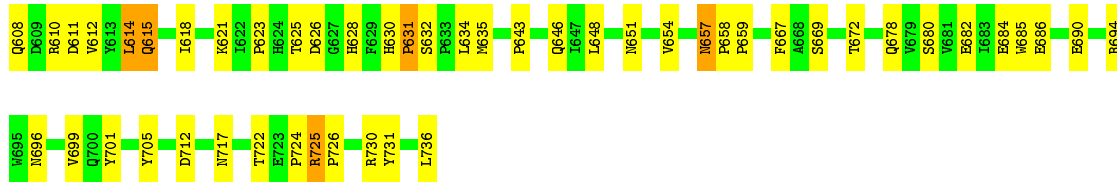


• Molecule 1: Capsid protein VP1

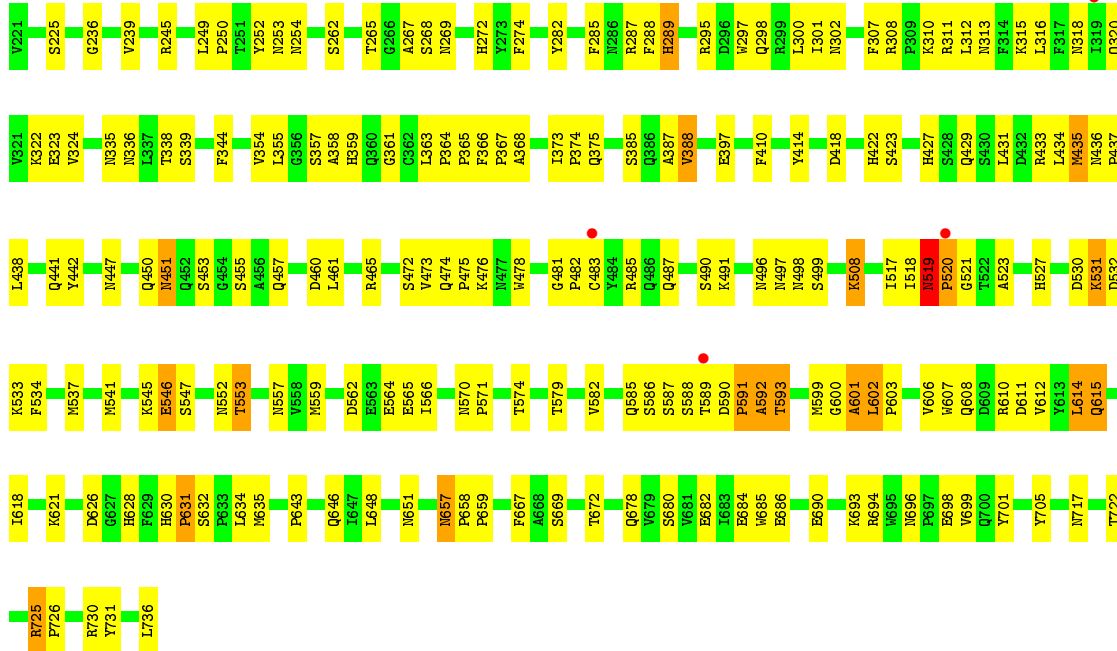


• Molecule 1: Capsid protein VP1

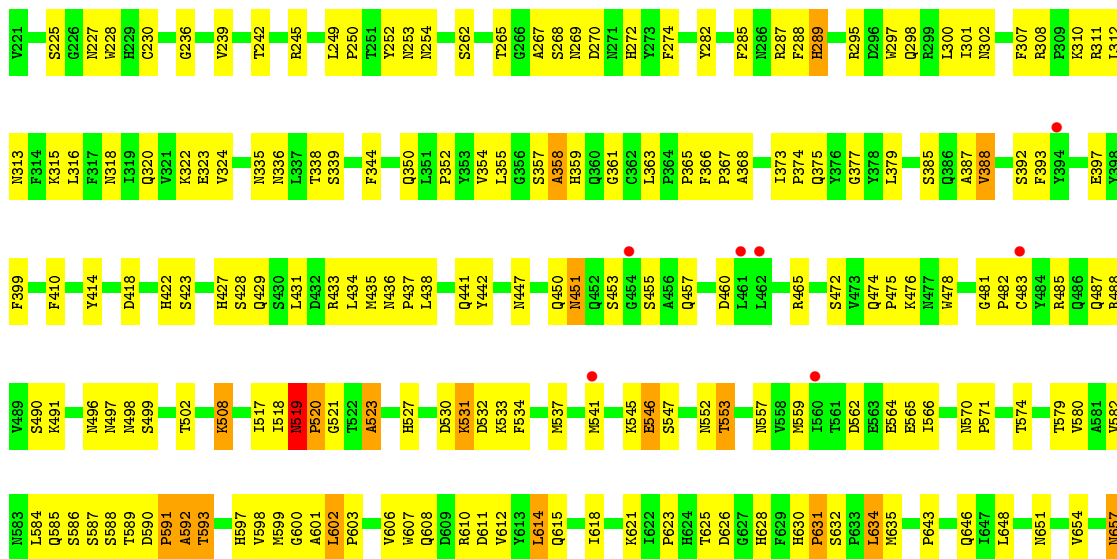


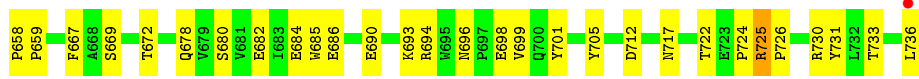


● Molecule 1: Capsid protein VP1

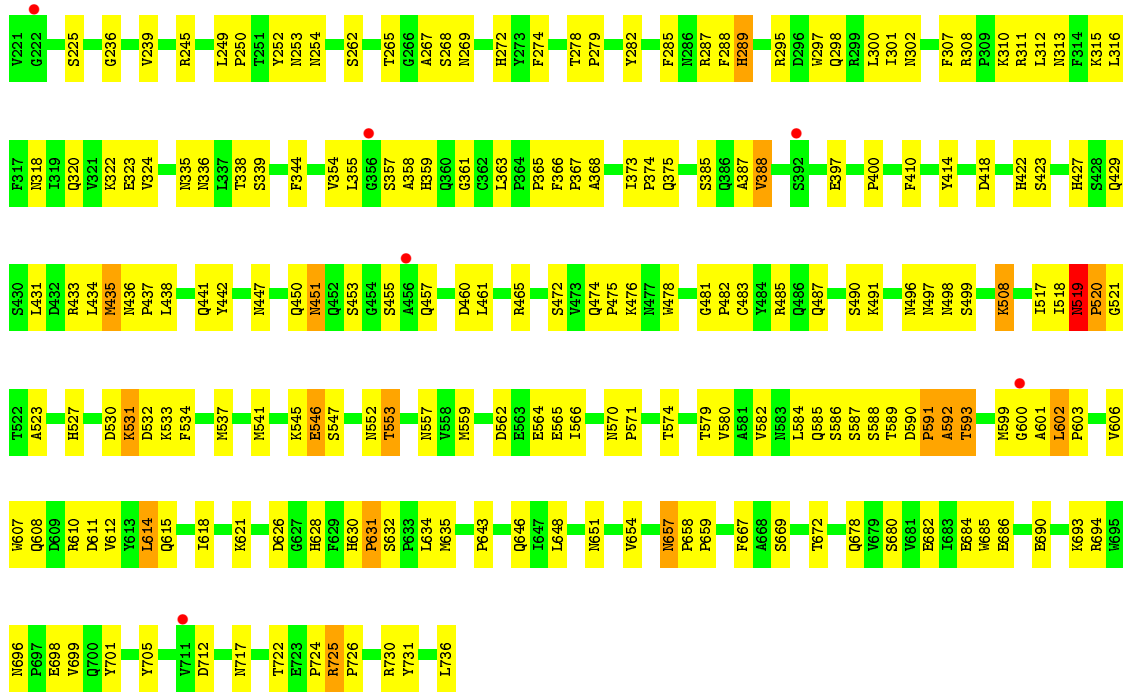


● Molecule 1: Capsid protein VP1

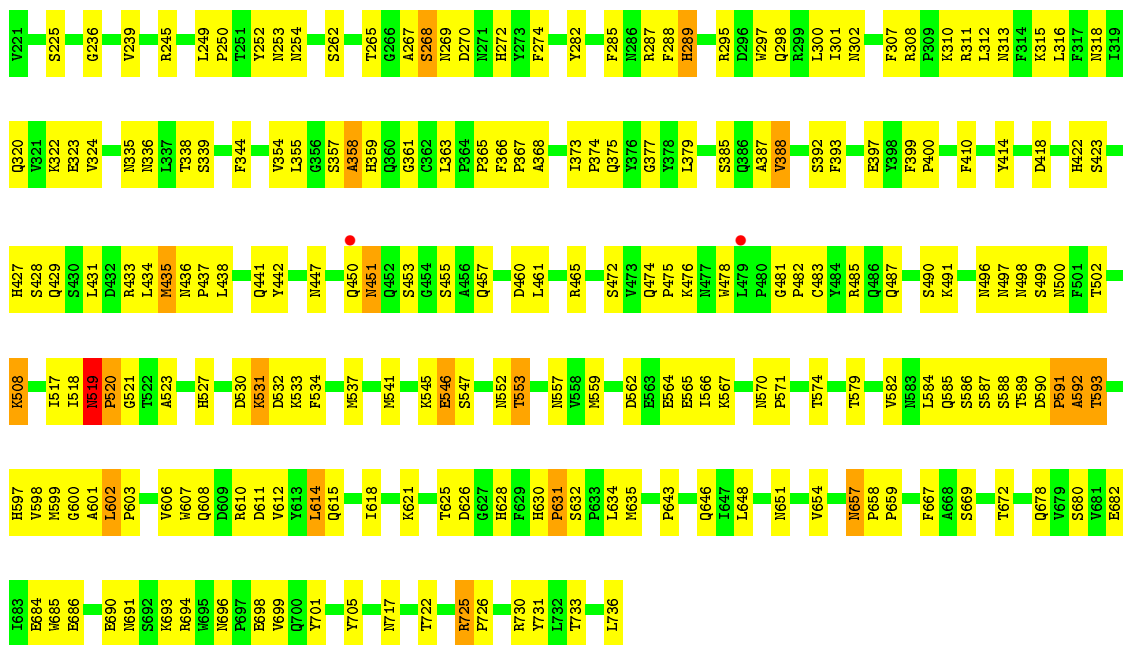




● Molecule 1: Capsid protein VP1

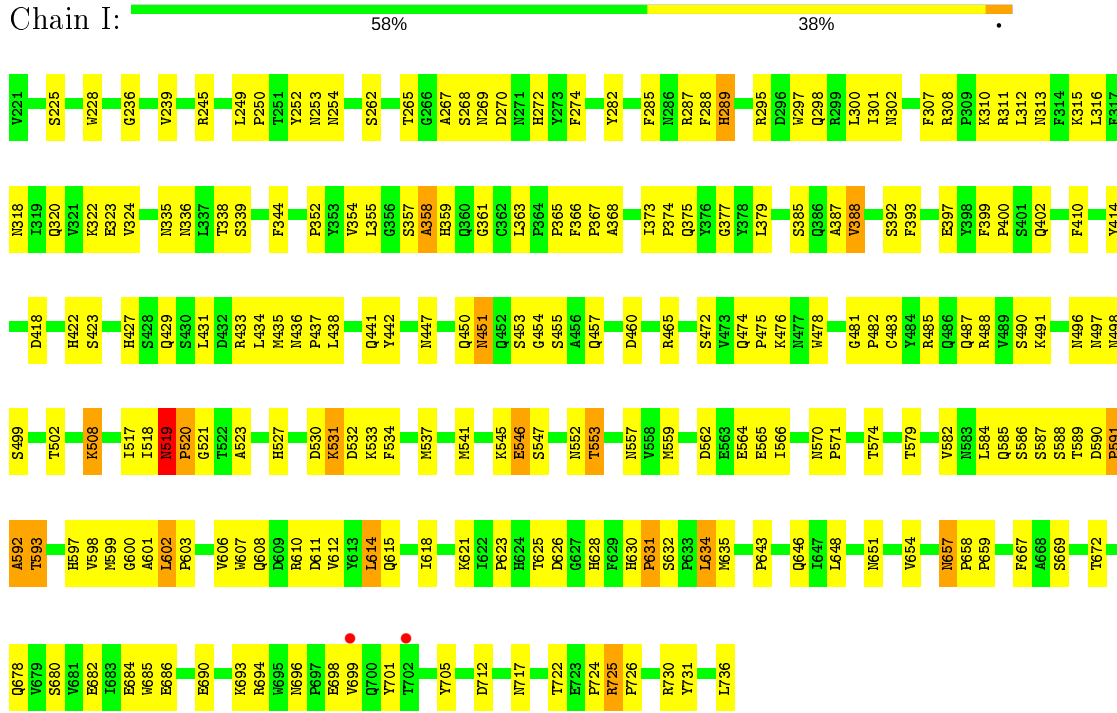


● Molecule 1: Capsid protein VP1



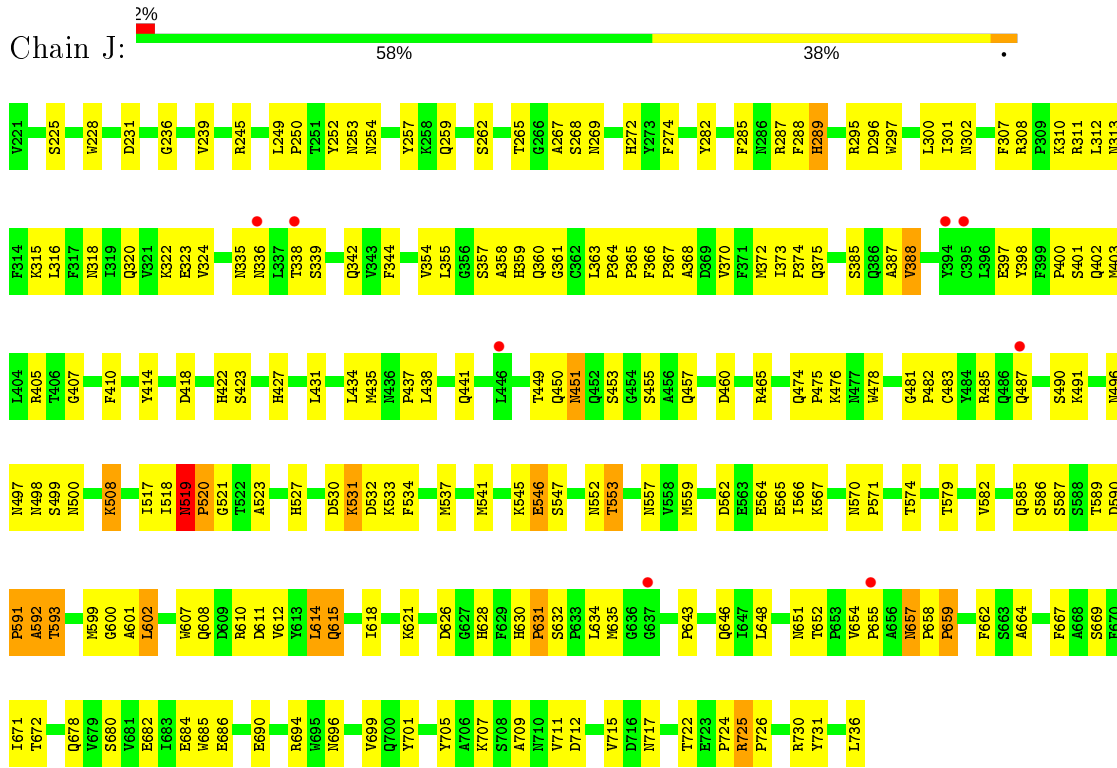
• Molecule 1: Capsid protein VP1

Chain I:



• Molecule 1: Capsid protein VP1

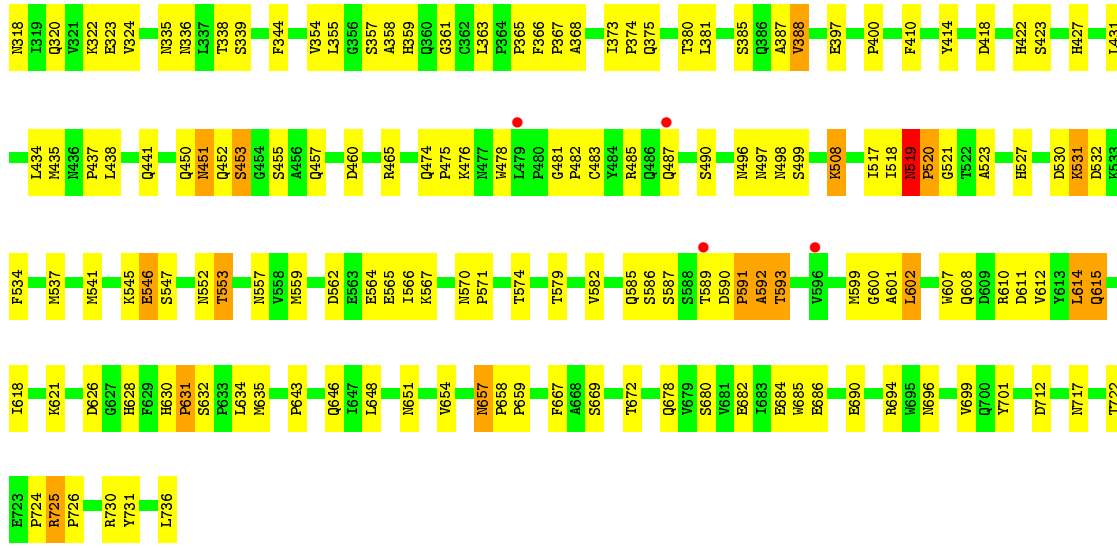
Chain J:



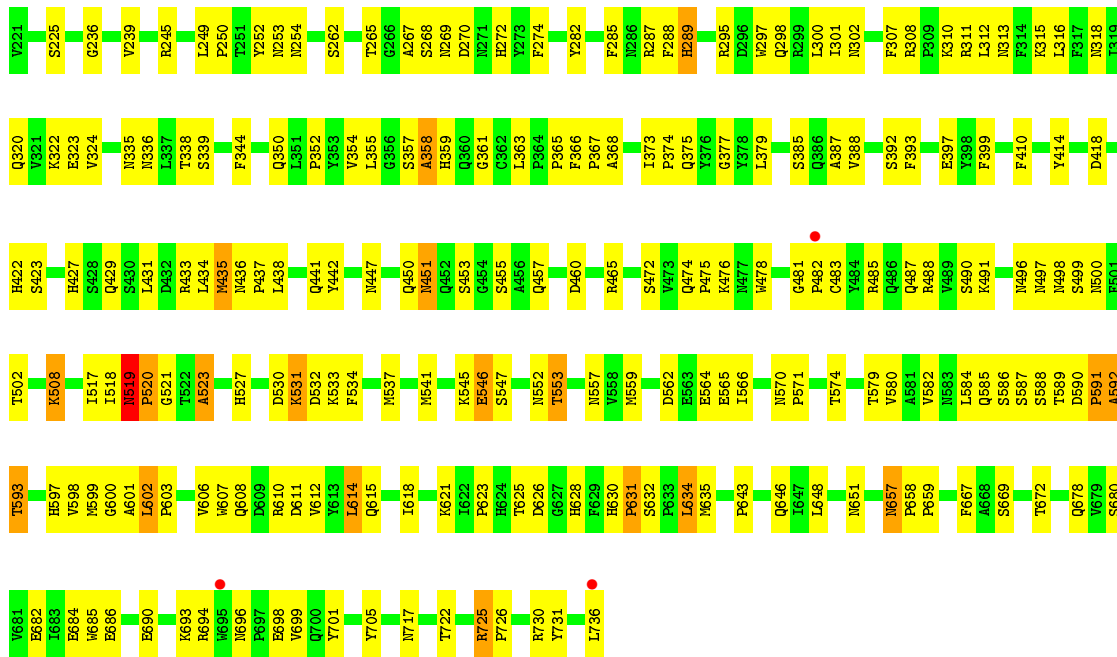
• Molecule 1: Capsid protein VP1

Chain K:

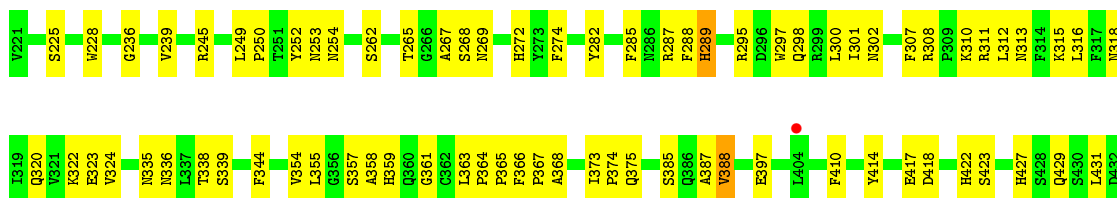


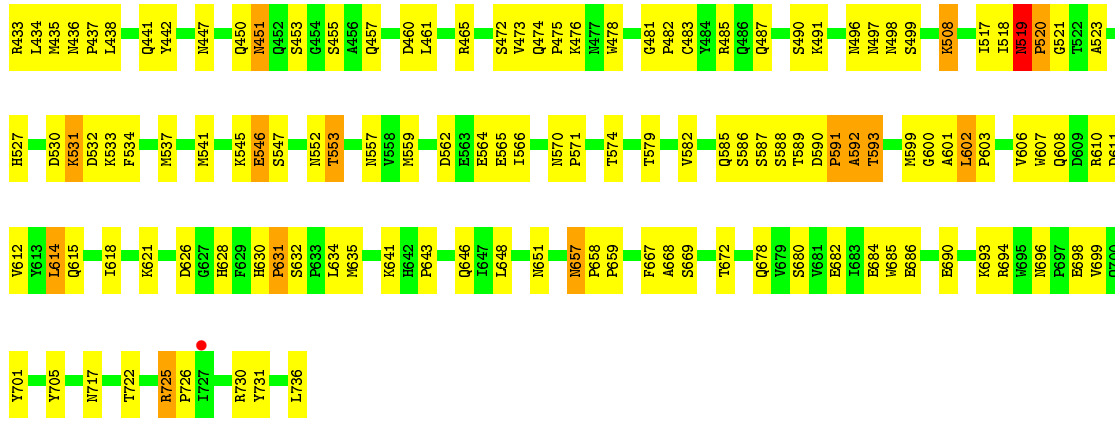


• Molecule 1: Capsid protein VP1

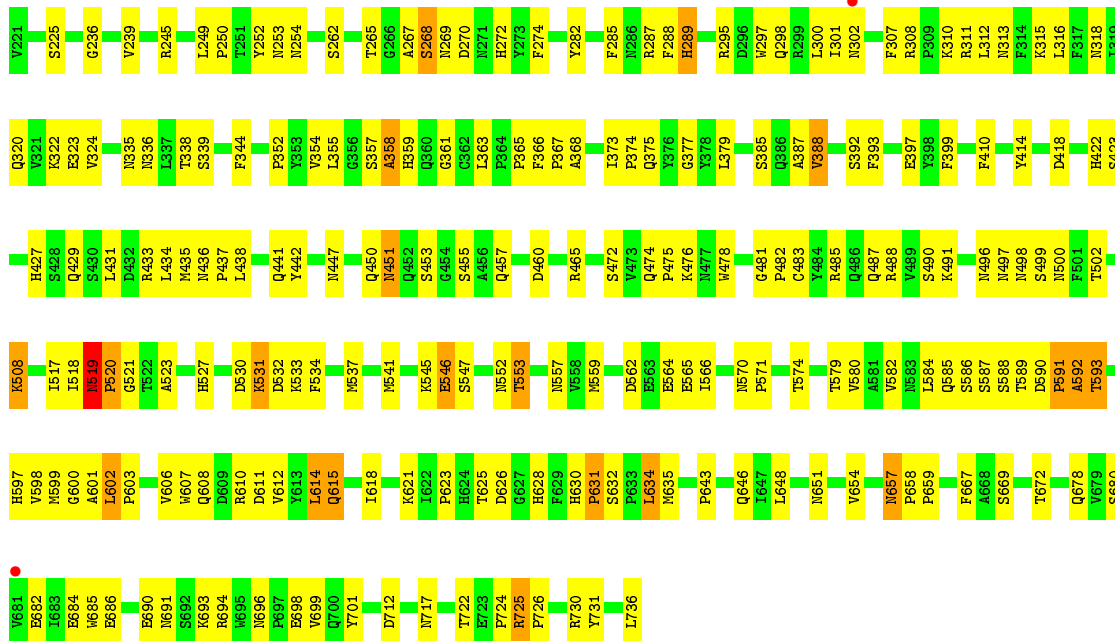


• Molecule 1: Capsid protein VP1

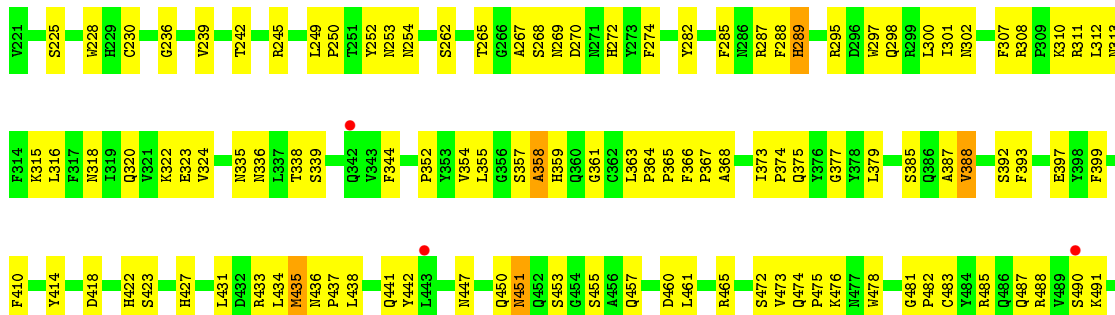


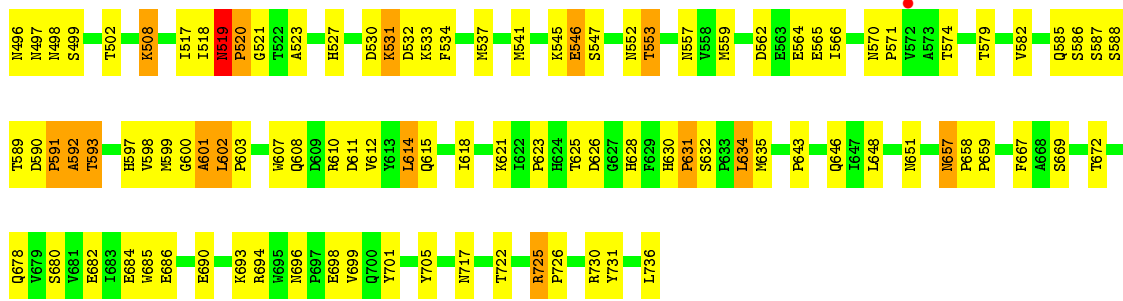


● Molecule 1: Capsid protein VP1

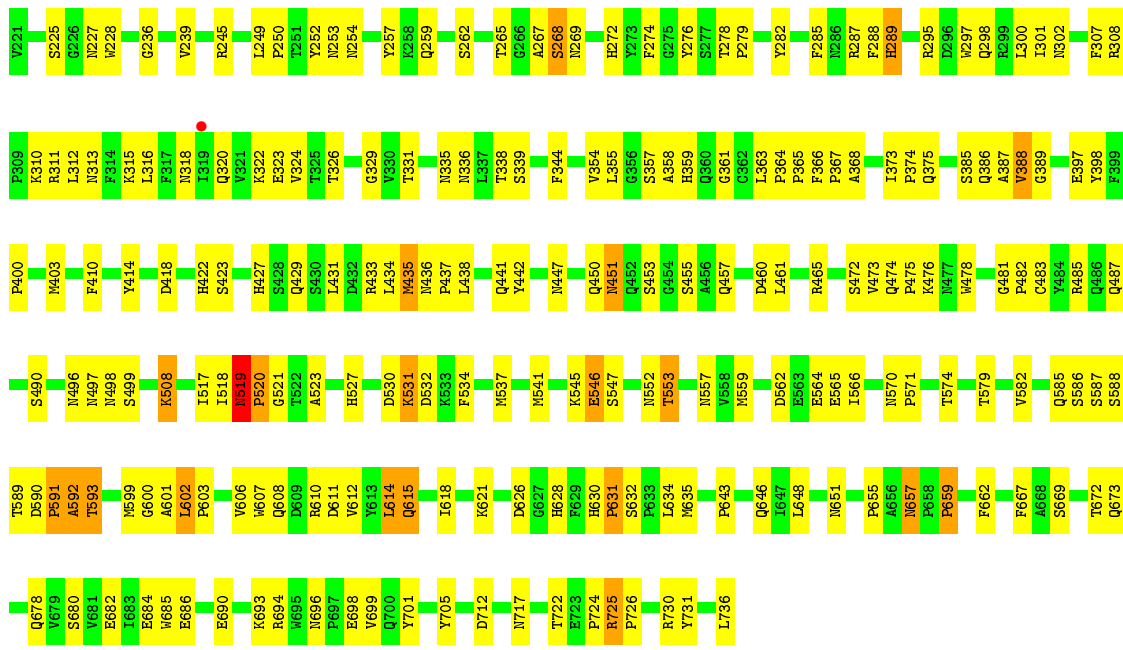


● Molecule 1: Capsid protein VP1

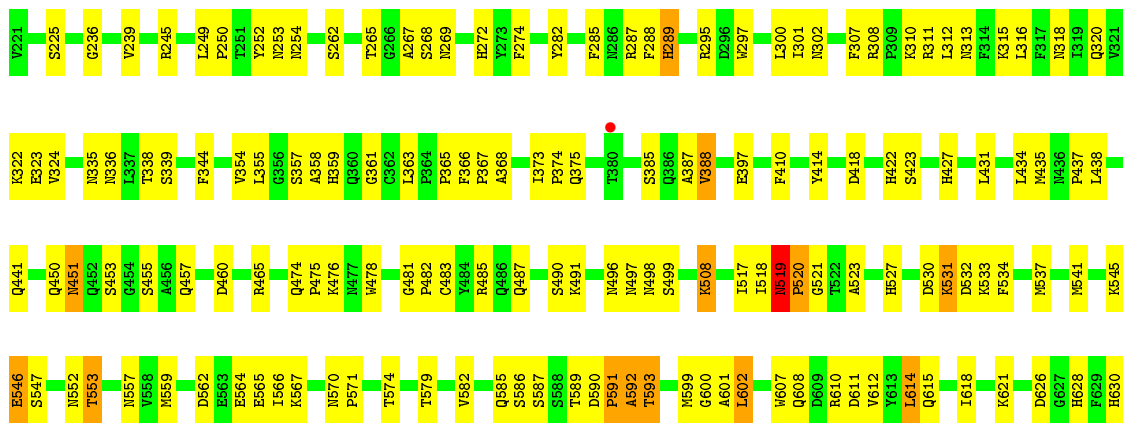




• Molecule 1: Capsid protein VP1

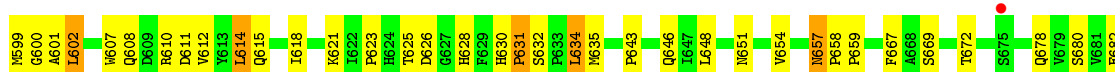
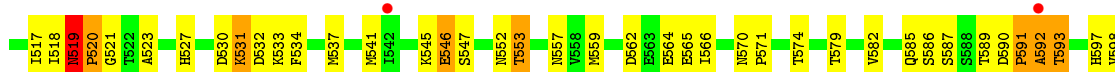


• Molecule 1: Capsid protein VP1





• Molecule 1: Capsid protein VP1



4 Data and refinement statistics i

Property	Value	Source
Space group	H 3	Depositor
Cell constants a, b, c, α , β , γ	258.36Å 258.36Å 612.97Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	48.67 – 3.02 48.67 – 3.02	Depositor EDS
% Data completeness (in resolution range)	23.0 (48.67-3.02) 23.0 (48.67-3.02)	Depositor EDS
R_{merge}	0.08	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.04 (at 3.01Å)	Xtriage
Refinement program	PHENIX 1.7.1_743	Depositor
R, R_{free}	0.273 , 0.286 0.270 , 0.287	Depositor DCC
R_{free} test set	980 reflections (1.42%)	wwPDB-VP
Wilson B-factor (Å ²)	64.2	Xtriage
Anisotropy	0.841	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.30 , 45.8	EDS
L-test for twinning ²	$\langle L \rangle = 0.43$, $\langle L^2 \rangle = 0.25$	Xtriage
Estimated twinning fraction	0.078 for -h,1/3*h-1/3*k-1/3*l,-4/3*h-8/3*k +1/3*l 0.060 for -1/3*h+1/3*k+1/3*l,-k,8/3*h+4/ 3*k+1/3*l 0.048 for -2/3*h-1/3*k-1/3*l,-1/3*h-2/3*k+ 1/3*l,-4/3*h+4/3*k+1/3*l 0.049 for 1/3*h+2/3*k-1/3*l,-k,-8/3*h-4/3* k-1/3*l 0.059 for -1/3*h-2/3*k+1/3*l,-2/3*h-1/3*k- 1/3*l,4/3*h-4/3*k-1/3*l 0.057 for -h,2/3*h+1/3*k+1/3*l,4/3*h+8/3 *k-1/3*l 0.136 for h,-h-k,-l	Xtriage
F_o, F_c correlation	0.88	EDS
Total number of atoms	82000	wwPDB-VP
Average B, all atoms (Å ²)	89.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 10.62% of the height of the origin peak. No significant pseudotranslation is detected.*

¹ Intensities estimated from amplitudes.

² Theoretical 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](#)

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	0.21	0/4226	0.37	0/5762
1	B	0.21	0/4226	0.37	0/5762
1	C	0.21	0/4226	0.37	0/5762
1	D	0.22	0/4226	0.37	0/5762
1	E	0.21	0/4226	0.37	0/5762
1	F	0.21	0/4226	0.37	0/5762
1	G	0.21	0/4226	0.37	0/5762
1	H	0.22	0/4226	0.37	0/5762
1	I	0.22	0/4226	0.37	0/5762
1	J	0.22	0/4226	0.37	0/5762
1	K	0.21	0/4226	0.37	0/5762
1	L	0.22	0/4226	0.37	0/5762
1	M	0.22	0/4226	0.37	0/5762
1	N	0.21	0/4226	0.37	0/5762
1	O	0.21	0/4226	0.37	0/5762
1	P	0.22	0/4226	0.37	0/5762
1	Q	0.21	0/4226	0.37	0/5762
1	R	0.22	0/4226	0.37	0/5762
1	S	0.21	0/4226	0.37	0/5762
1	T	0.21	0/4226	0.37	0/5762
All	All	0.21	0/84520	0.37	0/115240

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts [i](#)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen

atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	4100	0	3881	137	1
1	B	4100	0	3881	167	2
1	C	4100	0	3881	133	2
1	D	4100	0	3881	170	1
1	E	4100	0	3881	173	1
1	F	4100	0	3881	213	0
1	G	4100	0	3881	174	1
1	H	4100	0	3881	208	0
1	I	4100	0	3881	207	1
1	J	4100	0	3881	194	2
1	K	4100	0	3881	166	1
1	L	4100	0	3881	167	2
1	M	4100	0	3881	137	5
1	N	4100	0	3881	204	0
1	O	4100	0	3881	168	2
1	P	4100	0	3881	204	0
1	Q	4100	0	3881	203	0
1	R	4100	0	3881	197	3
1	S	4100	0	3881	134	2
1	T	4100	0	3881	170	1
All	All	82000	0	77620	2997	15

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 19.

