



Full wwPDB X-ray Structure Validation Report ⓘ

May 22, 2020 – 04:35 am BST

PDB ID : 1FOU
Title : CONNECTOR PROTEIN FROM BACTERIOPHAGE PHI29
Authors : Simpson, A.A.; Tao, Y.; Leiman, P.G.; Badasso, M.O.; He, Y.; Jardine, P.J.; Olson, N.H.; Morais, M.C.; Grimes, S.N.; Anderson, D.L.; Baker, T.S.; Rossmann, M.G.
Deposited on : 2000-08-28
Resolution : 3.20 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

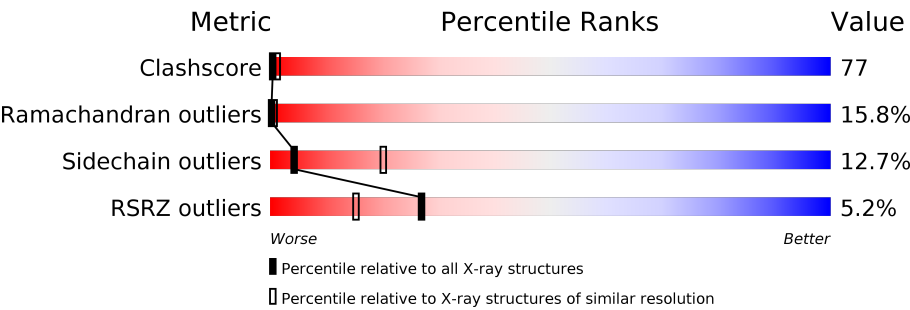
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.20 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))
Clashscore	141614	1253 (3.20-3.20)
Ramachandran outliers	138981	1234 (3.20-3.20)
Sidechain outliers	138945	1233 (3.20-3.20)
RSRZ outliers	127900	1095 (3.20-3.20)

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	309	<div><div>3%</div><div><div></div><div>20%</div><div>46%</div><div>15%</div><div>•</div><div>17%</div></div></div>
1	B	309	<div><div>4%</div><div><div></div><div>17%</div><div>47%</div><div>16%</div><div>•</div><div>17%</div></div></div>
1	C	309	<div><div>5%</div><div><div></div><div>15%</div><div>51%</div><div>15%</div><div>•</div><div>17%</div></div></div>
1	D	309	<div><div>2%</div><div><div></div><div>13%</div><div>54%</div><div>14%</div><div>•</div><div>17%</div></div></div>
1	E	309	<div><div>11%</div><div><div></div><div>16%</div><div>49%</div><div>16%</div><div>•</div><div>17%</div></div></div>
1	F	309	<div><div>6%</div><div><div></div><div>20%</div><div>45%</div><div>14%</div><div>•</div><div>17%</div></div></div>
1	G	309	<div><div>5%</div><div><div></div><div>17%</div><div>49%</div><div>16%</div><div>•</div><div>17%</div></div></div>

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Mol	Chain	Length	Quality of chain
1	H	309	<div><div><div></div><div></div><div></div><div></div><div></div></div><div><div>7%</div><div>17%</div><div>51%</div><div>15%</div><div>•</div><div>17%</div></div></div>
1	I	309	<div><div><div></div><div></div><div></div><div></div><div></div></div><div><div>2%</div><div>19%</div><div>48%</div><div>14%</div><div>•</div><div>17%</div></div></div>
1	J	309	<div><div><div></div><div></div><div></div><div></div><div></div></div><div><div>2%</div><div>16%</div><div>49%</div><div>16%</div><div>•</div><div>17%</div></div></div>
1	K	309	<div><div><div></div><div></div><div></div><div></div><div></div></div><div><div>4%</div><div>17%</div><div>49%</div><div>14%</div><div>•</div><div>17%</div></div></div>
1	L	309	<div><div><div></div><div></div><div></div><div></div><div></div></div><div><div>2%</div><div>22%</div><div>42%</div><div>15%</div><div>•</div><div>17%</div></div></div>

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 25272 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 UPPER COLLAR PROTEIN.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	B	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	C	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	D	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	E	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	F	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	G	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	H	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	I	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	J	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	K	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			
1	L	257	Total	C	N	O	S	0	0	0
			2106	1350	348	401	7			

There are 60 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	225	LYS	LEU	CONFLICT	UNP P04332
A	226	LEU	GLY	CONFLICT	UNP P04332
A	227	GLN	ILE	CONFLICT	UNP P04332
A	228	THR	LYS	CONFLICT	UNP P04332
A	251	ASP	GLU	CONFLICT	UNP P04332