All (2997) 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:J:658:PRO:HG2	1:L:250:PRO:HB3	1.19	1.14
1:J:705:TYR:O	1:R:388:VAL:HG12	1.59	1.03
1:J:397:GLU:HB2	1:L:367:PRO:HB2	1.45	0.98
1:D:359:HIS:HE1	1:E:436:ASN:H	1.03	0.96
1:B:359:HIS:HE1	1:G:436:ASN:H	1.01	0.95
1:J:338:THR:O	1:L:320:GLN:NE2	1.99	0.95
1:J:707:LYS:HG2	1:R:386:GLN:HG2	1.49	0.95
1:K:359:HIS:HE1	1:R:436:ASN:H	0.99	0.95
1:H:436:ASN:H	1:N:359:HIS:HE1	1.02	0.94
1:I:436:ASN:H	1:P:359:HIS:HE1	1.04	0.94
1:O:436:ASN:H	1:T:359:HIS:HE1	1.03	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:658:PRO:HG2	1:L:250:PRO:CB	1.97	0.94
1:F:436:ASN:H	1:I:359:HIS:HE1	1.01	0.93
1:N:436:ASN:H	1:Q:359:HIS:HE1	1.00	0.93
1:H:359:HIS:HE1	1:Q:436:ASN:H	1.05	0.93
1:I:658:PRO:HG2	1:R:250:PRO:HB3	1.49	0.92
1:F:359:HIS:HE1	1:P:436:ASN:H	1.00	0.89
1:E:298:GLN:HE22	1:I:698:GLU:H	1.20	0.88
1:E:698:GLU:H	1:I:298:GLN:HE22	1.21	0.88
1:J:705:TYR:HA	1:R:389:GLY:HA3	1.56	0.88
1:F:298:GLN:HE22	1:R:698:GLU:H	1.21	0.87
1:O:698:GLU:H	1:Q:298:GLN:HE22	1.21	0.87
1:H:658:PRO:HG2	1:O:250:PRO:HB3	1.55	0.87
1:J:662:PHE:HE2	1:L:360:GLN:HG3	1.38	0.87
1:A:658:PRO:HG2	1:M:250:PRO:HB3	1.57	0.86
1:E:250:PRO:HB3	1:P:658:PRO:HG2	1.57	0.86
1:O:519:ASN:HB2	1:O:520:PRO:HD2	1.58	0.86
1:F:519:ASN:HB2	1:F:520:PRO:HD2	1.58	0.86
1:J:519:ASN:HB2	1:J:520:PRO:HD2	1.58	0.86
1:O:298:GLN:HE22	1:Q:698:GLU:H	1.22	0.86
1:A:519:ASN:HB2	1:A:520:PRO:HD2	1.58	0.85
1:I:519:ASN:HB2	1:I:520:PRO:HD2	1.58	0.85
1:K:519:ASN:HB2	1:K:520:PRO:HD2	1.59	0.85
1:D:519:ASN:HB2	1:D:520:PRO:HD2	1.58	0.85
1:C:519:ASN:HB2	1:C:520:PRO:HD2	1.58	0.85
1:E:519:ASN:HB2	1:E:520:PRO:HD2	1.58	0.85
1:G:698:GLU:H	1:N:298:GLN:HE22	1.25	0.84
1:F:250:PRO:HB3	1:K:658:PRO:HG2	1.57	0.84
1:Q:519:ASN:HB2	1:Q:520:PRO:HD2	1.58	0.84
1:H:519:ASN:HB2	1:H:520:PRO:HD2	1.58	0.84
1:T:519:ASN:HB2	1:T:520:PRO:HD2	1.58	0.84
1:L:519:ASN:HB2	1:L:520:PRO:HD2	1.58	0.84
1:B:250:PRO:HB3	1:C:658:PRO:HG2	1.59	0.84
1:M:519:ASN:HB2	1:M:520:PRO:HD2	1.59	0.84
1:M:658:PRO:HG2	1:T:250:PRO:HB3	1.60	0.83
1:G:519:ASN:HB2	1:G:520:PRO:HD2	1.58	0.83
1:F:359:HIS:CE1	1:P:436:ASN:H	1.93	0.83
1:D:250:PRO:HB3	1:L:658:PRO:HG2	1.59	0.83
1:F:698:GLU:H	1:R:298:GLN:HE22	1.20	0.83
1:B:658:PRO:HG2	1:N:250:PRO:HB3	1.59	0.83
1:N:519:ASN:HB2	1:N:520:PRO:HD2	1.59	0.83
1:F:658:PRO:HG2	1:H:250:PRO:HB3	1.59	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:250:PRO:HB3	1:Q:658:PRO:HG2	1.59	0.83
1:J:707:LYS:HG2	1:R:386:GLN:CG	2.08	0.83
1:B:519:ASN:HB2	1:B:520:PRO:HD2	1.59	0.82
1:S:519:ASN:HB2	1:S:520:PRO:HD2	1.58	0.82
1:P:519:ASN:HB2	1:P:520:PRO:HD2	1.58	0.82
1:D:658:PRO:HG2	1:I:250:PRO:HB3	1.61	0.82
1:J:662:PHE:CE2	1:L:360:GLN:HG3	2.15	0.82
1:H:698:GLU:H	1:P:298:GLN:HE22	1.26	0.82
1:R:519:ASN:HB2	1:R:520:PRO:HD2	1.58	0.82
1:H:298:GLN:HE22	1:P:698:GLU:H	1.24	0.82
1:J:320:GLN:NE2	1:R:338:THR:O	2.13	0.81
1:B:359:HIS:CE1	1:G:436:ASN:H	1.94	0.81
1:Q:250:PRO:HB3	1:T:658:PRO:HG2	1.61	0.81
1:K:250:PRO:HB3	1:S:658:PRO:HG2	1.61	0.81
1:G:298:GLN:HE22	1:N:698:GLU:H	1.23	0.81
1:C:250:PRO:HB3	1:E:658:PRO:HG2	1.62	0.81
1:H:436:ASN:H	1:N:359:HIS:CE1	1.95	0.81
1:O:658:PRO:HG2	1:S:250:PRO:HB3	1.61	0.81
1:K:359:HIS:CE1	1:R:436:ASN:H	1.92	0.80
1:A:250:PRO:HB3	1:G:658:PRO:HG2	1.63	0.80
1:N:658:PRO:HG2	1:P:250:PRO:HB3	1.62	0.80
1:J:655:PRO:HG3	1:L:370:VAL:HG11	1.63	0.80
1:F:436:ASN:H	1:I:359:HIS:CE1	1.94	0.80
1:K:393:PHE:H	1:R:696:ASN:ND2	1.79	0.79
1:N:436:ASN:H	1:Q:359:HIS:CE1	1.93	0.79
1:C:310:LYS:NZ	1:C:686:GLU:OE2	2.16	0.78
1:J:402:GLN:HG3	1:L:227:ASN:OD1	1.82	0.78
1:F:393:PHE:H	1:P:696:ASN:ND2	1.82	0.78
1:N:696:ASN:ND2	1:Q:393:PHE:H	1.83	0.77
1:B:393:PHE:H	1:G:696:ASN:ND2	1.83	0.76
1:J:671:ILE:HD11	1:L:674:TYR:OH	1.86	0.76
1:H:601:ALA:HB2	1:Q:601:ALA:HB2	1.68	0.76
1:F:497:ASN:ND2	1:P:588:SER:O	2.18	0.76
1:J:397:GLU:CB	1:L:367:PRO:HB2	2.16	0.76
1:F:310:LYS:NZ	1:F:686:GLU:OE2	2.17	0.76
1:O:310:LYS:NZ	1:O:686:GLU:OE2	2.17	0.75
1:E:310:LYS:NZ	1:E:686:GLU:OE2	2.17	0.75
1:F:696:ASN:ND2	1:I:393:PHE:H	1.84	0.75
1:D:601:ALA:HB2	1:E:601:ALA:HB2	1.68	0.75
1:P:310:LYS:NZ	1:P:686:GLU:OE2	2.17	0.75
1:O:436:ASN:H	1:T:359:HIS:CE1	1.96	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:310:LYS:NZ	1:B:686:GLU:OE2	2.18	0.75
1:H:696:ASN:ND2	1:N:393:PHE:H	1.83	0.75
1:D:359:HIS:CE1	1:E:436:ASN:H	1.96	0.74
1:L:310:LYS:NZ	1:L:686:GLU:OE2	2.16	0.74
1:N:588:SER:O	1:Q:497:ASN:ND2	2.20	0.74
1:K:359:HIS:HE1	1:R:436:ASN:N	1.82	0.74
1:T:310:LYS:NZ	1:T:686:GLU:OE2	2.17	0.74
1:K:601:ALA:HB2	1:R:601:ALA:HB2	1.70	0.74
1:O:696:ASN:ND2	1:T:393:PHE:H	1.85	0.74
1:F:379:LEU:HD13	1:P:433:ARG:HG3	1.70	0.74
1:S:287:ARG:HH21	1:S:289:HIS:CE1	2.06	0.73
1:F:588:SER:O	1:I:497:ASN:ND2	2.20	0.73
1:C:287:ARG:HH21	1:C:289:HIS:CE1	2.06	0.73
1:O:601:ALA:HB2	1:T:601:ALA:HB2	1.69	0.73
1:D:287:ARG:HH21	1:D:289:HIS:CE1	2.07	0.73
1:Q:287:ARG:HH21	1:Q:289:HIS:CE1	2.07	0.73
1:M:310:LYS:NZ	1:M:686:GLU:OE2	2.18	0.73
1:D:310:LYS:NZ	1:D:686:GLU:OE2	2.18	0.73
1:H:287:ARG:HH21	1:H:289:HIS:CE1	2.07	0.73
1:M:287:ARG:HH21	1:M:289:HIS:CE1	2.07	0.73
1:F:287:ARG:HH21	1:F:289:HIS:CE1	2.07	0.73
1:G:287:ARG:HH21	1:G:289:HIS:CE1	2.07	0.72
1:S:310:LYS:NZ	1:S:686:GLU:OE2	2.17	0.72
1:I:287:ARG:HH21	1:I:289:HIS:CE1	2.07	0.72
1:E:287:ARG:HH21	1:E:289:HIS:CE1	2.06	0.72
1:H:310:LYS:NZ	1:H:686:GLU:OE2	2.18	0.72
1:T:287:ARG:HH21	1:T:289:HIS:CE1	2.08	0.72
1:H:393:PHE:H	1:Q:696:ASN:ND2	1.88	0.72
1:L:287:ARG:HH21	1:L:289:HIS:CE1	2.08	0.72
1:P:287:ARG:HH21	1:P:289:HIS:CE1	2.08	0.72
1:K:287:ARG:HH21	1:K:289:HIS:CE1	2.08	0.72
1:I:588:SER:O	1:P:497:ASN:ND2	2.23	0.72
1:R:287:ARG:HH21	1:R:289:HIS:CE1	2.07	0.72
1:I:601:ALA:HB2	1:P:601:ALA:HB2	1.72	0.72
1:B:497:ASN:ND2	1:G:588:SER:O	2.22	0.72
1:K:310:LYS:NZ	1:K:686:GLU:OE2	2.17	0.72
1:Q:310:LYS:NZ	1:Q:686:GLU:OE2	2.17	0.72
1:B:287:ARG:HH21	1:B:289:HIS:CE1	2.08	0.72
1:D:393:PHE:H	1:E:696:ASN:ND2	1.86	0.72
1:G:310:LYS:NZ	1:G:686:GLU:OE2	2.17	0.72
1:J:287:ARG:HH21	1:J:289:HIS:CE1	2.08	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:530:ASP:O	1:J:532:ASP:N	2.23	0.72
1:T:530:ASP:O	1:T:532:ASP:N	2.23	0.72
1:C:530:ASP:O	1:C:532:ASP:N	2.23	0.71
1:K:530:ASP:O	1:K:532:ASP:N	2.23	0.71
1:H:359:HIS:CE1	1:Q:436:ASN:H	1.98	0.71
1:B:530:ASP:O	1:B:532:ASP:N	2.23	0.71
1:L:530:ASP:O	1:L:532:ASP:N	2.23	0.71
1:O:287:ARG:HH21	1:O:289:HIS:CE1	2.07	0.71
1:P:530:ASP:O	1:P:532:ASP:N	2.23	0.71
1:R:530:ASP:O	1:R:532:ASP:N	2.23	0.71
1:H:530:ASP:O	1:H:532:ASP:N	2.23	0.71
1:A:287:ARG:HH21	1:A:289:HIS:CE1	2.08	0.71
1:E:530:ASP:O	1:E:532:ASP:N	2.24	0.71
1:Q:530:ASP:O	1:Q:532:ASP:N	2.24	0.71
1:N:287:ARG:HH21	1:N:289:HIS:CE1	2.07	0.71
1:F:530:ASP:O	1:F:532:ASP:N	2.24	0.71
1:I:354:VAL:H	1:I:646:GLN:NE2	1.89	0.71
1:M:530:ASP:O	1:M:532:ASP:N	2.24	0.71
1:N:530:ASP:O	1:N:532:ASP:N	2.24	0.71
1:B:354:VAL:H	1:B:646:GLN:NE2	1.89	0.71
1:J:709:ALA:O	1:R:259:GLN:NE2	2.22	0.71
1:G:354:VAL:H	1:G:646:GLN:NE2	1.89	0.70
1:I:530:ASP:O	1:I:532:ASP:N	2.24	0.70
1:L:508:LYS:HB3	1:L:517:ILE:HA	1.73	0.70
1:O:508:LYS:HB3	1:O:517:ILE:HA	1.73	0.70
1:R:508:LYS:HB3	1:R:517:ILE:HA	1.73	0.70
1:S:530:ASP:O	1:S:532:ASP:N	2.23	0.70
1:A:508:LYS:HB3	1:A:517:ILE:HA	1.73	0.70
1:E:354:VAL:H	1:E:646:GLN:NE2	1.90	0.70
1:I:310:LYS:NZ	1:I:686:GLU:OE2	2.17	0.70
1:L:678:GLN:N	1:L:678:GLN:OE1	2.24	0.70
1:D:354:VAL:H	1:D:646:GLN:NE2	1.89	0.70
1:O:588:SER:O	1:T:497:ASN:ND2	2.23	0.70
1:Q:354:VAL:H	1:Q:646:GLN:NE2	1.89	0.70
1:T:354:VAL:H	1:T:646:GLN:NE2	1.89	0.70
1:A:310:LYS:NZ	1:A:686:GLU:OE2	2.17	0.70
1:F:582:VAL:HB	1:F:592:ALA:HB1	1.74	0.70
1:G:508:LYS:HB3	1:G:517:ILE:HA	1.73	0.70
1:B:601:ALA:HB2	1:G:601:ALA:HB2	1.72	0.70
1:H:508:LYS:HB3	1:H:517:ILE:HA	1.74	0.70
1:M:508:LYS:HB3	1:M:517:ILE:HA	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:601:ALA:HB2	1:Q:601:ALA:HB2	1.73	0.70
1:D:530:ASP:O	1:D:532:ASP:N	2.23	0.70
1:N:310:LYS:NZ	1:N:686:GLU:OE2	2.18	0.70
1:O:530:ASP:O	1:O:532:ASP:N	2.24	0.70
1:R:678:GLN:OE1	1:R:678:GLN:N	2.25	0.70
1:G:582:VAL:HB	1:G:592:ALA:HB1	1.74	0.70
1:H:433:ARG:HG3	1:N:379:LEU:HD13	1.73	0.70
1:C:582:VAL:HB	1:C:592:ALA:HB1	1.74	0.70
1:E:508:LYS:HB3	1:E:517:ILE:HA	1.73	0.70
1:K:582:VAL:HB	1:K:592:ALA:HB1	1.74	0.70
1:I:696:ASN:ND2	1:P:393:PHE:H	1.88	0.70
1:J:707:LYS:CG	1:R:386:GLN:HG2	2.21	0.70
1:S:582:VAL:HB	1:S:592:ALA:HB1	1.73	0.70
1:A:530:ASP:O	1:A:532:ASP:N	2.24	0.70
1:J:678:GLN:N	1:J:678:GLN:OE1	2.25	0.70
1:M:678:GLN:OE1	1:M:678:GLN:N	2.24	0.70
1:S:678:GLN:N	1:S:678:GLN:OE1	2.25	0.70
1:A:336:ASN:HD22	1:A:339:SER:HB2	1.57	0.70
1:A:354:VAL:H	1:A:646:GLN:NE2	1.89	0.70
1:K:354:VAL:H	1:K:646:GLN:NE2	1.90	0.70
1:N:508:LYS:HB3	1:N:517:ILE:HA	1.74	0.70
1:B:582:VAL:HB	1:B:592:ALA:HB1	1.74	0.69
1:J:354:VAL:H	1:J:646:GLN:NE2	1.90	0.69
1:S:336:ASN:HD22	1:S:339:SER:HB2	1.57	0.69
1:C:678:GLN:N	1:C:678:GLN:OE1	2.25	0.69
1:D:508:LYS:HB3	1:D:517:ILE:HA	1.74	0.69
1:G:530:ASP:O	1:G:532:ASP:N	2.24	0.69
1:P:354:VAL:H	1:P:646:GLN:NE2	1.90	0.69
1:H:582:VAL:HB	1:H:592:ALA:HB1	1.74	0.69
1:Q:508:LYS:HB3	1:Q:517:ILE:HA	1.74	0.69
1:D:678:GLN:N	1:D:678:GLN:OE1	2.25	0.69
1:H:588:SER:O	1:N:497:ASN:ND2	2.23	0.69
1:H:678:GLN:OE1	1:H:678:GLN:N	2.26	0.69
1:I:508:LYS:HB3	1:I:517:ILE:HA	1.74	0.69
1:J:582:VAL:HB	1:J:592:ALA:HB1	1.74	0.69
1:M:354:VAL:H	1:M:646:GLN:NE2	1.89	0.69
1:P:336:ASN:HD22	1:P:339:SER:HB2	1.57	0.69
1:E:336:ASN:HD22	1:E:339:SER:HB2	1.58	0.69
1:K:678:GLN:N	1:K:678:GLN:OE1	2.26	0.69
1:H:497:ASN:ND2	1:Q:588:SER:O	2.26	0.69
1:T:582:VAL:HB	1:T:592:ALA:HB1	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:678:GLN:OE1	1:T:678:GLN:N	2.25	0.69
1:A:582:VAL:HB	1:A:592:ALA:HB1	1.73	0.69
1:C:354:VAL:H	1:C:646:GLN:NE2	1.90	0.69
1:G:678:GLN:N	1:G:678:GLN:OE1	2.26	0.69
1:F:436:ASN:N	1:I:359:HIS:HE1	1.84	0.69
1:M:336:ASN:HD22	1:M:339:SER:HB2	1.57	0.69
1:N:436:ASN:N	1:Q:359:HIS:HE1	1.83	0.69
1:R:582:VAL:HB	1:R:592:ALA:HB1	1.74	0.69
1:R:310:LYS:NZ	1:R:686:GLU:OE2	2.17	0.69
1:I:436:ASN:H	1:P:359:HIS:CE1	1.97	0.69
1:K:508:LYS:HB3	1:K:517:ILE:HA	1.74	0.69
1:O:678:GLN:OE1	1:O:678:GLN:N	2.26	0.69
1:N:433:ARG:HG3	1:Q:379:LEU:HD13	1.75	0.69
1:B:678:GLN:OE1	1:B:678:GLN:N	2.26	0.69
1:D:582:VAL:HB	1:D:592:ALA:HB1	1.74	0.69
1:H:354:VAL:H	1:H:646:GLN:NE2	1.90	0.69
1:Q:678:GLN:OE1	1:Q:678:GLN:N	2.25	0.69
1:F:601:ALA:HB2	1:I:601:ALA:HB2	1.72	0.69
1:H:436:ASN:N	1:N:359:HIS:HE1	1.85	0.69
1:R:354:VAL:H	1:R:646:GLN:NE2	1.90	0.69
1:S:354:VAL:H	1:S:646:GLN:NE2	1.90	0.69
1:F:336:ASN:HD22	1:F:339:SER:HB2	1.57	0.69
1:F:433:ARG:HG3	1:I:379:LEU:HD13	1.75	0.69
1:N:582:VAL:HB	1:N:592:ALA:HB1	1.74	0.69
1:I:397:GLU:HB2	1:R:367:PRO:HB2	1.75	0.69
1:T:336:ASN:HD22	1:T:339:SER:HB2	1.57	0.69
1:C:336:ASN:HD22	1:C:339:SER:HB2	1.57	0.69
1:F:508:LYS:HB3	1:F:517:ILE:HA	1.74	0.69
1:F:678:GLN:OE1	1:F:678:GLN:N	2.25	0.69
1:M:272:HIS:HD1	1:M:385:SER:HG	1.41	0.69
1:O:354:VAL:H	1:O:646:GLN:NE2	1.90	0.69
1:Q:582:VAL:HB	1:Q:592:ALA:HB1	1.75	0.69
1:D:336:ASN:HD22	1:D:339:SER:HB2	1.58	0.68
1:P:508:LYS:HB3	1:P:517:ILE:HA	1.74	0.68
1:S:508:LYS:HB3	1:S:517:ILE:HA	1.73	0.68
1:F:354:VAL:H	1:F:646:GLN:NE2	1.89	0.68
1:I:678:GLN:OE1	1:I:678:GLN:N	2.26	0.68
1:N:354:VAL:H	1:N:646:GLN:NE2	1.91	0.68
1:N:678:GLN:N	1:N:678:GLN:OE1	2.25	0.68
1:O:582:VAL:HB	1:O:592:ALA:HB1	1.74	0.68
1:I:436:ASN:N	1:P:359:HIS:HE1	1.87	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:508:LYS:HB3	1:T:517:ILE:HA	1.73	0.68
1:J:508:LYS:HB3	1:J:517:ILE:HA	1.73	0.68
1:K:336:ASN:HD22	1:K:339:SER:HB2	1.58	0.68
1:A:678:GLN:OE1	1:A:678:GLN:N	2.26	0.68
1:B:527:HIS:NE2	1:B:532:ASP:OD1	2.27	0.68
1:I:336:ASN:HD22	1:I:339:SER:HB2	1.59	0.68
1:L:354:VAL:H	1:L:646:GLN:NE2	1.90	0.68
1:L:582:VAL:HB	1:L:592:ALA:HB1	1.74	0.68
1:O:336:ASN:HD22	1:O:339:SER:HB2	1.58	0.68
1:O:436:ASN:N	1:T:359:HIS:HE1	1.87	0.68
1:E:582:VAL:HB	1:E:592:ALA:HB1	1.74	0.68
1:J:652:THR:HG21	1:L:678:GLN:NE2	2.08	0.68
1:M:582:VAL:HB	1:M:592:ALA:HB1	1.74	0.68
1:Q:336:ASN:HD22	1:Q:339:SER:HB2	1.58	0.68
1:B:336:ASN:HD22	1:B:339:SER:HB2	1.57	0.68
1:B:379:LEU:HD13	1:G:433:ARG:HG3	1.75	0.68
1:C:508:LYS:HB3	1:C:517:ILE:HA	1.73	0.68
1:H:519:ASN:HB3	1:Q:475:PRO:HA	1.75	0.68
1:I:582:VAL:HB	1:I:592:ALA:HB1	1.74	0.68
1:K:519:ASN:HB3	1:R:475:PRO:HA	1.74	0.68
1:D:497:ASN:ND2	1:E:588:SER:O	2.25	0.68
1:E:678:GLN:OE1	1:E:678:GLN:N	2.27	0.68
1:H:601:ALA:HB2	1:N:601:ALA:HB2	1.75	0.68
1:L:630:HIS:O	1:L:632:SER:N	2.24	0.68
1:P:678:GLN:OE1	1:P:678:GLN:N	2.26	0.68
1:H:359:HIS:HE1	1:Q:436:ASN:N	1.88	0.68
1:K:497:ASN:ND2	1:R:588:SER:O	2.27	0.68
1:N:272:HIS:HD1	1:N:385:SER:HG	1.41	0.68
1:N:336:ASN:HD22	1:N:339:SER:HB2	1.58	0.67
1:R:519:ASN:HB2	1:R:520:PRO:CD	2.25	0.67
1:B:508:LYS:HB3	1:B:517:ILE:HA	1.74	0.67
1:J:336:ASN:HD22	1:J:339:SER:HB2	1.58	0.67
1:R:498:ASN:O	1:R:499:SER:OG	2.13	0.67
1:O:527:HIS:NE2	1:O:532:ASP:OD1	2.28	0.67
1:P:582:VAL:HB	1:P:592:ALA:HB1	1.74	0.67
1:T:272:HIS:HD1	1:T:385:SER:HG	1.40	0.67
1:D:498:ASN:O	1:D:499:SER:OG	2.12	0.67
1:H:336:ASN:HD22	1:H:339:SER:HB2	1.59	0.67
1:H:630:HIS:O	1:H:632:SER:N	2.25	0.67
1:J:310:LYS:NZ	1:J:686:GLU:OE2	2.18	0.67
1:R:336:ASN:HD22	1:R:339:SER:HB2	1.58	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:361:GLY:HA3	1:B:374:PRO:HG3	1.77	0.67
1:F:361:GLY:HA3	1:F:374:PRO:HG3	1.77	0.67
1:I:361:GLY:HA3	1:I:374:PRO:HG3	1.77	0.67
1:D:519:ASN:HB2	1:D:520:PRO:CD	2.25	0.67
1:F:630:HIS:O	1:F:632:SER:N	2.24	0.67
1:G:336:ASN:HD22	1:G:339:SER:HB2	1.57	0.67
1:A:630:HIS:O	1:A:632:SER:N	2.25	0.67
1:D:272:HIS:HD1	1:D:385:SER:HG	1.42	0.67
1:I:519:ASN:HB2	1:I:520:PRO:CD	2.25	0.67
1:L:336:ASN:HD22	1:L:339:SER:HB2	1.58	0.67
1:N:630:HIS:O	1:N:632:SER:N	2.25	0.67
1:O:519:ASN:HB2	1:O:520:PRO:CD	2.25	0.67
1:P:361:GLY:HA3	1:P:374:PRO:HG3	1.77	0.67
1:C:272:HIS:HD1	1:C:385:SER:HG	1.41	0.67
1:O:475:PRO:HA	1:T:519:ASN:HB3	1.77	0.67
1:C:519:ASN:HB2	1:C:520:PRO:CD	2.25	0.67
1:H:361:GLY:HA3	1:H:374:PRO:HG3	1.77	0.67
1:A:519:ASN:HB2	1:A:520:PRO:CD	2.25	0.66
1:G:361:GLY:HA3	1:G:374:PRO:HG3	1.77	0.66
1:I:433:ARG:HG3	1:P:379:LEU:HD13	1.77	0.66
1:L:361:GLY:HA3	1:L:374:PRO:HG3	1.77	0.66
1:N:361:GLY:HA3	1:N:374:PRO:HG3	1.77	0.66
1:N:397:GLU:HG3	1:P:368:ALA:HB2	1.77	0.66
1:T:361:GLY:HA3	1:T:374:PRO:HG3	1.77	0.66
1:J:361:GLY:HA3	1:J:374:PRO:HG3	1.76	0.66
1:J:519:ASN:HB2	1:J:520:PRO:CD	2.24	0.66
1:B:519:ASN:HB2	1:B:520:PRO:CD	2.25	0.66
1:F:359:HIS:HE1	1:P:436:ASN:N	1.83	0.66
1:K:527:HIS:NE2	1:K:532:ASP:OD1	2.29	0.66
1:J:527:HIS:NE2	1:J:532:ASP:OD1	2.29	0.66
1:K:361:GLY:HA3	1:K:374:PRO:HG3	1.77	0.66
1:M:519:ASN:HB2	1:M:520:PRO:CD	2.25	0.66
1:K:379:LEU:HD13	1:R:433:ARG:HG3	1.76	0.66
1:F:399:PHE:CZ	1:P:693:LYS:HD3	2.31	0.66
1:G:519:ASN:HB2	1:G:520:PRO:CD	2.25	0.66
1:O:361:GLY:HA3	1:O:374:PRO:HG3	1.76	0.66
1:Q:361:GLY:HA3	1:Q:374:PRO:HG3	1.77	0.66
1:F:601:ALA:HB2	1:P:601:ALA:HB2	1.77	0.66
1:H:519:ASN:HB2	1:H:520:PRO:CD	2.25	0.66
1:S:361:GLY:HA3	1:S:374:PRO:HG3	1.77	0.66
1:D:361:GLY:HA3	1:D:374:PRO:HG3	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:519:ASN:HB2	1:E:520:PRO:CD	2.25	0.66
1:F:519:ASN:HB2	1:F:520:PRO:CD	2.25	0.66
1:J:296:ASP:OD2	1:R:398:TYR:OH	2.13	0.66
1:H:358:ALA:HB1	1:Q:442:TYR:CZ	2.30	0.66
1:T:225:SER:HB3	1:T:318:ASN:H	1.61	0.66
1:M:527:HIS:NE2	1:M:532:ASP:OD1	2.29	0.66
1:M:361:GLY:HA3	1:M:374:PRO:HG3	1.77	0.66
1:I:397:GLU:HG3	1:R:368:ALA:HB2	1.77	0.66
1:E:361:GLY:HA3	1:E:374:PRO:HG3	1.77	0.66
1:Q:527:HIS:NE2	1:Q:532:ASP:OD1	2.29	0.66
1:R:361:GLY:HA3	1:R:374:PRO:HG3	1.77	0.66
1:N:519:ASN:HB2	1:N:520:PRO:CD	2.26	0.65
1:N:527:HIS:NE2	1:N:532:ASP:OD1	2.29	0.65
1:K:399:PHE:CZ	1:R:693:LYS:HD3	2.31	0.65
1:S:630:HIS:O	1:S:632:SER:N	2.25	0.65
1:T:519:ASN:HB2	1:T:520:PRO:CD	2.25	0.65
1:B:253:ASN:ND2	1:B:375:GLN:OE1	2.29	0.65
1:B:225:SER:HB3	1:B:318:ASN:H	1.62	0.65
1:C:253:ASN:ND2	1:C:375:GLN:OE1	2.30	0.65
1:F:527:HIS:NE2	1:F:532:ASP:OD1	2.30	0.65
1:P:519:ASN:HB2	1:P:520:PRO:CD	2.25	0.65
1:G:253:ASN:ND2	1:G:375:GLN:OE1	2.30	0.65
1:M:630:HIS:O	1:M:632:SER:N	2.25	0.65
1:S:527:HIS:NE2	1:S:532:ASP:OD1	2.29	0.65
1:T:527:HIS:NE2	1:T:532:ASP:OD1	2.29	0.65
1:B:359:HIS:HE1	1:G:436:ASN:N	1.84	0.65
1:L:527:HIS:NE2	1:L:532:ASP:OD1	2.30	0.65
1:N:423:SER:OG	1:Q:626:ASP:OD1	2.14	0.65
1:O:498:ASN:O	1:O:499:SER:OG	2.13	0.65
1:P:527:HIS:NE2	1:P:532:ASP:OD1	2.30	0.65
1:R:253:ASN:ND2	1:R:375:GLN:OE1	2.30	0.65
1:D:519:ASN:HB3	1:E:475:PRO:HA	1.78	0.65
1:G:527:HIS:NE2	1:G:532:ASP:OD1	2.29	0.65
1:A:553:THR:HG23	1:A:557:ASN:HB2	1.79	0.65
1:C:361:GLY:HA3	1:C:374:PRO:HG3	1.77	0.65
1:D:527:HIS:NE2	1:D:532:ASP:OD1	2.30	0.65
1:R:527:HIS:NE2	1:R:532:ASP:OD1	2.29	0.65
1:A:361:GLY:HA3	1:A:374:PRO:HG3	1.77	0.65
1:G:487:GLN:HB3	1:G:537:MET:HE3	1.79	0.65
1:L:519:ASN:HB2	1:L:520:PRO:CD	2.25	0.65
1:N:253:ASN:ND2	1:N:375:GLN:OE1	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:269:ASN:HA	1:D:272:HIS:CD2	2.32	0.65
1:D:359:HIS:HE1	1:E:436:ASN:N	1.86	0.65
1:E:253:ASN:ND2	1:E:375:GLN:OE1	2.30	0.65
1:F:253:ASN:ND2	1:F:375:GLN:OE1	2.30	0.65
1:H:253:ASN:ND2	1:H:375:GLN:OE1	2.29	0.65
1:H:498:ASN:O	1:H:499:SER:OG	2.13	0.65
1:J:487:GLN:HB3	1:J:537:MET:HE3	1.79	0.65
1:K:225:SER:HB3	1:K:318:ASN:H	1.61	0.65
1:P:253:ASN:ND2	1:P:375:GLN:OE1	2.30	0.65
1:Q:630:HIS:O	1:Q:632:SER:N	2.25	0.65
1:A:253:ASN:ND2	1:A:375:GLN:OE1	2.30	0.65
1:C:269:ASN:HA	1:C:272:HIS:CD2	2.32	0.65
1:G:590:ASP:HB2	1:G:591:PRO:HA	1.79	0.65
1:H:225:SER:HB3	1:H:318:ASN:H	1.61	0.65
1:I:269:ASN:HA	1:I:272:HIS:CD2	2.32	0.65
1:M:553:THR:HG23	1:M:557:ASN:HB2	1.79	0.65
1:O:442:TYR:CZ	1:T:358:ALA:HB1	2.31	0.65
1:Q:269:ASN:HA	1:Q:272:HIS:CD2	2.32	0.65
1:Q:253:ASN:ND2	1:Q:375:GLN:OE1	2.30	0.65
1:T:253:ASN:ND2	1:T:375:GLN:OE1	2.30	0.65
1:T:630:HIS:O	1:T:632:SER:N	2.25	0.65
1:E:498:ASN:O	1:E:499:SER:OG	2.13	0.65
1:F:590:ASP:HB2	1:F:591:PRO:HA	1.79	0.65
1:I:225:SER:HB3	1:I:318:ASN:H	1.62	0.65
1:I:527:HIS:NE2	1:I:532:ASP:OD1	2.30	0.65
1:J:553:THR:HG23	1:J:557:ASN:HB2	1.79	0.65
1:P:225:SER:HB3	1:P:318:ASN:H	1.62	0.65
1:P:498:ASN:O	1:P:499:SER:OG	2.12	0.65
1:S:225:SER:HB3	1:S:318:ASN:H	1.62	0.65
1:D:225:SER:HB3	1:D:318:ASN:H	1.61	0.64
1:K:519:ASN:HB2	1:K:520:PRO:CD	2.25	0.64
1:N:475:PRO:HA	1:Q:519:ASN:HB3	1.79	0.64
1:C:527:HIS:NE2	1:C:532:ASP:OD1	2.29	0.64
1:D:590:ASP:HB2	1:D:591:PRO:HA	1.80	0.64
1:F:269:ASN:HA	1:F:272:HIS:CD2	2.32	0.64
1:F:225:SER:HB3	1:F:318:ASN:H	1.62	0.64
1:H:527:HIS:NE2	1:H:532:ASP:OD1	2.29	0.64
1:J:225:SER:HB3	1:J:318:ASN:H	1.62	0.64
1:L:553:THR:HG23	1:L:557:ASN:HB2	1.79	0.64
1:N:590:ASP:HB2	1:N:591:PRO:HA	1.79	0.64
1:O:272:HIS:HD1	1:O:385:SER:HG	1.45	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:269:ASN:HA	1:P:272:HIS:CD2	2.32	0.64
1:Q:519:ASN:HB2	1:Q:520:PRO:CD	2.25	0.64
1:T:498:ASN:O	1:T:499:SER:OG	2.13	0.64
1:M:225:SER:HB3	1:M:318:ASN:H	1.62	0.64
1:P:487:GLN:HB3	1:P:537:MET:HE3	1.80	0.64
1:R:553:THR:HG23	1:R:557:ASN:HB2	1.78	0.64
1:A:527:HIS:NE2	1:A:532:ASP:OD1	2.31	0.64
1:D:253:ASN:ND2	1:D:375:GLN:OE1	2.30	0.64
1:D:553:THR:HG23	1:D:557:ASN:HB2	1.79	0.64
1:J:269:ASN:HA	1:J:272:HIS:CD2	2.33	0.64
1:J:715:VAL:HG21	1:R:257:TYR:O	1.98	0.64
1:K:487:GLN:HB3	1:K:537:MET:HE3	1.79	0.64
1:O:253:ASN:ND2	1:O:375:GLN:OE1	2.30	0.64
1:O:553:THR:HG23	1:O:557:ASN:HB2	1.79	0.64
1:R:269:ASN:HA	1:R:272:HIS:CD2	2.32	0.64
1:S:253:ASN:ND2	1:S:375:GLN:OE1	2.30	0.64
1:C:225:SER:HB3	1:C:318:ASN:H	1.62	0.64
1:E:269:ASN:HA	1:E:272:HIS:CD2	2.32	0.64
1:I:253:ASN:ND2	1:I:375:GLN:OE1	2.29	0.64
1:J:659:PRO:HD2	1:L:372:MET:SD	2.37	0.64
1:K:590:ASP:HB2	1:K:591:PRO:HA	1.80	0.64
1:K:630:HIS:O	1:K:632:SER:N	2.25	0.64
1:L:225:SER:HB3	1:L:318:ASN:H	1.62	0.64
1:M:269:ASN:HA	1:M:272:HIS:CD2	2.33	0.64
1:J:707:LYS:HD2	1:R:386:GLN:HB3	1.78	0.64
1:D:630:HIS:O	1:D:632:SER:N	2.25	0.64
1:H:269:ASN:HA	1:H:272:HIS:CD2	2.32	0.64
1:L:269:ASN:HA	1:L:272:HIS:CD2	2.32	0.64
1:N:269:ASN:HA	1:N:272:HIS:CD2	2.32	0.64
1:N:487:GLN:HB3	1:N:537:MET:HE3	1.79	0.64
1:P:553:THR:HG23	1:P:557:ASN:HB2	1.79	0.64
1:T:269:ASN:HA	1:T:272:HIS:CD2	2.32	0.64
1:B:269:ASN:HA	1:B:272:HIS:CD2	2.32	0.64
1:B:519:ASN:HB3	1:G:475:PRO:HA	1.79	0.64
1:E:527:HIS:NE2	1:E:532:ASP:OD1	2.29	0.64
1:F:487:GLN:HB3	1:F:537:MET:HE3	1.80	0.64
1:F:553:THR:HG23	1:F:557:ASN:HB2	1.79	0.64
1:I:553:THR:HG23	1:I:557:ASN:HB2	1.79	0.64
1:K:269:ASN:HA	1:K:272:HIS:CD2	2.32	0.64
1:F:367:PRO:HB2	1:K:397:GLU:HB2	1.80	0.64
1:M:487:GLN:HB3	1:M:537:MET:HE3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:336:ASN:ND2	1:P:339:SER:HB2	2.13	0.64
1:Q:487:GLN:HB3	1:Q:537:MET:HE3	1.80	0.64
1:T:487:GLN:HB3	1:T:537:MET:HE3	1.80	0.64
1:T:590:ASP:HB2	1:T:591:PRO:HA	1.80	0.64
1:A:225:SER:HB3	1:A:318:ASN:H	1.62	0.64
1:H:487:GLN:HB3	1:H:537:MET:HE3	1.80	0.64
1:K:553:THR:HG23	1:K:557:ASN:HB2	1.80	0.64
1:R:590:ASP:HB2	1:R:591:PRO:HA	1.80	0.64
1:C:487:GLN:HB3	1:C:537:MET:HE3	1.79	0.64
1:C:590:ASP:HB2	1:C:591:PRO:HA	1.80	0.64
1:G:553:THR:HG23	1:G:557:ASN:HB2	1.79	0.64
1:I:498:ASN:O	1:I:499:SER:OG	2.13	0.64
1:M:590:ASP:HB2	1:M:591:PRO:HA	1.80	0.64
1:N:553:THR:HG23	1:N:557:ASN:HB2	1.79	0.64
1:O:487:GLN:HB3	1:O:537:MET:HE3	1.80	0.64
1:R:225:SER:HB3	1:R:318:ASN:H	1.62	0.64
1:S:498:ASN:O	1:S:499:SER:OG	2.13	0.64
1:S:519:ASN:HB2	1:S:520:PRO:CD	2.25	0.64
1:B:590:ASP:HB2	1:B:591:PRO:HA	1.80	0.64
1:E:553:THR:HG23	1:E:557:ASN:HB2	1.79	0.64
1:F:272:HIS:HD1	1:F:385:SER:HG	1.45	0.64
1:H:336:ASN:ND2	1:H:339:SER:HB2	2.13	0.64
1:H:590:ASP:HB2	1:H:591:PRO:HA	1.80	0.64
1:I:590:ASP:HB2	1:I:591:PRO:HA	1.80	0.64
1:J:253:ASN:ND2	1:J:375:GLN:OE1	2.31	0.64
1:K:253:ASN:ND2	1:K:375:GLN:OE1	2.31	0.64
1:O:269:ASN:HA	1:O:272:HIS:CD2	2.32	0.64
1:B:336:ASN:ND2	1:B:339:SER:HB2	2.13	0.63
1:E:336:ASN:ND2	1:E:339:SER:HB2	2.13	0.63
1:E:630:HIS:O	1:E:632:SER:N	2.25	0.63
1:H:379:LEU:HD13	1:Q:433:ARG:HG3	1.80	0.63
1:H:397:GLU:HB2	1:O:367:PRO:HB2	1.80	0.63
1:L:487:GLN:HB3	1:L:537:MET:HE3	1.80	0.63
1:M:253:ASN:ND2	1:M:375:GLN:OE1	2.31	0.63
1:N:338:THR:O	1:P:320:GLN:NE2	2.30	0.63
1:K:358:ALA:HB1	1:R:442:TYR:CZ	2.33	0.63
1:R:487:GLN:HB3	1:R:537:MET:HE3	1.80	0.63
1:S:336:ASN:ND2	1:S:339:SER:HB2	2.12	0.63
1:A:590:ASP:HB2	1:A:591:PRO:HA	1.80	0.63
1:F:475:PRO:HA	1:I:519:ASN:HB3	1.79	0.63
1:G:269:ASN:HA	1:G:272:HIS:CD2	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:225:SER:HB3	1:G:318:ASN:H	1.62	0.63
1:S:269:ASN:HA	1:S:272:HIS:CD2	2.32	0.63
1:S:590:ASP:HB2	1:S:591:PRO:HA	1.80	0.63
1:C:553:THR:HG23	1:C:557:ASN:HB2	1.79	0.63
1:D:487:GLN:HB3	1:D:537:MET:HE3	1.80	0.63
1:E:487:GLN:HB3	1:E:537:MET:HE3	1.80	0.63
1:I:442:TYR:CZ	1:P:358:ALA:HB1	2.34	0.63
1:O:225:SER:HB3	1:O:318:ASN:H	1.62	0.63
1:O:336:ASN:ND2	1:O:339:SER:HB2	2.13	0.63
1:F:336:ASN:ND2	1:F:339:SER:HB2	2.12	0.63
1:F:423:SER:OG	1:I:626:ASP:OD1	2.15	0.63
1:G:630:HIS:O	1:G:632:SER:N	2.25	0.63
1:L:253:ASN:ND2	1:L:375:GLN:OE1	2.31	0.63
1:E:367:PRO:HB2	1:P:397:GLU:HB2	1.80	0.63
1:A:487:GLN:HB3	1:A:537:MET:HE3	1.79	0.63
1:J:401:SER:OG	1:L:228:TRP:HB3	1.98	0.63
1:P:272:HIS:HD1	1:P:385:SER:HG	1.43	0.63
1:S:487:GLN:HB3	1:S:537:MET:HE3	1.80	0.63
1:A:262:SER:O	1:A:265:THR:HG22	1.99	0.63
1:C:262:SER:O	1:C:265:THR:HG22	1.99	0.63
1:K:336:ASN:ND2	1:K:339:SER:HB2	2.14	0.63
1:S:553:THR:HG23	1:S:557:ASN:HB2	1.79	0.63
1:A:336:ASN:ND2	1:A:339:SER:HB2	2.13	0.63
1:E:225:SER:HB3	1:E:318:ASN:H	1.62	0.63
1:J:590:ASP:HB2	1:J:591:PRO:HA	1.80	0.63
1:J:707:LYS:HG2	1:R:386:GLN:CD	2.18	0.63
1:O:590:ASP:HB2	1:O:591:PRO:HA	1.80	0.63
1:A:451:ASN:HB2	1:A:460:ASP:HB3	1.81	0.63
1:D:336:ASN:ND2	1:D:339:SER:HB2	2.13	0.63
1:F:498:ASN:O	1:F:499:SER:OG	2.12	0.63
1:K:498:ASN:O	1:K:499:SER:OG	2.13	0.63
1:P:262:SER:O	1:P:265:THR:HG22	1.99	0.63
1:P:590:ASP:HB2	1:P:591:PRO:HA	1.80	0.63
1:Q:225:SER:HB3	1:Q:318:ASN:H	1.62	0.63
1:Q:553:THR:HG23	1:Q:557:ASN:HB2	1.79	0.63
1:A:269:ASN:HA	1:A:272:HIS:CD2	2.33	0.63
1:L:336:ASN:ND2	1:L:339:SER:HB2	2.14	0.63
1:M:498:ASN:O	1:M:499:SER:OG	2.13	0.63
1:F:262:SER:O	1:F:265:THR:HG22	1.99	0.62
1:G:451:ASN:HB2	1:G:460:ASP:HB3	1.81	0.62
1:G:498:ASN:O	1:G:499:SER:OG	2.13	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:399:PHE:CZ	1:G:693:LYS:HD3	2.34	0.62
1:H:553:THR:HG23	1:H:557:ASN:HB2	1.79	0.62
1:L:590:ASP:HB2	1:L:591:PRO:HA	1.80	0.62
1:N:498:ASN:O	1:N:499:SER:OG	2.13	0.62
1:P:451:ASN:HB2	1:P:460:ASP:HB3	1.81	0.62
1:Q:262:SER:O	1:Q:265:THR:HG22	1.99	0.62
1:S:262:SER:O	1:S:265:THR:HG22	1.99	0.62
1:S:272:HIS:HD1	1:S:385:SER:HG	1.45	0.62
1:B:498:ASN:O	1:B:499:SER:OG	2.13	0.62
1:B:553:THR:HG23	1:B:557:ASN:HB2	1.80	0.62
1:E:344:PHE:CZ	1:E:648:LEU:HD12	2.34	0.62
1:J:451:ASN:HB2	1:J:460:ASP:HB3	1.81	0.62
1:M:262:SER:O	1:M:265:THR:HG22	1.99	0.62
1:M:397:GLU:HB2	1:T:367:PRO:HB2	1.81	0.62
1:N:225:SER:HB3	1:N:318:ASN:H	1.62	0.62
1:R:336:ASN:ND2	1:R:339:SER:HB2	2.13	0.62
1:T:262:SER:O	1:T:265:THR:HG22	1.99	0.62
1:O:693:LYS:HD3	1:T:399:PHE:CZ	2.34	0.62
1:E:590:ASP:HB2	1:E:591:PRO:HA	1.80	0.62
1:F:451:ASN:HB2	1:F:460:ASP:HB3	1.82	0.62
1:I:336:ASN:ND2	1:I:339:SER:HB2	2.14	0.62
1:J:262:SER:O	1:J:265:THR:HG22	1.99	0.62
1:J:336:ASN:ND2	1:J:339:SER:HB2	2.14	0.62
1:K:272:HIS:HD1	1:K:385:SER:HG	1.47	0.62
1:T:553:THR:HG23	1:T:557:ASN:HB2	1.80	0.62
1:B:272:HIS:HD1	1:B:385:SER:HG	1.45	0.62
1:C:336:ASN:ND2	1:C:339:SER:HB2	2.13	0.62
1:C:344:PHE:CZ	1:C:648:LEU:HD12	2.34	0.62
1:D:262:SER:O	1:D:265:THR:HG22	1.99	0.62
1:H:262:SER:O	1:H:265:THR:HG22	1.99	0.62
1:H:693:LYS:HD3	1:N:399:PHE:CZ	2.34	0.62
1:I:487:GLN:HB3	1:I:537:MET:HE3	1.80	0.62
1:L:344:PHE:CZ	1:L:648:LEU:HD12	2.35	0.62
1:L:498:ASN:O	1:L:499:SER:OG	2.12	0.62
1:N:693:LYS:HD3	1:Q:399:PHE:CZ	2.34	0.62
1:B:630:HIS:O	1:B:632:SER:N	2.25	0.62
1:D:451:ASN:HB2	1:D:460:ASP:HB3	1.81	0.62
1:G:336:ASN:ND2	1:G:339:SER:HB2	2.13	0.62
1:G:344:PHE:CZ	1:G:648:LEU:HD12	2.35	0.62
1:D:397:GLU:HB2	1:I:367:PRO:HB2	1.81	0.62
1:M:336:ASN:ND2	1:M:339:SER:HB2	2.13	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:262:SER:O	1:O:265:THR:HG22	1.99	0.62
1:D:344:PHE:CZ	1:D:648:LEU:HD12	2.34	0.62
1:F:519:ASN:HB3	1:P:475:PRO:HA	1.80	0.62
1:B:397:GLU:HB2	1:N:367:PRO:HB2	1.82	0.62
1:Q:367:PRO:HB2	1:T:397:GLU:HB2	1.82	0.62
1:T:336:ASN:ND2	1:T:339:SER:HB2	2.13	0.62
1:D:379:LEU:HD13	1:E:433:ARG:HG3	1.79	0.62
1:I:475:PRO:HA	1:P:519:ASN:HB3	1.81	0.62
1:D:320:GLN:NE2	1:L:338:THR:O	2.32	0.62
1:N:336:ASN:ND2	1:N:339:SER:HB2	2.13	0.62
1:R:262:SER:O	1:R:265:THR:HG22	2.00	0.62
1:B:626:ASP:OD1	1:G:423:SER:OG	2.16	0.62
1:H:475:PRO:HA	1:N:519:ASN:HB3	1.81	0.62
1:I:262:SER:O	1:I:265:THR:HG22	2.00	0.62
1:N:451:ASN:HB2	1:N:460:ASP:HB3	1.82	0.62
1:H:397:GLU:HG3	1:O:368:ALA:HB2	1.80	0.62
1:S:344:PHE:CZ	1:S:648:LEU:HD12	2.35	0.62
1:O:433:ARG:HG3	1:T:379:LEU:HD13	1.80	0.62
1:A:344:PHE:CZ	1:A:648:LEU:HD12	2.35	0.62
1:D:358:ALA:HB1	1:E:442:TYR:CZ	2.34	0.62
1:E:451:ASN:HB2	1:E:460:ASP:HB3	1.82	0.62
1:L:451:ASN:HB2	1:L:460:ASP:HB3	1.82	0.62
1:O:630:HIS:O	1:O:632:SER:N	2.25	0.62
1:Q:590:ASP:HB2	1:Q:591:PRO:HA	1.79	0.62
1:R:630:HIS:O	1:R:632:SER:N	2.25	0.62
1:B:367:PRO:HB2	1:C:397:GLU:HB2	1.82	0.62
1:K:626:ASP:OD1	1:R:423:SER:OG	2.17	0.62
1:S:451:ASN:HB2	1:S:460:ASP:HB3	1.82	0.62
1:B:368:ALA:HB2	1:C:397:GLU:HG3	1.80	0.61
1:C:320:GLN:NE2	1:E:338:THR:O	2.33	0.61
1:I:344:PHE:CZ	1:I:648:LEU:HD12	2.35	0.61
1:J:344:PHE:CZ	1:J:648:LEU:HD12	2.34	0.61
1:N:442:TYR:CZ	1:Q:358:ALA:HB1	2.35	0.61
1:T:451:ASN:HB2	1:T:460:ASP:HB3	1.81	0.61
1:N:344:PHE:CZ	1:N:648:LEU:HD12	2.35	0.61
1:P:344:PHE:CZ	1:P:648:LEU:HD12	2.35	0.61
1:Q:344:PHE:CZ	1:Q:648:LEU:HD12	2.35	0.61
1:R:451:ASN:HB2	1:R:460:ASP:HB3	1.81	0.61
1:T:344:PHE:CZ	1:T:648:LEU:HD12	2.35	0.61
1:C:451:ASN:HB2	1:C:460:ASP:HB3	1.82	0.61
1:F:693:LYS:HD3	1:I:399:PHE:CZ	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:630:HIS:O	1:I:632:SER:N	2.24	0.61
1:Q:336:ASN:ND2	1:Q:339:SER:HB2	2.14	0.61
1:I:451:ASN:HB2	1:I:460:ASP:HB3	1.82	0.61
1:M:451:ASN:HB2	1:M:460:ASP:HB3	1.81	0.61
1:B:487:GLN:HB3	1:B:537:MET:HE3	1.81	0.61
1:C:630:HIS:O	1:C:632:SER:N	2.25	0.61
1:C:367:PRO:HB2	1:E:397:GLU:HB2	1.82	0.61
1:K:344:PHE:CZ	1:K:648:LEU:HD12	2.35	0.61
1:J:388:VAL:HG12	1:L:705:TYR:O	2.01	0.61
1:G:367:PRO:HB2	1:Q:397:GLU:HB2	1.81	0.61
1:Q:498:ASN:O	1:Q:499:SER:OG	2.12	0.61
1:K:262:SER:O	1:K:265:THR:HG22	2.00	0.61
1:O:451:ASN:HB2	1:O:460:ASP:HB3	1.81	0.61
1:B:397:GLU:HG3	1:N:368:ALA:HB2	1.82	0.61
1:F:344:PHE:CZ	1:F:648:LEU:HD12	2.35	0.61
1:H:344:PHE:CZ	1:H:648:LEU:HD12	2.36	0.61
1:L:262:SER:O	1:L:265:THR:HG22	2.00	0.61
1:D:367:PRO:HB2	1:L:397:GLU:HB2	1.82	0.61
1:O:344:PHE:CZ	1:O:648:LEU:HD12	2.35	0.61
1:R:344:PHE:CZ	1:R:648:LEU:HD12	2.35	0.61
1:G:262:SER:O	1:G:265:THR:HG22	2.00	0.61
1:F:320:GLN:NE2	1:K:338:THR:O	2.33	0.61
1:D:368:ALA:HB2	1:L:397:GLU:HG3	1.83	0.61
1:N:262:SER:O	1:N:265:THR:HG22	2.01	0.61
1:Q:451:ASN:HB2	1:Q:460:ASP:HB3	1.82	0.61
1:A:498:ASN:O	1:A:499:SER:OG	2.13	0.60
1:B:262:SER:O	1:B:265:THR:HG22	2.00	0.60
1:B:338:THR:O	1:N:320:GLN:NE2	2.33	0.60
1:F:626:ASP:OD1	1:P:423:SER:OG	2.16	0.60
1:A:367:PRO:HB2	1:G:397:GLU:HB2	1.83	0.60
1:H:272:HIS:HD1	1:H:385:SER:HG	1.48	0.60
1:J:630:HIS:O	1:J:632:SER:N	2.25	0.60
1:M:344:PHE:CZ	1:M:648:LEU:HD12	2.35	0.60
1:P:630:HIS:O	1:P:632:SER:N	2.25	0.60
1:O:423:SER:OG	1:T:626:ASP:OD1	2.14	0.60
1:B:451:ASN:HB2	1:B:460:ASP:HB3	1.82	0.60
1:E:262:SER:O	1:E:265:THR:HG22	2.00	0.60
1:G:272:HIS:HD1	1:G:385:SER:HG	1.49	0.60
1:H:399:PHE:CZ	1:Q:693:LYS:HD3	2.36	0.60
1:H:451:ASN:HB2	1:H:460:ASP:HB3	1.82	0.60
1:J:272:HIS:HD1	1:J:385:SER:HG	1.47	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:397:GLU:HG3	1:L:368:ALA:HB2	1.83	0.60
1:R:272:HIS:HD1	1:R:385:SER:HG	1.46	0.60
1:B:344:PHE:CZ	1:B:648:LEU:HD12	2.35	0.60
1:J:654:VAL:HG13	1:L:676:THR:HG21	1.84	0.60
1:K:520:PRO:HB3	1:K:610:ARG:CZ	2.31	0.60
1:F:397:GLU:HG3	1:H:368:ALA:HB2	1.83	0.60
1:B:358:ALA:HB1	1:G:442:TYR:CZ	2.36	0.60
1:F:442:TYR:CZ	1:I:358:ALA:HB1	2.36	0.60
1:K:451:ASN:HB2	1:K:460:ASP:HB3	1.82	0.60
1:A:397:GLU:HB2	1:M:367:PRO:HB2	1.83	0.60
1:H:442:TYR:CZ	1:N:358:ALA:HB1	2.37	0.60
1:A:520:PRO:HB3	1:A:610:ARG:CZ	2.32	0.60
1:B:520:PRO:HB3	1:B:610:ARG:CZ	2.32	0.60
1:C:520:PRO:HB3	1:C:610:ARG:CZ	2.32	0.60
1:F:397:GLU:HB2	1:H:367:PRO:HB2	1.84	0.60
1:K:322:LYS:HE2	1:K:335:ASN:ND2	2.17	0.60
1:L:566:ILE:HD11	1:L:730:ARG:NH1	2.17	0.60
1:N:520:PRO:HB3	1:N:610:ARG:CZ	2.32	0.60
1:O:322:LYS:HE2	1:O:335:ASN:ND2	2.17	0.60
1:P:520:PRO:HB3	1:P:610:ARG:CZ	2.32	0.60
1:A:368:ALA:HB2	1:G:397:GLU:HG3	1.84	0.59
1:P:566:ILE:HD11	1:P:730:ARG:NH1	2.17	0.59
1:R:520:PRO:HB3	1:R:610:ARG:CZ	2.32	0.59
1:E:520:PRO:HB3	1:E:610:ARG:CZ	2.32	0.59
1:R:322:LYS:HE2	1:R:335:ASN:ND2	2.17	0.59
1:D:377:GLY:HA3	1:E:438:LEU:HD13	1.84	0.59
1:E:322:LYS:HE2	1:E:335:ASN:ND2	2.18	0.59
1:C:368:ALA:HB2	1:E:397:GLU:HG3	1.84	0.59
1:D:399:PHE:CZ	1:E:693:LYS:HD3	2.37	0.59
1:M:322:LYS:HE2	1:M:335:ASN:ND2	2.17	0.59
1:T:520:PRO:HB3	1:T:610:ARG:CZ	2.32	0.59
1:D:520:PRO:HB3	1:D:610:ARG:CZ	2.33	0.59
1:G:520:PRO:HB3	1:G:610:ARG:CZ	2.31	0.59
1:H:520:PRO:HB3	1:H:610:ARG:CZ	2.33	0.59
1:I:272:HIS:HD1	1:I:385:SER:HG	1.48	0.59
1:L:520:PRO:HB3	1:L:610:ARG:CZ	2.31	0.59
1:N:322:LYS:HE2	1:N:335:ASN:ND2	2.18	0.59
1:O:520:PRO:HB3	1:O:610:ARG:CZ	2.32	0.59
1:H:626:ASP:OD1	1:Q:423:SER:OG	2.15	0.59
1:D:397:GLU:HG3	1:I:368:ALA:HB2	1.84	0.59
1:J:322:LYS:HE2	1:J:335:ASN:ND2	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:498:ASN:O	1:J:499:SER:OG	2.12	0.59
1:M:520:PRO:HB3	1:M:610:ARG:CZ	2.32	0.59
1:M:397:GLU:HG3	1:T:368:ALA:HB2	1.83	0.59
1:A:272:HIS:HD1	1:A:385:SER:HG	1.45	0.59
1:B:566:ILE:HD11	1:B:730:ARG:NH1	2.18	0.59
1:E:368:ALA:HB2	1:P:397:GLU:HG3	1.84	0.59
1:I:520:PRO:HB3	1:I:610:ARG:CZ	2.32	0.59
1:P:322:LYS:HE2	1:P:335:ASN:ND2	2.18	0.59
1:Q:322:LYS:HE2	1:Q:335:ASN:ND2	2.18	0.59
1:Q:368:ALA:HB2	1:T:397:GLU:HG3	1.84	0.59
1:K:367:PRO:HB2	1:S:397:GLU:HB2	1.84	0.59
1:H:566:ILE:HD11	1:H:730:ARG:NH1	2.18	0.59
1:J:322:LYS:HE2	1:J:335:ASN:HD21	1.67	0.59
1:I:423:SER:OG	1:P:626:ASP:OD1	2.19	0.59
1:Q:520:PRO:HB3	1:Q:610:ARG:CZ	2.32	0.59
1:F:566:ILE:HD11	1:F:730:ARG:NH1	2.18	0.59
1:S:520:PRO:HB3	1:S:610:ARG:CZ	2.33	0.59
1:A:322:LYS:HE2	1:A:335:ASN:ND2	2.18	0.59
1:A:397:GLU:HG3	1:M:368:ALA:HB2	1.85	0.59
1:D:626:ASP:OD1	1:E:423:SER:OG	2.18	0.59
1:F:520:PRO:HB3	1:F:610:ARG:CZ	2.33	0.59
1:J:520:PRO:HB3	1:J:610:ARG:CZ	2.32	0.59
1:K:566:ILE:HD11	1:K:730:ARG:NH1	2.18	0.59
1:N:322:LYS:HE2	1:N:335:ASN:HD21	1.68	0.59
1:N:566:ILE:HD11	1:N:730:ARG:NH1	2.18	0.59
1:S:322:LYS:HE2	1:S:335:ASN:ND2	2.18	0.59
1:C:288:PHE:HE1	1:C:612:VAL:HB	1.68	0.58
1:I:322:LYS:HE2	1:I:335:ASN:ND2	2.18	0.58
1:I:566:ILE:HD11	1:I:730:ARG:NH1	2.18	0.58
1:O:322:LYS:HE2	1:O:335:ASN:HD21	1.68	0.58
1:H:598:VAL:HG21	1:Q:599:MET:HE1	1.85	0.58
1:Q:566:ILE:HD11	1:Q:730:ARG:NH1	2.18	0.58
1:R:288:PHE:HE1	1:R:612:VAL:HB	1.68	0.58
1:B:322:LYS:HE2	1:B:335:ASN:ND2	2.18	0.58
1:H:338:THR:O	1:O:320:GLN:NE2	2.35	0.58
1:M:322:LYS:HE2	1:M:335:ASN:HD21	1.68	0.58
1:Q:288:PHE:HE1	1:Q:612:VAL:HB	1.68	0.58
1:B:320:GLN:NE2	1:C:338:THR:O	2.34	0.58
1:G:288:PHE:HE1	1:G:612:VAL:HB	1.69	0.58
1:K:262:SER:OG	1:K:385:SER:OG	2.19	0.58
1:P:322:LYS:HE2	1:P:335:ASN:HD21	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:262:SER:OG	1:Q:385:SER:OG	2.19	0.58
1:A:566:ILE:HD11	1:A:730:ARG:NH1	2.18	0.58
1:C:566:ILE:HD11	1:C:730:ARG:NH1	2.19	0.58
1:E:288:PHE:HE1	1:E:612:VAL:HB	1.69	0.58
1:H:288:PHE:HE1	1:H:612:VAL:HB	1.68	0.58
1:M:262:SER:OG	1:M:385:SER:OG	2.18	0.58
1:I:693:LYS:HD3	1:P:399:PHE:CZ	2.38	0.58
1:T:566:ILE:HD11	1:T:730:ARG:NH1	2.18	0.58
1:E:322:LYS:HE2	1:E:335:ASN:HD21	1.68	0.58
1:K:288:PHE:HE1	1:K:612:VAL:HB	1.69	0.58
1:L:322:LYS:HE2	1:L:335:ASN:ND2	2.18	0.58
1:R:322:LYS:HE2	1:R:335:ASN:HD21	1.68	0.58
1:B:288:PHE:HE1	1:B:612:VAL:HB	1.69	0.58
1:E:566:ILE:HD11	1:E:730:ARG:NH1	2.18	0.58
1:J:566:ILE:HD11	1:J:730:ARG:NH1	2.18	0.58
1:O:288:PHE:HE1	1:O:612:VAL:HB	1.68	0.58
1:A:322:LYS:HE2	1:A:335:ASN:HD21	1.69	0.58
1:B:322:LYS:HE2	1:B:335:ASN:HD21	1.68	0.58
1:J:288:PHE:HE1	1:J:612:VAL:HB	1.68	0.58
1:O:566:ILE:HD11	1:O:730:ARG:NH1	2.19	0.58
1:F:358:ALA:HB1	1:P:442:TYR:CZ	2.37	0.58
1:S:566:ILE:HD11	1:S:730:ARG:NH1	2.19	0.58
1:F:338:THR:O	1:H:320:GLN:NE2	2.35	0.58
1:G:322:LYS:HE2	1:G:335:ASN:ND2	2.19	0.58
1:I:322:LYS:HE2	1:I:335:ASN:HD21	1.69	0.58
1:I:438:LEU:HD13	1:P:377:GLY:HA3	1.85	0.58
1:S:288:PHE:HE1	1:S:612:VAL:HB	1.69	0.58
1:H:322:LYS:HE2	1:H:335:ASN:ND2	2.19	0.58
1:I:508:LYS:HA	1:I:518:ILE:HG13	1.86	0.58
1:R:566:ILE:HD11	1:R:730:ARG:NH1	2.19	0.58
1:S:527:HIS:NE2	1:S:562:ASP:OD2	2.36	0.58
1:C:322:LYS:HE2	1:C:335:ASN:HD21	1.69	0.58
1:F:527:HIS:NE2	1:F:562:ASP:OD2	2.36	0.58
1:J:338:THR:O	1:L:320:GLN:HG2	2.04	0.58
1:K:508:LYS:HA	1:K:518:ILE:HG13	1.86	0.58
1:K:559:MET:SD	1:K:725:ARG:HA	2.44	0.58
1:L:322:LYS:HE2	1:L:335:ASN:HD21	1.69	0.58
1:T:322:LYS:HE2	1:T:335:ASN:ND2	2.18	0.58
1:T:508:LYS:HA	1:T:518:ILE:HG13	1.85	0.58
1:O:599:MET:HE1	1:T:598:VAL:HG21	1.84	0.58
1:C:322:LYS:HE2	1:C:335:ASN:ND2	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:288:PHE:HE1	1:D:612:VAL:HB	1.68	0.57
1:D:527:HIS:NE2	1:D:562:ASP:OD2	2.36	0.57
1:D:566:ILE:HD11	1:D:730:ARG:NH1	2.19	0.57
1:K:322:LYS:HE2	1:K:335:ASN:HD21	1.68	0.57
1:O:508:LYS:HA	1:O:518:ILE:HG13	1.85	0.57
1:Q:322:LYS:HE2	1:Q:335:ASN:HD21	1.68	0.57
1:C:527:HIS:NE2	1:C:562:ASP:OD2	2.35	0.57
1:D:322:LYS:HE2	1:D:335:ASN:HD21	1.69	0.57
1:D:559:MET:SD	1:D:725:ARG:HA	2.45	0.57
1:H:438:LEU:HD13	1:N:377:GLY:HA3	1.86	0.57
1:A:508:LYS:HA	1:A:518:ILE:HG13	1.86	0.57
1:F:508:LYS:HA	1:F:518:ILE:HG13	1.86	0.57
1:G:322:LYS:HE2	1:G:335:ASN:HD21	1.70	0.57
1:I:262:SER:OG	1:I:385:SER:OG	2.18	0.57
1:I:559:MET:SD	1:I:725:ARG:HA	2.44	0.57
1:L:288:PHE:HE1	1:L:612:VAL:HB	1.69	0.57
1:T:322:LYS:HE2	1:T:335:ASN:HD21	1.69	0.57
1:T:288:PHE:HE1	1:T:612:VAL:HB	1.68	0.57
1:B:559:MET:SD	1:B:725:ARG:HA	2.44	0.57
1:E:559:MET:SD	1:E:725:ARG:HA	2.44	0.57
1:G:262:SER:OG	1:G:385:SER:OG	2.18	0.57
1:L:559:MET:SD	1:L:725:ARG:HA	2.45	0.57
1:M:559:MET:SD	1:M:725:ARG:HA	2.45	0.57
1:N:288:PHE:HE1	1:N:612:VAL:HB	1.68	0.57
1:O:397:GLU:HB2	1:S:367:PRO:HB2	1.85	0.57
1:J:259:GLN:HB2	1:L:715:VAL:O	2.05	0.57
1:J:725:ARG:HB2	1:J:726:PRO:HD2	1.87	0.57
1:L:508:LYS:HA	1:L:518:ILE:HG13	1.86	0.57
1:M:288:PHE:HE1	1:M:612:VAL:HB	1.69	0.57
1:R:249:LEU:HD13	1:R:373:ILE:HB	1.87	0.57
1:D:322:LYS:HE2	1:D:335:ASN:ND2	2.18	0.57
1:D:508:LYS:HA	1:D:518:ILE:HG13	1.86	0.57
1:E:249:LEU:HD13	1:E:373:ILE:HB	1.87	0.57
1:F:599:MET:HE1	1:I:598:VAL:HG21	1.87	0.57
1:R:559:MET:SD	1:R:725:ARG:HA	2.45	0.57
1:M:249:LEU:HD13	1:M:373:ILE:HB	1.87	0.57
1:M:566:ILE:HD11	1:M:730:ARG:NH1	2.18	0.57
1:B:508:LYS:HA	1:B:518:ILE:HG13	1.86	0.57
1:F:322:LYS:HE2	1:F:335:ASN:ND2	2.19	0.57
1:H:322:LYS:HE2	1:H:335:ASN:HD21	1.70	0.57
1:H:377:GLY:HA3	1:Q:438:LEU:HD13	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:438:LEU:HD13	1:T:377:GLY:HA3	1.87	0.57
1:K:368:ALA:HB2	1:S:397:GLU:HG3	1.87	0.57
1:E:508:LYS:HA	1:E:518:ILE:HG13	1.86	0.57
1:G:725:ARG:HB2	1:G:726:PRO:HD2	1.87	0.57
1:J:559:MET:SD	1:J:725:ARG:HA	2.45	0.57
1:Q:559:MET:SD	1:Q:725:ARG:HA	2.45	0.57
1:S:262:SER:OG	1:S:385:SER:OG	2.19	0.57
1:F:368:ALA:HB2	1:K:397:GLU:HG3	1.85	0.57
1:F:559:MET:SD	1:F:725:ARG:HA	2.45	0.57
1:G:559:MET:SD	1:G:725:ARG:HA	2.44	0.57
1:L:249:LEU:HD13	1:L:373:ILE:HB	1.86	0.57
1:M:527:HIS:NE2	1:M:562:ASP:OD2	2.36	0.57
1:G:368:ALA:HB2	1:Q:397:GLU:HG3	1.87	0.57
1:A:288:PHE:HE1	1:A:612:VAL:HB	1.68	0.56
1:A:725:ARG:HB2	1:A:726:PRO:HD2	1.87	0.56
1:B:249:LEU:HD13	1:B:373:ILE:HB	1.87	0.56
1:C:498:ASN:O	1:C:499:SER:OG	2.13	0.56
1:G:566:ILE:HD11	1:G:730:ARG:NH1	2.19	0.56
1:I:338:THR:O	1:R:320:GLN:NE2	2.31	0.56
1:K:249:LEU:HD13	1:K:373:ILE:HB	1.87	0.56
1:P:249:LEU:HD13	1:P:373:ILE:HB	1.87	0.56
1:O:397:GLU:HG3	1:S:368:ALA:HB2	1.87	0.56
1:B:377:GLY:HA3	1:G:438:LEU:HD13	1.87	0.56
1:E:272:HIS:HD1	1:E:385:SER:HG	1.50	0.56
1:F:288:PHE:HE1	1:F:612:VAL:HB	1.69	0.56
1:K:527:HIS:NE2	1:K:562:ASP:OD2	2.36	0.56
1:L:262:SER:OG	1:L:385:SER:OG	2.18	0.56
1:M:508:LYS:HA	1:M:518:ILE:HG13	1.86	0.56
1:T:559:MET:SD	1:T:725:ARG:HA	2.45	0.56
1:E:315:LYS:HB2	1:E:680:SER:HB2	1.87	0.56
1:I:288:PHE:HE1	1:I:612:VAL:HB	1.69	0.56
1:Q:508:LYS:HA	1:Q:518:ILE:HG13	1.87	0.56
1:S:249:LEU:HD13	1:S:373:ILE:HB	1.87	0.56
1:C:249:LEU:HD13	1:C:373:ILE:HB	1.86	0.56
1:G:508:LYS:HA	1:G:518:ILE:HG13	1.86	0.56
1:H:508:LYS:HA	1:H:518:ILE:HG13	1.86	0.56
1:I:249:LEU:HD13	1:I:373:ILE:HB	1.88	0.56
1:O:559:MET:SD	1:O:725:ARG:HA	2.45	0.56
1:N:397:GLU:HB2	1:P:367:PRO:HB2	1.86	0.56
1:P:288:PHE:HE1	1:P:612:VAL:HB	1.68	0.56
1:S:725:ARG:HB2	1:S:726:PRO:HD2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:527:HIS:NE2	1:B:562:ASP:OD2	2.37	0.56
1:D:725:ARG:HB2	1:D:726:PRO:HD2	1.87	0.56
1:H:559:MET:SD	1:H:725:ARG:HA	2.45	0.56
1:H:725:ARG:HB2	1:H:726:PRO:HD2	1.86	0.56
1:K:725:ARG:HB2	1:K:726:PRO:HD2	1.87	0.56
1:N:559:MET:SD	1:N:725:ARG:HA	2.46	0.56
1:I:599:MET:HE1	1:P:598:VAL:HG21	1.87	0.56
1:R:508:LYS:HA	1:R:518:ILE:HG13	1.87	0.56
1:S:559:MET:SD	1:S:725:ARG:HA	2.45	0.56
1:A:249:LEU:HD13	1:A:373:ILE:HB	1.87	0.56
1:D:431:LEU:HD21	1:D:478:TRP:HB2	1.87	0.56
1:E:546:GLU:HG2	1:E:722:THR:HG22	1.87	0.56
1:J:431:LEU:HD21	1:J:478:TRP:HB2	1.88	0.56
1:N:508:LYS:HA	1:N:518:ILE:HG13	1.87	0.56
1:O:249:LEU:HD13	1:O:373:ILE:HB	1.87	0.56
1:N:599:MET:HE1	1:Q:598:VAL:HG21	1.87	0.56
1:J:372:MET:SD	1:R:659:PRO:HD2	2.46	0.56
1:S:322:LYS:HE2	1:S:335:ASN:HD21	1.69	0.56
1:C:508:LYS:HA	1:C:518:ILE:HG13	1.86	0.56
1:E:725:ARG:HB2	1:E:726:PRO:HD2	1.87	0.56
1:J:249:LEU:HD13	1:J:373:ILE:HB	1.87	0.56
1:J:370:VAL:HG11	1:R:655:PRO:HG3	1.88	0.56
1:L:315:LYS:HB2	1:L:680:SER:HB2	1.88	0.56
1:T:249:LEU:HD13	1:T:373:ILE:HB	1.87	0.56
1:T:431:LEU:HD21	1:T:478:TRP:HB2	1.88	0.56
1:D:598:VAL:HG21	1:E:599:MET:HE1	1.86	0.56
1:I:315:LYS:HB2	1:I:680:SER:HB2	1.88	0.56
1:J:508:LYS:HA	1:J:518:ILE:HG13	1.87	0.56
1:N:249:LEU:HD13	1:N:373:ILE:HB	1.88	0.56
1:N:431:LEU:HD21	1:N:478:TRP:HB2	1.88	0.56
1:N:725:ARG:HB2	1:N:726:PRO:HD2	1.87	0.56
1:S:441:GLN:OE1	1:S:475:PRO:HD2	2.06	0.56
1:A:546:GLU:HG2	1:A:722:THR:HG22	1.88	0.56
1:B:431:LEU:HD21	1:B:478:TRP:HB2	1.88	0.56
1:C:431:LEU:HD21	1:C:478:TRP:HB2	1.88	0.56
1:H:249:LEU:HD13	1:H:373:ILE:HB	1.87	0.56
1:J:664:ALA:HB2	1:L:360:GLN:CD	2.25	0.56
1:K:431:LEU:HD21	1:K:478:TRP:HB2	1.88	0.56
1:H:472:SER:HB3	1:N:270:ASP:O	2.06	0.56
1:O:262:SER:OG	1:O:385:SER:OG	2.18	0.56
1:R:725:ARG:HB2	1:R:726:PRO:HD2	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:508:LYS:HA	1:S:518:ILE:HG13	1.87	0.56
1:B:725:ARG:HB2	1:B:726:PRO:HD2	1.87	0.56
1:D:249:LEU:HD13	1:D:373:ILE:HB	1.87	0.56
1:D:441:GLN:OE1	1:D:475:PRO:HD2	2.06	0.56
1:F:497:ASN:OD1	1:F:498:ASN:N	2.39	0.56
1:H:431:LEU:HD21	1:H:478:TRP:HB2	1.88	0.56
1:J:370:VAL:HG11	1:R:655:PRO:CG	2.35	0.56
1:O:431:LEU:HD21	1:O:478:TRP:HB2	1.88	0.56
1:T:725:ARG:HB2	1:T:726:PRO:HD2	1.88	0.56
1:A:559:MET:SD	1:A:725:ARG:HA	2.46	0.56
1:D:300:LEU:HD21	1:D:307:PHE:CD2	2.41	0.56
1:F:322:LYS:HE2	1:F:335:ASN:HD21	1.69	0.56
1:F:249:LEU:HD13	1:F:373:ILE:HB	1.87	0.56
1:I:441:GLN:OE1	1:I:475:PRO:HD2	2.06	0.56
1:J:527:HIS:NE2	1:J:562:ASP:OD2	2.36	0.56
1:M:725:ARG:HB2	1:M:726:PRO:HD2	1.87	0.56
1:N:527:HIS:NE2	1:N:562:ASP:OD2	2.36	0.56
1:O:300:LEU:HD21	1:O:307:PHE:CD2	2.41	0.56
1:O:472:SER:HB3	1:T:270:ASP:O	2.06	0.56
1:P:508:LYS:HA	1:P:518:ILE:HG13	1.87	0.56
1:G:320:GLN:NE2	1:Q:338:THR:O	2.36	0.56
1:R:300:LEU:HD21	1:R:307:PHE:CD2	2.41	0.56
1:C:559:MET:SD	1:C:725:ARG:HA	2.45	0.55
1:G:300:LEU:HD21	1:G:307:PHE:CD2	2.41	0.55
1:M:441:GLN:OE1	1:M:475:PRO:HD2	2.06	0.55
1:R:431:LEU:HD21	1:R:478:TRP:HB2	1.89	0.55
1:C:300:LEU:HD21	1:C:307:PHE:CD2	2.41	0.55
1:A:320:GLN:NE2	1:G:338:THR:O	2.35	0.55
1:H:300:LEU:HD21	1:H:307:PHE:CD2	2.41	0.55
1:H:566:ILE:HG23	1:H:608:GLN:HB2	1.89	0.55
1:I:300:LEU:HD21	1:I:307:PHE:CD2	2.42	0.55
1:K:300:LEU:HD21	1:K:307:PHE:CD2	2.41	0.55
1:L:725:ARG:HB2	1:L:726:PRO:HD2	1.87	0.55
1:O:441:GLN:OE1	1:O:475:PRO:HD2	2.06	0.55
1:Q:441:GLN:OE1	1:Q:475:PRO:HD2	2.06	0.55
1:H:270:ASP:O	1:Q:472:SER:HB3	2.06	0.55
1:Q:546:GLU:HG2	1:Q:722:THR:HG22	1.89	0.55
1:A:566:ILE:HG23	1:A:608:GLN:HB2	1.89	0.55
1:F:431:LEU:HD21	1:F:478:TRP:HB2	1.88	0.55
1:F:438:LEU:HD13	1:I:377:GLY:HA3	1.88	0.55
1:G:249:LEU:HD13	1:G:373:ILE:HB	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:431:LEU:HD21	1:G:478:TRP:HB2	1.88	0.55
1:G:441:GLN:OE1	1:G:475:PRO:HD2	2.06	0.55
1:I:546:GLU:HG2	1:I:722:THR:HG22	1.88	0.55
1:J:300:LEU:HD21	1:J:307:PHE:CD2	2.41	0.55
1:J:441:GLN:OE1	1:J:475:PRO:HD2	2.06	0.55
1:J:315:LYS:HB2	1:J:680:SER:HB2	1.88	0.55
1:K:441:GLN:OE1	1:K:475:PRO:HD2	2.07	0.55
1:M:546:GLU:HG2	1:M:722:THR:HG22	1.88	0.55
1:O:725:ARG:HB2	1:O:726:PRO:HD2	1.87	0.55
1:Q:249:LEU:HD13	1:Q:373:ILE:HB	1.88	0.55
1:Q:431:LEU:HD21	1:Q:478:TRP:HB2	1.88	0.55
1:B:315:LYS:HB2	1:B:680:SER:HB2	1.88	0.55
1:F:725:ARG:HB2	1:F:726:PRO:HD2	1.88	0.55
1:I:725:ARG:HB2	1:I:726:PRO:HD2	1.87	0.55
1:Q:497:ASN:OD1	1:Q:498:ASN:N	2.40	0.55
1:T:315:LYS:HB2	1:T:680:SER:HB2	1.88	0.55
1:E:441:GLN:OE1	1:E:475:PRO:HD2	2.06	0.55
1:N:315:LYS:HB2	1:N:680:SER:HB2	1.89	0.55
1:N:438:LEU:HD13	1:Q:377:GLY:HA3	1.88	0.55
1:P:441:GLN:OE1	1:P:475:PRO:HD2	2.07	0.55
1:A:300:LEU:HD21	1:A:307:PHE:CD2	2.42	0.55
1:A:441:GLN:OE1	1:A:475:PRO:HD2	2.07	0.55
1:C:441:GLN:OE1	1:C:475:PRO:HD2	2.06	0.55
1:C:519:ASN:CB	1:C:520:PRO:HD2	2.35	0.55
1:E:262:SER:OG	1:E:385:SER:OG	2.17	0.55
1:F:300:LEU:HD21	1:F:307:PHE:CD2	2.41	0.55
1:I:566:ILE:HG23	1:I:608:GLN:HB2	1.89	0.55
1:K:497:ASN:OD1	1:K:498:ASN:N	2.40	0.55
1:L:300:LEU:HD21	1:L:307:PHE:CD2	2.42	0.55
1:L:441:GLN:OE1	1:L:475:PRO:HD2	2.06	0.55
1:E:320:GLN:NE2	1:P:338:THR:O	2.35	0.55
1:Q:725:ARG:HB2	1:Q:726:PRO:HD2	1.87	0.55
1:Q:320:GLN:NE2	1:T:338:THR:O	2.38	0.55
1:D:519:ASN:CB	1:D:520:PRO:HD2	2.35	0.55
1:D:566:ILE:HG23	1:D:608:GLN:HB2	1.89	0.55
1:F:315:LYS:HB2	1:F:680:SER:HB2	1.87	0.55
1:H:441:GLN:OE1	1:H:475:PRO:HD2	2.07	0.55
1:I:527:HIS:NE2	1:I:562:ASP:OD2	2.37	0.55
1:L:546:GLU:HG2	1:L:722:THR:HG22	1.89	0.55
1:M:497:ASN:OD1	1:M:498:ASN:N	2.40	0.55
1:N:441:GLN:OE1	1:N:475:PRO:HD2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:315:LYS:HB2	1:O:680:SER:HB2	1.88	0.55
1:J:231:ASP:HB2	1:R:400:PRO:HG3	1.89	0.55
1:T:497:ASN:OD1	1:T:498:ASN:N	2.40	0.55
1:D:546:GLU:HG2	1:D:722:THR:HG22	1.88	0.55
1:O:566:ILE:HG23	1:O:608:GLN:HB2	1.89	0.55
1:I:472:SER:HB3	1:P:270:ASP:O	2.06	0.55
1:P:725:ARG:HB2	1:P:726:PRO:HD2	1.87	0.55
1:J:707:LYS:CG	1:R:386:GLN:CG	2.84	0.55
1:T:300:LEU:HD21	1:T:307:PHE:CD2	2.42	0.55
1:F:519:ASN:CB	1:F:520:PRO:HD2	2.35	0.55
1:N:300:LEU:HD21	1:N:307:PHE:CD2	2.41	0.55
1:N:497:ASN:OD1	1:N:498:ASN:N	2.40	0.55
1:P:300:LEU:HD21	1:P:307:PHE:CD2	2.41	0.55
1:P:559:MET:SD	1:P:725:ARG:HA	2.46	0.55
1:P:566:ILE:HG23	1:P:608:GLN:HB2	1.88	0.55
1:R:497:ASN:OD1	1:R:498:ASN:N	2.40	0.55
1:B:300:LEU:HD21	1:B:307:PHE:CD2	2.42	0.55
1:C:497:ASN:OD1	1:C:498:ASN:N	2.40	0.55
1:B:598:VAL:HG21	1:G:599:MET:HE1	1.88	0.55
1:H:497:ASN:OD1	1:H:498:ASN:N	2.40	0.55
1:L:497:ASN:OD1	1:L:498:ASN:N	2.40	0.55
1:Q:300:LEU:HD21	1:Q:307:PHE:CD2	2.42	0.55
1:R:441:GLN:OE1	1:R:475:PRO:HD2	2.06	0.55
1:S:300:LEU:HD21	1:S:307:PHE:CD2	2.41	0.55
1:B:262:SER:OG	1:B:385:SER:OG	2.19	0.54
1:B:566:ILE:HG23	1:B:608:GLN:HB2	1.89	0.54
1:F:441:GLN:OE1	1:F:475:PRO:HD2	2.06	0.54
1:F:566:ILE:HG23	1:F:608:GLN:HB2	1.90	0.54
1:G:566:ILE:HG23	1:G:608:GLN:HB2	1.89	0.54
1:K:519:ASN:CB	1:K:520:PRO:HD2	2.35	0.54
1:M:300:LEU:HD21	1:M:307:PHE:CD2	2.41	0.54
1:M:455:SER:O	1:M:457:GLN:N	2.39	0.54
1:N:546:GLU:HG2	1:N:722:THR:HG22	1.89	0.54
1:R:546:GLU:HG2	1:R:722:THR:HG22	1.89	0.54
1:R:566:ILE:HG23	1:R:608:GLN:HB2	1.89	0.54
1:S:431:LEU:HD21	1:S:478:TRP:HB2	1.88	0.54
1:M:431:LEU:HD21	1:M:478:TRP:HB2	1.88	0.54
1:Q:315:LYS:HB2	1:Q:680:SER:HB2	1.89	0.54
1:Q:272:HIS:HD1	1:Q:385:SER:HG	1.48	0.54
1:S:490:SER:HB3	1:S:496:ASN:OD1	2.07	0.54
1:A:431:LEU:HD21	1:A:478:TRP:HB2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:315:LYS:HB2	1:A:680:SER:HB2	1.88	0.54
1:C:546:GLU:HG2	1:C:722:THR:HG22	1.89	0.54
1:E:566:ILE:HG23	1:E:608:GLN:HB2	1.89	0.54
1:G:527:HIS:NE2	1:G:562:ASP:OD2	2.35	0.54
1:G:546:GLU:HG2	1:G:722:THR:HG22	1.88	0.54
1:H:527:HIS:NE2	1:H:562:ASP:OD2	2.37	0.54
1:I:431:LEU:HD21	1:I:478:TRP:HB2	1.89	0.54
1:I:519:ASN:CB	1:I:520:PRO:HD2	2.35	0.54
1:K:315:LYS:HB2	1:K:680:SER:HB2	1.89	0.54
1:O:497:ASN:OD1	1:O:498:ASN:N	2.41	0.54
1:Q:566:ILE:HG23	1:Q:608:GLN:HB2	1.89	0.54
1:K:270:ASP:O	1:R:472:SER:HB3	2.08	0.54
1:T:441:GLN:OE1	1:T:475:PRO:HD2	2.07	0.54
1:B:546:GLU:HG2	1:B:722:THR:HG22	1.89	0.54
1:C:490:SER:HB3	1:C:496:ASN:OD1	2.08	0.54
1:H:546:GLU:HG2	1:H:722:THR:HG22	1.89	0.54
1:J:455:SER:O	1:J:457:GLN:N	2.39	0.54
1:K:377:GLY:HA3	1:R:438:LEU:HD13	1.88	0.54
1:N:490:SER:HB3	1:N:496:ASN:OD1	2.08	0.54
1:P:490:SER:HB3	1:P:496:ASN:OD1	2.08	0.54
1:N:696:ASN:HD21	1:Q:393:PHE:H	1.55	0.54
1:K:399:PHE:CE2	1:R:693:LYS:HD3	2.42	0.54
1:S:545:LYS:O	1:S:547:SER:N	2.41	0.54
1:S:566:ILE:HG23	1:S:608:GLN:HB2	1.90	0.54
1:E:497:ASN:OD1	1:E:498:ASN:N	2.40	0.54
1:G:315:LYS:HB2	1:G:680:SER:HB2	1.88	0.54
1:I:455:SER:O	1:I:457:GLN:N	2.39	0.54
1:L:527:HIS:NE2	1:L:562:ASP:OD2	2.37	0.54
1:M:490:SER:HB3	1:M:496:ASN:OD1	2.08	0.54
1:H:696:ASN:HD21	1:N:393:PHE:H	1.53	0.54
1:P:366:PHE:CE2	1:P:368:ALA:HB3	2.43	0.54
1:T:262:SER:OG	1:T:385:SER:OG	2.18	0.54
1:F:270:ASP:O	1:P:472:SER:HB3	2.07	0.54
1:F:546:GLU:HG2	1:F:722:THR:HG22	1.89	0.54
1:J:262:SER:OG	1:J:385:SER:OG	2.18	0.54
1:J:566:ILE:HG23	1:J:608:GLN:HB2	1.88	0.54
1:K:546:GLU:HG2	1:K:722:THR:HG22	1.88	0.54
1:K:598:VAL:HG21	1:R:599:MET:HE1	1.88	0.54
1:M:366:PHE:CE2	1:M:368:ALA:HB3	2.43	0.54
1:T:566:ILE:HG23	1:T:608:GLN:HB2	1.89	0.54
1:A:366:PHE:CE2	1:A:368:ALA:HB3	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:497:ASN:OD1	1:A:498:ASN:N	2.40	0.54
1:B:490:SER:HB3	1:B:496:ASN:OD1	2.08	0.54
1:B:497:ASN:OD1	1:B:498:ASN:N	2.41	0.54
1:C:725:ARG:HB2	1:C:726:PRO:HD2	1.87	0.54
1:D:315:LYS:HB2	1:D:680:SER:HB2	1.88	0.54
1:D:626:ASP:OD1	1:E:608:GLN:NE2	2.41	0.54
1:G:497:ASN:OD1	1:G:498:ASN:N	2.40	0.54
1:J:366:PHE:CE2	1:J:368:ALA:HB3	2.43	0.54
1:J:257:TYR:HE1	1:L:368:ALA:HB2	1.73	0.54
1:P:455:SER:O	1:P:457:GLN:N	2.40	0.54
1:S:546:GLU:HG2	1:S:722:THR:HG22	1.89	0.54
1:C:566:ILE:HG23	1:C:608:GLN:HB2	1.89	0.54
1:D:497:ASN:OD1	1:D:498:ASN:N	2.40	0.54
1:F:393:PHE:H	1:P:696:ASN:HD21	1.52	0.54
1:F:545:LYS:O	1:F:547:SER:N	2.41	0.54
1:B:270:ASP:O	1:G:472:SER:HB3	2.07	0.54
1:I:497:ASN:OD1	1:I:498:ASN:N	2.40	0.54
1:J:497:ASN:OD1	1:J:498:ASN:N	2.41	0.54
1:N:366:PHE:CE2	1:N:368:ALA:HB3	2.43	0.54
1:Q:527:HIS:NE2	1:Q:562:ASP:OD2	2.36	0.54
1:R:366:PHE:CE2	1:R:368:ALA:HB3	2.43	0.54
1:A:485:ARG:NE	1:A:574:THR:O	2.41	0.54
1:A:490:SER:HB3	1:A:496:ASN:OD1	2.07	0.54
1:B:441:GLN:OE1	1:B:475:PRO:HD2	2.07	0.54
1:D:262:SER:OG	1:D:385:SER:OG	2.19	0.54
1:G:519:ASN:CB	1:G:520:PRO:HD2	2.35	0.54
1:H:315:LYS:HB2	1:H:680:SER:HB2	1.90	0.54
1:S:315:LYS:HB2	1:S:680:SER:HB2	1.89	0.54
1:S:497:ASN:OD1	1:S:498:ASN:N	2.41	0.54
1:P:431:LEU:HD21	1:P:478:TRP:HB2	1.88	0.54
1:P:546:GLU:HG2	1:P:722:THR:HG22	1.89	0.54
1:T:455:SER:O	1:T:457:GLN:N	2.39	0.54
1:C:366:PHE:CE2	1:C:368:ALA:HB3	2.44	0.53
1:E:431:LEU:HD21	1:E:478:TRP:HB2	1.88	0.53
1:K:566:ILE:HG23	1:K:608:GLN:HB2	1.89	0.53
1:L:431:LEU:HD21	1:L:478:TRP:HB2	1.88	0.53
1:M:519:ASN:CB	1:M:520:PRO:HD2	2.36	0.53
1:S:366:PHE:CE2	1:S:368:ALA:HB3	2.43	0.53
1:S:455:SER:O	1:S:457:GLN:N	2.39	0.53
1:K:239:VAL:HG13	1:K:685:TRP:HB2	1.91	0.53
1:M:566:ILE:HG23	1:M:608:GLN:HB2	1.88	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:546:GLU:HG2	1:O:722:THR:HG22	1.89	0.53
1:N:472:SER:HB3	1:Q:270:ASP:O	2.08	0.53
1:R:490:SER:HB3	1:R:496:ASN:OD1	2.08	0.53
1:B:366:PHE:CE2	1:B:368:ALA:HB3	2.43	0.53
1:J:398:TYR:OH	1:L:296:ASP:OD2	2.22	0.53
1:J:654:VAL:HG11	1:L:322:LYS:HZ2	1.74	0.53
1:M:315:LYS:HB2	1:M:680:SER:HB2	1.89	0.53
1:O:366:PHE:CE2	1:O:368:ALA:HB3	2.43	0.53
1:P:315:LYS:HB2	1:P:680:SER:HB2	1.90	0.53
1:T:527:HIS:NE2	1:T:562:ASP:OD2	2.36	0.53
1:A:527:HIS:NE2	1:A:562:ASP:OD2	2.37	0.53
1:E:366:PHE:CE2	1:E:368:ALA:HB3	2.44	0.53
1:F:366:PHE:CE2	1:F:368:ALA:HB3	2.43	0.53
1:H:490:SER:HB3	1:H:496:ASN:OD1	2.08	0.53
1:K:490:SER:HB3	1:K:496:ASN:OD1	2.08	0.53
1:P:527:HIS:NE2	1:P:562:ASP:OD2	2.36	0.53
1:B:485:ARG:NE	1:B:574:THR:O	2.42	0.53
1:E:300:LEU:HD21	1:E:307:PHE:CD2	2.42	0.53
1:J:546:GLU:HG2	1:J:722:THR:HG22	1.89	0.53
1:K:366:PHE:CE2	1:K:368:ALA:HB3	2.43	0.53
1:K:481:GLY:HA3	1:K:607:TRP:HB3	1.91	0.53
1:P:262:SER:OG	1:P:385:SER:OG	2.19	0.53
1:C:455:SER:O	1:C:457:GLN:N	2.39	0.53
1:H:366:PHE:CE2	1:H:368:ALA:HB3	2.43	0.53
1:K:545:LYS:O	1:K:547:SER:N	2.41	0.53
1:J:664:ALA:CB	1:L:360:GLN:CD	2.77	0.53
1:N:566:ILE:HG23	1:N:608:GLN:HB2	1.90	0.53
1:O:545:LYS:O	1:O:547:SER:N	2.42	0.53
1:O:239:VAL:HG13	1:O:685:TRP:HB2	1.91	0.53
1:P:497:ASN:OD1	1:P:498:ASN:N	2.40	0.53
1:Q:519:ASN:CB	1:Q:520:PRO:HD2	2.35	0.53
1:R:519:ASN:CB	1:R:520:PRO:HD2	2.35	0.53
1:T:490:SER:HB3	1:T:496:ASN:OD1	2.09	0.53
1:T:546:GLU:HG2	1:T:722:THR:HG22	1.89	0.53
1:A:455:SER:O	1:A:457:GLN:N	2.39	0.53
1:B:455:SER:O	1:B:457:GLN:N	2.39	0.53
1:B:519:ASN:CB	1:B:520:PRO:HD2	2.35	0.53
1:D:490:SER:HB3	1:D:496:ASN:OD1	2.08	0.53
1:E:490:SER:HB3	1:E:496:ASN:OD1	2.08	0.53
1:F:481:GLY:HA3	1:F:607:TRP:HB3	1.91	0.53
1:G:545:LYS:O	1:G:547:SER:N	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:239:VAL:HG13	1:G:685:TRP:HB2	1.91	0.53
1:I:366:PHE:CE2	1:I:368:ALA:HB3	2.43	0.53
1:I:239:VAL:HG13	1:I:685:TRP:HB2	1.90	0.53
1:J:715:VAL:HG21	1:R:257:TYR:C	2.28	0.53
1:L:566:ILE:HG23	1:L:608:GLN:HB2	1.89	0.53
1:O:527:HIS:NE2	1:O:562:ASP:OD2	2.37	0.53
1:R:455:SER:O	1:R:457:GLN:N	2.39	0.53
1:A:519:ASN:CB	1:A:520:PRO:HD2	2.35	0.53
1:D:481:GLY:HA3	1:D:607:TRP:HB3	1.91	0.53
1:L:545:LYS:O	1:L:547:SER:N	2.41	0.53
1:C:239:VAL:HG13	1:C:685:TRP:HB2	1.91	0.53
1:D:366:PHE:CE2	1:D:368:ALA:HB3	2.43	0.53
1:G:455:SER:O	1:G:457:GLN:N	2.39	0.53
1:G:481:GLY:HA3	1:G:607:TRP:HB3	1.91	0.53
1:I:490:SER:HB3	1:I:496:ASN:OD1	2.08	0.53
1:K:485:ARG:NE	1:K:574:THR:O	2.42	0.53
1:H:423:SER:OG	1:N:626:ASP:OD1	2.21	0.53
1:O:481:GLY:HA3	1:O:607:TRP:HB3	1.91	0.53
1:Q:490:SER:HB3	1:Q:496:ASN:OD1	2.09	0.53
1:C:485:ARG:NE	1:C:574:THR:O	2.42	0.53
1:C:481:GLY:HA3	1:C:607:TRP:HB3	1.91	0.53
1:G:366:PHE:CE2	1:G:368:ALA:HB3	2.43	0.53
1:G:490:SER:HB3	1:G:496:ASN:OD1	2.09	0.53
1:J:490:SER:HB3	1:J:496:ASN:OD1	2.08	0.53
1:O:485:ARG:NE	1:O:574:THR:O	2.42	0.53
1:O:490:SER:HB3	1:O:496:ASN:OD1	2.09	0.53
1:C:315:LYS:HB2	1:C:680:SER:HB2	1.89	0.52
1:C:545:LYS:O	1:C:547:SER:N	2.40	0.52
1:E:519:ASN:CB	1:E:520:PRO:HD2	2.35	0.52
1:F:490:SER:HB3	1:F:496:ASN:OD1	2.08	0.52
1:F:239:VAL:HG13	1:F:685:TRP:HB2	1.91	0.52
1:J:519:ASN:CB	1:J:520:PRO:HD2	2.35	0.52
1:L:366:PHE:CE2	1:L:368:ALA:HB3	2.43	0.52
1:L:490:SER:HB3	1:L:496:ASN:OD1	2.08	0.52
1:E:481:GLY:HA3	1:E:607:TRP:HB3	1.91	0.52
1:P:481:GLY:HA3	1:P:607:TRP:HB3	1.92	0.52
1:R:262:SER:OG	1:R:385:SER:OG	2.18	0.52
1:C:519:ASN:H	1:C:519:ASN:HD22	1.57	0.52
1:H:239:VAL:HG13	1:H:685:TRP:HB2	1.92	0.52
1:F:696:ASN:HD21	1:I:393:PHE:H	1.57	0.52
1:I:485:ARG:NE	1:I:574:THR:O	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:393:PHE:H	1:R:696:ASN:HD21	1.52	0.52
1:O:338:THR:O	1:S:320:GLN:NE2	2.38	0.52
1:R:239:VAL:HG13	1:R:685:TRP:HB2	1.90	0.52
1:S:481:GLY:HA3	1:S:607:TRP:HB3	1.92	0.52
1:T:366:PHE:CE2	1:T:368:ALA:HB3	2.44	0.52
1:A:519:ASN:HD22	1:A:519:ASN:H	1.57	0.52
1:C:262:SER:OG	1:C:385:SER:OG	2.18	0.52
1:F:262:SER:OG	1:F:385:SER:OG	2.18	0.52
1:H:455:SER:O	1:H:457:GLN:N	2.39	0.52
1:F:472:SER:HB3	1:I:270:ASP:O	2.09	0.52
1:J:481:GLY:HA3	1:J:607:TRP:HB3	1.91	0.52
1:M:519:ASN:H	1:M:519:ASN:HD22	1.58	0.52
1:F:377:GLY:HA3	1:P:438:LEU:HD13	1.90	0.52
1:I:608:GLN:NE2	1:P:626:ASP:OD1	2.43	0.52
1:Q:481:GLY:HA3	1:Q:607:TRP:HB3	1.91	0.52
1:R:519:ASN:H	1:R:519:ASN:HD22	1.57	0.52
1:T:481:GLY:HA3	1:T:607:TRP:HB3	1.91	0.52
1:B:481:GLY:HA3	1:B:607:TRP:HB3	1.91	0.52
1:C:611:ASP:HB2	1:C:730:ARG:NH1	2.25	0.52
1:D:485:ARG:NE	1:D:574:THR:O	2.42	0.52
1:E:611:ASP:HB2	1:E:730:ARG:NH1	2.25	0.52
1:L:519:ASN:H	1:L:519:ASN:HD22	1.58	0.52
1:J:652:THR:HG21	1:L:678:GLN:HE21	1.74	0.52
1:O:490:SER:HB2	1:O:534:PHE:CE2	2.45	0.52
1:T:239:VAL:HG13	1:T:685:TRP:HB2	1.91	0.52
1:A:481:GLY:HA3	1:A:607:TRP:HB3	1.91	0.52
1:E:657:ASN:H	1:E:657:ASN:HD22	1.58	0.52
1:G:611:ASP:HB2	1:G:730:ARG:NH1	2.25	0.52
1:J:611:ASP:OD1	1:J:612:VAL:N	2.43	0.52
1:L:481:GLY:HA3	1:L:607:TRP:HB3	1.91	0.52
1:N:545:LYS:O	1:N:547:SER:N	2.41	0.52
1:R:315:LYS:HB2	1:R:680:SER:HB2	1.91	0.52
1:S:485:ARG:NE	1:S:574:THR:O	2.42	0.52
1:T:545:LYS:O	1:T:547:SER:N	2.42	0.52
1:B:239:VAL:HG13	1:B:685:TRP:HB2	1.92	0.52
1:F:485:ARG:NE	1:F:574:THR:O	2.43	0.52
1:N:262:SER:OG	1:N:385:SER:OG	2.18	0.52
1:O:611:ASP:HB2	1:O:730:ARG:NH1	2.24	0.52
1:Q:366:PHE:CE2	1:Q:368:ALA:HB3	2.44	0.52
1:J:707:LYS:HG2	1:R:386:GLN:NE2	2.25	0.52
1:R:485:ARG:NE	1:R:574:THR:O	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:262:SER:OG	1:A:385:SER:OG	2.19	0.52
1:L:455:SER:O	1:L:457:GLN:N	2.39	0.52
1:L:239:VAL:HG13	1:L:685:TRP:HB2	1.91	0.52
1:N:611:ASP:OD1	1:N:612:VAL:N	2.43	0.52
1:O:308:ARG:HD2	1:O:310:LYS:NZ	2.25	0.52
1:P:611:ASP:HB2	1:P:730:ARG:NH1	2.25	0.52
1:T:519:ASN:CB	1:T:520:PRO:HD2	2.35	0.52
1:B:308:ARG:HD2	1:B:310:LYS:NZ	2.25	0.52
1:H:626:ASP:OD1	1:Q:608:GLN:NE2	2.43	0.52
1:M:308:ARG:HD2	1:M:310:LYS:NZ	2.25	0.52
1:N:608:GLN:HE21	1:Q:625:THR:HB	1.75	0.52
1:R:481:GLY:HA3	1:R:607:TRP:HB3	1.92	0.52
1:A:338:THR:O	1:M:320:GLN:NE2	2.35	0.52
1:D:239:VAL:HG13	1:D:685:TRP:HB2	1.91	0.52
1:F:598:VAL:HG21	1:P:599:MET:HE1	1.92	0.52
1:P:239:VAL:HG13	1:P:685:TRP:HB2	1.91	0.52
1:R:545:LYS:O	1:R:547:SER:N	2.41	0.52
1:R:527:HIS:NE2	1:R:562:ASP:OD2	2.36	0.52
1:S:519:ASN:CB	1:S:520:PRO:HD2	2.35	0.52
1:S:611:ASP:HB2	1:S:730:ARG:NH1	2.25	0.52
1:A:611:ASP:HB2	1:A:730:ARG:NH1	2.25	0.51
1:D:308:ARG:HD2	1:D:310:LYS:NZ	2.25	0.51
1:D:338:THR:O	1:I:320:GLN:NE2	2.37	0.51
1:D:502:THR:HG21	1:E:447:ASN:O	2.10	0.51
1:F:451:ASN:ND2	1:F:460:ASP:OD2	2.38	0.51
1:H:519:ASN:HD22	1:H:519:ASN:H	1.58	0.51
1:I:308:ARG:HD2	1:I:310:LYS:NZ	2.25	0.51
1:I:545:LYS:O	1:I:547:SER:N	2.41	0.51
1:J:239:VAL:HG13	1:J:685:TRP:HB2	1.92	0.51
1:K:611:ASP:HB2	1:K:730:ARG:NH1	2.26	0.51
1:L:272:HIS:CE1	1:L:385:SER:HG	2.28	0.51
1:M:490:SER:HB2	1:M:534:PHE:CE2	2.46	0.51
1:M:481:GLY:HA3	1:M:607:TRP:HB3	1.91	0.51
1:N:239:VAL:HG13	1:N:685:TRP:HB2	1.91	0.51
1:A:545:LYS:O	1:A:547:SER:N	2.41	0.51
1:D:270:ASP:O	1:E:472:SER:HB3	2.09	0.51
1:F:519:ASN:HD22	1:F:519:ASN:H	1.58	0.51
1:N:611:ASP:HB2	1:N:730:ARG:NH1	2.25	0.51
1:Q:239:VAL:HG13	1:Q:685:TRP:HB2	1.91	0.51
1:Q:611:ASP:HB2	1:Q:730:ARG:NH1	2.26	0.51
1:R:611:ASP:HB2	1:R:730:ARG:NH1	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:437:PRO:C	1:T:438:LEU:HD12	2.31	0.51
1:F:490:SER:HB2	1:F:534:PHE:CE2	2.46	0.51
1:M:437:PRO:C	1:M:438:LEU:HD12	2.31	0.51
1:M:485:ARG:NE	1:M:574:THR:O	2.42	0.51
1:N:481:GLY:HA3	1:N:607:TRP:HB3	1.91	0.51
1:P:545:LYS:O	1:P:547:SER:N	2.41	0.51
1:T:490:SER:HB2	1:T:534:PHE:CE2	2.46	0.51
1:B:611:ASP:OD1	1:B:612:VAL:N	2.44	0.51
1:C:490:SER:HB2	1:C:534:PHE:CE2	2.45	0.51
1:H:262:SER:OG	1:H:385:SER:OG	2.19	0.51
1:H:611:ASP:HB2	1:H:730:ARG:NH1	2.26	0.51
1:I:490:SER:HB2	1:I:534:PHE:CE2	2.46	0.51
1:J:545:LYS:O	1:J:547:SER:N	2.41	0.51
1:L:611:ASP:HB2	1:L:730:ARG:NH1	2.26	0.51
1:N:519:ASN:HD22	1:N:519:ASN:H	1.58	0.51
1:H:599:MET:HE1	1:N:598:VAL:HG21	1.93	0.51
1:R:657:ASN:H	1:R:657:ASN:HD22	1.58	0.51
1:B:519:ASN:HD22	1:B:519:ASN:H	1.58	0.51
1:E:485:ARG:NE	1:E:574:THR:O	2.42	0.51
1:F:437:PRO:C	1:F:438:LEU:HD12	2.31	0.51
1:G:519:ASN:H	1:G:519:ASN:HD22	1.58	0.51
1:H:481:GLY:HA3	1:H:607:TRP:HB3	1.91	0.51
1:L:611:ASP:OD1	1:L:612:VAL:N	2.44	0.51
1:N:693:LYS:HD3	1:Q:399:PHE:CE2	2.46	0.51
1:Q:545:LYS:O	1:Q:547:SER:N	2.41	0.51
1:Q:485:ARG:NE	1:Q:574:THR:O	2.42	0.51
1:T:302:ASN:HD21	1:T:701:TYR:H	1.59	0.51
1:A:451:ASN:ND2	1:A:460:ASP:OD2	2.37	0.51
1:A:239:VAL:HG13	1:A:685:TRP:HB2	1.91	0.51
1:D:455:SER:O	1:D:457:GLN:N	2.39	0.51
1:E:527:HIS:NE2	1:E:562:ASP:OD2	2.37	0.51
1:J:401:SER:O	1:L:228:TRP:N	2.43	0.51
1:J:611:ASP:HB2	1:J:730:ARG:NH1	2.25	0.51
1:K:502:THR:HG21	1:R:447:ASN:O	2.11	0.51
1:M:239:VAL:HG13	1:M:685:TRP:HB2	1.91	0.51
1:P:308:ARG:HD2	1:P:310:LYS:NZ	2.25	0.51
1:Q:249:LEU:HG	1:Q:651:ASN:HD21	1.76	0.51
1:S:239:VAL:HG13	1:S:685:TRP:HB2	1.91	0.51
1:T:249:LEU:HG	1:T:651:ASN:HD21	1.76	0.51
1:B:302:ASN:HD21	1:B:701:TYR:H	1.59	0.51
1:E:272:HIS:CE1	1:E:385:SER:HG	2.28	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:455:SER:O	1:E:457:GLN:N	2.39	0.51
1:E:611:ASP:OD1	1:E:612:VAL:N	2.44	0.51
1:E:239:VAL:HG13	1:E:685:TRP:HB2	1.92	0.51
1:H:608:GLN:NE2	1:N:626:ASP:OD1	2.44	0.51
1:H:302:ASN:HD21	1:H:701:TYR:H	1.59	0.51
1:K:657:ASN:H	1:K:657:ASN:HD22	1.59	0.51
1:L:437:PRO:C	1:L:438:LEU:HD12	2.31	0.51
1:P:519:ASN:CB	1:P:520:PRO:HD2	2.35	0.51
1:T:611:ASP:HB2	1:T:730:ARG:NH1	2.26	0.51
1:B:490:SER:HB2	1:B:534:PHE:CE2	2.46	0.51
1:B:625:THR:HB	1:G:608:GLN:HE21	1.76	0.51
1:C:437:PRO:C	1:C:438:LEU:HD12	2.32	0.51
1:C:519:ASN:CB	1:C:520:PRO:CD	2.89	0.51
1:E:490:SER:HB2	1:E:534:PHE:CE2	2.46	0.51
1:F:399:PHE:CE2	1:P:693:LYS:HD3	2.45	0.51
1:G:308:ARG:HD2	1:G:310:LYS:NZ	2.26	0.51
1:G:490:SER:HB2	1:G:534:PHE:CE2	2.46	0.51
1:J:519:ASN:H	1:J:519:ASN:HD22	1.58	0.51
1:J:485:ARG:NE	1:J:574:THR:O	2.42	0.51
1:M:611:ASP:HB2	1:M:730:ARG:NH1	2.25	0.51
1:N:485:ARG:NE	1:N:574:THR:O	2.43	0.51
1:P:490:SER:HB2	1:P:534:PHE:CE2	2.46	0.51
1:H:502:THR:HG21	1:Q:447:ASN:O	2.10	0.51
1:Q:302:ASN:HD21	1:Q:701:TYR:H	1.59	0.51
1:S:308:ARG:HD2	1:S:310:LYS:NZ	2.26	0.51
1:H:249:LEU:HG	1:H:651:ASN:HD21	1.76	0.51
1:J:490:SER:HB2	1:J:534:PHE:CE2	2.46	0.51
1:L:308:ARG:HD2	1:L:310:LYS:NZ	2.26	0.51
1:N:308:ARG:HD2	1:N:310:LYS:NZ	2.26	0.51
1:N:490:SER:HB2	1:N:534:PHE:CE2	2.46	0.51
1:P:519:ASN:H	1:P:519:ASN:HD22	1.59	0.51
1:S:302:ASN:HD21	1:S:701:TYR:H	1.59	0.51
1:A:519:ASN:CB	1:A:520:PRO:CD	2.89	0.51
1:D:490:SER:HB2	1:D:534:PHE:CE2	2.46	0.51
1:D:302:ASN:HD21	1:D:701:TYR:H	1.59	0.51
1:E:437:PRO:C	1:E:438:LEU:HD12	2.32	0.51
1:J:657:ASN:HD22	1:J:657:ASN:H	1.59	0.51
1:H:693:LYS:HD3	1:N:399:PHE:CE2	2.46	0.51
1:J:367:PRO:HB2	1:R:397:GLU:HB2	1.94	0.51
1:T:308:ARG:HD2	1:T:310:LYS:NZ	2.25	0.51
1:O:608:GLN:NE2	1:T:626:ASP:OD1	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:545:LYS:O	1:E:547:SER:N	2.42	0.50
1:B:399:PHE:CE2	1:G:693:LYS:HD3	2.45	0.50
1:B:393:PHE:H	1:G:696:ASN:HD21	1.55	0.50
1:H:490:SER:HB2	1:H:534:PHE:CE2	2.45	0.50
1:H:545:LYS:O	1:H:547:SER:N	2.42	0.50
1:I:481:GLY:HA3	1:I:607:TRP:HB3	1.91	0.50
1:L:485:ARG:NE	1:L:574:THR:O	2.43	0.50
1:L:657:ASN:H	1:L:657:ASN:HD22	1.59	0.50
1:N:657:ASN:HD22	1:N:657:ASN:H	1.58	0.50
1:O:519:ASN:CB	1:O:520:PRO:CD	2.89	0.50
1:S:437:PRO:C	1:S:438:LEU:HD12	2.31	0.50
1:A:611:ASP:OD1	1:A:612:VAL:N	2.44	0.50
1:B:611:ASP:HB2	1:B:730:ARG:NH1	2.26	0.50
1:C:308:ARG:HD2	1:C:310:LYS:NZ	2.25	0.50
1:F:308:ARG:HD2	1:F:310:LYS:NZ	2.26	0.50
1:F:611:ASP:HB2	1:F:730:ARG:NH1	2.26	0.50
1:F:657:ASN:HD22	1:F:657:ASN:H	1.59	0.50
1:G:611:ASP:OD1	1:G:612:VAL:N	2.44	0.50
1:I:519:ASN:HD22	1:I:519:ASN:H	1.58	0.50
1:I:611:ASP:HB2	1:I:730:ARG:NH1	2.26	0.50
1:O:451:ASN:ND2	1:O:460:ASP:OD2	2.37	0.50
1:Q:455:SER:O	1:Q:457:GLN:N	2.39	0.50
1:R:611:ASP:OD1	1:R:612:VAL:N	2.44	0.50
1:S:490:SER:HB2	1:S:534:PHE:CE2	2.46	0.50
1:S:657:ASN:HD22	1:S:657:ASN:H	1.59	0.50
1:A:308:ARG:HD2	1:A:310:LYS:NZ	2.26	0.50
1:A:249:LEU:HG	1:A:651:ASN:HD21	1.77	0.50
1:A:423:SER:HB2	1:A:730:ARG:HH21	1.76	0.50
1:C:249:LEU:HG	1:C:651:ASN:HD21	1.77	0.50
1:D:611:ASP:HB2	1:D:730:ARG:NH1	2.26	0.50
1:I:437:PRO:C	1:I:438:LEU:HD12	2.32	0.50
1:K:437:PRO:C	1:K:438:LEU:HD12	2.32	0.50
1:K:490:SER:HB2	1:K:534:PHE:CE2	2.46	0.50
1:M:545:LYS:O	1:M:547:SER:N	2.41	0.50
1:Q:611:ASP:OD1	1:Q:612:VAL:N	2.44	0.50
1:O:447:ASN:O	1:T:502:THR:HG21	2.11	0.50
1:T:519:ASN:CB	1:T:520:PRO:CD	2.89	0.50
1:D:545:LYS:O	1:D:547:SER:N	2.41	0.50
1:D:611:ASP:OD1	1:D:612:VAL:N	2.44	0.50
1:E:519:ASN:CB	1:E:520:PRO:CD	2.90	0.50
1:H:429:GLN:OE1	1:N:352:PRO:HB3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:519:ASN:CB	1:H:520:PRO:CD	2.89	0.50
1:K:519:ASN:HD22	1:K:519:ASN:H	1.58	0.50
1:K:611:ASP:OD1	1:K:612:VAL:N	2.44	0.50
1:M:302:ASN:HD21	1:M:701:TYR:H	1.60	0.50
1:N:249:LEU:HG	1:N:651:ASN:HD21	1.76	0.50
1:O:437:PRO:C	1:O:438:LEU:HD12	2.32	0.50
1:O:520:PRO:HG2	1:O:541:MET:SD	2.51	0.50
1:Q:519:ASN:HD22	1:Q:519:ASN:H	1.58	0.50
1:S:519:ASN:H	1:S:519:ASN:HD22	1.59	0.50
1:T:451:ASN:ND2	1:T:460:ASP:OD2	2.38	0.50
1:T:519:ASN:H	1:T:519:ASN:HD22	1.57	0.50
1:C:302:ASN:HD21	1:C:701:TYR:H	1.59	0.50
1:D:519:ASN:CB	1:D:520:PRO:CD	2.89	0.50
1:F:611:ASP:OD1	1:F:612:VAL:N	2.45	0.50
1:G:519:ASN:CB	1:G:520:PRO:CD	2.89	0.50
1:H:485:ARG:NE	1:H:574:THR:O	2.43	0.50
1:H:611:ASP:OD1	1:H:612:VAL:N	2.44	0.50
1:H:657:ASN:HD22	1:H:657:ASN:H	1.59	0.50
1:L:519:ASN:CB	1:L:520:PRO:CD	2.89	0.50
1:L:423:SER:HB2	1:L:730:ARG:HH21	1.77	0.50
1:N:437:PRO:C	1:N:438:LEU:HD12	2.31	0.50
1:O:519:ASN:H	1:O:519:ASN:HD22	1.59	0.50
1:P:611:ASP:OD1	1:P:612:VAL:N	2.44	0.50
1:R:490:SER:HB2	1:R:534:PHE:CE2	2.47	0.50
1:S:519:ASN:CB	1:S:520:PRO:CD	2.90	0.50
1:B:545:LYS:O	1:B:547:SER:N	2.41	0.50
1:D:657:ASN:HD22	1:D:657:ASN:H	1.59	0.50
1:G:437:PRO:C	1:G:438:LEU:HD12	2.31	0.50
1:H:519:ASN:CB	1:H:520:PRO:HD2	2.35	0.50
1:J:423:SER:HB2	1:J:730:ARG:HH21	1.77	0.50
1:M:423:SER:HB2	1:M:730:ARG:HH21	1.76	0.50
1:Q:272:HIS:CE1	1:Q:385:SER:HG	2.30	0.50
1:O:696:ASN:HD21	1:T:392:SER:HA	1.77	0.50
1:D:437:PRO:C	1:D:438:LEU:HD12	2.31	0.50
1:F:423:SER:HB2	1:F:730:ARG:HH21	1.77	0.50
1:H:308:ARG:HD2	1:H:310:LYS:NZ	2.26	0.50
1:I:249:LEU:HG	1:I:651:ASN:HD21	1.76	0.50
1:J:519:ASN:CB	1:J:520:PRO:CD	2.89	0.50
1:R:437:PRO:C	1:R:438:LEU:HD12	2.32	0.50
1:B:437:PRO:C	1:B:438:LEU:HD12	2.32	0.50
1:B:657:ASN:H	1:B:657:ASN:HD22	1.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:302:ASN:HD21	1:E:701:TYR:H	1.59	0.50
1:F:455:SER:O	1:F:457:GLN:N	2.40	0.50
1:I:611:ASP:OD1	1:I:612:VAL:N	2.45	0.50
1:K:455:SER:O	1:K:457:GLN:N	2.39	0.50
1:K:423:SER:HB2	1:K:730:ARG:HH21	1.77	0.50
1:L:451:ASN:ND2	1:L:460:ASP:OD2	2.38	0.50
1:M:422:HIS:NE2	1:M:612:VAL:HG22	2.27	0.50
1:O:611:ASP:OD1	1:O:612:VAL:N	2.45	0.50
1:P:519:ASN:CB	1:P:520:PRO:CD	2.89	0.50
1:T:423:SER:HB2	1:T:730:ARG:HH21	1.76	0.50
1:B:519:ASN:CB	1:B:520:PRO:CD	2.90	0.50
1:C:611:ASP:OD1	1:C:612:VAL:N	2.44	0.50
1:D:423:SER:HB2	1:D:730:ARG:HH21	1.77	0.50
1:F:608:GLN:HE21	1:I:625:THR:HB	1.76	0.50
1:I:423:SER:HB2	1:I:730:ARG:HH21	1.77	0.50
1:K:302:ASN:HD21	1:K:701:TYR:H	1.60	0.50
1:L:519:ASN:CB	1:L:520:PRO:HD2	2.35	0.50
1:N:519:ASN:CB	1:N:520:PRO:CD	2.90	0.50
1:P:437:PRO:C	1:P:438:LEU:HD12	2.32	0.50
1:T:485:ARG:NE	1:T:574:THR:O	2.42	0.50
1:D:519:ASN:H	1:D:519:ASN:HD22	1.58	0.49
1:G:302:ASN:HD21	1:G:701:TYR:H	1.60	0.49
1:J:308:ARG:HD2	1:J:310:LYS:NZ	2.26	0.49
1:J:437:PRO:C	1:J:438:LEU:HD12	2.32	0.49
1:J:707:LYS:HA	1:R:387:ALA:O	2.12	0.49
1:K:308:ARG:HD2	1:K:310:LYS:NZ	2.26	0.49
1:P:302:ASN:HD21	1:P:701:TYR:H	1.59	0.49
1:Q:308:ARG:HD2	1:Q:310:LYS:NZ	2.27	0.49
1:K:320:GLN:NE2	1:S:338:THR:O	2.37	0.49
1:A:490:SER:HB2	1:A:534:PHE:CE2	2.46	0.49
1:B:249:LEU:HG	1:B:651:ASN:HD21	1.77	0.49
1:D:498:ASN:HD21	1:E:457:GLN:NE2	2.10	0.49
1:E:249:LEU:HG	1:E:651:ASN:HD21	1.76	0.49
1:E:423:SER:HB2	1:E:730:ARG:HH21	1.78	0.49
1:H:272:HIS:CE1	1:H:385:SER:HG	2.31	0.49
1:H:437:PRO:C	1:H:438:LEU:HD12	2.32	0.49
1:L:302:ASN:HD21	1:L:701:TYR:H	1.60	0.49
1:R:308:ARG:HD2	1:R:310:LYS:NZ	2.26	0.49
1:T:422:HIS:NE2	1:T:612:VAL:HG22	2.28	0.49
1:C:657:ASN:HD22	1:C:657:ASN:H	1.59	0.49
1:E:519:ASN:H	1:E:519:ASN:HD22	1.59	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:272:HIS:CE1	1:J:385:SER:HG	2.28	0.49
1:J:400:PRO:HD3	1:L:231:ASP:HB2	1.93	0.49
1:K:357:SER:O	1:K:359:HIS:N	2.46	0.49
1:K:392:SER:OG	1:R:694:ARG:NH1	2.45	0.49
1:K:249:LEU:HG	1:K:651:ASN:HD21	1.77	0.49
1:M:249:LEU:HG	1:M:651:ASN:HD21	1.77	0.49
1:M:338:THR:O	1:T:320:GLN:NE2	2.42	0.49
1:N:313:ASN:HB3	1:N:682:GLU:HB3	1.94	0.49