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Chain	Residue	Modelled	Actual	Comment	Reference
B	225	LYS	LEU	CONFLICT	UNP P04332
B	226	LEU	GLY	CONFLICT	UNP P04332
B	227	GLN	ILE	CONFLICT	UNP P04332
B	228	THR	LYS	CONFLICT	UNP P04332
B	251	ASP	GLU	CONFLICT	UNP P04332
C	225	LYS	LEU	CONFLICT	UNP P04332
C	226	LEU	GLY	CONFLICT	UNP P04332
C	227	GLN	ILE	CONFLICT	UNP P04332
C	228	THR	LYS	CONFLICT	UNP P04332
C	251	ASP	GLU	CONFLICT	UNP P04332
D	225	LYS	LEU	CONFLICT	UNP P04332
D	226	LEU	GLY	CONFLICT	UNP P04332
D	227	GLN	ILE	CONFLICT	UNP P04332
D	228	THR	LYS	CONFLICT	UNP P04332
D	251	ASP	GLU	CONFLICT	UNP P04332
E	225	LYS	LEU	CONFLICT	UNP P04332
E	226	LEU	GLY	CONFLICT	UNP P04332
E	227	GLN	ILE	CONFLICT	UNP P04332
E	228	THR	LYS	CONFLICT	UNP P04332
E	251	ASP	GLU	CONFLICT	UNP P04332
F	225	LYS	LEU	CONFLICT	UNP P04332
F	226	LEU	GLY	CONFLICT	UNP P04332
F	227	GLN	ILE	CONFLICT	UNP P04332
F	228	THR	LYS	CONFLICT	UNP P04332
F	251	ASP	GLU	CONFLICT	UNP P04332
G	225	LYS	LEU	CONFLICT	UNP P04332
G	226	LEU	GLY	CONFLICT	UNP P04332
G	227	GLN	ILE	CONFLICT	UNP P04332
G	228	THR	LYS	CONFLICT	UNP P04332
G	251	ASP	GLU	CONFLICT	UNP P04332
H	225	LYS	LEU	CONFLICT	UNP P04332
H	226	LEU	GLY	CONFLICT	UNP P04332
H	227	GLN	ILE	CONFLICT	UNP P04332
H	228	THR	LYS	CONFLICT	UNP P04332
H	251	ASP	GLU	CONFLICT	UNP P04332
I	225	LYS	LEU	CONFLICT	UNP P04332
I	226	LEU	GLY	CONFLICT	UNP P04332
I	227	GLN	ILE	CONFLICT	UNP P04332
I	228	THR	LYS	CONFLICT	UNP P04332
I	251	ASP	GLU	CONFLICT	UNP P04332
J	225	LYS	LEU	CONFLICT	UNP P04332
J	226	LEU	GLY	CONFLICT	UNP P04332

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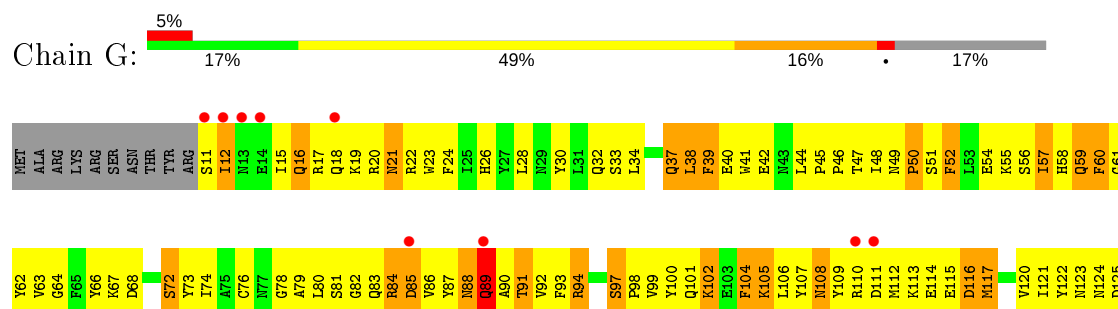
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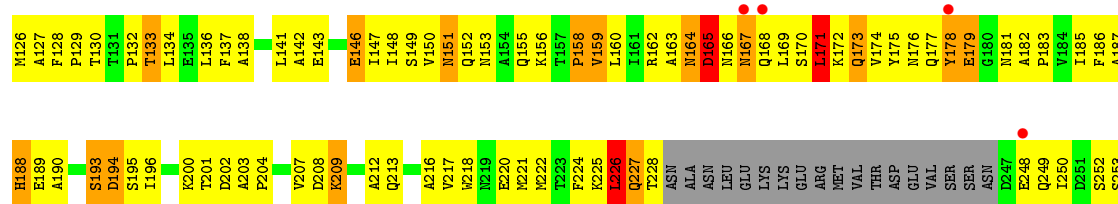
Chain	Residue	Modelled	Actual	Comment	Reference
J	227	GLN	ILE	CONFLICT	UNP P04332
J	228	THR	LYS	CONFLICT	UNP P04332
J	251	ASP	GLU	CONFLICT	UNP P04332
K	225	LYS	LEU	CONFLICT	UNP P04332
K	226	LEU	GLY	CONFLICT	UNP P04332
K	227	GLN	ILE	CONFLICT	UNP P04332
K	228	THR	LYS	CONFLICT	UNP P04332
K	251	ASP	GLU	CONFLICT	UNP P04332
L	225	LYS	LEU	CONFLICT	UNP P04332
L	226	LEU	GLY	CONFLICT	UNP P04332
L	227	GLN	ILE	CONFLICT	UNP P04332
L	228	THR	LYS	CONFLICT	UNP P04332
L	251	ASP	GLU	CONFLICT	UNP P04332