1:Q:423:SER:HB2	1:Q:730:ARG:HH21	1.77	0.49
1:T:611:ASP:OD1	1:T:612:VAL:N	2.44	0.49
1:A:657:ASN:HD22	1:A:657:ASN:H	1.59	0.49
1:D:249:LEU:HG	1:D:651:ASN:HD21	1.77	0.49
1:F:519:ASN:CB	1:F:520:PRO:CD	2.89	0.49
1:B:626:ASP:OD1	1:G:608:GLN:NE2	2.45	0.49
1:K:289:HIS:ND1	1:K:365:PRO:HB3	2.28	0.49
1:M:611:ASP:OD1	1:M:612:VAL:N	2.45	0.49
1:N:422:HIS:NE2	1:N:612:VAL:HG22	2.28	0.49
1:O:608:GLN:HE21	1:T:625:THR:HB	1.77	0.49
1:P:520:PRO:HG2	1:P:541:MET:SD	2.52	0.49
1:P:313:ASN:HB3	1:P:682:GLU:HB3	1.95	0.49
1:Q:490:SER:HB2	1:Q:534:PHE:CE2	2.46	0.49
1:S:611:ASP:OD1	1:S:612:VAL:N	2.45	0.49
1:T:657:ASN:H	1:T:657:ASN:HD22	1.58	0.49
1:D:601:ALA:O	1:D:602:LEU:HB2	2.13	0.49
1:E:308:ARG:HD2	1:E:310:LYS:NZ	2.27	0.49
1:E:520:PRO:HG2	1:E:541:MET:SD	2.53	0.49
1:F:313:ASN:HB3	1:F:682:GLU:HB3	1.94	0.49
1:J:451:ASN:ND2	1:J:460:ASP:OD2	2.38	0.49
1:J:601:ALA:O	1:J:602:LEU:HB2	2.13	0.49
1:K:422:HIS:NE2	1:K:612:VAL:HG22	2.28	0.49
1:K:451:ASN:ND2	1:K:460:ASP:OD2	2.38	0.49
1:L:249:LEU:HG	1:L:651:ASN:HD21	1.77	0.49
1:J:655:PRO:CG	1:L:370:VAL:HG11	2.39	0.49
1:O:693:LYS:HD3	1:T:399:PHE:CE2	2.47	0.49
1:P:249:LEU:HG	1:P:651:ASN:HD21	1.77	0.49
1:P:423:SER:HB2	1:P:730:ARG:HH21	1.77	0.49
1:H:392:SER:HA	1:Q:696:ASN:HD21	1.77	0.49
1:G:601:ALA:O	1:G:602:LEU:HB2	2.13	0.49
1:P:289:HIS:ND1	1:P:365:PRO:HB3	2.28	0.49
1:Q:422:HIS:NE2	1:Q:612:VAL:HG22	2.28	0.49
1:R:249:LEU:HG	1:R:651:ASN:HD21	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:302:ASN:HD21	1:A:701:TYR:H	1.60	0.49
1:D:289:HIS:ND1	1:D:365:PRO:HB3	2.28	0.49
1:F:352:PRO:HB3	1:P:429:GLN:OE1	2.12	0.49
1:G:422:HIS:NE2	1:G:612:VAL:HG22	2.27	0.49
1:F:693:LYS:HD3	1:I:399:PHE:CE2	2.48	0.49
1:I:313:ASN:HB3	1:I:682:GLU:HB3	1.95	0.49
1:J:302:ASN:HD21	1:J:701:TYR:H	1.59	0.49
1:K:626:ASP:OD1	1:R:608:GLN:NE2	2.46	0.49
1:L:490:SER:HB2	1:L:534:PHE:CE2	2.46	0.49
1:C:422:HIS:NE2	1:C:612:VAL:HG22	2.28	0.49
1:G:272:HIS:CE1	1:G:385:SER:HG	2.28	0.49
1:G:289:HIS:ND1	1:G:365:PRO:HB3	2.28	0.49
1:H:357:SER:O	1:H:359:HIS:N	2.46	0.49
1:J:664:ALA:HB2	1:L:360:GLN:CG	2.42	0.49
1:N:455:SER:O	1:N:457:GLN:N	2.39	0.49
1:N:519:ASN:CB	1:N:520:PRO:HD2	2.35	0.49
1:N:423:SER:HB2	1:N:730:ARG:HH21	1.77	0.49
1:R:451:ASN:ND2	1:R:460:ASP:OD2	2.38	0.49
1:R:302:ASN:HD21	1:R:701:TYR:H	1.60	0.49
1:S:520:PRO:HG2	1:S:541:MET:SD	2.53	0.49
1:S:249:LEU:HG	1:S:651:ASN:HD21	1.77	0.49
1:T:289:HIS:ND1	1:T:365:PRO:HB3	2.28	0.49
1:A:313:ASN:HB3	1:A:682:GLU:HB3	1.95	0.49
1:B:289:HIS:ND1	1:B:365:PRO:HB3	2.28	0.49
1:B:357:SER:O	1:B:359:HIS:N	2.46	0.49
1:C:289:HIS:ND1	1:C:365:PRO:HB3	2.28	0.49
1:C:423:SER:HB2	1:C:730:ARG:HH21	1.78	0.49
1:D:520:PRO:HG2	1:D:541:MET:SD	2.53	0.49
1:D:625:THR:HB	1:E:608:GLN:HE21	1.78	0.49
1:F:249:LEU:HG	1:F:651:ASN:HD21	1.77	0.49
1:G:249:LEU:HG	1:G:651:ASN:HD21	1.77	0.49
1:N:254:ASN:ND2	1:N:254:ASN:O	2.46	0.49
1:N:265:THR:HG23	1:N:267:ALA:H	1.77	0.49
1:O:657:ASN:HD22	1:O:657:ASN:H	1.59	0.49
1:Q:289:HIS:ND1	1:Q:365:PRO:HB3	2.28	0.49
1:A:437:PRO:C	1:A:438:LEU:HD12	2.33	0.49
1:A:520:PRO:HG2	1:A:541:MET:SD	2.53	0.49
1:D:313:ASN:HB3	1:D:682:GLU:HB3	1.94	0.49
1:E:313:ASN:HB3	1:E:682:GLU:HB3	1.94	0.49
1:F:302:ASN:HD21	1:F:701:TYR:H	1.60	0.49
1:I:357:SER:O	1:I:359:HIS:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:249:LEU:HG	1:J:651:ASN:HD21	1.77	0.49
1:J:705:TYR:HA	1:R:389:GLY:CA	2.37	0.49
1:L:422:HIS:NE2	1:L:612:VAL:HG22	2.27	0.49
1:N:289:HIS:ND1	1:N:365:PRO:HB3	2.28	0.49
1:N:520:PRO:HG2	1:N:541:MET:SD	2.53	0.49
1:O:249:LEU:HG	1:O:651:ASN:HD21	1.77	0.49
1:Q:437:PRO:C	1:Q:438:LEU:HD12	2.32	0.49
1:R:520:PRO:HG2	1:R:541:MET:SD	2.53	0.49
1:R:422:HIS:NE2	1:R:612:VAL:HG22	2.27	0.49
1:E:422:HIS:NE2	1:E:612:VAL:HG22	2.28	0.48
1:G:254:ASN:ND2	1:G:254:ASN:O	2.46	0.48
1:G:657:ASN:HD22	1:G:657:ASN:H	1.59	0.48
1:I:657:ASN:HD22	1:I:657:ASN:H	1.59	0.48
1:J:282:TYR:CE2	1:J:374:PRO:HB2	2.48	0.48
1:J:339:SER:HA	1:L:320:GLN:NE2	2.28	0.48
1:J:403:MET:HG3	1:L:227:ASN:HA	1.94	0.48
1:J:310:LYS:HB2	1:J:684:GLU:O	2.13	0.48
1:K:282:TYR:CE2	1:K:374:PRO:HB2	2.48	0.48
1:L:250:PRO:HG2	1:L:252:TYR:CE2	2.48	0.48
1:L:520:PRO:HG2	1:L:541:MET:SD	2.53	0.48
1:M:601:ALA:O	1:M:602:LEU:HB2	2.13	0.48
1:O:519:ASN:CB	1:O:520:PRO:HD2	2.35	0.48
1:P:357:SER:O	1:P:359:HIS:N	2.46	0.48
1:P:485:ARG:NE	1:P:574:THR:O	2.42	0.48
1:Q:520:PRO:HG2	1:Q:541:MET:SD	2.53	0.48
1:R:423:SER:HB2	1:R:730:ARG:HH21	1.77	0.48
1:A:289:HIS:ND1	1:A:365:PRO:HB3	2.28	0.48
1:E:621:LYS:HB2	1:E:643:PRO:HG3	1.95	0.48
1:G:313:ASN:HB3	1:G:682:GLU:HB3	1.95	0.48
1:J:711:VAL:HB	1:R:276:TYR:OH	2.13	0.48
1:M:519:ASN:CB	1:M:520:PRO:CD	2.90	0.48
1:M:520:PRO:HG2	1:M:541:MET:SD	2.53	0.48
1:P:657:ASN:HD22	1:P:657:ASN:H	1.60	0.48
1:Q:657:ASN:H	1:Q:657:ASN:HD22	1.59	0.48
1:S:289:HIS:ND1	1:S:365:PRO:HB3	2.28	0.48
1:A:282:TYR:CE2	1:A:374:PRO:HB2	2.48	0.48
1:B:282:TYR:CE2	1:B:374:PRO:HB2	2.48	0.48
1:B:422:HIS:NE2	1:B:612:VAL:HG22	2.28	0.48
1:B:451:ASN:ND2	1:B:460:ASP:OD2	2.38	0.48
1:C:357:SER:O	1:C:359:HIS:N	2.46	0.48
1:G:423:SER:HB2	1:G:730:ARG:HH21	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:272:HIS:CE1	1:I:385:SER:HG	2.29	0.48
1:I:520:PRO:HG2	1:I:541:MET:SD	2.53	0.48
1:J:520:PRO:HG2	1:J:541:MET:SD	2.53	0.48
1:L:313:ASN:HB3	1:L:682:GLU:HB3	1.95	0.48
1:O:357:SER:O	1:O:359:HIS:N	2.46	0.48
1:P:282:TYR:CE2	1:P:374:PRO:HB2	2.49	0.48
1:I:447:ASN:O	1:P:502:THR:HG21	2.12	0.48
1:P:621:LYS:HB2	1:P:643:PRO:HG3	1.96	0.48
1:Q:451:ASN:ND2	1:Q:460:ASP:OD2	2.38	0.48
1:K:392:SER:HA	1:R:696:ASN:HD21	1.79	0.48
1:T:601:ALA:O	1:T:602:LEU:HB2	2.13	0.48
1:T:313:ASN:HB3	1:T:682:GLU:HB3	1.95	0.48
1:A:357:SER:O	1:A:359:HIS:N	2.46	0.48
1:B:502:THR:HG21	1:G:447:ASN:O	2.13	0.48
1:B:601:ALA:O	1:B:602:LEU:HB2	2.14	0.48
1:B:313:ASN:HB3	1:B:682:GLU:HB3	1.95	0.48
1:D:357:SER:O	1:D:359:HIS:N	2.46	0.48
1:H:621:LYS:HB2	1:H:643:PRO:HG3	1.95	0.48
1:I:250:PRO:HG2	1:I:252:TYR:CE2	2.49	0.48
1:I:601:ALA:O	1:I:602:LEU:HB2	2.13	0.48
1:I:302:ASN:HD21	1:I:701:TYR:H	1.59	0.48
1:J:289:HIS:ND1	1:J:365:PRO:HB3	2.27	0.48
1:J:357:SER:O	1:J:359:HIS:N	2.46	0.48
1:M:657:ASN:HD22	1:M:657:ASN:H	1.59	0.48
1:O:289:HIS:ND1	1:O:365:PRO:HB3	2.29	0.48
1:O:601:ALA:O	1:O:602:LEU:HB2	2.14	0.48
1:O:422:HIS:NE2	1:O:612:VAL:HG22	2.29	0.48
1:P:601:ALA:O	1:P:602:LEU:HB2	2.13	0.48
1:R:601:ALA:O	1:R:602:LEU:HB2	2.13	0.48
1:T:282:TYR:CE2	1:T:374:PRO:HB2	2.49	0.48
1:A:422:HIS:NE2	1:A:612:VAL:HG22	2.29	0.48
1:B:352:PRO:HB3	1:G:429:GLN:OE1	2.13	0.48
1:F:282:TYR:CE2	1:F:374:PRO:HB2	2.49	0.48
1:F:621:LYS:HB2	1:F:643:PRO:HG3	1.95	0.48
1:H:447:ASN:O	1:N:502:THR:HG21	2.13	0.48
1:I:457:GLN:NE2	1:P:498:ASN:HD21	2.11	0.48
1:J:422:HIS:NE2	1:J:612:VAL:HG22	2.27	0.48
1:K:520:PRO:HG2	1:K:541:MET:SD	2.53	0.48
1:L:289:HIS:ND1	1:L:365:PRO:HB3	2.28	0.48
1:M:313:ASN:HB3	1:M:682:GLU:HB3	1.95	0.48
1:O:282:TYR:CE2	1:O:374:PRO:HB2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:455:SER:O	1:O:457:GLN:N	2.40	0.48
1:I:696:ASN:HD21	1:P:393:PHE:H	1.60	0.48
1:Q:357:SER:O	1:Q:359:HIS:N	2.46	0.48
1:Q:313:ASN:HB3	1:Q:682:GLU:HB3	1.96	0.48
1:B:250:PRO:HG2	1:B:252:TYR:CE2	2.49	0.48
1:B:520:PRO:HG2	1:B:541:MET:SD	2.53	0.48
1:C:310:LYS:HB2	1:C:684:GLU:O	2.13	0.48
1:C:601:ALA:O	1:C:602:LEU:HB2	2.13	0.48
1:D:621:LYS:HB2	1:D:643:PRO:HG3	1.96	0.48
1:E:357:SER:O	1:E:359:HIS:N	2.46	0.48
1:D:399:PHE:CE2	1:E:693:LYS:HD3	2.49	0.48
1:F:357:SER:O	1:F:359:HIS:N	2.47	0.48
1:G:357:SER:O	1:G:359:HIS:N	2.47	0.48
1:G:485:ARG:NE	1:G:574:THR:O	2.42	0.48
1:H:289:HIS:ND1	1:H:365:PRO:HB3	2.28	0.48
1:H:601:ALA:O	1:H:602:LEU:HB2	2.13	0.48
1:I:422:HIS:NE2	1:I:612:VAL:HG22	2.28	0.48
1:K:282:TYR:CZ	1:K:374:PRO:HB2	2.49	0.48
1:K:272:HIS:CE1	1:K:385:SER:HG	2.31	0.48
1:L:310:LYS:HB2	1:L:684:GLU:O	2.14	0.48
1:N:357:SER:O	1:N:359:HIS:N	2.47	0.48
1:N:282:TYR:CE2	1:N:374:PRO:HB2	2.49	0.48
1:Q:250:PRO:HG2	1:Q:252:TYR:CE2	2.49	0.48
1:R:245:ARG:CZ	1:R:367:PRO:HA	2.44	0.48
1:S:357:SER:O	1:S:359:HIS:N	2.46	0.48
1:F:354:VAL:H	1:F:646:GLN:HE22	1.62	0.48
1:F:625:THR:HB	1:P:608:GLN:HE21	1.78	0.48
1:G:520:PRO:HG2	1:G:541:MET:SD	2.54	0.48
1:H:520:PRO:HG2	1:H:541:MET:SD	2.54	0.48
1:I:400:PRO:HA	1:R:228:TRP:O	2.14	0.48
1:K:601:ALA:O	1:K:602:LEU:HB2	2.13	0.48
1:L:357:SER:O	1:L:359:HIS:N	2.46	0.48
1:L:601:ALA:O	1:L:602:LEU:HB2	2.13	0.48
1:N:245:ARG:CZ	1:N:367:PRO:HA	2.44	0.48
1:O:423:SER:HB2	1:O:730:ARG:HH21	1.78	0.48
1:R:282:TYR:CE2	1:R:374:PRO:HB2	2.49	0.48
1:S:282:TYR:CE2	1:S:374:PRO:HB2	2.49	0.48
1:B:423:SER:HB2	1:B:730:ARG:HH21	1.77	0.48
1:H:282:TYR:CE2	1:H:374:PRO:HB2	2.48	0.48
1:H:422:HIS:NE2	1:H:612:VAL:HG22	2.28	0.48
1:H:654:VAL:HG11	1:O:322:LYS:NZ	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:250:PRO:HG2	1:M:252:TYR:CE2	2.49	0.48
1:R:289:HIS:ND1	1:R:365:PRO:HB3	2.29	0.48
1:J:368:ALA:HB2	1:R:397:GLU:HG3	1.95	0.48
1:S:313:ASN:HB3	1:S:682:GLU:HB3	1.95	0.48
1:S:423:SER:HB2	1:S:730:ARG:HH21	1.78	0.48
1:C:282:TYR:CE2	1:C:374:PRO:HB2	2.49	0.48
1:D:262:SER:OG	1:D:272:HIS:HA	2.14	0.48
1:F:608:GLN:NE2	1:I:626:ASP:OD1	2.47	0.48
1:H:313:ASN:HB3	1:H:682:GLU:HB3	1.95	0.48
1:H:423:SER:HB2	1:H:730:ARG:HH21	1.77	0.48
1:I:254:ASN:ND2	1:I:254:ASN:O	2.47	0.48
1:F:696:ASN:HD21	1:I:392:SER:HA	1.79	0.48
1:I:621:LYS:HB2	1:I:643:PRO:HG3	1.96	0.48
1:M:654:VAL:HG11	1:T:322:LYS:NZ	2.29	0.48
1:O:313:ASN:HB3	1:O:682:GLU:HB3	1.95	0.48
1:O:302:ASN:HD21	1:O:701:TYR:H	1.59	0.48
1:T:250:PRO:HG2	1:T:252:TYR:CE2	2.49	0.48
1:A:601:ALA:O	1:A:602:LEU:HB2	2.13	0.48
1:G:310:LYS:HB2	1:G:684:GLU:O	2.14	0.48
1:K:496:ASN:ND2	1:R:461:LEU:HD21	2.29	0.48
1:M:289:HIS:ND1	1:M:365:PRO:HB3	2.29	0.48
1:N:310:LYS:HB2	1:N:684:GLU:O	2.14	0.48
1:N:608:GLN:NE2	1:Q:626:ASP:OD1	2.47	0.48
1:O:310:LYS:HB2	1:O:684:GLU:O	2.14	0.48
1:O:621:LYS:HB2	1:O:643:PRO:HG3	1.96	0.48
1:R:519:ASN:CB	1:R:520:PRO:CD	2.89	0.48
1:A:621:LYS:HB2	1:A:643:PRO:HG3	1.96	0.47
1:B:498:ASN:HD21	1:G:457:GLN:NE2	2.12	0.47
1:B:310:LYS:HB2	1:B:684:GLU:O	2.14	0.47
1:K:625:THR:HB	1:R:608:GLN:HE21	1.78	0.47
1:L:282:TYR:CE2	1:L:374:PRO:HB2	2.49	0.47
1:M:357:SER:O	1:M:359:HIS:N	2.47	0.47
1:P:282:TYR:CZ	1:P:374:PRO:HB2	2.49	0.47
1:S:285:PHE:HB3	1:S:363:LEU:HD13	1.96	0.47
1:S:451:ASN:ND2	1:S:460:ASP:OD2	2.38	0.47
1:A:282:TYR:CZ	1:A:374:PRO:HB2	2.49	0.47
1:B:254:ASN:ND2	1:B:254:ASN:O	2.47	0.47
1:C:245:ARG:CZ	1:C:367:PRO:HA	2.44	0.47
1:F:245:ARG:CZ	1:F:367:PRO:HA	2.45	0.47
1:F:310:LYS:HB2	1:F:684:GLU:O	2.14	0.47
1:F:520:PRO:HG2	1:F:541:MET:SD	2.54	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:601:ALA:O	1:F:602:LEU:HB2	2.14	0.47
1:G:282:TYR:CE2	1:G:374:PRO:HB2	2.49	0.47
1:G:621:LYS:HB2	1:G:643:PRO:HG3	1.96	0.47
1:H:250:PRO:HG2	1:H:252:TYR:CE2	2.50	0.47
1:I:289:HIS:ND1	1:I:365:PRO:HB3	2.29	0.47
1:J:313:ASN:HB3	1:J:682:GLU:HB3	1.95	0.47
1:J:338:THR:CG2	1:L:406:THR:OG1	2.62	0.47
1:N:579:THR:HB	1:N:593:THR:OG1	2.14	0.47
1:N:621:LYS:HB2	1:N:643:PRO:HG3	1.96	0.47
1:O:272:HIS:CE1	1:O:385:SER:HG	2.30	0.47
1:O:579:THR:HB	1:O:593:THR:OG1	2.14	0.47
1:P:310:LYS:HB2	1:P:684:GLU:O	2.13	0.47
1:Q:254:ASN:ND2	1:Q:254:ASN:O	2.47	0.47
1:Q:262:SER:OG	1:Q:272:HIS:HA	2.15	0.47
1:Q:450:GLN:NE2	1:Q:457:GLN:HG2	2.29	0.47
1:Q:519:ASN:CB	1:Q:520:PRO:CD	2.89	0.47
1:T:520:PRO:HG2	1:T:541:MET:SD	2.54	0.47
1:T:621:LYS:HB2	1:T:643:PRO:HG3	1.94	0.47
1:D:282:TYR:CE2	1:D:374:PRO:HB2	2.49	0.47
1:D:422:HIS:NE2	1:D:612:VAL:HG22	2.29	0.47
1:E:250:PRO:HG2	1:E:252:TYR:CE2	2.49	0.47
1:E:289:HIS:ND1	1:E:365:PRO:HB3	2.29	0.47
1:G:450:GLN:NE2	1:G:457:GLN:HG2	2.29	0.47
1:I:451:ASN:ND2	1:I:460:ASP:OD2	2.39	0.47
1:I:519:ASN:CB	1:I:520:PRO:CD	2.89	0.47
1:J:250:PRO:HG2	1:J:252:TYR:CE2	2.49	0.47
1:K:254:ASN:O	1:K:254:ASN:ND2	2.47	0.47
1:M:254:ASN:O	1:M:254:ASN:ND2	2.48	0.47
1:M:654:VAL:HG11	1:T:322:LYS:HZ1	1.78	0.47
1:N:429:GLN:OE1	1:Q:352:PRO:HB3	2.14	0.47
1:P:262:SER:OG	1:P:272:HIS:HA	2.14	0.47
1:P:245:ARG:CZ	1:P:367:PRO:HA	2.44	0.47
1:R:250:PRO:HG2	1:R:252:TYR:CE2	2.49	0.47
1:R:354:VAL:H	1:R:646:GLN:HE22	1.63	0.47
1:R:357:SER:O	1:R:359:HIS:N	2.46	0.47
1:T:310:LYS:HB2	1:T:684:GLU:O	2.14	0.47
1:C:269:ASN:HA	1:C:272:HIS:HD2	1.80	0.47
1:C:621:LYS:HB2	1:C:643:PRO:HG3	1.96	0.47
1:D:285:PHE:HB3	1:D:363:LEU:HD13	1.97	0.47
1:D:579:THR:HB	1:D:593:THR:OG1	2.15	0.47
1:E:282:TYR:CZ	1:E:374:PRO:HB2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:282:TYR:CZ	1:I:374:PRO:HB2	2.50	0.47
1:J:579:THR:HB	1:J:593:THR:OG1	2.15	0.47
1:L:450:GLN:NE2	1:L:457:GLN:HG2	2.30	0.47
1:M:285:PHE:HB3	1:M:363:LEU:HD13	1.96	0.47
1:N:302:ASN:HD21	1:N:701:TYR:H	1.60	0.47
1:O:245:ARG:CZ	1:O:367:PRO:HA	2.45	0.47
1:F:392:SER:OG	1:P:694:ARG:NH1	2.48	0.47
1:R:285:PHE:HB3	1:R:363:LEU:HD13	1.97	0.47
1:D:310:LYS:HB2	1:D:684:GLU:O	2.15	0.47
1:D:450:GLN:NE2	1:D:457:GLN:HG2	2.30	0.47
1:E:282:TYR:CE2	1:E:374:PRO:HB2	2.49	0.47
1:G:297:TRP:NE1	1:G:301:ILE:HD11	2.30	0.47
1:J:450:GLN:NE2	1:J:457:GLN:HG2	2.29	0.47
1:K:285:PHE:HB3	1:K:363:LEU:HD13	1.96	0.47
1:L:621:LYS:HB2	1:L:643:PRO:HG3	1.95	0.47
1:N:601:ALA:O	1:N:602:LEU:HB2	2.13	0.47
1:H:608:GLN:HE21	1:N:625:THR:HB	1.79	0.47
1:O:254:ASN:ND2	1:O:254:ASN:O	2.48	0.47
1:O:285:PHE:HB3	1:O:363:LEU:HD13	1.96	0.47
1:O:450:GLN:NE2	1:O:457:GLN:HG2	2.29	0.47
1:P:285:PHE:HB3	1:P:363:LEU:HD13	1.97	0.47
1:Q:601:ALA:O	1:Q:602:LEU:HB2	2.14	0.47
1:S:422:HIS:NE2	1:S:612:VAL:HG22	2.29	0.47
1:T:245:ARG:CZ	1:T:367:PRO:HA	2.44	0.47
1:A:254:ASN:O	1:A:254:ASN:ND2	2.48	0.47
1:B:450:GLN:NE2	1:B:457:GLN:HG2	2.30	0.47
1:C:450:GLN:NE2	1:C:457:GLN:HG2	2.29	0.47
1:D:282:TYR:CZ	1:D:374:PRO:HB2	2.50	0.47
1:F:285:PHE:HB3	1:F:363:LEU:HD13	1.97	0.47
1:F:282:TYR:CZ	1:F:374:PRO:HB2	2.50	0.47
1:F:422:HIS:NE2	1:F:612:VAL:HG22	2.29	0.47
1:I:310:LYS:HB2	1:I:684:GLU:O	2.15	0.47
1:K:245:ARG:CZ	1:K:367:PRO:HA	2.45	0.47
1:K:621:LYS:HB2	1:K:643:PRO:HG3	1.97	0.47
1:L:282:TYR:CZ	1:L:374:PRO:HB2	2.50	0.47
1:N:282:TYR:CZ	1:N:374:PRO:HB2	2.50	0.47
1:O:250:PRO:HG2	1:O:252:TYR:CE2	2.49	0.47
1:Q:310:LYS:HB2	1:Q:684:GLU:O	2.14	0.47
1:S:254:ASN:ND2	1:S:254:ASN:O	2.48	0.47
1:T:357:SER:O	1:T:359:HIS:N	2.47	0.47
1:B:262:SER:OG	1:B:272:HIS:HA	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:705:TYR:O	1:E:388:VAL:HG12	2.14	0.47
1:D:250:PRO:HG2	1:D:252:TYR:CE2	2.49	0.47
1:D:254:ASN:ND2	1:D:254:ASN:O	2.48	0.47
1:G:298:GLN:HE22	1:N:698:GLU:N	2.03	0.47
1:H:606:VAL:HG11	1:N:623:PRO:HB2	1.97	0.47
1:I:285:PHE:HB3	1:I:363:LEU:HD13	1.96	0.47
1:K:313:ASN:HB3	1:K:682:GLU:HB3	1.95	0.47
1:L:579:THR:HB	1:L:593:THR:OG1	2.15	0.47
1:O:269:ASN:HA	1:O:272:HIS:HD2	1.80	0.47
1:P:450:GLN:NE2	1:P:457:GLN:HG2	2.30	0.47
1:Q:579:THR:HB	1:Q:593:THR:OG1	2.15	0.47
1:R:450:GLN:NE2	1:R:457:GLN:HG2	2.30	0.47
1:R:297:TRP:CG	1:R:614:LEU:HG	2.50	0.47
1:S:262:SER:OG	1:S:272:HIS:HA	2.14	0.47
1:S:450:GLN:NE2	1:S:457:GLN:HG2	2.30	0.47
1:F:289:HIS:ND1	1:F:365:PRO:HB3	2.29	0.47
1:G:285:PHE:HB3	1:G:363:LEU:HD13	1.97	0.47
1:H:579:THR:HB	1:H:593:THR:OG1	2.15	0.47
1:I:262:SER:OG	1:I:272:HIS:HA	2.15	0.47
1:L:245:ARG:CZ	1:L:367:PRO:HA	2.45	0.47
1:M:282:TYR:CE2	1:M:374:PRO:HB2	2.49	0.47
1:M:450:GLN:NE2	1:M:457:GLN:HG2	2.30	0.47
1:N:262:SER:OG	1:N:272:HIS:HA	2.15	0.47
1:O:282:TYR:CZ	1:O:374:PRO:HB2	2.50	0.47
1:P:250:PRO:HG2	1:P:252:TYR:CE2	2.50	0.47
1:P:422:HIS:NE2	1:P:612:VAL:HG22	2.28	0.47
1:R:254:ASN:ND2	1:R:254:ASN:O	2.48	0.47
1:T:262:SER:OG	1:T:272:HIS:HA	2.15	0.47
1:A:245:ARG:CZ	1:A:367:PRO:HA	2.44	0.47
1:A:297:TRP:CG	1:A:614:LEU:HG	2.50	0.47
1:B:245:ARG:CZ	1:B:367:PRO:HA	2.44	0.47
1:C:254:ASN:O	1:C:254:ASN:ND2	2.47	0.47
1:D:245:ARG:CZ	1:D:367:PRO:HA	2.45	0.47
1:D:451:ASN:ND2	1:D:460:ASP:OD2	2.38	0.47
1:E:450:GLN:NE2	1:E:457:GLN:HG2	2.29	0.47
1:E:601:ALA:O	1:E:602:LEU:HB2	2.13	0.47
1:I:608:GLN:HE21	1:P:625:THR:HB	1.80	0.47
1:K:579:THR:HB	1:K:593:THR:OG1	2.15	0.47
1:L:297:TRP:CG	1:L:614:LEU:HG	2.50	0.47
1:M:621:LYS:HB2	1:M:643:PRO:HG3	1.96	0.47
1:P:254:ASN:ND2	1:P:254:ASN:O	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:352:PRO:HB3	1:R:429:GLN:OE1	2.15	0.47
1:K:519:ASN:CB	1:R:475:PRO:HA	2.44	0.47
1:S:250:PRO:HG2	1:S:252:TYR:CE2	2.50	0.47
1:S:282:TYR:CZ	1:S:374:PRO:HB2	2.50	0.47
1:S:579:THR:HB	1:S:593:THR:OG1	2.15	0.47
1:S:601:ALA:O	1:S:602:LEU:HB2	2.14	0.47
1:T:254:ASN:ND2	1:T:254:ASN:O	2.48	0.47
1:T:450:GLN:NE2	1:T:457:GLN:HG2	2.30	0.47
1:A:310:LYS:HB2	1:A:684:GLU:O	2.14	0.47
1:C:250:PRO:HG2	1:C:252:TYR:CE2	2.50	0.47
1:C:313:ASN:HB3	1:C:682:GLU:HB3	1.96	0.47
1:E:245:ARG:CZ	1:E:367:PRO:HA	2.45	0.47
1:F:269:ASN:HA	1:F:272:HIS:HD2	1.80	0.47
1:H:285:PHE:HB3	1:H:363:LEU:HD13	1.96	0.47
1:I:282:TYR:CE2	1:I:374:PRO:HB2	2.49	0.47
1:I:297:TRP:O	1:I:301:ILE:HG13	2.15	0.47
1:K:262:SER:OG	1:K:272:HIS:HA	2.15	0.47
1:M:245:ARG:CZ	1:M:367:PRO:HA	2.45	0.47
1:M:400:PRO:HA	1:T:228:TRP:O	2.15	0.47
1:M:310:LYS:HB2	1:M:684:GLU:O	2.14	0.47
1:Q:245:ARG:CZ	1:Q:367:PRO:HA	2.45	0.47
1:R:331:THR:O	1:R:331:THR:HG23	2.14	0.47
1:A:250:PRO:HG2	1:A:252:TYR:CE2	2.49	0.47
1:C:262:SER:OG	1:C:272:HIS:HA	2.14	0.47
1:C:520:PRO:HG2	1:C:541:MET:SD	2.54	0.47
1:G:245:ARG:CZ	1:G:367:PRO:HA	2.45	0.47
1:G:282:TYR:CZ	1:G:374:PRO:HB2	2.50	0.47
1:H:269:ASN:HA	1:H:272:HIS:HD2	1.80	0.47
1:N:250:PRO:HG2	1:N:252:TYR:CE2	2.50	0.47
1:N:285:PHE:HB3	1:N:363:LEU:HD13	1.97	0.47
1:O:262:SER:OG	1:O:272:HIS:HA	2.15	0.47
1:Q:311:ARG:HH21	1:Q:684:GLU:CD	2.19	0.47
1:R:272:HIS:CE1	1:R:385:SER:HG	2.29	0.47
1:R:310:LYS:HB2	1:R:684:GLU:O	2.15	0.47
1:S:245:ARG:CZ	1:S:367:PRO:HA	2.44	0.47
1:T:285:PHE:HB3	1:T:363:LEU:HD13	1.96	0.47
1:T:297:TRP:NE1	1:T:301:ILE:HD11	2.30	0.47
1:A:272:HIS:CE1	1:A:385:SER:HG	2.32	0.46
1:B:297:TRP:CG	1:B:614:LEU:HG	2.50	0.46
1:B:623:PRO:HB2	1:G:606:VAL:HG11	1.97	0.46
1:C:297:TRP:O	1:C:301:ILE:HG13	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:285:PHE:HB3	1:E:363:LEU:HD13	1.96	0.46
1:G:297:TRP:CG	1:G:614:LEU:HG	2.50	0.46
1:I:245:ARG:CZ	1:I:367:PRO:HA	2.45	0.46
1:K:250:PRO:HG2	1:K:252:TYR:CE2	2.50	0.46
1:M:282:TYR:CZ	1:M:374:PRO:HB2	2.50	0.46
1:N:450:GLN:NE2	1:N:457:GLN:HG2	2.29	0.46
1:N:694:ARG:NH1	1:Q:392:SER:OG	2.48	0.46
1:O:354:VAL:H	1:O:646:GLN:HE22	1.63	0.46
1:Q:282:TYR:CE2	1:Q:374:PRO:HB2	2.49	0.46
1:Q:297:TRP:NE1	1:Q:301:ILE:HD11	2.31	0.46
1:Q:621:LYS:HB2	1:Q:643:PRO:HG3	1.97	0.46
1:R:262:SER:OG	1:R:272:HIS:HA	2.14	0.46
1:A:450:GLN:NE2	1:A:457:GLN:HG2	2.29	0.46
1:B:282:TYR:CZ	1:B:374:PRO:HB2	2.50	0.46
1:C:297:TRP:CG	1:C:614:LEU:HG	2.51	0.46
1:C:451:ASN:ND2	1:C:460:ASP:OD2	2.38	0.46
1:D:297:TRP:CG	1:D:614:LEU:HG	2.50	0.46
1:E:254:ASN:ND2	1:E:254:ASN:O	2.48	0.46
1:E:262:SER:OG	1:E:272:HIS:HA	2.15	0.46
1:E:297:TRP:CG	1:E:614:LEU:HG	2.50	0.46
1:F:297:TRP:CG	1:F:614:LEU:HG	2.50	0.46
1:F:579:THR:HB	1:F:593:THR:OG1	2.15	0.46
1:H:310:LYS:HB2	1:H:684:GLU:O	2.14	0.46
1:H:500:ASN:HB2	1:Q:450:GLN:HB2	1.98	0.46
1:H:630:HIS:N	1:H:631:PRO:HD3	2.30	0.46
1:I:311:ARG:HH21	1:I:684:GLU:CD	2.19	0.46
1:J:405:ARG:HG3	1:L:224:ALA:HA	1.96	0.46
1:J:621:LYS:HB2	1:J:643:PRO:HG3	1.96	0.46
1:K:450:GLN:NE2	1:K:457:GLN:HG2	2.30	0.46
1:K:311:ARG:HH21	1:K:684:GLU:CD	2.19	0.46
1:H:457:GLN:NE2	1:N:498:ASN:HD21	2.12	0.46
1:O:297:TRP:CG	1:O:614:LEU:HG	2.50	0.46
1:P:297:TRP:CG	1:P:614:LEU:HG	2.51	0.46
1:P:630:HIS:N	1:P:631:PRO:HD3	2.31	0.46
1:S:621:LYS:HB2	1:S:643:PRO:HG3	1.96	0.46
1:A:297:TRP:NE1	1:A:301:ILE:HD11	2.31	0.46
1:A:579:THR:HB	1:A:593:THR:OG1	2.15	0.46
1:B:285:PHE:HB3	1:B:363:LEU:HD13	1.97	0.46
1:B:272:HIS:CE1	1:B:385:SER:HG	2.32	0.46
1:D:392:SER:HA	1:E:696:ASN:HD21	1.80	0.46
1:G:262:SER:OG	1:G:272:HIS:HA	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:262:SER:OG	1:H:272:HIS:HA	2.15	0.46
1:H:297:TRP:NE1	1:H:301:ILE:HD11	2.30	0.46
1:I:450:GLN:NE2	1:I:457:GLN:HG2	2.30	0.46
1:I:667:PHE:HE1	1:I:669:SER:O	1.99	0.46
1:J:254:ASN:O	1:J:254:ASN:ND2	2.48	0.46
1:J:282:TYR:CZ	1:J:374:PRO:HB2	2.49	0.46
1:J:297:TRP:CG	1:J:614:LEU:HG	2.51	0.46
1:M:579:THR:HB	1:M:593:THR:OG1	2.15	0.46
1:M:297:TRP:CG	1:M:614:LEU:HG	2.51	0.46
1:O:297:TRP:O	1:O:301:ILE:HG13	2.15	0.46
1:O:450:GLN:HB2	1:T:500:ASN:HB2	1.96	0.46
1:Q:282:TYR:CZ	1:Q:374:PRO:HB2	2.50	0.46
1:R:579:THR:HB	1:R:593:THR:OG1	2.15	0.46
1:R:313:ASN:HB3	1:R:682:GLU:HB3	1.96	0.46
1:S:272:HIS:CE1	1:S:385:SER:HG	2.30	0.46
1:E:579:THR:HB	1:E:593:THR:OG1	2.14	0.46
1:F:250:PRO:HG2	1:F:252:TYR:CE2	2.49	0.46
1:F:623:PRO:HB2	1:P:606:VAL:HG11	1.98	0.46
1:H:282:TYR:CZ	1:H:374:PRO:HB2	2.49	0.46
1:N:297:TRP:O	1:N:301:ILE:HG13	2.16	0.46
1:R:282:TYR:CZ	1:R:374:PRO:HB2	2.50	0.46
1:A:285:PHE:HB3	1:A:363:LEU:HD13	1.97	0.46
1:B:621:LYS:HB2	1:B:643:PRO:HG3	1.97	0.46
1:D:297:TRP:O	1:D:301:ILE:HG13	2.16	0.46
1:F:457:GLN:NE2	1:I:498:ASN:HD21	2.13	0.46
1:G:630:HIS:N	1:G:631:PRO:HD3	2.31	0.46
1:B:392:SER:OG	1:G:694:ARG:NH1	2.47	0.46
1:B:392:SER:HA	1:G:696:ASN:HD21	1.80	0.46
1:H:400:PRO:HA	1:O:228:TRP:O	2.15	0.46
1:H:450:GLN:NE2	1:H:457:GLN:HG2	2.30	0.46
1:J:297:TRP:NE1	1:J:301:ILE:HD11	2.31	0.46
1:K:297:TRP:O	1:K:301:ILE:HG13	2.16	0.46
1:M:297:TRP:O	1:M:301:ILE:HG13	2.16	0.46
1:N:667:PHE:HE1	1:N:669:SER:O	1.99	0.46
1:S:667:PHE:HE1	1:S:669:SER:O	1.99	0.46
1:B:297:TRP:NE1	1:B:301:ILE:HD11	2.31	0.46
1:B:579:THR:HB	1:B:593:THR:OG1	2.15	0.46
1:E:310:LYS:HB2	1:E:684:GLU:O	2.15	0.46
1:G:579:THR:HB	1:G:593:THR:OG1	2.15	0.46
1:I:297:TRP:CG	1:I:614:LEU:HG	2.51	0.46
1:J:354:VAL:H	1:J:646:GLN:HE22	1.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:630:HIS:N	1:L:631:PRO:HD3	2.31	0.46
1:H:694:ARG:NH1	1:N:392:SER:OG	2.49	0.46
1:F:379:LEU:CD1	1:P:433:ARG:HG3	2.43	0.46
1:T:579:THR:HB	1:T:593:THR:OG1	2.15	0.46
1:A:311:ARG:HH21	1:A:684:GLU:CD	2.19	0.46
1:E:297:TRP:NE1	1:E:301:ILE:HD11	2.31	0.46
1:F:311:ARG:HH21	1:F:684:GLU:CD	2.19	0.46
1:F:450:GLN:NE2	1:F:457:GLN:HG2	2.30	0.46
1:F:634:LEU:HD11	1:P:603:PRO:O	2.16	0.46
1:G:667:PHE:HE1	1:G:669:SER:O	1.98	0.46
1:I:579:THR:HB	1:I:593:THR:OG1	2.16	0.46
1:J:285:PHE:HB3	1:J:363:LEU:HD13	1.97	0.46
1:L:285:PHE:HB3	1:L:363:LEU:HD13	1.97	0.46
1:A:400:PRO:HA	1:M:228:TRP:O	2.16	0.46
1:N:696:ASN:HD21	1:Q:392:SER:HA	1.80	0.46
1:H:519:ASN:CB	1:Q:475:PRO:HA	2.45	0.46
1:I:654:VAL:HG11	1:R:322:LYS:NZ	2.30	0.46
1:S:366:PHE:HE2	1:S:368:ALA:HB3	1.81	0.46
1:C:282:TYR:CZ	1:C:374:PRO:HB2	2.50	0.46
1:E:630:HIS:N	1:E:631:PRO:HD3	2.31	0.46
1:F:254:ASN:O	1:F:254:ASN:ND2	2.48	0.46
1:F:262:SER:OG	1:F:272:HIS:HA	2.15	0.46
1:F:584:LEU:HD13	1:I:488:ARG:CZ	2.44	0.46
1:H:667:PHE:HE1	1:H:669:SER:O	1.99	0.46
1:I:354:VAL:H	1:I:646:GLN:HE22	1.62	0.46
1:J:366:PHE:HE2	1:J:368:ALA:HB3	1.81	0.46
1:J:699:VAL:O	1:J:731:TYR:HB3	2.16	0.46
1:K:310:LYS:HB2	1:K:684:GLU:O	2.15	0.46
1:L:254:ASN:O	1:L:254:ASN:ND2	2.48	0.46
1:L:262:SER:OG	1:L:272:HIS:HA	2.15	0.46
1:M:667:PHE:HE1	1:M:669:SER:O	1.99	0.46
1:R:297:TRP:NE1	1:R:301:ILE:HD11	2.31	0.46
1:R:630:HIS:N	1:R:631:PRO:HD3	2.31	0.46
1:S:310:LYS:HB2	1:S:684:GLU:O	2.15	0.46
1:T:282:TYR:CZ	1:T:374:PRO:HB2	2.50	0.46
1:A:564:GLU:C	1:A:566:ILE:H	2.20	0.46
1:B:667:PHE:HE1	1:B:669:SER:O	1.99	0.46
1:C:285:PHE:HB3	1:C:363:LEU:HD13	1.96	0.46
1:C:564:GLU:C	1:C:566:ILE:H	2.20	0.46
1:C:579:THR:HB	1:C:593:THR:OG1	2.15	0.46
1:D:297:TRP:NE1	1:D:301:ILE:HD11	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:297:TRP:NE1	1:F:301:ILE:HD11	2.31	0.46
1:J:262:SER:OG	1:J:272:HIS:HA	2.15	0.46
1:J:245:ARG:CZ	1:J:367:PRO:HA	2.46	0.46
1:J:630:HIS:N	1:J:631:PRO:HD3	2.31	0.46
1:L:667:PHE:HE1	1:L:669:SER:O	1.99	0.46
1:M:297:TRP:NE1	1:M:301:ILE:HD11	2.31	0.46
1:Q:630:HIS:N	1:Q:631:PRO:HD3	2.31	0.46
1:R:621:LYS:HB2	1:R:643:PRO:HG3	1.96	0.46
1:S:590:ASP:CB	1:S:591:PRO:HA	2.46	0.46
1:A:297:TRP:O	1:A:301:ILE:HG13	2.16	0.46
1:D:630:HIS:N	1:D:631:PRO:HD3	2.31	0.46
1:F:447:ASN:O	1:I:502:THR:HG21	2.16	0.46
1:G:250:PRO:HG2	1:G:252:TYR:CE2	2.50	0.46
1:K:297:TRP:CG	1:K:614:LEU:HG	2.51	0.46
1:M:566:ILE:HG22	1:M:570:ASN:HB2	1.98	0.46
1:M:699:VAL:O	1:M:731:TYR:HB3	2.16	0.46
1:P:297:TRP:O	1:P:301:ILE:HG13	2.16	0.46
1:P:366:PHE:HE2	1:P:368:ALA:HB3	1.80	0.46
1:Q:285:PHE:HB3	1:Q:363:LEU:HD13	1.97	0.46
1:Q:297:TRP:CG	1:Q:614:LEU:HG	2.50	0.46
1:A:262:SER:OG	1:A:272:HIS:HA	2.15	0.45
1:A:654:VAL:HG11	1:M:322:LYS:NZ	2.31	0.45
1:G:366:PHE:HE2	1:G:368:ALA:HB3	1.81	0.45
1:H:245:ARG:CZ	1:H:367:PRO:HA	2.45	0.45
1:K:519:ASN:CB	1:K:520:PRO:CD	2.90	0.45
1:O:311:ARG:HH21	1:O:684:GLU:CD	2.19	0.45
1:Q:667:PHE:HE1	1:Q:669:SER:O	1.99	0.45
1:H:399:PHE:CE2	1:Q:693:LYS:HD3	2.51	0.45
1:D:352:PRO:HB3	1:E:429:GLN:OE1	2.17	0.45
1:D:597:HIS:CE1	1:E:582:VAL:HG13	2.51	0.45
1:G:564:GLU:C	1:G:566:ILE:H	2.20	0.45
1:H:254:ASN:ND2	1:H:254:ASN:O	2.49	0.45
1:H:498:ASN:HD21	1:Q:457:GLN:NE2	2.14	0.45
1:H:625:THR:HB	1:Q:608:GLN:HE21	1.80	0.45
1:I:297:TRP:NE1	1:I:301:ILE:HD11	2.31	0.45
1:I:630:HIS:N	1:I:631:PRO:HD3	2.31	0.45
1:K:297:TRP:NE1	1:K:301:ILE:HD11	2.31	0.45
1:K:366:PHE:HE2	1:K:368:ALA:HB3	1.81	0.45
1:L:297:TRP:NE1	1:L:301:ILE:HD11	2.31	0.45
1:L:527:HIS:HB2	1:L:531:LYS:O	2.16	0.45
1:M:262:SER:OG	1:M:272:HIS:HA	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:297:TRP:NE1	1:O:301:ILE:HD11	2.31	0.45
1:P:615:GLN:HE21	1:P:615:GLN:HB2	1.59	0.45
1:S:566:ILE:HG22	1:S:570:ASN:HB2	1.99	0.45
1:T:354:VAL:H	1:T:646:GLN:HE22	1.62	0.45
1:T:366:PHE:HE2	1:T:368:ALA:HB3	1.81	0.45
1:B:630:HIS:N	1:B:631:PRO:HD3	2.31	0.45
1:C:667:PHE:HE1	1:C:669:SER:O	1.99	0.45
1:D:564:GLU:C	1:D:566:ILE:H	2.20	0.45
1:D:500:ASN:HB2	1:E:450:GLN:HB2	1.99	0.45
1:F:429:GLN:OE1	1:I:352:PRO:HB3	2.15	0.45
1:F:488:ARG:CZ	1:P:584:LEU:HD13	2.46	0.45
1:G:354:VAL:H	1:G:646:GLN:HE22	1.63	0.45
1:G:527:HIS:HB2	1:G:531:LYS:O	2.16	0.45
1:J:297:TRP:O	1:J:301:ILE:HG13	2.16	0.45
1:L:311:ARG:HH21	1:L:684:GLU:CD	2.20	0.45
1:N:447:ASN:O	1:Q:502:THR:HG21	2.16	0.45
1:N:566:ILE:HG22	1:N:570:ASN:HB2	1.98	0.45
1:N:482:PRO:HB3	1:N:600:GLY:HA2	1.98	0.45
1:N:630:HIS:N	1:N:631:PRO:HD3	2.31	0.45
1:O:667:PHE:HE1	1:O:669:SER:O	1.99	0.45
1:P:451:ASN:ND2	1:P:460:ASP:OD2	2.38	0.45
1:P:482:PRO:HB3	1:P:600:GLY:HA2	1.99	0.45
1:Q:297:TRP:O	1:Q:301:ILE:HG13	2.17	0.45
1:R:311:ARG:HH21	1:R:684:GLU:CD	2.19	0.45
1:S:297:TRP:CG	1:S:614:LEU:HG	2.51	0.45
1:T:297:TRP:CG	1:T:614:LEU:HG	2.51	0.45
1:T:630:HIS:N	1:T:631:PRO:HD3	2.30	0.45
1:A:667:PHE:HE1	1:A:669:SER:O	1.99	0.45
1:B:297:TRP:O	1:B:301:ILE:HG13	2.16	0.45
1:D:366:PHE:HE2	1:D:368:ALA:HB3	1.81	0.45
1:D:527:HIS:HB2	1:D:531:LYS:O	2.17	0.45
1:F:366:PHE:HE2	1:F:368:ALA:HB3	1.82	0.45
1:G:451:ASN:CB	1:G:460:ASP:HB3	2.47	0.45
1:H:451:ASN:ND2	1:H:460:ASP:OD2	2.38	0.45
1:H:597:HIS:CE1	1:Q:582:VAL:HG13	2.52	0.45
1:K:630:HIS:N	1:K:631:PRO:HD3	2.31	0.45
1:L:316:LEU:HB3	1:L:410:PHE:HB3	1.99	0.45
1:L:451:ASN:CB	1:L:460:ASP:HB3	2.47	0.45
1:M:269:ASN:HA	1:M:272:HIS:HD2	1.81	0.45
1:P:297:TRP:NE1	1:P:301:ILE:HD11	2.32	0.45
1:A:630:HIS:N	1:A:631:PRO:HD3	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:311:ARG:HH21	1:B:684:GLU:CD	2.19	0.45
1:B:366:PHE:HE2	1:B:368:ALA:HB3	1.81	0.45
1:C:311:ARG:HH21	1:C:684:GLU:CD	2.20	0.45
1:E:297:TRP:O	1:E:301:ILE:HG13	2.16	0.45
1:F:667:PHE:HE1	1:F:669:SER:O	1.99	0.45
1:G:316:LEU:HB3	1:G:410:PHE:HB3	1.99	0.45
1:I:699:VAL:O	1:I:731:TYR:HB3	2.17	0.45
1:L:297:TRP:O	1:L:301:ILE:HG13	2.16	0.45
1:L:366:PHE:HE2	1:L:368:ALA:HB3	1.81	0.45
1:M:630:HIS:N	1:M:631:PRO:HD3	2.31	0.45
1:N:311:ARG:HH21	1:N:684:GLU:CD	2.19	0.45
1:Q:451:ASN:CB	1:Q:460:ASP:HB3	2.47	0.45
1:R:699:VAL:O	1:R:731:TYR:HB3	2.17	0.45
1:S:527:HIS:HB2	1:S:531:LYS:O	2.17	0.45
1:T:297:TRP:O	1:T:301:ILE:HG13	2.17	0.45
1:T:527:HIS:HB2	1:T:531:LYS:O	2.17	0.45
1:T:667:PHE:HE1	1:T:669:SER:O	1.99	0.45
1:B:566:ILE:HG22	1:B:570:ASN:HB2	1.99	0.45
1:D:667:PHE:HE1	1:D:669:SER:O	2.00	0.45
1:E:311:ARG:HH21	1:E:684:GLU:CD	2.20	0.45
1:F:272:HIS:CE1	1:F:385:SER:HG	2.31	0.45
1:H:582:VAL:HG12	1:H:582:VAL:O	2.17	0.45
1:K:667:PHE:HE1	1:K:669:SER:O	1.99	0.45
1:N:297:TRP:NE1	1:N:301:ILE:HD11	2.31	0.45
1:P:527:HIS:HB2	1:P:531:LYS:O	2.16	0.45
1:R:667:PHE:HE1	1:R:669:SER:O	2.00	0.45
1:A:482:PRO:HB3	1:A:600:GLY:HA2	1.99	0.45
1:E:699:VAL:O	1:E:731:TYR:HB3	2.17	0.45
1:F:297:TRP:O	1:F:301:ILE:HG13	2.16	0.45
1:F:584:LEU:HD13	1:I:488:ARG:NH2	2.32	0.45
1:H:297:TRP:CG	1:H:614:LEU:HG	2.51	0.45
1:H:316:LEU:HB3	1:H:410:PHE:HB3	1.98	0.45
1:I:451:ASN:CB	1:I:460:ASP:HB3	2.47	0.45
1:I:693:LYS:HD3	1:P:399:PHE:CE2	2.52	0.45
1:J:667:PHE:HE1	1:J:669:SER:O	1.99	0.45
1:M:354:VAL:H	1:M:646:GLN:HE22	1.62	0.45
1:H:450:GLN:HB2	1:N:500:ASN:HB2	1.99	0.45
1:O:630:HIS:N	1:O:631:PRO:HD3	2.31	0.45
1:P:579:THR:HB	1:P:593:THR:OG1	2.16	0.45
1:R:297:TRP:O	1:R:301:ILE:HG13	2.16	0.45
1:R:366:PHE:HE2	1:R:368:ALA:HB3	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:297:TRP:O	1:S:301:ILE:HG13	2.17	0.45
1:S:451:ASN:CB	1:S:460:ASP:HB3	2.47	0.45
1:A:316:LEU:HB3	1:A:410:PHE:HB3	1.99	0.45
1:C:566:ILE:HG22	1:C:570:ASN:HB2	1.99	0.45
1:D:482:PRO:HB3	1:D:600:GLY:HA2	1.99	0.45
1:E:354:VAL:H	1:E:646:GLN:HE22	1.62	0.45
1:F:566:ILE:HG22	1:F:570:ASN:HB2	1.98	0.45
1:J:311:ARG:HH21	1:J:684:GLU:CD	2.20	0.45
1:K:269:ASN:HA	1:K:272:HIS:HD2	1.80	0.45
1:K:566:ILE:HG22	1:K:570:ASN:HB2	1.99	0.45
1:L:699:VAL:O	1:L:731:TYR:HB3	2.17	0.45
1:M:311:ARG:HH21	1:M:684:GLU:CD	2.20	0.45
1:M:316:LEU:HB3	1:M:410:PHE:HB3	1.99	0.45
1:O:527:HIS:HB2	1:O:531:LYS:O	2.17	0.45
1:Q:527:HIS:HB2	1:Q:531:LYS:O	2.17	0.45
1:Q:566:ILE:HG22	1:Q:570:ASN:HB2	1.99	0.45
1:S:630:HIS:N	1:S:631:PRO:HD3	2.31	0.45
1:T:564:GLU:C	1:T:566:ILE:H	2.20	0.45
1:A:366:PHE:HA	1:A:367:PRO:HD3	1.88	0.45
1:A:566:ILE:HG22	1:A:570:ASN:HB2	1.98	0.45
1:B:599:MET:HG3	1:B:600:GLY:N	2.32	0.45
1:C:316:LEU:HB3	1:C:410:PHE:HB3	1.99	0.45
1:E:667:PHE:HE1	1:E:669:SER:O	1.99	0.45
1:F:316:LEU:HB3	1:F:410:PHE:HB3	1.99	0.45
1:H:566:ILE:HG22	1:H:570:ASN:HB2	1.98	0.45
1:H:564:GLU:C	1:H:566:ILE:H	2.20	0.45
1:I:527:HIS:HB2	1:I:531:LYS:O	2.17	0.45
1:J:564:GLU:C	1:J:566:ILE:H	2.20	0.45
1:J:401:SER:N	1:L:228:TRP:O	2.46	0.45
1:L:482:PRO:HB3	1:L:600:GLY:HA2	1.99	0.45
1:L:566:ILE:HG22	1:L:570:ASN:HB2	1.99	0.45
1:M:527:HIS:HB2	1:M:531:LYS:O	2.17	0.45
1:N:584:LEU:HD13	1:Q:488:ARG:CZ	2.47	0.45
1:P:311:ARG:HH21	1:P:684:GLU:CD	2.19	0.45
1:F:498:ASN:HD21	1:P:457:GLN:NE2	2.15	0.45
1:I:402:GLN:HG3	1:R:227:ASN:OD1	2.17	0.45
1:B:269:ASN:HA	1:B:272:HIS:HD2	1.80	0.45
1:C:630:HIS:N	1:C:631:PRO:HD3	2.31	0.45
1:D:392:SER:OG	1:E:694:ARG:NH1	2.50	0.45
1:I:582:VAL:HG13	1:P:597:HIS:CE1	2.52	0.45
1:N:297:TRP:CG	1:N:614:LEU:HG	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:316:LEU:HB3	1:P:410:PHE:HB3	1.99	0.45
1:T:269:ASN:HA	1:T:272:HIS:HD2	1.80	0.45
1:B:564:GLU:C	1:B:566:ILE:H	2.20	0.44
1:F:630:HIS:N	1:F:631:PRO:HD3	2.31	0.44
1:G:482:PRO:HB3	1:G:600:GLY:HA2	1.99	0.44
1:H:297:TRP:O	1:H:301:ILE:HG13	2.16	0.44
1:H:354:VAL:H	1:H:646:GLN:HE22	1.62	0.44
1:H:482:PRO:HB3	1:H:600:GLY:HA2	1.99	0.44
1:I:429:GLN:OE1	1:P:352:PRO:HB3	2.16	0.44
1:M:366:PHE:HE2	1:M:368:ALA:HB3	1.81	0.44
1:M:564:GLU:C	1:M:566:ILE:H	2.20	0.44
1:M:482:PRO:HB3	1:M:600:GLY:HA2	1.99	0.44
1:O:482:PRO:HB3	1:O:600:GLY:HA2	2.00	0.44
1:R:566:ILE:HG22	1:R:570:ASN:HB2	1.99	0.44
1:R:355:LEU:HD13	1:R:646:GLN:HE21	1.82	0.44
1:S:564:GLU:C	1:S:566:ILE:H	2.19	0.44
1:S:482:PRO:HB3	1:S:600:GLY:HA2	2.00	0.44
1:S:311:ARG:HH21	1:S:684:GLU:CD	2.20	0.44
1:T:482:PRO:HB3	1:T:600:GLY:HA2	1.99	0.44
1:A:451:ASN:CB	1:A:460:ASP:HB3	2.47	0.44
1:A:599:MET:HG3	1:A:600:GLY:N	2.33	0.44
1:B:354:VAL:H	1:B:646:GLN:HE22	1.62	0.44
1:B:274:PHE:CD2	1:B:387:ALA:HB2	2.52	0.44
1:E:274:PHE:CD2	1:E:387:ALA:HB2	2.52	0.44
1:E:316:LEU:HB3	1:E:410:PHE:HB3	2.00	0.44
1:G:311:ARG:HH21	1:G:684:GLU:CD	2.20	0.44
1:G:699:VAL:O	1:G:731:TYR:HB3	2.17	0.44
1:J:355:LEU:HD13	1:J:646:GLN:HE21	1.82	0.44
1:M:451:ASN:ND2	1:M:460:ASP:OD2	2.38	0.44
1:M:582:VAL:HG12	1:M:582:VAL:O	2.18	0.44
1:N:274:PHE:CD2	1:N:387:ALA:HB2	2.52	0.44
1:N:457:GLN:NE2	1:Q:498:ASN:HD21	2.14	0.44
1:P:566:ILE:HG22	1:P:570:ASN:HB2	1.99	0.44
1:P:564:GLU:C	1:P:566:ILE:H	2.20	0.44
1:Q:564:GLU:C	1:Q:566:ILE:H	2.20	0.44
1:S:265:THR:HG23	1:S:267:ALA:H	1.82	0.44
1:S:599:MET:HG3	1:S:600:GLY:N	2.33	0.44
1:O:694:ARG:NH1	1:T:392:SER:OG	2.50	0.44
1:C:297:TRP:NE1	1:C:301:ILE:HD11	2.32	0.44
1:C:699:VAL:O	1:C:731:TYR:HB3	2.17	0.44
1:D:269:ASN:HA	1:D:272:HIS:HD2	1.79	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:265:THR:HG23	1:E:267:ALA:H	1.83	0.44
1:E:599:MET:HG3	1:E:600:GLY:N	2.33	0.44
1:F:694:ARG:NH1	1:I:392:SER:OG	2.50	0.44
1:G:269:ASN:HA	1:G:272:HIS:HD2	1.80	0.44
1:H:597:HIS:NE2	1:Q:582:VAL:HG13	2.32	0.44
1:J:527:HIS:HB2	1:J:531:LYS:O	2.17	0.44
1:J:590:ASP:CB	1:J:591:PRO:HA	2.47	0.44
1:L:564:GLU:C	1:L:566:ILE:H	2.20	0.44
1:L:355:LEU:HD13	1:L:646:GLN:HE21	1.83	0.44
1:N:527:HIS:HB2	1:N:531:LYS:O	2.17	0.44
1:N:582:VAL:HG12	1:N:582:VAL:O	2.17	0.44
1:O:527:HIS:CE1	1:O:532:ASP:OD1	2.70	0.44
1:P:582:VAL:O	1:P:582:VAL:HG12	2.18	0.44
1:P:667:PHE:HE1	1:P:669:SER:O	2.00	0.44
1:Q:482:PRO:HB3	1:Q:600:GLY:HA2	1.99	0.44
1:R:316:LEU:HB3	1:R:410:PHE:HB3	1.99	0.44
1:R:434:LEU:HD11	1:R:736:LEU:HD23	2.00	0.44
1:S:297:TRP:NE1	1:S:301:ILE:HD11	2.32	0.44
1:T:274:PHE:CD2	1:T:387:ALA:HB2	2.52	0.44
1:A:527:HIS:HB2	1:A:531:LYS:O	2.17	0.44
1:B:527:HIS:HB2	1:B:531:LYS:O	2.18	0.44
1:B:355:LEU:HD13	1:B:646:GLN:HE21	1.83	0.44
1:C:366:PHE:HE2	1:C:368:ALA:HB3	1.81	0.44
1:C:482:PRO:HB3	1:C:600:GLY:HA2	1.99	0.44
1:E:566:ILE:HG22	1:E:570:ASN:HB2	1.98	0.44
1:I:366:PHE:HE2	1:I:368:ALA:HB3	1.81	0.44
1:J:316:LEU:HB3	1:J:410:PHE:HB3	1.99	0.44
1:J:434:LEU:HD11	1:J:736:LEU:HD23	1.99	0.44
1:F:705:TYR:O	1:K:388:VAL:HG12	2.18	0.44
1:K:498:ASN:HD21	1:R:457:GLN:NE2	2.16	0.44
1:K:527:HIS:HB2	1:K:531:LYS:O	2.17	0.44
1:L:274:PHE:CD2	1:L:387:ALA:HB2	2.53	0.44
1:O:564:GLU:C	1:O:566:ILE:H	2.21	0.44
1:P:354:VAL:H	1:P:646:GLN:HE22	1.63	0.44
1:Q:274:PHE:CD2	1:Q:387:ALA:HB2	2.52	0.44
1:K:500:ASN:HB2	1:R:450:GLN:HB2	1.99	0.44
1:T:311:ARG:HH21	1:T:684:GLU:CD	2.19	0.44
1:B:527:HIS:CE1	1:B:532:ASP:OD1	2.70	0.44
1:C:599:MET:HG3	1:C:600:GLY:N	2.33	0.44
1:G:297:TRP:O	1:G:301:ILE:HG13	2.16	0.44
1:B:500:ASN:HB2	1:G:450:GLN:HB2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:566:ILE:HG22	1:J:570:ASN:HB2	2.00	0.44
1:N:564:GLU:C	1:N:566:ILE:H	2.20	0.44
1:N:606:VAL:HG11	1:Q:623:PRO:HB2	1.99	0.44
1:P:451:ASN:CB	1:P:460:ASP:HB3	2.47	0.44
1:R:564:GLU:C	1:R:566:ILE:H	2.20	0.44
1:S:366:PHE:HA	1:S:367:PRO:HD3	1.88	0.44
1:S:427:HIS:ND1	1:S:736:LEU:HD13	2.33	0.44
1:T:366:PHE:HA	1:T:367:PRO:HD3	1.87	0.44
1:O:696:ASN:HD21	1:T:393:PHE:H	1.60	0.44
1:T:519:ASN:O	1:T:521:GLY:N	2.51	0.44
1:A:274:PHE:CD2	1:A:387:ALA:HB2	2.53	0.44
1:C:527:HIS:HB2	1:C:531:LYS:O	2.17	0.44
1:D:274:PHE:CD2	1:D:387:ALA:HB2	2.53	0.44
1:E:527:HIS:HB2	1:E:531:LYS:O	2.18	0.44
1:E:582:VAL:HG12	1:E:582:VAL:O	2.17	0.44
1:F:272:HIS:O	1:P:433:ARG:NH2	2.50	0.44
1:G:566:ILE:HG22	1:G:570:ASN:HB2	1.99	0.44
1:H:311:ARG:HH21	1:H:684:GLU:CD	2.20	0.44
1:H:274:PHE:CD2	1:H:387:ALA:HB2	2.52	0.44
1:H:496:ASN:ND2	1:Q:461:LEU:HD21	2.33	0.44
1:I:434:LEU:HD11	1:I:736:LEU:HD23	2.00	0.44
1:I:564:GLU:C	1:I:566:ILE:H	2.20	0.44
1:I:696:ASN:HD21	1:P:392:SER:HA	1.82	0.44
1:J:360:GLN:HG3	1:R:662:PHE:CE2	2.52	0.44
1:K:564:GLU:C	1:K:566:ILE:H	2.20	0.44
1:K:699:VAL:O	1:K:731:TYR:HB3	2.17	0.44
1:M:265:THR:HG23	1:M:267:ALA:H	1.82	0.44
1:M:274:PHE:CD2	1:M:387:ALA:HB2	2.53	0.44
1:M:355:LEU:HD13	1:M:646:GLN:HE21	1.83	0.44
1:O:355:LEU:HD13	1:O:646:GLN:HE21	1.83	0.44
1:O:699:VAL:O	1:O:731:TYR:HB3	2.17	0.44
1:T:265:THR:HG23	1:T:267:ALA:H	1.83	0.44
1:T:316:LEU:HB3	1:T:410:PHE:HB3	1.98	0.44
1:B:699:VAL:O	1:B:731:TYR:HB3	2.18	0.44
1:D:316:LEU:HB3	1:D:410:PHE:HB3	1.99	0.44
1:F:564:GLU:C	1:F:566:ILE:H	2.20	0.44
1:F:582:VAL:HG13	1:I:597:HIS:CE1	2.51	0.44
1:H:265:THR:HG23	1:H:267:ALA:H	1.83	0.44
1:H:699:VAL:O	1:H:731:TYR:HB3	2.17	0.44
1:I:566:ILE:HG22	1:I:570:ASN:HB2	2.00	0.44
1:K:316:LEU:HB3	1:K:410:PHE:HB3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:599:MET:HG3	1:K:600:GLY:N	2.33	0.44
1:N:355:LEU:HD13	1:N:646:GLN:HE21	1.83	0.44
1:O:451:ASN:CB	1:O:460:ASP:HB3	2.47	0.44
1:O:582:VAL:O	1:O:582:VAL:HG12	2.18	0.44
1:I:606:VAL:HG11	1:P:623:PRO:HB2	2.00	0.44
1:Q:265:THR:HG23	1:Q:267:ALA:H	1.83	0.44
1:Q:699:VAL:O	1:Q:731:TYR:HB3	2.18	0.44
1:R:527:HIS:HB2	1:R:531:LYS:O	2.17	0.44
1:T:699:VAL:O	1:T:731:TYR:HB3	2.18	0.44
1:A:582:VAL:HG12	1:A:582:VAL:O	2.18	0.44
1:D:597:HIS:NE2	1:E:582:VAL:HG13	2.32	0.44
1:E:366:PHE:HE2	1:E:368:ALA:HB3	1.82	0.44
1:F:582:VAL:HG12	1:F:582:VAL:O	2.18	0.44
1:F:427:HIS:ND1	1:F:736:LEU:HD13	2.33	0.44
1:G:582:VAL:HG12	1:G:582:VAL:O	2.17	0.44
1:I:582:VAL:O	1:I:582:VAL:HG12	2.18	0.44
1:J:397:GLU:HB2	1:L:367:PRO:CB	2.33	0.44
1:J:582:VAL:HG12	1:J:582:VAL:O	2.18	0.44
1:N:312:LEU:HB3	1:N:414:TYR:HB3	2.00	0.44
1:N:599:MET:HG3	1:N:600:GLY:N	2.33	0.44
1:O:461:LEU:HD21	1:T:496:ASN:ND2	2.33	0.44
1:P:274:PHE:CD2	1:P:387:ALA:HB2	2.53	0.44
1:P:599:MET:HG3	1:P:600:GLY:N	2.33	0.44
1:Q:582:VAL:HG12	1:Q:582:VAL:O	2.17	0.44
1:R:599:MET:HG3	1:R:600:GLY:N	2.33	0.44
1:S:274:PHE:CD2	1:S:387:ALA:HB2	2.53	0.44
1:S:699:VAL:O	1:S:731:TYR:HB3	2.17	0.44
1:A:269:ASN:HA	1:A:272:HIS:HD2	1.81	0.44
1:A:354:VAL:H	1:A:646:GLN:HE22	1.62	0.44
1:B:427:HIS:ND1	1:B:736:LEU:HD13	2.33	0.44
1:C:265:THR:HG23	1:C:267:ALA:H	1.83	0.44
1:F:527:HIS:HB2	1:F:531:LYS:O	2.18	0.44
1:F:699:VAL:O	1:F:731:TYR:HB3	2.17	0.44
1:G:274:PHE:CD2	1:G:387:ALA:HB2	2.53	0.44
1:J:265:THR:HG23	1:J:267:ALA:H	1.82	0.44
1:J:519:ASN:O	1:J:521:GLY:N	2.51	0.44
1:J:599:MET:HG3	1:J:600:GLY:N	2.33	0.44
1:K:582:VAL:H	1:K:592:ALA:HB3	1.83	0.44
1:M:519:ASN:O	1:M:521:GLY:N	2.51	0.44
1:N:527:HIS:CE1	1:N:532:ASP:OD1	2.71	0.44
1:O:427:HIS:ND1	1:O:736:LEU:HD13	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:434:LEU:HD11	1:P:736:LEU:HD23	2.00	0.44
1:N:603:PRO:O	1:Q:634:LEU:HD11	2.18	0.44
1:R:451:ASN:CB	1:R:460:ASP:HB3	2.47	0.44
1:R:527:HIS:CE1	1:R:532:ASP:OD1	2.71	0.44
1:T:566:ILE:HG22	1:T:570:ASN:HB2	1.99	0.44
1:T:590:ASP:CB	1:T:591:PRO:HA	2.46	0.44
1:T:599:MET:HG3	1:T:600:GLY:N	2.33	0.44
1:A:265:THR:HG23	1:A:267:ALA:H	1.82	0.43
1:B:316:LEU:HB3	1:B:410:PHE:HB3	1.98	0.43
1:B:582:VAL:HG12	1:B:582:VAL:O	2.18	0.43
1:C:355:LEU:HD13	1:C:646:GLN:HE21	1.84	0.43
1:D:265:THR:HG23	1:D:267:ALA:H	1.84	0.43
1:D:311:ARG:HH21	1:D:684:GLU:CD	2.19	0.43
1:D:355:LEU:HD13	1:D:646:GLN:HE21	1.83	0.43
1:E:451:ASN:CB	1:E:460:ASP:HB3	2.47	0.43
1:F:482:PRO:HB3	1:F:600:GLY:HA2	2.00	0.43
1:G:355:LEU:HD13	1:G:646:GLN:HE21	1.83	0.43
1:K:274:PHE:CD2	1:K:387:ALA:HB2	2.52	0.43
1:F:488:ARG:NH2	1:P:584:LEU:HD13	2.33	0.43
1:Q:269:ASN:HA	1:Q:272:HIS:HD2	1.79	0.43
1:Q:316:LEU:HB3	1:Q:410:PHE:HB3	1.99	0.43
1:Q:599:MET:HG3	1:Q:600:GLY:N	2.33	0.43
1:S:582:VAL:O	1:S:582:VAL:HG12	2.18	0.43
1:B:482:PRO:HB3	1:B:600:GLY:HA2	1.99	0.43
1:D:451:ASN:CB	1:D:460:ASP:HB3	2.47	0.43
1:D:699:VAL:O	1:D:731:TYR:HB3	2.17	0.43
1:E:427:HIS:ND1	1:E:736:LEU:HD13	2.33	0.43
1:F:626:ASP:OD1	1:P:608:GLN:NE2	2.51	0.43
1:G:427:HIS:ND1	1:G:736:LEU:HD13	2.33	0.43
1:H:312:LEU:HB3	1:H:414:TYR:HB3	2.01	0.43
1:H:527:HIS:HB2	1:H:531:LYS:O	2.17	0.43
1:I:482:PRO:HB3	1:I:600:GLY:HA2	2.01	0.43
1:I:590:ASP:CB	1:I:591:PRO:HA	2.46	0.43
1:J:274:PHE:CD2	1:J:387:ALA:HB2	2.52	0.43
1:N:366:PHE:HE2	1:N:368:ALA:HB3	1.81	0.43
1:O:316:LEU:HB3	1:O:410:PHE:HB3	1.99	0.43
1:O:366:PHE:HE2	1:O:368:ALA:HB3	1.82	0.43
1:Q:355:LEU:HD13	1:Q:646:GLN:HE21	1.83	0.43
1:S:527:HIS:CE1	1:S:532:ASP:OD1	2.71	0.43
1:T:582:VAL:HG12	1:T:582:VAL:O	2.18	0.43
1:C:585:GLN:O	1:C:587:SER:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:599:MET:HG3	1:F:600:GLY:N	2.33	0.43
1:G:265:THR:HG23	1:G:267:ALA:H	1.82	0.43
1:G:599:MET:HG3	1:G:600:GLY:N	2.32	0.43
1:H:582:VAL:HG13	1:N:597:HIS:CE1	2.54	0.43
1:H:599:MET:HG3	1:H:600:GLY:N	2.33	0.43
1:J:342:GLN:OE1	1:L:228:TRP:CE3	2.71	0.43
1:K:312:LEU:HB3	1:K:414:TYR:HB3	2.00	0.43
1:K:519:ASN:O	1:K:521:GLY:N	2.52	0.43
1:K:585:GLN:O	1:K:587:SER:N	2.52	0.43
1:L:265:THR:HG23	1:L:267:ALA:H	1.83	0.43
1:N:434:LEU:HD11	1:N:736:LEU:HD23	2.01	0.43
1:N:582:VAL:H	1:N:592:ALA:HB3	1.84	0.43
1:A:699:VAL:O	1:A:731:TYR:HB3	2.17	0.43
1:B:597:HIS:CE1	1:G:582:VAL:HG13	2.53	0.43
1:C:274:PHE:CD2	1:C:387:ALA:HB2	2.53	0.43
1:D:393:PHE:H	1:E:696:ASN:HD21	1.60	0.43
1:D:519:ASN:O	1:D:521:GLY:N	2.51	0.43
1:D:566:ILE:HG22	1:D:570:ASN:HB2	1.99	0.43
1:D:582:VAL:O	1:D:582:VAL:HG12	2.18	0.43
1:E:482:PRO:HB3	1:E:600:GLY:HA2	1.99	0.43
1:I:316:LEU:HB3	1:I:410:PHE:HB3	2.00	0.43
1:J:324:VAL:O	1:J:672:THR:HG23	2.19	0.43
1:J:367:PRO:HB2	1:R:397:GLU:CB	2.48	0.43
1:M:312:LEU:HB3	1:M:414:TYR:HB3	2.01	0.43
1:M:388:VAL:HG12	1:T:705:TYR:O	2.19	0.43
1:M:599:MET:HG3	1:M:600:GLY:N	2.33	0.43
1:O:566:ILE:HG22	1:O:570:ASN:HB2	1.99	0.43
1:O:599:MET:HG3	1:O:600:GLY:N	2.33	0.43
1:P:427:HIS:ND1	1:P:736:LEU:HD13	2.33	0.43
1:I:584:LEU:HD13	1:P:488:ARG:CZ	2.48	0.43
1:P:582:VAL:H	1:P:592:ALA:HB3	1.84	0.43
1:P:585:GLN:O	1:P:587:SER:N	2.51	0.43
1:Q:366:PHE:HE2	1:Q:368:ALA:HB3	1.82	0.43
1:Q:434:LEU:HD11	1:Q:736:LEU:HD23	2.00	0.43
1:S:312:LEU:HB3	1:S:414:TYR:HB3	2.01	0.43
1:T:434:LEU:HD11	1:T:736:LEU:HD23	2.00	0.43
1:C:324:VAL:O	1:C:672:THR:HG23	2.19	0.43
1:C:451:ASN:CB	1:C:460:ASP:HB3	2.47	0.43
1:C:519:ASN:O	1:C:521:GLY:N	2.52	0.43
1:E:265:THR:C	1:E:267:ALA:H	2.22	0.43
1:E:564:GLU:C	1:E:566:ILE:H	2.20	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:288:PHE:CD2	1:F:618:ILE:HG12	2.53	0.43
1:F:392:SER:HA	1:P:696:ASN:HD21	1.83	0.43
1:H:355:LEU:HD13	1:H:646:GLN:HE21	1.83	0.43
1:I:427:HIS:ND1	1:I:736:LEU:HD13	2.33	0.43
1:K:355:LEU:HD13	1:K:646:GLN:HE21	1.83	0.43
1:L:527:HIS:CE1	1:L:532:ASP:OD1	2.72	0.43
1:N:582:VAL:HG13	1:Q:597:HIS:CE1	2.53	0.43
1:P:312:LEU:HB3	1:P:414:TYR:HB3	2.00	0.43
1:P:355:LEU:HD13	1:P:646:GLN:HE21	1.83	0.43
1:F:350:GLN:NE2	1:P:691:ASN:HD21	2.17	0.43
1:R:274:PHE:CD2	1:R:387:ALA:HB2	2.53	0.43
1:R:585:GLN:O	1:R:587:SER:N	2.52	0.43
1:R:582:VAL:H	1:R:592:ALA:HB3	1.83	0.43
1:S:316:LEU:HB3	1:S:410:PHE:HB3	2.00	0.43
1:S:434:LEU:HD11	1:S:736:LEU:HD23	2.00	0.43
1:Q:228:TRP:O	1:T:400:PRO:HA	2.18	0.43
1:E:366:PHE:HA	1:E:367:PRO:HD3	1.88	0.43
1:F:265:THR:C	1:F:267:ALA:H	2.22	0.43
1:F:265:THR:HG23	1:F:267:ALA:H	1.83	0.43
1:F:274:PHE:CD2	1:F:387:ALA:HB2	2.53	0.43
1:F:527:HIS:CE1	1:F:532:ASP:OD1	2.71	0.43
1:H:433:ARG:NH2	1:N:272:HIS:O	2.51	0.43
1:K:427:HIS:ND1	1:K:736:LEU:HD13	2.34	0.43
1:M:527:HIS:CE1	1:M:532:ASP:OD1	2.72	0.43
1:N:316:LEU:HB3	1:N:410:PHE:HB3	1.99	0.43
1:N:699:VAL:O	1:N:731:TYR:HB3	2.18	0.43
1:O:274:PHE:CD2	1:O:387:ALA:HB2	2.53	0.43
1:O:298:GLN:HE22	1:Q:698:GLU:N	2.03	0.43
1:Q:585:GLN:O	1:Q:587:SER:N	2.52	0.43
1:S:585:GLN:O	1:S:587:SER:N	2.52	0.43
1:T:527:HIS:CE1	1:T:532:ASP:OD1	2.72	0.43
1:B:312:LEU:HB3	1:B:414:TYR:HB3	2.00	0.43
1:B:585:GLN:O	1:B:587:SER:N	2.52	0.43
1:B:434:LEU:HD11	1:B:736:LEU:HD23	2.01	0.43
1:C:527:HIS:CE1	1:C:532:ASP:OD1	2.71	0.43
1:F:355:LEU:HD13	1:F:646:GLN:HE21	1.83	0.43
1:F:519:ASN:O	1:F:521:GLY:N	2.52	0.43
1:F:585:GLN:O	1:F:587:SER:N	2.52	0.43
1:H:434:LEU:HD11	1:H:736:LEU:HD23	2.01	0.43
1:I:269:ASN:HA	1:I:272:HIS:HD2	1.80	0.43
1:I:274:PHE:CD2	1:I:387:ALA:HB2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:694:ARG:NH2	1:J:696:ASN:OD1	2.51	0.43
1:K:265:THR:HG23	1:K:267:ALA:H	1.82	0.43
1:K:288:PHE:CD2	1:K:618:ILE:HG12	2.54	0.43
1:L:599:MET:HG3	1:L:600:GLY:N	2.33	0.43
1:M:451:ASN:CB	1:M:460:ASP:HB3	2.47	0.43
1:M:483:CYS:HB2	1:M:571:PRO:HG3	2.01	0.43
1:M:434:LEU:HD11	1:M:736:LEU:HD23	2.00	0.43
1:O:265:THR:HG23	1:O:267:ALA:H	1.83	0.43
1:P:324:VAL:O	1:P:672:THR:HG23	2.19	0.43
1:E:322:LYS:NZ	1:P:654:VAL:HG11	2.34	0.43
1:Q:427:HIS:ND1	1:Q:736:LEU:HD13	2.34	0.43
1:R:482:PRO:HB3	1:R:600:GLY:HA2	2.00	0.43
1:T:324:VAL:O	1:T:672:THR:HG23	2.19	0.43
1:F:606:VAL:HG11	1:I:623:PRO:HB2	2.00	0.43
1:G:585:GLN:O	1:G:587:SER:N	2.52	0.43
1:J:265:THR:C	1:J:267:ALA:H	2.22	0.43
1:K:527:HIS:CE1	1:K:532:ASP:OD1	2.71	0.43
1:K:582:VAL:HG12	1:K:582:VAL:O	2.17	0.43
1:K:482:PRO:HB3	1:K:600:GLY:HA2	2.00	0.43
1:L:265:THR:C	1:L:267:ALA:H	2.22	0.43
1:L:582:VAL:H	1:L:592:ALA:HB3	1.84	0.43
1:N:519:ASN:O	1:N:521:GLY:N	2.51	0.43
1:O:312:LEU:HB3	1:O:414:TYR:HB3	2.01	0.43
1:I:388:VAL:HG12	1:R:705:TYR:O	2.18	0.43
1:T:427:HIS:ND1	1:T:736:LEU:HD13	2.34	0.43
1:B:582:VAL:H	1:B:592:ALA:HB3	1.83	0.43
1:C:582:VAL:O	1:C:582:VAL:HG12	2.18	0.43
1:D:599:MET:HG3	1:D:600:GLY:N	2.33	0.43
1:F:582:VAL:H	1:F:592:ALA:HB3	1.84	0.43
1:B:519:ASN:CB	1:G:475:PRO:HA	2.48	0.43
1:G:519:ASN:O	1:G:521:GLY:N	2.51	0.43
1:G:582:VAL:H	1:G:592:ALA:HB3	1.83	0.43
1:B:634:LEU:HD11	1:G:603:PRO:O	2.19	0.43
1:G:324:VAL:O	1:G:672:THR:HG23	2.19	0.43
1:G:705:TYR:O	1:Q:388:VAL:HG12	2.18	0.43
1:H:582:VAL:H	1:H:592:ALA:HB3	1.83	0.43
1:I:491:LYS:HG3	1:I:533:LYS:O	2.19	0.43
1:I:585:GLN:O	1:I:587:SER:N	2.52	0.43
1:I:599:MET:HG3	1:I:600:GLY:N	2.33	0.43
1:F:603:PRO:O	1:I:634:LEU:HD11	2.19	0.43
1:J:527:HIS:CE1	1:J:532:ASP:OD1	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:585:GLN:O	1:J:587:SER:N	2.52	0.43
1:L:427:HIS:ND1	1:L:736:LEU:HD13	2.34	0.43
1:M:590:ASP:CB	1:M:591:PRO:HA	2.47	0.43
1:O:434:LEU:HD11	1:O:736:LEU:HD23	2.00	0.43
1:N:580:VAL:HG23	1:Q:485:ARG:O	2.19	0.43
1:R:269:ASN:HA	1:R:272:HIS:HD2	1.80	0.43
1:D:434:LEU:HD11	1:D:736:LEU:HD23	2.00	0.43
1:E:519:ASN:O	1:E:521:GLY:N	2.52	0.43
1:E:355:LEU:HD13	1:E:646:GLN:HE21	1.83	0.43
1:G:451:ASN:ND2	1:G:460:ASP:OD2	2.38	0.43
1:H:691:ASN:HD21	1:N:350:GLN:NE2	2.17	0.43
1:I:265:THR:HG23	1:I:267:ALA:H	1.83	0.43
1:I:433:ARG:NH2	1:P:272:HIS:O	2.52	0.43
1:J:269:ASN:HA	1:J:272:HIS:HD2	1.80	0.43
1:J:451:ASN:CB	1:J:460:ASP:HB3	2.47	0.43
1:L:354:VAL:H	1:L:646:GLN:HE22	1.64	0.43
1:L:434:LEU:HD11	1:L:736:LEU:HD23	2.00	0.43
1:R:582:VAL:HG12	1:R:582:VAL:O	2.18	0.43
1:S:441:GLN:HE22	1:S:474:GLN:HB3	1.84	0.43
1:A:519:ASN:O	1:A:521:GLY:N	2.52	0.42
1:A:582:VAL:H	1:A:592:ALA:HB3	1.83	0.42
1:A:585:GLN:O	1:A:587:SER:N	2.52	0.42
1:C:427:HIS:ND1	1:C:736:LEU:HD13	2.34	0.42
1:B:322:LYS:NZ	1:C:654:VAL:HG11	2.34	0.42
1:E:298:GLN:HE22	1:I:698:GLU:N	2.01	0.42
1:F:298:GLN:HE22	1:R:698:GLU:N	2.02	0.42
1:F:434:LEU:HD11	1:F:736:LEU:HD23	2.01	0.42
1:H:585:GLN:O	1:H:587:SER:N	2.52	0.42
1:I:450:GLN:HB2	1:P:500:ASN:HB2	1.99	0.42
1:K:483:CYS:HB2	1:K:571:PRO:HG3	2.01	0.42
1:N:269:ASN:HA	1:N:272:HIS:HD2	1.80	0.42
1:N:288:PHE:CD2	1:N:618:ILE:HG12	2.54	0.42
1:O:324:VAL:O	1:O:672:THR:HG23	2.19	0.42
1:I:694:ARG:NH1	1:P:392:SER:OG	2.51	0.42
1:P:699:VAL:O	1:P:731:TYR:HB3	2.19	0.42
1:Q:322:LYS:NZ	1:T:654:VAL:HG11	2.33	0.42
1:R:265:THR:HG23	1:R:267:ALA:H	1.83	0.42
1:R:324:VAL:O	1:R:672:THR:HG23	2.19	0.42
1:B:265:THR:HG23	1:B:267:ALA:H	1.82	0.42
1:B:519:ASN:O	1:B:521:GLY:N	2.52	0.42
1:B:483:CYS:HB2	1:B:571:PRO:HG3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:272:HIS:CE1	1:D:385:SER:HG	2.36	0.42
1:E:585:GLN:O	1:E:587:SER:N	2.52	0.42
1:F:324:VAL:O	1:F:672:THR:HG23	2.19	0.42
1:H:366:PHE:HE2	1:H:368:ALA:HB3	1.81	0.42
1:H:393:PHE:H	1:Q:696:ASN:HD21	1.62	0.42
1:H:519:ASN:O	1:H:521:GLY:N	2.52	0.42
1:J:366:PHE:HA	1:J:367:PRO:HD3	1.88	0.42
1:K:441:GLN:HE22	1:K:474:GLN:HB3	1.84	0.42
1:L:582:VAL:HG12	1:L:582:VAL:O	2.18	0.42
1:M:265:THR:C	1:M:267:ALA:H	2.22	0.42
1:M:288:PHE:CD2	1:M:618:ILE:HG12	2.54	0.42
1:N:427:HIS:ND1	1:N:736:LEU:HD13	2.34	0.42
1:N:451:ASN:ND2	1:N:460:ASP:OD2	2.38	0.42
1:O:582:VAL:H	1:O:592:ALA:HB3	1.83	0.42
1:P:265:THR:HG23	1:P:267:ALA:H	1.83	0.42
1:P:527:HIS:CE1	1:P:532:ASP:OD1	2.72	0.42
1:Q:527:HIS:CE1	1:Q:532:ASP:OD1	2.72	0.42
1:Q:705:TYR:O	1:T:388:VAL:HG12	2.19	0.42
1:R:519:ASN:O	1:R:521:GLY:N	2.52	0.42
1:S:355:LEU:HD13	1:S:646:GLN:HE21	1.83	0.42
1:S:519:ASN:O	1:S:521:GLY:N	2.52	0.42
1:A:265:THR:C	1:A:267:ALA:H	2.22	0.42
1:A:288:PHE:CD2	1:A:618:ILE:HG12	2.54	0.42
1:A:434:LEU:HD11	1:A:736:LEU:HD23	2.01	0.42
1:B:272:HIS:O	1:G:433:ARG:NH2	2.52	0.42
1:B:324:VAL:O	1:B:672:THR:HG23	2.20	0.42
1:C:434:LEU:HD11	1:C:736:LEU:HD23	2.00	0.42
1:D:312:LEU:HB3	1:D:414:TYR:HB3	2.01	0.42
1:D:427:HIS:ND1	1:D:736:LEU:HD13	2.34	0.42
1:D:496:ASN:ND2	1:E:461:LEU:HD21	2.34	0.42
1:E:527:HIS:CE1	1:E:532:ASP:OD1	2.72	0.42
1:F:502:THR:HG21	1:P:447:ASN:O	2.18	0.42
1:G:434:LEU:HD11	1:G:736:LEU:HD23	2.01	0.42
1:H:527:HIS:CE1	1:H:532:ASP:OD1	2.72	0.42
1:I:527:HIS:CE1	1:I:532:ASP:OD1	2.72	0.42
1:I:582:VAL:HG13	1:P:597:HIS:NE2	2.34	0.42
1:J:517:ILE:HG22	1:J:518:ILE:N	2.35	0.42
1:K:482:PRO:HG2	1:R:603:PRO:HD3	2.01	0.42
1:L:483:CYS:HB2	1:L:571:PRO:HG3	2.01	0.42
1:N:585:GLN:O	1:N:587:SER:N	2.52	0.42
1:R:427:HIS:ND1	1:R:736:LEU:HD13	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:615:GLN:HB2	1:R:615:GLN:HE21	1.58	0.42
1:T:585:GLN:O	1:T:587:SER:N	2.52	0.42
1:A:355:LEU:HD13	1:A:646:GLN:HE21	1.83	0.42
1:C:354:VAL:H	1:C:646:GLN:HE22	1.63	0.42
1:D:582:VAL:H	1:D:592:ALA:HB3	1.84	0.42
1:G:288:PHE:CD2	1:G:618:ILE:HG12	2.54	0.42
1:H:433:ARG:HG3	1:N:379:LEU:CD1	2.46	0.42
1:H:441:GLN:HE22	1:H:474:GLN:HB3	1.85	0.42
1:I:355:LEU:HD13	1:I:646:GLN:HE21	1.84	0.42
1:J:427:HIS:ND1	1:J:736:LEU:HD13	2.34	0.42
1:J:483:CYS:HB2	1:J:571:PRO:HG3	2.02	0.42
1:J:671:ILE:HD11	1:L:674:TYR:HH	1.79	0.42
1:L:312:LEU:HB3	1:L:414:TYR:HB3	2.01	0.42
1:M:427:HIS:ND1	1:M:736:LEU:HD13	2.34	0.42
1:O:519:ASN:O	1:O:521:GLY:N	2.52	0.42
1:Q:483:CYS:HB2	1:Q:571:PRO:HG3	2.02	0.42
1:Q:582:VAL:H	1:Q:592:ALA:HB3	1.84	0.42
1:R:288:PHE:CD2	1:R:618:ILE:HG12	2.54	0.42
1:S:517:ILE:HG22	1:S:518:ILE:N	2.35	0.42
1:S:491:LYS:HG3	1:S:533:LYS:O	2.19	0.42
1:T:441:GLN:HE22	1:T:474:GLN:HB3	1.85	0.42
1:C:312:LEU:HB3	1:C:414:TYR:HB3	2.01	0.42
1:D:585:GLN:O	1:D:587:SER:N	2.52	0.42
1:E:434:LEU:HD11	1:E:736:LEU:HD23	2.00	0.42
1:F:597:HIS:CE1	1:P:582:VAL:HG13	2.54	0.42
1:I:288:PHE:CD2	1:I:618:ILE:HG12	2.54	0.42
1:I:324:VAL:O	1:I:672:THR:HG23	2.19	0.42
1:J:228:TRP:N	1:R:403:MET:HG3	2.35	0.42
1:L:519:ASN:O	1:L:521:GLY:N	2.52	0.42
1:M:585:GLN:O	1:M:587:SER:N	2.52	0.42
1:N:265:THR:C	1:N:267:ALA:H	2.22	0.42
1:F:350:GLN:HE21	1:P:691:ASN:ND2	2.18	0.42
1:Q:265:THR:C	1:Q:267:ALA:H	2.23	0.42
1:Q:354:VAL:H	1:Q:646:GLN:HE22	1.62	0.42
1:Q:363:LEU:HA	1:Q:364:PRO:HD3	1.94	0.42
1:Q:519:ASN:O	1:Q:521:GLY:N	2.51	0.42
1:S:582:VAL:H	1:S:592:ALA:HB3	1.83	0.42
1:T:483:CYS:HB2	1:T:571:PRO:HG3	2.01	0.42
1:A:324:VAL:O	1:A:672:THR:HG23	2.20	0.42
1:A:441:GLN:HE22	1:A:474:GLN:HB3	1.85	0.42
1:A:483:CYS:HB2	1:A:571:PRO:HG3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:451:ASN:CB	1:B:460:ASP:HB3	2.47	0.42
1:D:265:THR:C	1:D:267:ALA:H	2.22	0.42
1:E:615:GLN:HB2	1:E:615:GLN:HE21	1.58	0.42
1:G:441:GLN:HE22	1:G:474:GLN:HB3	1.85	0.42
1:I:519:ASN:O	1:I:521:GLY:N	2.52	0.42
1:I:483:CYS:HB2	1:I:571:PRO:HG3	2.02	0.42
1:J:482:PRO:HB3	1:J:600:GLY:HA2	2.00	0.42
1:J:615:GLN:HB2	1:J:615:GLN:HE21	1.58	0.42
1:K:553:THR:HG23	1:K:557:ASN:CB	2.49	0.42
1:H:603:PRO:O	1:N:634:LEU:HD11	2.20	0.42
1:O:585:GLN:O	1:O:587:SER:N	2.52	0.42
1:P:519:ASN:O	1:P:521:GLY:N	2.52	0.42
1:P:590:ASP:CB	1:P:591:PRO:HA	2.46	0.42
1:S:354:VAL:H	1:S:646:GLN:HE22	1.63	0.42
1:S:553:THR:HG23	1:S:557:ASN:CB	2.49	0.42
1:T:582:VAL:H	1:T:592:ALA:HB3	1.84	0.42
1:T:355:LEU:HD13	1:T:646:GLN:HE21	1.83	0.42
1:C:483:CYS:HB2	1:C:571:PRO:HG3	2.02	0.42
1:C:615:GLN:HB2	1:C:615:GLN:HE21	1.57	0.42
1:D:527:HIS:CE1	1:D:532:ASP:OD1	2.73	0.42
1:D:483:CYS:HB2	1:D:571:PRO:HG3	2.02	0.42
1:E:582:VAL:H	1:E:592:ALA:HB3	1.83	0.42
1:G:517:ILE:HG22	1:G:518:ILE:N	2.35	0.42
1:H:630:HIS:HE1	1:N:626:ASP:O	2.02	0.42
1:J:441:GLN:HE22	1:J:474:GLN:HB3	1.85	0.42
1:J:553:THR:HG23	1:J:557:ASN:CB	2.49	0.42
1:K:265:THR:C	1:K:267:ALA:H	2.23	0.42
1:K:324:VAL:O	1:K:672:THR:HG23	2.19	0.42
1:D:705:TYR:O	1:L:388:VAL:HG12	2.19	0.42
1:L:585:GLN:O	1:L:587:SER:N	2.52	0.42
1:M:324:VAL:O	1:M:672:THR:HG23	2.19	0.42
1:N:354:VAL:H	1:N:646:GLN:HE22	1.65	0.42
1:N:475:PRO:HA	1:Q:519:ASN:CB	2.48	0.42
1:N:324:VAL:O	1:N:672:THR:HG23	2.19	0.42
1:N:694:ARG:NH2	1:N:696:ASN:OD1	2.53	0.42
1:O:457:GLN:NE2	1:T:498:ASN:HD21	2.18	0.42
1:P:491:LYS:HG3	1:P:533:LYS:O	2.20	0.42
1:H:392:SER:OG	1:Q:694:ARG:NH1	2.52	0.42
1:J:705:TYR:CA	1:R:389:GLY:HA3	2.38	0.42
1:S:288:PHE:CD2	1:S:618:ILE:HG12	2.54	0.42
1:T:451:ASN:CB	1:T:460:ASP:HB3	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:427:HIS:ND1	1:A:736:LEU:HD13	2.34	0.42
1:B:265:THR:C	1:B:267:ALA:H	2.23	0.42
1:B:288:PHE:CD2	1:B:618:ILE:HG12	2.55	0.42
1:C:517:ILE:HG22	1:C:518:ILE:N	2.34	0.42
1:D:288:PHE:CD2	1:D:618:ILE:HG12	2.55	0.42
1:F:451:ASN:CB	1:F:460:ASP:HB3	2.47	0.42
1:F:517:ILE:HG22	1:F:518:ILE:N	2.35	0.42
1:F:483:CYS:HB2	1:F:571:PRO:HG3	2.02	0.42
1:G:312:LEU:HB3	1:G:414:TYR:HB3	2.01	0.42
1:F:388:VAL:HG12	1:H:705:TYR:O	2.20	0.42
1:I:312:LEU:HB3	1:I:414:TYR:HB3	2.01	0.42
1:L:288:PHE:CD2	1:L:618:ILE:HG12	2.55	0.42
1:L:324:VAL:O	1:L:672:THR:HG23	2.19	0.42
1:N:584:LEU:HD13	1:Q:488:ARG:NH2	2.34	0.42
1:O:441:GLN:HE22	1:O:474:GLN:HB3	1.85	0.42
1:O:603:PRO:HD3	1:T:482:PRO:HG2	2.00	0.42
1:P:483:CYS:HB2	1:P:571:PRO:HG3	2.02	0.42
1:R:265:THR:C	1:R:267:ALA:H	2.22	0.42
1:T:435:MET:HG2	1:T:474:GLN:OE1	2.20	0.42
1:A:527:HIS:CE1	1:A:532:ASP:OD1	2.73	0.42
1:A:615:GLN:HB2	1:A:615:GLN:HE21	1.57	0.42
1:D:324:VAL:O	1:D:672:THR:HG23	2.20	0.42
1:E:324:VAL:O	1:E:672:THR:HG23	2.19	0.42
1:H:427:HIS:ND1	1:H:736:LEU:HD13	2.34	0.42
1:H:482:PRO:HG2	1:Q:603:PRO:HD3	2.02	0.42
1:H:491:LYS:HG3	1:H:533:LYS:O	2.20	0.42
1:I:441:GLN:O	1:I:465:ARG:HD2	2.20	0.42
1:I:582:VAL:H	1:I:592:ALA:HB3	1.84	0.42
1:K:441:GLN:O	1:K:465:ARG:HD2	2.20	0.42
1:K:517:ILE:HG22	1:K:518:ILE:N	2.35	0.42
1:M:582:VAL:H	1:M:592:ALA:HB3	1.84	0.42
1:O:265:THR:C	1:O:267:ALA:H	2.22	0.42
1:P:265:THR:C	1:P:267:ALA:H	2.22	0.42
1:P:441:GLN:HE22	1:P:474:GLN:HB3	1.85	0.42
1:Q:491:LYS:HG3	1:Q:533:LYS:O	2.20	0.42
1:A:366:PHE:HE2	1:A:368:ALA:HB3	1.81	0.42
1:C:265:THR:C	1:C:267:ALA:H	2.23	0.42
1:C:441:GLN:HE22	1:C:474:GLN:HB3	1.85	0.42
1:C:288:PHE:CD2	1:C:618:ILE:HG12	2.55	0.42
1:D:590:ASP:CB	1:D:591:PRO:HA	2.46	0.42
1:D:615:GLN:HB2	1:D:615:GLN:HE21	1.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:712:ASP:HB3	1:D:724:PRO:HG2	2.02	0.42
1:D:623:PRO:HB2	1:E:606:VAL:HG11	2.01	0.42
1:B:488:ARG:CZ	1:G:584:LEU:HD13	2.49	0.42
1:I:366:PHE:HA	1:I:367:PRO:HD3	1.88	0.42
1:F:580:VAL:HG23	1:I:485:ARG:O	2.19	0.42
1:I:694:ARG:NH2	1:I:696:ASN:OD1	2.53	0.42
1:J:582:VAL:H	1:J:592:ALA:HB3	1.84	0.42
1:K:434:LEU:HD11	1:K:736:LEU:HD23	2.00	0.42
1:J:403:MET:HG3	1:L:228:TRP:N	2.35	0.42
1:L:441:GLN:O	1:L:465:ARG:HD2	2.20	0.42
1:O:429:GLN:OE1	1:T:352:PRO:HB3	2.20	0.42
1:R:278:THR:HA	1:R:279:PRO:HD3	1.89	0.42
1:R:435:MET:HG2	1:R:474:GLN:OE1	2.20	0.42
1:R:694:ARG:NH2	1:R:696:ASN:OD1	2.53	0.42
1:T:517:ILE:HG22	1:T:518:ILE:N	2.35	0.42
1:E:312:LEU:HB3	1:E:414:TYR:HB3	2.01	0.41
1:E:491:LYS:HG3	1:E:533:LYS:O	2.20	0.41
1:E:590:ASP:CB	1:E:591:PRO:HA	2.47	0.41
1:G:527:HIS:CE1	1:G:532:ASP:OD1	2.72	0.41
1:H:388:VAL:HG12	1:O:705:TYR:O	2.21	0.41
1:H:517:ILE:HG22	1:H:518:ILE:N	2.35	0.41
1:H:584:LEU:HD13	1:N:488:ARG:CZ	2.50	0.41
1:J:289:HIS:CG	1:J:365:PRO:HB3	2.55	0.41
1:L:269:ASN:HA	1:L:272:HIS:HD2	1.80	0.41
1:L:712:ASP:HB3	1:L:724:PRO:HG2	2.02	0.41
1:H:696:ASN:HD21	1:N:392:SER:HA	1.85	0.41
1:P:269:ASN:HA	1:P:272:HIS:HD2	1.79	0.41
1:P:288:PHE:CD2	1:P:618:ILE:HG12	2.55	0.41
1:F:698:GLU:N	1:R:298:GLN:HE22	2.02	0.41
1:T:265:THR:C	1:T:267:ALA:H	2.23	0.41
1:A:712:ASP:HB3	1:A:724:PRO:HG2	2.03	0.41
1:D:491:LYS:HG3	1:D:533:LYS:O	2.20	0.41
1:E:451:ASN:ND2	1:E:460:ASP:OD2	2.38	0.41
1:E:483:CYS:HB2	1:E:571:PRO:HG3	2.02	0.41
1:G:441:GLN:O	1:G:465:ARG:HD2	2.20	0.41
1:H:288:PHE:CD2	1:H:618:ILE:HG12	2.55	0.41
1:L:441:GLN:HE22	1:L:474:GLN:HB3	1.85	0.41
1:O:694:ARG:NH2	1:O:696:ASN:OD1	2.53	0.41
1:E:705:TYR:O	1:P:388:VAL:HG12	2.20	0.41
1:S:712:ASP:HB3	1:S:724:PRO:HG2	2.02	0.41
1:A:312:LEU:HB3	1:A:414:TYR:HB3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:482:PRO:HG2	1:E:603:PRO:HD3	2.02	0.41
1:H:265:THR:C	1:H:267:ALA:H	2.23	0.41
1:H:517:ILE:HG13	1:Q:473:VAL:HG12	2.02	0.41
1:H:483:CYS:HB2	1:H:571:PRO:HG3	2.01	0.41
1:I:517:ILE:HG22	1:I:518:ILE:N	2.35	0.41
1:J:312:LEU:HB3	1:J:414:TYR:HB3	2.02	0.41
1:N:433:ARG:HG3	1:Q:379:LEU:CD1	2.47	0.41
1:Q:289:HIS:CG	1:Q:365:PRO:HB3	2.55	0.41
1:C:363:LEU:HA	1:C:364:PRO:HD3	1.94	0.41
1:D:354:VAL:H	1:D:646:GLN:HE22	1.62	0.41
1:D:441:GLN:O	1:D:465:ARG:HD2	2.21	0.41
1:E:553:THR:HG23	1:E:557:ASN:CB	2.49	0.41
1:F:312:LEU:HB3	1:F:414:TYR:HB3	2.01	0.41
1:F:523:ALA:O	1:F:570:ASN:ND2	2.41	0.41
1:G:265:THR:C	1:G:267:ALA:H	2.23	0.41
1:G:694:ARG:NH2	1:G:696:ASN:OD1	2.54	0.41
1:H:324:VAL:O	1:H:672:THR:HG23	2.19	0.41
1:J:288:PHE:CD2	1:J:618:ILE:HG12	2.55	0.41
1:J:491:LYS:HG3	1:J:533:LYS:O	2.20	0.41
1:J:712:ASP:HB3	1:J:724:PRO:HG2	2.03	0.41
1:K:354:VAL:H	1:K:646:GLN:HE22	1.63	0.41
1:F:322:LYS:NZ	1:K:654:VAL:HG11	2.35	0.41
1:L:491:LYS:HG3	1:L:533:LYS:O	2.20	0.41
1:N:483:CYS:HB2	1:N:571:PRO:HG3	2.01	0.41
1:F:519:ASN:CB	1:P:475:PRO:HA	2.50	0.41
1:R:312:LEU:HB3	1:R:414:TYR:HB3	2.01	0.41
1:T:312:LEU:HB3	1:T:414:TYR:HB3	2.01	0.41
1:A:694:ARG:NH2	1:A:696:ASN:OD1	2.54	0.41
1:B:597:HIS:NE2	1:G:582:VAL:HG13	2.36	0.41
1:C:582:VAL:H	1:C:592:ALA:HB3	1.84	0.41
1:D:441:GLN:HE22	1:D:474:GLN:HB3	1.85	0.41
1:F:712:ASP:HB3	1:F:724:PRO:HG2	2.03	0.41
1:K:705:TYR:O	1:S:388:VAL:HG12	2.21	0.41
1:N:523:ALA:O	1:N:570:ASN:ND2	2.41	0.41
1:O:441:GLN:O	1:O:465:ARG:HD2	2.21	0.41
1:O:483:CYS:HB2	1:O:571:PRO:HG3	2.01	0.41
1:F:485:ARG:O	1:P:580:VAL:HG23	2.20	0.41
1:Q:441:GLN:O	1:Q:465:ARG:HD2	2.20	0.41
1:J:360:GLN:HG3	1:R:662:PHE:HE2	1.84	0.41
1:A:517:ILE:HG22	1:A:518:ILE:N	2.35	0.41
1:C:491:LYS:HG3	1:C:533:LYS:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:483:CYS:HB2	1:G:571:PRO:HG3	2.01	0.41
1:H:461:LEU:HD21	1:N:496:ASN:ND2	2.36	0.41
1:M:694:ARG:NH2	1:M:696:ASN:OD1	2.53	0.41
1:N:451:ASN:CB	1:N:460:ASP:HB3	2.47	0.41
1:N:517:ILE:HG22	1:N:518:ILE:N	2.35	0.41
1:B:388:VAL:HG12	1:N:705:TYR:O	2.20	0.41
1:Q:324:VAL:O	1:Q:672:THR:HG23	2.19	0.41
1:K:379:LEU:CD1	1:R:433:ARG:HG3	2.49	0.41
1:O:606:VAL:HG11	1:T:623:PRO:HB2	2.03	0.41
1:C:441:GLN:O	1:C:465:ARG:HD2	2.20	0.41
1:D:519:ASN:CB	1:E:475:PRO:HA	2.46	0.41
1:E:517:ILE:HG22	1:E:518:ILE:N	2.35	0.41
1:G:712:ASP:HB3	1:G:724:PRO:HG2	2.03	0.41
1:F:654:VAL:HG11	1:H:322:LYS:NZ	2.36	0.41
1:F:433:ARG:NH2	1:I:272:HIS:O	2.54	0.41
1:L:289:HIS:CG	1:L:365:PRO:HB3	2.56	0.41
1:J:257:TYR:CD1	1:L:366:PHE:CZ	3.08	0.41
1:M:441:GLN:HE22	1:M:474:GLN:HB3	1.86	0.41
1:M:517:ILE:HG22	1:M:518:ILE:N	2.35	0.41
1:M:615:GLN:HB2	1:M:615:GLN:HE21	1.57	0.41
1:M:712:ASP:HB3	1:M:724:PRO:HG2	2.02	0.41
1:N:603:PRO:HD3	1:Q:482:PRO:HG2	2.03	0.41
1:P:591:PRO:HB2	1:P:592:ALA:H	1.64	0.41
1:R:441:GLN:O	1:R:465:ARG:HD2	2.21	0.41
1:R:483:CYS:HB2	1:R:571:PRO:HG3	2.01	0.41
1:R:712:ASP:HB3	1:R:724:PRO:HG2	2.02	0.41
1:T:491:LYS:HG3	1:T:533:LYS:O	2.20	0.41
1:O:582:VAL:HG13	1:T:597:HIS:CE1	2.56	0.41
1:A:705:TYR:O	1:G:388:VAL:HG12	2.21	0.41
1:B:441:GLN:HE22	1:B:474:GLN:HB3	1.85	0.41
1:B:496:ASN:ND2	1:G:461:LEU:HD21	2.36	0.41
1:B:491:LYS:HG3	1:B:533:LYS:O	2.20	0.41
1:D:517:ILE:HG22	1:D:518:ILE:N	2.36	0.41
1:E:441:GLN:HE22	1:E:474:GLN:HB3	1.84	0.41
1:F:433:ARG:HG3	1:I:379:LEU:CD1	2.48	0.41
1:H:451:ASN:CB	1:H:460:ASP:HB3	2.47	0.41
1:K:491:LYS:HG3	1:K:533:LYS:O	2.20	0.41
1:M:441:GLN:O	1:M:465:ARG:HD2	2.21	0.41
1:H:442:TYR:CE2	1:N:287:ARG:NH1	2.89	0.41
1:O:491:LYS:HG3	1:O:533:LYS:O	2.20	0.41
1:P:517:ILE:HG22	1:P:518:ILE:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:230:CYS:HA	1:Q:242:THR:O	2.21	0.41
1:Q:312:LEU:HB3	1:Q:414:TYR:HB3	2.01	0.41
1:R:441:GLN:HE22	1:R:474:GLN:HB3	1.86	0.41
1:S:265:THR:C	1:S:267:ALA:H	2.23	0.41
1:S:591:PRO:HB2	1:S:592:ALA:H	1.65	0.41
1:S:324:VAL:O	1:S:672:THR:HG23	2.20	0.41
1:T:289:HIS:CG	1:T:365:PRO:HB3	2.56	0.41
1:T:441:GLN:O	1:T:465:ARG:HD2	2.21	0.41
1:O:473:VAL:HG12	1:T:517:ILE:HG13	2.03	0.41
1:T:591:PRO:HB2	1:T:592:ALA:H	1.65	0.41
1:T:288:PHE:CD2	1:T:618:ILE:HG12	2.56	0.41
1:D:289:HIS:CG	1:D:365:PRO:HB3	2.56	0.41
1:D:400:PRO:HA	1:I:228:TRP:O	2.20	0.41
1:D:654:VAL:HG11	1:I:322:LYS:NZ	2.34	0.41
1:F:491:LYS:HG3	1:F:533:LYS:O	2.20	0.41
1:F:626:ASP:O	1:P:630:HIS:HE1	2.04	0.41
1:B:485:ARG:O	1:G:580:VAL:HG23	2.20	0.41
1:H:441:GLN:O	1:H:465:ARG:HD2	2.21	0.41
1:I:441:GLN:HE22	1:I:474:GLN:HB3	1.85	0.41
1:J:407:GLY:N	1:L:222:GLY:O	2.52	0.41
1:L:318:ASN:HB2	1:L:678:GLN:OE1	2.21	0.41
1:N:433:ARG:NH2	1:Q:272:HIS:O	2.53	0.41
1:Q:694:ARG:NH2	1:Q:696:ASN:OD1	2.54	0.41
1:R:553:THR:HG23	1:R:557:ASN:CB	2.48	0.41
1:O:388:VAL:HG12	1:S:705:TYR:O	2.20	0.41
1:B:517:ILE:HG22	1:B:518:ILE:N	2.35	0.41
1:B:694:ARG:NH2	1:B:696:ASN:OD1	2.54	0.41
1:D:517:ILE:HG13	1:E:473:VAL:HG12	2.03	0.41
1:D:694:ARG:NH2	1:D:696:ASN:OD1	2.54	0.41
1:F:441:GLN:O	1:F:465:ARG:HD2	2.21	0.41
1:H:442:TYR:CD2	1:N:287:ARG:NH1	2.89	0.41
1:F:228:TRP:O	1:K:400:PRO:HA	2.20	0.41
1:A:402:GLN:HG3	1:M:227:ASN:OD1	2.20	0.41
1:N:441:GLN:O	1:N:465:ARG:HD2	2.20	0.41
1:O:475:PRO:HA	1:T:519:ASN:CB	2.46	0.41
1:O:517:ILE:HG22	1:O:518:ILE:N	2.36	0.41
1:O:603:PRO:O	1:T:634:LEU:HD11	2.21	0.41
1:I:441:GLN:HG2	1:P:359:HIS:HD2	1.85	0.41
1:P:441:GLN:O	1:P:465:ARG:HD2	2.21	0.41
1:P:712:ASP:HB3	1:P:724:PRO:HG2	2.02	0.41
1:R:318:ASN:HB2	1:R:678:GLN:OE1	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:289:HIS:CG	1:A:365:PRO:HB3	2.56	0.41
1:A:491:LYS:HG3	1:A:533:LYS:O	2.21	0.41
1:D:377:GLY:O	1:E:437:PRO:HD2	2.21	0.41
1:E:288:PHE:CD2	1:E:618:ILE:HG12	2.55	0.41
1:F:230:CYS:HA	1:F:242:THR:O	2.21	0.41
1:F:287:ARG:NH1	1:P:442:TYR:CE2	2.88	0.41
1:G:289:HIS:CG	1:G:365:PRO:HB3	2.56	0.41
1:G:373:ILE:HA	1:G:374:PRO:HD3	1.96	0.41
1:G:491:LYS:HG3	1:G:533:LYS:O	2.21	0.41
1:H:366:PHE:HA	1:H:367:PRO:HD3	1.88	0.41
1:K:417:GLU:OE2	1:K:641:LYS:N	2.54	0.41
1:K:451:ASN:CB	1:K:460:ASP:HB3	2.47	0.41
1:K:623:PRO:HB2	1:R:606:VAL:HG11	2.02	0.41
1:P:272:HIS:CE1	1:P:385:SER:HG	2.34	0.41
1:Q:249:LEU:HG	1:Q:651:ASN:ND2	2.36	0.41
1:Q:457:GLN:HE21	1:Q:457:GLN:HB2	1.71	0.41
1:R:517:ILE:HG22	1:R:518:ILE:N	2.36	0.41
1:T:249:LEU:HG	1:T:651:ASN:ND2	2.36	0.41
1:A:267:ALA:O	1:A:268:SER:HB3	2.22	0.40
1:B:289:HIS:CG	1:B:365:PRO:HB3	2.56	0.40
1:F:441:GLN:HE22	1:F:474:GLN:HB3	1.85	0.40
1:F:694:ARG:NH2	1:F:696:ASN:OD1	2.54	0.40
1:G:435:MET:HG2	1:G:474:GLN:OE1	2.21	0.40
1:H:435:MET:HG2	1:H:474:GLN:OE1	2.21	0.40
1:F:442:TYR:CD2	1:I:287:ARG:NH1	2.90	0.40
1:K:694:ARG:NH2	1:K:696:ASN:OD1	2.54	0.40
1:L:435:MET:HG2	1:L:474:GLN:OE1	2.21	0.40
1:L:517:ILE:HG22	1:L:518:ILE:N	2.35	0.40
1:N:289:HIS:CG	1:N:365:PRO:HB3	2.56	0.40
1:H:584:LEU:C	1:N:487:GLN:HE22	2.24	0.40
1:I:584:LEU:C	1:P:487:GLN:HE22	2.25	0.40
1:Q:288:PHE:CD2	1:Q:618:ILE:HG12	2.55	0.40
1:A:322:LYS:NZ	1:G:654:VAL:HG11	2.37	0.40
1:B:287:ARG:NH1	1:G:442:TYR:CD2	2.89	0.40
1:D:388:VAL:HG12	1:I:705:TYR:O	2.20	0.40
1:D:318:ASN:HB2	1:D:678:GLN:OE1	2.22	0.40
1:E:269:ASN:HA	1:E:272:HIS:HD2	1.80	0.40
1:E:435:MET:HG2	1:E:474:GLN:OE1	2.22	0.40
1:E:441:GLN:O	1:E:465:ARG:HD2	2.21	0.40
1:E:498:ASN:CG	1:E:499:SER:H	2.25	0.40
1:F:318:ASN:HB2	1:F:678:GLN:OE1	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:287:ARG:NH1	1:G:442:TYR:CE2	2.89	0.40
1:H:590:ASP:CB	1:H:591:PRO:HA	2.46	0.40
1:I:265:THR:C	1:I:267:ALA:H	2.23	0.40
1:I:318:ASN:HB2	1:I:678:GLN:OE1	2.21	0.40
1:I:712:ASP:HB3	1:I:724:PRO:HG2	2.03	0.40
1:J:257:TYR:CD1	1:L:366:PHE:CE2	3.09	0.40
1:J:363:LEU:HA	1:J:364:PRO:HD3	1.94	0.40
1:J:441:GLN:O	1:J:465:ARG:HD2	2.21	0.40
1:F:227:ASN:OD1	1:K:402:GLN:HG3	2.22	0.40
1:N:435:MET:HG2	1:N:474:GLN:OE1	2.21	0.40
1:N:442:TYR:CE2	1:Q:287:ARG:NH1	2.90	0.40
1:N:441:GLN:HE22	1:N:474:GLN:HB3	1.85	0.40
1:H:654:VAL:HG11	1:O:322:LYS:HZ1	1.86	0.40
1:P:267:ALA:O	1:P:268:SER:HB3	2.21	0.40
1:I:603:PRO:O	1:P:634:LEU:HD11	2.21	0.40
1:R:322:LYS:O	1:R:673:GLN:HB2	2.22	0.40
1:K:517:ILE:HG13	1:R:473:VAL:HG12	2.03	0.40
1:T:712:ASP:HB3	1:T:724:PRO:HG2	2.02	0.40
1:B:705:TYR:O	1:C:388:VAL:HG12	2.21	0.40
1:A:228:TRP:O	1:G:400:PRO:HA	2.21	0.40
1:H:267:ALA:O	1:H:268:SER:HB3	2.21	0.40
1:H:289:HIS:CG	1:H:365:PRO:HB3	2.57	0.40
1:H:498:ASN:CG	1:H:499:SER:H	2.25	0.40
1:K:318:ASN:HB2	1:K:678:GLN:OE1	2.22	0.40
1:K:712:ASP:HB3	1:K:724:PRO:HG2	2.03	0.40
1:L:272:HIS:ND1	1:L:385:SER:OG	2.44	0.40
1:M:380:THR:OG1	1:M:381:LEU:N	2.55	0.40
1:H:691:ASN:ND2	1:N:350:GLN:HE21	2.19	0.40
1:N:491:LYS:HG3	1:N:533:LYS:O	2.20	0.40
1:P:289:HIS:CG	1:P:365:PRO:HB3	2.56	0.40
1:Q:441:GLN:HE22	1:Q:474:GLN:HB3	1.85	0.40
1:R:364:PRO:HA	1:R:365:PRO:HD2	1.96	0.40
1:S:441:GLN:O	1:S:465:ARG:HD2	2.21	0.40
1:S:564:GLU:O	1:S:567:LYS:HG3	2.21	0.40
1:T:694:ARG:NH2	1:T:696:ASN:OD1	2.54	0.40
1:A:553:THR:HG23	1:A:557:ASN:CB	2.49	0.40
1:B:228:TRP:O	1:C:400:PRO:HA	2.20	0.40
1:C:289:HIS:CG	1:C:365:PRO:HB3	2.57	0.40
1:C:272:HIS:CE1	1:C:385:SER:HG	2.37	0.40
1:D:275:GLY:HA3	1:D:379:LEU:HD23	2.04	0.40
1:D:564:GLU:O	1:D:567:LYS:HG3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:249:LEU:HG	1:E:651:ASN:ND2	2.37	0.40
1:E:289:HIS:CG	1:E:365:PRO:HB3	2.57	0.40
1:F:428:SER:OG	1:F:733:THR:HB	2.22	0.40
1:F:603:PRO:HD3	1:I:482:PRO:HG2	2.03	0.40
1:H:564:GLU:O	1:H:567:LYS:HG3	2.21	0.40
1:H:582:VAL:HG13	1:N:597:HIS:NE2	2.35	0.40
1:K:289:HIS:CG	1:K:365:PRO:HB3	2.56	0.40
1:M:289:HIS:CG	1:M:365:PRO:HB3	2.57	0.40
1:M:564:GLU:O	1:M:567:LYS:HG3	2.21	0.40
1:O:288:PHE:CD2	1:O:618:ILE:HG12	2.56	0.40
1:O:417:GLU:OE2	1:O:641:LYS:N	2.54	0.40
1:O:590:ASP:CB	1:O:591:PRO:HA	2.47	0.40
1:Q:318:ASN:HB2	1:Q:678:GLN:OE1	2.22	0.40
1:Q:517:ILE:HG22	1:Q:518:ILE:N	2.36	0.40
1:S:483:CYS:HB2	1:S:571:PRO:HG3	2.02	0.40
1:S:694:ARG:NH2	1:S:696:ASN:OD1	2.55	0.40
1:B:553:THR:HG23	1:B:557:ASN:CB	2.50	0.40
1:C:712:ASP:HB3	1:C:724:PRO:HG2	2.03	0.40
1:D:435:MET:HG2	1:D:474:GLN:OE1	2.21	0.40
1:E:363:LEU:HA	1:E:364:PRO:HD3	1.94	0.40
1:F:249:LEU:HG	1:F:651:ASN:ND2	2.37	0.40
1:F:287:ARG:NH1	1:P:442:TYR:CD2	2.89	0.40
1:F:498:ASN:CG	1:F:499:SER:H	2.25	0.40
1:G:278:THR:HA	1:G:279:PRO:HD3	1.90	0.40
1:B:488:ARG:NH2	1:G:584:LEU:HD13	2.36	0.40
1:H:428:SER:OG	1:H:733:THR:HB	2.22	0.40
1:E:698:GLU:N	1:I:298:GLN:HE22	2.02	0.40
1:I:553:THR:HG23	1:I:557:ASN:CB	2.49	0.40
1:J:564:GLU:O	1:J:567:LYS:HG3	2.22	0.40
1:L:694:ARG:NH2	1:L:696:ASN:OD1	2.54	0.40
1:O:364:PRO:HA	1:O:365:PRO:HD2	1.96	0.40
1:Q:435:MET:HG2	1:Q:474:GLN:OE1	2.22	0.40
1:R:267:ALA:O	1:R:268:SER:HB3	2.22	0.40
1:S:269:ASN:HA	1:S:272:HIS:HD2	1.80	0.40