- Molecule 1: UPPER COLLAR PROTEIN

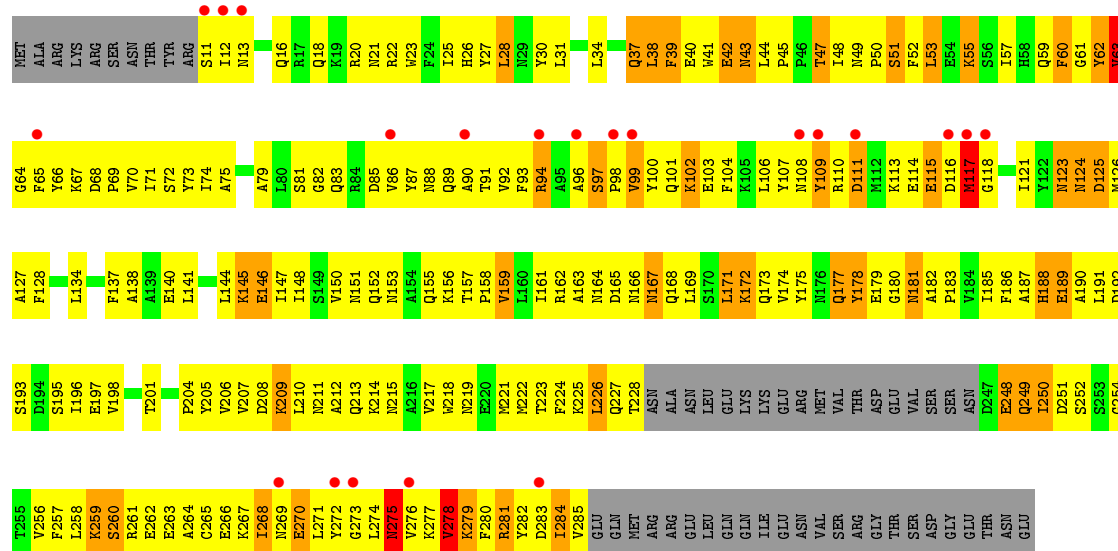
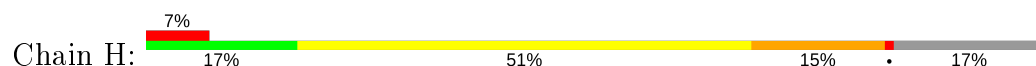