All (15) 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:I:454:GLY:O	1:O:668:ALA:O[3_545]	1.88	0.32

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:453:SER:OG	1:R:326:THR:OG1[4_455]	1.94	0.26
1:G:626:ASP:OD1	1:M:423:SER:OG[2_555]	2.07	0.13
1:B:423:SER:OG	1:M:626:ASP:OD1[2_555]	2.09	0.11
1:M:452:GLN:O	1:R:329:GLY:CA[4_455]	2.10	0.10
1:E:626:ASP:OD1	1:S:423:SER:OG[2_555]	2.11	0.09
1:A:423:SER:OG	1:A:626:ASP:OD1[2_555]	2.11	0.09
1:L:423:SER:OG	1:R:626:ASP:OD1[2_555]	2.13	0.07
1:D:423:SER:OG	1:S:626:ASP:OD1[2_555]	2.13	0.07
1:K:423:SER:OG	1:L:626:ASP:OD1[3_555]	2.14	0.06
1:B:588:SER:O	1:M:497:ASN:ND2[2_555]	2.15	0.05
1:J:608:GLN:NE2	1:J:626:ASP:OD1[3_555]	2.15	0.05
1:C:423:SER:OG	1:O:626:ASP:OD1[2_555]	2.16	0.04
1:C:626:ASP:OD1	1:T:423:SER:OG[2_555]	2.17	0.03
1:J:449:THR:N	1:J:500:ASN:OD1[3_555]	2.19	0.01