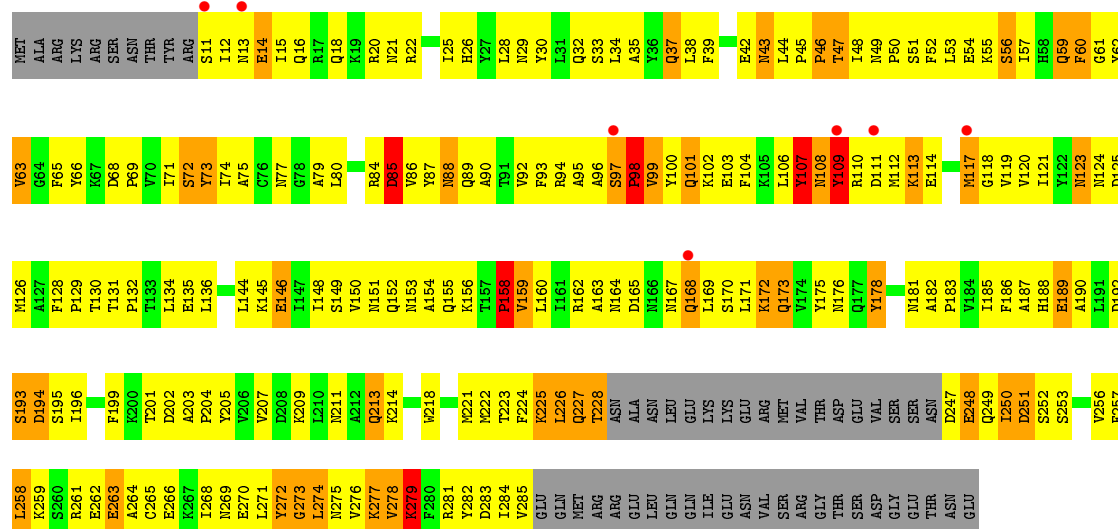
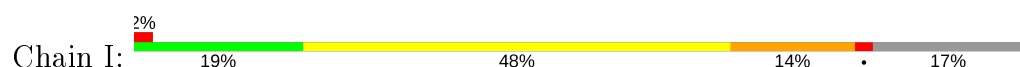