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	3	16
1	B	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	3	16
1	C	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	3	16
1	D	514/516 (100%)	437 (85%)	57 (11%)	20 (4%)	3	16
1	E	514/516 (100%)	438 (85%)	55 (11%)	21 (4%)	3	15
1	F	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	3	16
1	G	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	3	16
1	H	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	3	16
1	I	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	3	16
1	J	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	3	16
1	K	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	3	16

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	L	514/516 (100%)	437 (85%)	57 (11%)	20 (4%)	3	16
1	M	514/516 (100%)	437 (85%)	57 (11%)	20 (4%)	3	16
1	N	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	3	16
1	O	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	3	16
1	P	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	3	16
1	Q	514/516 (100%)	438 (85%)	55 (11%)	21 (4%)	3	15
1	R	514/516 (100%)	437 (85%)	57 (11%)	20 (4%)	3	16
1	S	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	3	16
1	T	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	3	16
All	All	10280/10320 (100%)	8756 (85%)	1122 (11%)	402 (4%)	3	16

All (402) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	358	ALA
1	A	519	ASN
1	A	531	LYS
1	A	552	ASN
1	A	586	SER
1	A	591	PRO
1	B	358	ALA
1	B	519	ASN
1	B	531	LYS
1	B	552	ASN
1	B	586	SER
1	B	591	PRO
1	C	358	ALA
1	C	519	ASN
1	C	531	LYS
1	C	552	ASN
1	C	586	SER
1	C	591	PRO
1	D	358	ALA
1	D	519	ASN
1	D	531	LYS
1	D	552	ASN
1	D	586	SER
1	D	591	PRO
1	E	358	ALA

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Mol	Chain	Res	Type
1	E	519	ASN
1	E	531	LYS
1	E	552	ASN
1	E	586	SER
1	E	591	PRO
1	F	358	ALA
1	F	519	ASN
1	F	531	LYS
1	F	552	ASN
1	F	586	SER
1	F	591	PRO
1	G	358	ALA
1	G	519	ASN
1	G	531	LYS
1	G	552	ASN
1	G	586	SER
1	G	591	PRO
1	H	358	ALA
1	H	519	ASN
1	H	531	LYS
1	H	552	ASN
1	H	586	SER
1	H	591	PRO
1	I	358	ALA
1	I	519	ASN
1	I	531	LYS
1	I	552	ASN
1	I	586	SER
1	I	591	PRO
1	J	358	ALA
1	J	519	ASN
1	J	531	LYS
1	J	552	ASN
1	J	586	SER
1	J	591	PRO
1	K	358	ALA
1	K	519	ASN
1	K	531	LYS
1	K	552	ASN
1	K	586	SER
1	K	591	PRO
1	L	358	ALA

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Mol	Chain	Res	Type
1	L	519	ASN
1	L	531	LYS
1	L	552	ASN
1	L	586	SER
1	L	591	PRO
1	M	358	ALA
1	M	519	ASN
1	M	531	LYS
1	M	552	ASN
1	M	586	SER
1	M	591	PRO
1	N	358	ALA
1	N	519	ASN
1	N	531	LYS
1	N	552	ASN
1	N	586	SER
1	N	591	PRO
1	O	358	ALA
1	O	519	ASN
1	O	531	LYS
1	O	552	ASN
1	O	586	SER
1	O	591	PRO
1	P	358	ALA
1	P	519	ASN
1	P	531	LYS
1	P	552	ASN
1	P	586	SER
1	P	591	PRO
1	Q	358	ALA
1	Q	519	ASN
1	Q	531	LYS
1	Q	552	ASN
1	Q	586	SER
1	Q	591	PRO
1	R	358	ALA
1	R	519	ASN
1	R	531	LYS
1	R	552	ASN
1	R	586	SER
1	R	591	PRO
1	S	358	ALA

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Mol	Chain	Res	Type
1	S	519	ASN
1	S	531	LYS
1	S	552	ASN
1	S	586	SER
1	S	591	PRO
1	T	358	ALA
1	T	519	ASN
1	T	531	LYS
1	T	552	ASN
1	T	586	SER
1	T	591	PRO
1	A	453	SER
1	A	523	ALA
1	A	553	THR
1	A	592	ALA
1	B	453	SER
1	B	523	ALA
1	B	553	THR
1	B	592	ALA
1	C	453	SER
1	C	523	ALA
1	C	553	THR
1	C	592	ALA
1	D	453	SER
1	D	523	ALA
1	D	553	THR
1	D	592	ALA
1	E	453	SER
1	E	523	ALA
1	E	553	THR
1	E	592	ALA
1	F	453	SER
1	F	523	ALA
1	F	553	THR
1	F	592	ALA
1	G	453	SER
1	G	523	ALA
1	G	553	THR
1	G	592	ALA
1	H	453	SER
1	H	523	ALA
1	H	553	THR

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Mol	Chain	Res	Type
1	H	592	ALA
1	I	453	SER
1	I	523	ALA
1	I	553	THR
1	I	592	ALA
1	J	453	SER
1	J	523	ALA
1	J	553	THR
1	J	592	ALA
1	K	453	SER
1	K	523	ALA
1	K	553	THR
1	K	592	ALA
1	L	453	SER
1	L	523	ALA
1	L	553	THR
1	L	592	ALA
1	M	236	GLY
1	M	453	SER
1	M	523	ALA
1	M	553	THR
1	M	592	ALA
1	N	453	SER
1	N	523	ALA
1	N	553	THR
1	N	592	ALA
1	O	453	SER
1	O	523	ALA
1	O	553	THR
1	O	592	ALA
1	P	453	SER
1	P	523	ALA
1	P	553	THR
1	P	592	ALA
1	Q	453	SER
1	Q	523	ALA
1	Q	553	THR
1	Q	592	ALA
1	R	453	SER
1	R	523	ALA
1	R	553	THR
1	R	592	ALA

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Mol	Chain	Res	Type
1	S	453	SER
1	S	523	ALA
1	S	553	THR
1	S	592	ALA
1	T	453	SER
1	T	523	ALA
1	T	553	THR
1	T	592	ALA
1	A	236	GLY
1	A	589	THR
1	B	236	GLY
1	B	589	THR
1	C	236	GLY
1	C	589	THR
1	D	236	GLY
1	D	589	THR
1	E	236	GLY
1	E	589	THR
1	F	236	GLY
1	F	589	THR
1	G	236	GLY
1	G	589	THR
1	H	236	GLY
1	H	589	THR
1	I	236	GLY
1	I	589	THR
1	J	236	GLY
1	J	589	THR
1	K	236	GLY
1	K	589	THR
1	L	236	GLY
1	L	589	THR
1	M	589	THR
1	N	236	GLY
1	N	589	THR
1	O	236	GLY
1	O	589	THR
1	P	236	GLY
1	P	589	THR
1	Q	236	GLY
1	Q	589	THR
1	R	236	GLY

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Mol	Chain	Res	Type
1	R	589	THR
1	S	236	GLY
1	S	589	THR
1	T	236	GLY
1	T	589	THR
1	A	451	ASN
1	A	546	GLU
1	A	602	LEU
1	A	631	PRO
1	A	659	PRO
1	B	451	ASN
1	B	546	GLU
1	B	602	LEU
1	B	631	PRO
1	B	659	PRO
1	C	451	ASN
1	C	546	GLU
1	C	602	LEU
1	C	631	PRO
1	C	659	PRO
1	D	451	ASN
1	D	520	PRO
1	D	546	GLU
1	D	602	LEU
1	D	631	PRO
1	D	659	PRO
1	E	451	ASN
1	E	546	GLU
1	E	602	LEU
1	E	631	PRO
1	E	659	PRO
1	F	451	ASN
1	F	546	GLU
1	F	602	LEU
1	F	631	PRO
1	F	659	PRO
1	G	451	ASN
1	G	546	GLU
1	G	602	LEU
1	G	631	PRO
1	G	659	PRO
1	H	451	ASN

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Mol	Chain	Res	Type
1	H	546	GLU
1	H	602	LEU
1	H	631	PRO
1	H	659	PRO
1	I	451	ASN
1	I	546	GLU
1	I	602	LEU
1	I	631	PRO
1	I	659	PRO
1	J	451	ASN
1	J	546	GLU
1	J	602	LEU
1	J	631	PRO
1	J	659	PRO
1	K	451	ASN
1	K	546	GLU
1	K	602	LEU
1	K	631	PRO
1	K	659	PRO
1	L	451	ASN
1	L	546	GLU
1	L	602	LEU
1	L	631	PRO
1	L	659	PRO
1	M	451	ASN
1	M	546	GLU
1	M	602	LEU
1	M	631	PRO
1	M	659	PRO
1	N	451	ASN
1	N	546	GLU
1	N	602	LEU
1	N	631	PRO
1	N	659	PRO
1	O	451	ASN
1	O	546	GLU
1	O	602	LEU
1	O	631	PRO
1	O	659	PRO
1	P	451	ASN
1	P	546	GLU
1	P	602	LEU

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Mol	Chain	Res	Type
1	P	631	PRO
1	P	659	PRO
1	Q	451	ASN
1	Q	546	GLU
1	Q	602	LEU
1	Q	631	PRO
1	Q	659	PRO
1	R	451	ASN
1	R	546	GLU
1	R	602	LEU
1	R	631	PRO
1	R	659	PRO
1	S	451	ASN
1	S	546	GLU
1	S	602	LEU
1	S	631	PRO
1	S	659	PRO
1	T	451	ASN
1	T	546	GLU
1	T	602	LEU
1	T	631	PRO
1	T	659	PRO
1	A	520	PRO
1	A	565	GLU
1	B	520	PRO
1	B	565	GLU
1	C	520	PRO
1	C	565	GLU
1	D	565	GLU
1	E	520	PRO
1	E	565	GLU
1	F	520	PRO
1	F	565	GLU
1	G	520	PRO
1	G	565	GLU
1	H	520	PRO
1	H	565	GLU
1	I	520	PRO
1	I	565	GLU
1	J	520	PRO
1	J	565	GLU
1	K	520	PRO

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Mol	Chain	Res	Type
1	K	565	GLU
1	L	520	PRO
1	L	565	GLU
1	M	520	PRO
1	M	565	GLU
1	N	520	PRO
1	N	565	GLU
1	O	520	PRO
1	O	565	GLU
1	P	520	PRO
1	P	565	GLU
1	Q	520	PRO
1	Q	565	GLU
1	R	520	PRO
1	R	565	GLU
1	S	520	PRO
1	S	565	GLU
1	T	520	PRO
1	T	565	GLU
1	A	268	SER
1	B	268	SER
1	C	268	SER
1	D	268	SER
1	E	268	SER
1	E	601	ALA
1	F	268	SER
1	G	268	SER
1	H	268	SER
1	I	268	SER
1	J	268	SER
1	K	268	SER
1	L	268	SER
1	M	268	SER
1	N	268	SER
1	O	268	SER
1	P	268	SER
1	Q	268	SER
1	Q	601	ALA
1	R	268	SER
1	S	268	SER
1	T	268	SER

5.3.2 Protein sidechains

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	B	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	C	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	D	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	E	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	F	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	G	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	H	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	I	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	J	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	K	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	L	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	M	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	N	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	O	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	P	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	Q	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	R	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	S	451/451 (100%)	432 (96%)	19 (4%)	30	65
1	T	451/451 (100%)	432 (96%)	19 (4%)	30	65
All	All	9020/9020 (100%)	8640 (96%)	380 (4%)	30	65

All (380) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	289	HIS
1	A	295	ARG
1	A	323	GLU

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Mol	Chain	Res	Type
1	A	388	VAL
1	A	418	ASP
1	A	435	MET
1	A	476	LYS
1	A	508	LYS
1	A	519	ASN
1	A	593	THR
1	A	614	LEU
1	A	615	GLN
1	A	628	HIS
1	A	634	LEU
1	A	635	MET
1	A	657	ASN
1	A	690	GLU
1	A	717	ASN
1	A	725	ARG
1	B	289	HIS
1	B	295	ARG
1	B	323	GLU
1	B	388	VAL
1	B	418	ASP
1	B	435	MET
1	B	476	LYS
1	B	508	LYS
1	B	519	ASN
1	B	593	THR
1	B	614	LEU
1	B	615	GLN
1	B	628	HIS
1	B	634	LEU
1	B	635	MET
1	B	657	ASN
1	B	690	GLU
1	B	717	ASN
1	B	725	ARG
1	C	289	HIS
1	C	295	ARG
1	C	323	GLU
1	C	388	VAL
1	C	418	ASP
1	C	435	MET
1	C	476	LYS

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Mol	Chain	Res	Type
1	C	508	LYS
1	C	519	ASN
1	C	593	THR
1	C	614	LEU
1	C	615	GLN
1	C	628	HIS
1	C	634	LEU
1	C	635	MET
1	C	657	ASN
1	C	690	GLU
1	C	717	ASN
1	C	725	ARG
1	D	289	HIS
1	D	295	ARG
1	D	323	GLU
1	D	388	VAL
1	D	418	ASP
1	D	435	MET
1	D	476	LYS
1	D	508	LYS
1	D	519	ASN
1	D	593	THR
1	D	614	LEU
1	D	615	GLN
1	D	628	HIS
1	D	634	LEU
1	D	635	MET
1	D	657	ASN
1	D	690	GLU
1	D	717	ASN
1	D	725	ARG
1	E	289	HIS
1	E	295	ARG
1	E	323	GLU
1	E	388	VAL
1	E	418	ASP
1	E	435	MET
1	E	476	LYS
1	E	508	LYS
1	E	519	ASN
1	E	593	THR
1	E	614	LEU

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Mol	Chain	Res	Type
1	E	615	GLN
1	E	628	HIS
1	E	634	LEU
1	E	635	MET
1	E	657	ASN
1	E	690	GLU
1	E	717	ASN
1	E	725	ARG
1	F	289	HIS
1	F	295	ARG
1	F	323	GLU
1	F	388	VAL
1	F	418	ASP
1	F	435	MET
1	F	476	LYS
1	F	508	LYS
1	F	519	ASN
1	F	593	THR
1	F	614	LEU
1	F	615	GLN
1	F	628	HIS
1	F	634	LEU
1	F	635	MET
1	F	657	ASN
1	F	690	GLU
1	F	717	ASN
1	F	725	ARG
1	G	289	HIS
1	G	295	ARG
1	G	323	GLU
1	G	388	VAL
1	G	418	ASP
1	G	435	MET
1	G	476	LYS
1	G	508	LYS
1	G	519	ASN
1	G	593	THR
1	G	614	LEU
1	G	615	GLN
1	G	628	HIS
1	G	634	LEU
1	G	635	MET

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Mol	Chain	Res	Type
1	G	657	ASN
1	G	690	GLU
1	G	717	ASN
1	G	725	ARG
1	H	289	HIS
1	H	295	ARG
1	H	323	GLU
1	H	388	VAL
1	H	418	ASP
1	H	435	MET
1	H	476	LYS
1	H	508	LYS
1	H	519	ASN
1	H	593	THR
1	H	614	LEU
1	H	615	GLN
1	H	628	HIS
1	H	634	LEU
1	H	635	MET
1	H	657	ASN
1	H	690	GLU
1	H	717	ASN
1	H	725	ARG
1	I	289	HIS
1	I	295	ARG
1	I	323	GLU
1	I	388	VAL
1	I	418	ASP
1	I	435	MET
1	I	476	LYS
1	I	508	LYS
1	I	519	ASN
1	I	593	THR
1	I	614	LEU
1	I	615	GLN
1	I	628	HIS
1	I	634	LEU
1	I	635	MET
1	I	657	ASN
1	I	690	GLU
1	I	717	ASN
1	I	725	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	J	289	HIS
1	J	295	ARG
1	J	323	GLU
1	J	388	VAL
1	J	418	ASP
1	J	435	MET
1	J	476	LYS
1	J	508	LYS
1	J	519	ASN
1	J	593	THR
1	J	614	LEU
1	J	615	GLN
1	J	628	HIS
1	J	634	LEU
1	J	635	MET
1	J	657	ASN
1	J	690	GLU
1	J	717	ASN
1	J	725	ARG
1	K	289	HIS
1	K	295	ARG
1	K	323	GLU
1	K	388	VAL
1	K	418	ASP
1	K	435	MET
1	K	476	LYS
1	K	508	LYS
1	K	519	ASN
1	K	593	THR
1	K	614	LEU
1	K	615	GLN
1	K	628	HIS
1	K	634	LEU
1	K	635	MET
1	K	657	ASN
1	K	690	GLU
1	K	717	ASN
1	K	725	ARG
1	L	289	HIS
1	L	295	ARG
1	L	323	GLU
1	L	388	VAL

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Mol	Chain	Res	Type
1	L	418	ASP
1	L	435	MET
1	L	476	LYS
1	L	508	LYS
1	L	519	ASN
1	L	593	THR
1	L	614	LEU
1	L	615	GLN
1	L	628	HIS
1	L	634	LEU
1	L	635	MET
1	L	657	ASN
1	L	690	GLU
1	L	717	ASN
1	L	725	ARG
1	M	289	HIS
1	M	295	ARG
1	M	323	GLU
1	M	388	VAL
1	M	418	ASP
1	M	435	MET
1	M	476	LYS
1	M	508	LYS
1	M	519	ASN
1	M	593	THR
1	M	614	LEU
1	M	615	GLN
1	M	628	HIS
1	M	634	LEU
1	M	635	MET
1	M	657	ASN
1	M	690	GLU
1	M	717	ASN
1	M	725	ARG
1	N	289	HIS
1	N	295	ARG
1	N	323	GLU
1	N	388	VAL
1	N	418	ASP
1	N	435	MET
1	N	476	LYS
1	N	508	LYS

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Mol	Chain	Res	Type
1	N	519	ASN
1	N	593	THR
1	N	614	LEU
1	N	615	GLN
1	N	628	HIS
1	N	634	LEU
1	N	635	MET
1	N	657	ASN
1	N	690	GLU
1	N	717	ASN
1	N	725	ARG
1	O	289	HIS
1	O	295	ARG
1	O	323	GLU
1	O	388	VAL
1	O	418	ASP
1	O	435	MET
1	O	476	LYS
1	O	508	LYS
1	O	519	ASN
1	O	593	THR
1	O	614	LEU
1	O	615	GLN
1	O	628	HIS
1	O	634	LEU
1	O	635	MET
1	O	657	ASN
1	O	690	GLU
1	O	717	ASN
1	O	725	ARG
1	P	289	HIS
1	P	295	ARG
1	P	323	GLU
1	P	388	VAL
1	P	418	ASP
1	P	435	MET
1	P	476	LYS
1	P	508	LYS
1	P	519	ASN
1	P	593	THR
1	P	614	LEU
1	P	615	GLN

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Mol	Chain	Res	Type
1	P	628	HIS
1	P	634	LEU
1	P	635	MET
1	P	657	ASN
1	P	690	GLU
1	P	717	ASN
1	P	725	ARG
1	Q	289	HIS
1	Q	295	ARG
1	Q	323	GLU
1	Q	388	VAL
1	Q	418	ASP
1	Q	435	MET
1	Q	476	LYS
1	Q	508	LYS
1	Q	519	ASN
1	Q	593	THR
1	Q	614	LEU
1	Q	615	GLN
1	Q	628	HIS
1	Q	634	LEU
1	Q	635	MET
1	Q	657	ASN
1	Q	690	GLU
1	Q	717	ASN
1	Q	725	ARG
1	R	289	HIS
1	R	295	ARG
1	R	323	GLU
1	R	388	VAL
1	R	418	ASP
1	R	435	MET
1	R	476	LYS
1	R	508	LYS
1	R	519	ASN
1	R	593	THR
1	R	614	LEU
1	R	615	GLN
1	R	628	HIS
1	R	634	LEU
1	R	635	MET
1	R	657	ASN

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Mol	Chain	Res	Type
1	R	690	GLU
1	R	717	ASN
1	R	725	ARG
1	S	289	HIS
1	S	295	ARG
1	S	323	GLU
1	S	388	VAL
1	S	418	ASP
1	S	435	MET
1	S	476	LYS
1	S	508	LYS
1	S	519	ASN
1	S	593	THR
1	S	614	LEU
1	S	615	GLN
1	S	628	HIS
1	S	634	LEU
1	S	635	MET
1	S	657	ASN
1	S	690	GLU
1	S	717	ASN
1	S	725	ARG
1	T	289	HIS
1	T	295	ARG
1	T	323	GLU
1	T	388	VAL
1	T	418	ASP
1	T	435	MET
1	T	476	LYS
1	T	508	LYS
1	T	519	ASN
1	T	593	THR
1	T	614	LEU
1	T	615	GLN
1	T	628	HIS
1	T	634	LEU
1	T	635	MET
1	T	657	ASN
1	T	690	GLU
1	T	717	ASN
1	T	725	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (464) such

sidechains are listed below:

Mol	Chain	Res	Type
1	A	223	ASN
1	A	253	ASN
1	A	291	HIS
1	A	298	GLN
1	A	302	ASN
1	A	327	ASN
1	A	335	ASN
1	A	336	ASN
1	A	375	GLN
1	A	429	GLN
1	A	452	GLN
1	A	457	GLN
1	A	519	ASN
1	A	628	HIS
1	A	642	HIS
1	A	646	GLN
1	A	651	ASN
1	A	657	ASN
1	A	688	GLN
1	A	691	ASN
1	B	223	ASN
1	B	253	ASN
1	B	291	HIS
1	B	298	GLN
1	B	302	ASN
1	B	327	ASN
1	B	335	ASN
1	B	336	ASN
1	B	359	HIS
1	B	375	GLN
1	B	429	GLN
1	B	452	GLN
1	B	457	GLN
1	B	487	GLN
1	B	519	ASN
1	B	624	HIS
1	B	628	HIS
1	B	642	HIS
1	B	646	GLN
1	B	651	ASN
1	B	657	ASN
1	B	688	GLN

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Mol	Chain	Res	Type
1	B	691	ASN
1	C	223	ASN
1	C	253	ASN
1	C	291	HIS
1	C	298	GLN
1	C	302	ASN
1	C	327	ASN
1	C	335	ASN
1	C	336	ASN
1	C	342	GLN
1	C	375	GLN
1	C	429	GLN
1	C	452	GLN
1	C	457	GLN
1	C	519	ASN
1	C	628	HIS
1	C	642	HIS
1	C	646	GLN
1	C	651	ASN
1	C	657	ASN
1	C	688	GLN
1	D	223	ASN
1	D	253	ASN
1	D	291	HIS
1	D	298	GLN
1	D	302	ASN
1	D	313	ASN
1	D	327	ASN
1	D	335	ASN
1	D	336	ASN
1	D	359	HIS
1	D	375	GLN
1	D	429	GLN
1	D	452	GLN
1	D	457	GLN
1	D	487	GLN
1	D	519	ASN
1	D	624	HIS
1	D	628	HIS
1	D	642	HIS
1	D	646	GLN
1	D	651	ASN

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Mol	Chain	Res	Type
1	D	657	ASN
1	D	688	GLN
1	D	691	ASN
1	E	223	ASN
1	E	253	ASN
1	E	291	HIS
1	E	298	GLN
1	E	302	ASN
1	E	327	ASN
1	E	335	ASN
1	E	336	ASN
1	E	375	GLN
1	E	450	GLN
1	E	452	GLN
1	E	457	GLN
1	E	519	ASN
1	E	585	GLN
1	E	608	GLN
1	E	628	HIS
1	E	642	HIS
1	E	646	GLN
1	E	651	ASN
1	E	657	ASN
1	E	688	GLN
1	E	691	ASN
1	E	696	ASN
1	F	223	ASN
1	F	253	ASN
1	F	298	GLN
1	F	302	ASN
1	F	313	ASN
1	F	327	ASN
1	F	335	ASN
1	F	336	ASN
1	F	342	GLN
1	F	359	HIS
1	F	375	GLN
1	F	450	GLN
1	F	452	GLN
1	F	457	GLN
1	F	487	GLN
1	F	519	ASN

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Mol	Chain	Res	Type
1	F	585	GLN
1	F	608	GLN
1	F	624	HIS
1	F	628	HIS
1	F	642	HIS
1	F	646	GLN
1	F	651	ASN
1	F	657	ASN
1	F	688	GLN
1	F	691	ASN
1	F	696	ASN
1	G	223	ASN
1	G	253	ASN
1	G	298	GLN
1	G	302	ASN
1	G	327	ASN
1	G	335	ASN
1	G	336	ASN
1	G	342	GLN
1	G	375	GLN
1	G	450	GLN
1	G	452	GLN
1	G	457	GLN
1	G	519	ASN
1	G	585	GLN
1	G	608	GLN
1	G	628	HIS
1	G	642	HIS
1	G	646	GLN
1	G	651	ASN
1	G	657	ASN
1	G	688	GLN
1	G	691	ASN
1	G	696	ASN
1	H	223	ASN
1	H	253	ASN
1	H	298	GLN
1	H	302	ASN
1	H	327	ASN
1	H	335	ASN
1	H	336	ASN
1	H	342	GLN

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Mol	Chain	Res	Type
1	H	359	HIS
1	H	375	GLN
1	H	450	GLN
1	H	452	GLN
1	H	457	GLN
1	H	487	GLN
1	H	519	ASN
1	H	585	GLN
1	H	608	GLN
1	H	624	HIS
1	H	628	HIS
1	H	642	HIS
1	H	646	GLN
1	H	651	ASN
1	H	657	ASN
1	H	688	GLN
1	H	691	ASN
1	H	696	ASN
1	I	223	ASN
1	I	253	ASN
1	I	254	ASN
1	I	298	GLN
1	I	302	ASN
1	I	313	ASN
1	I	327	ASN
1	I	335	ASN
1	I	336	ASN
1	I	342	GLN
1	I	359	HIS
1	I	375	GLN
1	I	450	GLN
1	I	452	GLN
1	I	457	GLN
1	I	487	GLN
1	I	519	ASN
1	I	585	GLN
1	I	608	GLN
1	I	624	HIS
1	I	628	HIS
1	I	642	HIS
1	I	646	GLN
1	I	651	ASN

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Mol	Chain	Res	Type
1	I	657	ASN
1	I	688	GLN
1	I	691	ASN
1	I	696	ASN
1	J	253	ASN
1	J	298	GLN
1	J	302	ASN
1	J	313	ASN
1	J	327	ASN
1	J	335	ASN
1	J	342	GLN
1	J	375	GLN
1	J	429	GLN
1	J	452	GLN
1	J	457	GLN
1	J	519	ASN
1	J	628	HIS
1	J	642	HIS
1	J	646	GLN
1	J	657	ASN
1	J	688	GLN
1	K	223	ASN
1	K	253	ASN
1	K	298	GLN
1	K	302	ASN
1	K	313	ASN
1	K	327	ASN
1	K	335	ASN
1	K	336	ASN
1	K	342	GLN
1	K	359	HIS
1	K	375	GLN
1	K	429	GLN
1	K	452	GLN
1	K	457	GLN
1	K	487	GLN
1	K	519	ASN
1	K	624	HIS
1	K	628	HIS
1	K	642	HIS
1	K	646	GLN
1	K	651	ASN

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Mol	Chain	Res	Type
1	K	657	ASN
1	K	688	GLN
1	K	691	ASN
1	L	223	ASN
1	L	253	ASN
1	L	291	HIS
1	L	298	GLN
1	L	302	ASN
1	L	313	ASN
1	L	327	ASN
1	L	335	ASN
1	L	336	ASN
1	L	342	GLN
1	L	375	GLN
1	L	429	GLN
1	L	452	GLN
1	L	457	GLN
1	L	519	ASN
1	L	628	HIS
1	L	642	HIS
1	L	646	GLN
1	L	651	ASN
1	L	657	ASN
1	L	688	GLN
1	L	691	ASN
1	M	223	ASN
1	M	253	ASN
1	M	298	GLN
1	M	302	ASN
1	M	313	ASN
1	M	327	ASN
1	M	335	ASN
1	M	336	ASN
1	M	375	GLN
1	M	429	GLN
1	M	452	GLN
1	M	457	GLN
1	M	519	ASN
1	M	628	HIS
1	M	642	HIS
1	M	646	GLN
1	M	657	ASN

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Mol	Chain	Res	Type
1	M	688	GLN
1	M	691	ASN
1	N	223	ASN
1	N	253	ASN
1	N	298	GLN
1	N	302	ASN
1	N	327	ASN
1	N	335	ASN
1	N	336	ASN
1	N	342	GLN
1	N	359	HIS
1	N	375	GLN
1	N	450	GLN
1	N	452	GLN
1	N	457	GLN
1	N	487	GLN
1	N	519	ASN
1	N	585	GLN
1	N	608	GLN
1	N	624	HIS
1	N	628	HIS
1	N	642	HIS
1	N	646	GLN
1	N	651	ASN
1	N	657	ASN
1	N	688	GLN
1	N	691	ASN
1	N	696	ASN
1	O	223	ASN
1	O	253	ASN
1	O	291	HIS
1	O	298	GLN
1	O	302	ASN
1	O	313	ASN
1	O	327	ASN
1	O	335	ASN
1	O	336	ASN
1	O	342	GLN
1	O	375	GLN
1	O	450	GLN
1	O	452	GLN
1	O	457	GLN

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Mol	Chain	Res	Type
1	O	519	ASN
1	O	585	GLN
1	O	608	GLN
1	O	628	HIS
1	O	642	HIS
1	O	646	GLN
1	O	651	ASN
1	O	657	ASN
1	O	688	GLN
1	O	691	ASN
1	O	696	ASN
1	P	253	ASN
1	P	291	HIS
1	P	298	GLN
1	P	302	ASN
1	P	327	ASN
1	P	335	ASN
1	P	336	ASN
1	P	342	GLN
1	P	359	HIS
1	P	375	GLN
1	P	450	GLN
1	P	452	GLN
1	P	457	GLN
1	P	487	GLN
1	P	519	ASN
1	P	585	GLN
1	P	608	GLN
1	P	624	HIS
1	P	628	HIS
1	P	642	HIS
1	P	646	GLN
1	P	657	ASN
1	P	688	GLN
1	P	691	ASN
1	P	696	ASN
1	Q	223	ASN
1	Q	253	ASN
1	Q	298	GLN
1	Q	302	ASN
1	Q	327	ASN
1	Q	335	ASN

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Mol	Chain	Res	Type
1	Q	336	ASN
1	Q	359	HIS
1	Q	375	GLN
1	Q	450	GLN
1	Q	452	GLN
1	Q	457	GLN
1	Q	487	GLN
1	Q	519	ASN
1	Q	585	GLN
1	Q	608	GLN
1	Q	624	HIS
1	Q	628	HIS
1	Q	642	HIS
1	Q	646	GLN
1	Q	651	ASN
1	Q	657	ASN
1	Q	688	GLN
1	Q	691	ASN
1	Q	696	ASN
1	R	223	ASN
1	R	253	ASN
1	R	298	GLN
1	R	302	ASN
1	R	327	ASN
1	R	335	ASN
1	R	336	ASN
1	R	342	GLN
1	R	375	GLN
1	R	450	GLN
1	R	452	GLN
1	R	457	GLN
1	R	519	ASN
1	R	585	GLN
1	R	608	GLN
1	R	628	HIS
1	R	642	HIS
1	R	646	GLN
1	R	651	ASN
1	R	657	ASN
1	R	688	GLN
1	R	691	ASN
1	R	696	ASN

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Mol	Chain	Res	Type
1	S	223	ASN
1	S	253	ASN
1	S	291	HIS
1	S	298	GLN
1	S	302	ASN
1	S	327	ASN
1	S	335	ASN
1	S	336	ASN
1	S	342	GLN
1	S	375	GLN
1	S	429	GLN
1	S	452	GLN
1	S	457	GLN
1	S	519	ASN
1	S	628	HIS
1	S	642	HIS
1	S	646	GLN
1	S	651	ASN
1	S	657	ASN
1	S	688	GLN
1	T	223	ASN
1	T	253	ASN
1	T	291	HIS
1	T	298	GLN
1	T	302	ASN
1	T	327	ASN
1	T	335	ASN
1	T	336	ASN
1	T	342	GLN
1	T	359	HIS
1	T	375	GLN
1	T	429	GLN
1	T	452	GLN
1	T	457	GLN
1	T	487	GLN
1	T	519	ASN
1	T	624	HIS
1	T	628	HIS
1	T	642	HIS
1	T	646	GLN
1	T	651	ASN
1	T	657	ASN

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Mol	Chain	Res	Type
1	T	688	GLN
1	T	691	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

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	516/516 (100%)	0.03	7 (1%) 75 48	72, 88, 112, 147	0
1	B	516/516 (100%)	0.08	5 (0%) 82 58	71, 87, 112, 144	0
1	C	516/516 (100%)	0.10	7 (1%) 75 48	70, 87, 110, 145	0
1	D	516/516 (100%)	0.03	1 (0%) 95 87	71, 88, 112, 144	0
1	E	516/516 (100%)	0.02	4 (0%) 86 65	71, 87, 111, 148	0
1	F	516/516 (100%)	0.09	8 (1%) 72 43	70, 87, 111, 147	0
1	G	516/516 (100%)	0.01	6 (1%) 79 53	73, 87, 112, 145	0
1	H	516/516 (100%)	0.08	2 (0%) 92 78	70, 86, 112, 145	0
1	I	516/516 (100%)	0.03	2 (0%) 92 78	71, 87, 112, 146	0
1	J	516/516 (100%)	-0.03	8 (1%) 72 43	73, 89, 112, 147	0
1	K	516/516 (100%)	0.05	3 (0%) 89 72	70, 88, 113, 146	0
1	L	516/516 (100%)	0.00	5 (0%) 82 58	73, 88, 112, 146	0
1	M	516/516 (100%)	0.03	5 (0%) 82 58	70, 88, 112, 145	0
1	N	516/516 (100%)	0.05	3 (0%) 89 72	71, 87, 111, 147	0
1	O	516/516 (100%)	0.07	2 (0%) 92 78	70, 87, 111, 147	0
1	P	516/516 (100%)	0.07	2 (0%) 92 78	67, 86, 111, 146	0
1	Q	516/516 (100%)	0.08	4 (0%) 86 65	70, 87, 111, 146	0
1	R	516/516 (100%)	-0.00	1 (0%) 95 87	72, 88, 112, 146	0
1	S	516/516 (100%)	0.02	1 (0%) 95 87	71, 87, 111, 145	0
1	T	516/516 (100%)	0.09	7 (1%) 75 48	72, 87, 111, 145	0
All	All	10320/10320 (100%)	0.04	83 (0%) 86 65	67, 87, 112, 148	0

All (83) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	671	ILE	4.4
1	Q	490	SER	4.0
1	J	446	LEU	3.8
1	F	454	GLY	3.5
1	C	606	VAL	3.4
1	P	302	ASN	3.4
1	K	452	GLN	3.3
1	L	637	GLY	3.1
1	J	336	ASN	3.1
1	T	506	ALA	3.1
1	G	222	GLY	3.1
1	B	326	THR	3.1
1	F	483	CYS	3.0
1	G	392	SER	2.9
1	N	482	PRO	2.9
1	A	452	GLN	2.8
1	F	541	MET	2.8
1	F	461	LEU	2.8
1	K	309	PRO	2.8
1	R	319	ILE	2.8
1	C	577	PHE	2.6
1	C	483	CYS	2.5
1	G	600	GLY	2.5
1	Q	443	LEU	2.5
1	B	673	GLN	2.5
1	L	526	SER	2.4
1	J	487	GLN	2.4
1	N	736	LEU	2.4
1	C	454	GLY	2.4
1	F	560	ILE	2.4
1	Q	572	VAL	2.3
1	E	589	THR	2.3
1	I	702	THR	2.3
1	E	319	ILE	2.3
1	A	484	TYR	2.3
1	K	446	LEU	2.3
1	M	589	THR	2.3
1	C	372	MET	2.3
1	L	687	LEU	2.3
1	F	394	TYR	2.3
1	B	363	LEU	2.3
1	Q	342	GLN	2.2
1	L	596	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
1	E	483	CYS	2.2
1	T	592	ALA	2.2
1	T	542	ILE	2.2
1	C	598	VAL	2.2
1	B	248	ALA	2.2
1	J	394	TYR	2.1
1	P	681	VAL	2.1
1	F	462	LEU	2.1
1	M	255	HIS	2.1
1	L	464	SER	2.1
1	F	736	LEU	2.1
1	J	395	CYS	2.1
1	G	711	VAL	2.1
1	M	479	LEU	2.1
1	C	732	LEU	2.1
1	H	479	LEU	2.1
1	D	561	THR	2.1
1	M	487	GLN	2.1
1	E	520	PRO	2.1
1	M	596	VAL	2.1
1	I	699	VAL	2.1
1	G	356	GLY	2.1
1	J	637	GLY	2.1
1	N	695	TRP	2.1
1	G	456	ALA	2.1
1	J	655	PRO	2.1
1	A	222	GLY	2.1
1	A	596	VAL	2.0
1	S	380	THR	2.0
1	A	431	LEU	2.0
1	B	431	LEU	2.0
1	O	404	LEU	2.0
1	H	450	GLN	2.0
1	O	727	ILE	2.0
1	T	479	LEU	2.0
1	T	675	SER	2.0
1	T	240	ILE	2.0
1	A	443	LEU	2.0
1	J	338	THR	2.0
1	T	341	VAL	2.0

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

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

6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

6.4 Ligands [i](#)

There are no ligands in this entry.

6.5 Other polymers [i](#)

There are no such residues in this entry.