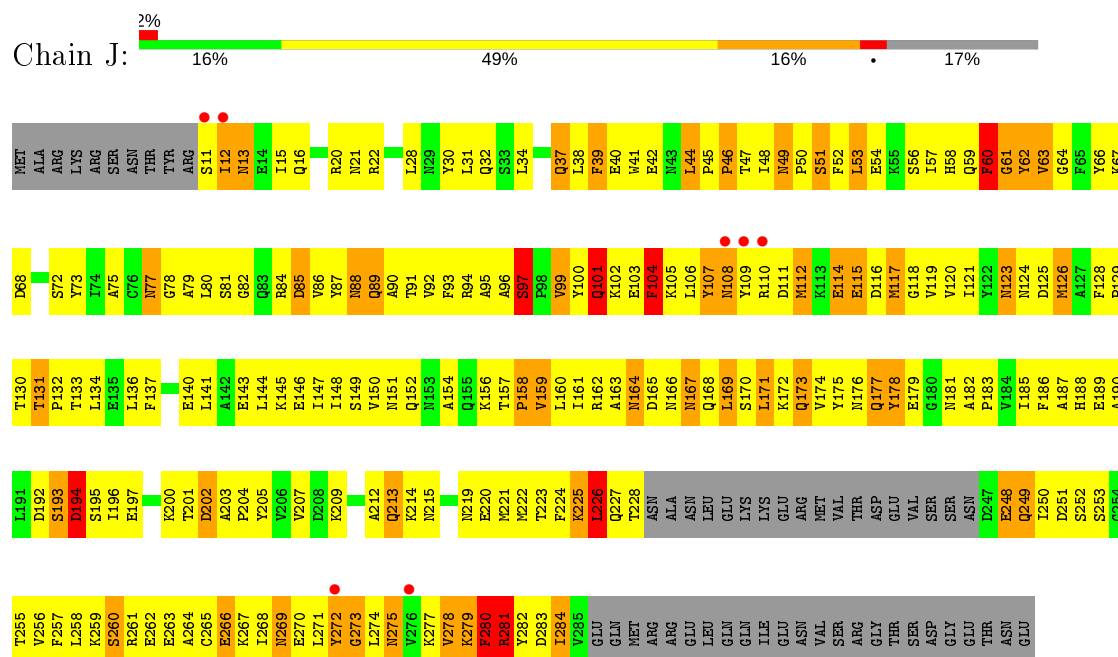
• Molecule 1: UPPER COLLAR PROTEIN



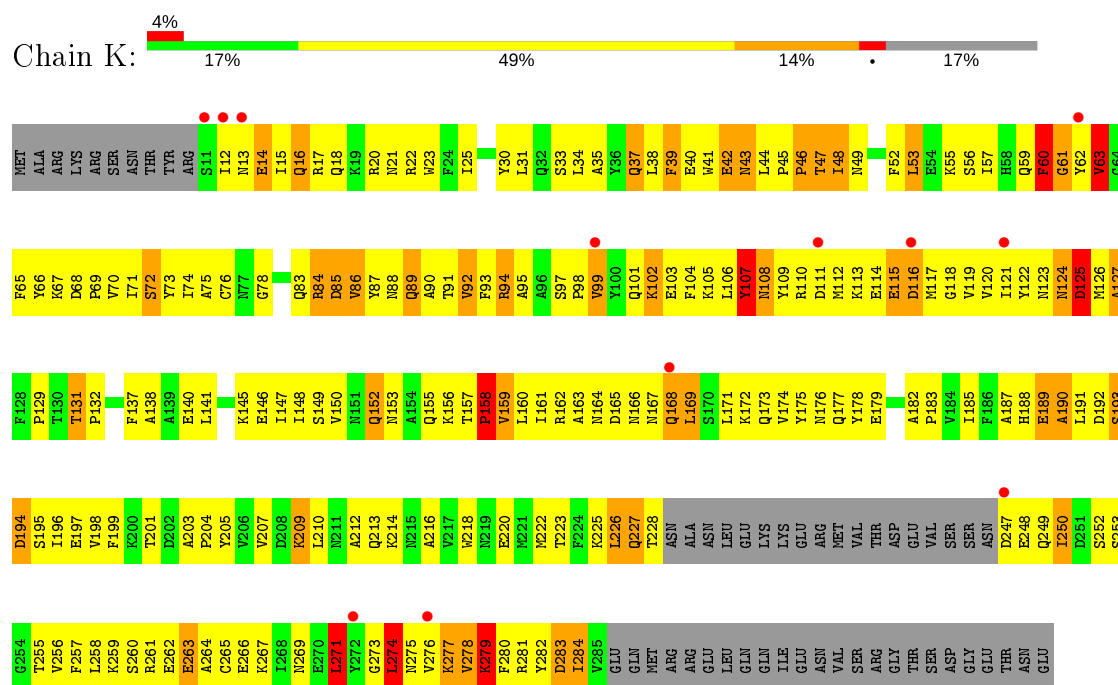
• Molecule 1: UPPER COLLAR PROTEIN



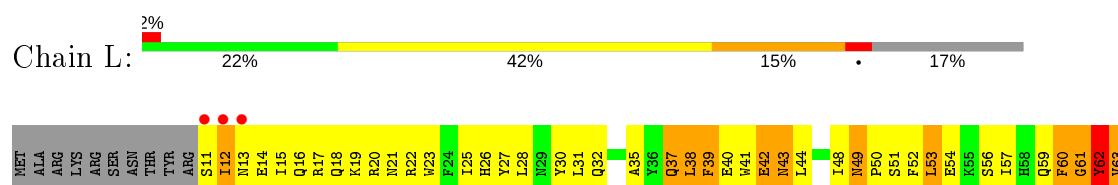
• Molecule 1: UPPER COLLAR PROTEIN

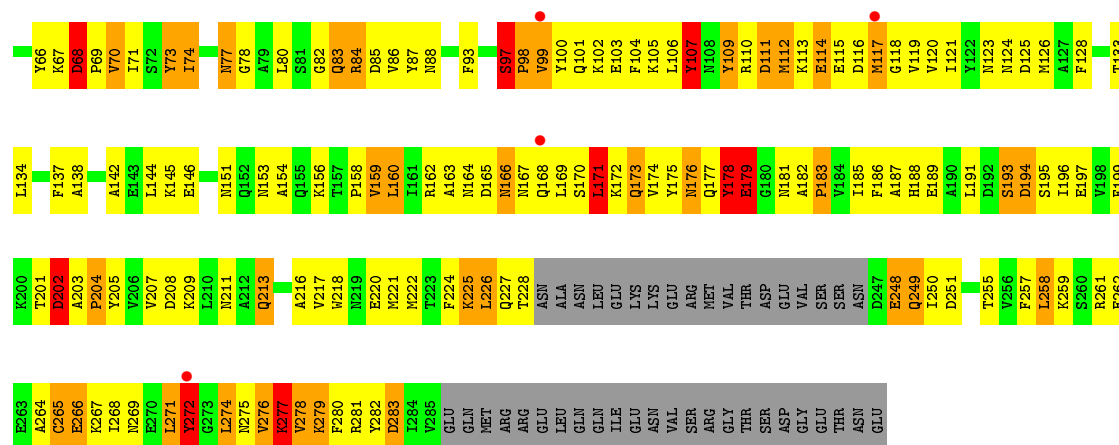


• Molecule 1: UPPER COLLAR PROTEIN



• Molecule 1: UPPER COLLAR PROTEIN





4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	177.16Å 169.24Å 185.44Å 90.00° 114.10° 90.00°	Depositor
Resolution (Å)	9.00 – 3.20 48.53 – 3.50	Depositor EDS
% Data completeness (in resolution range)	99.5 (9.00-3.20) 99.0 (48.53-3.50)	Depositor EDS
R_{merge}	0.03	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	14.94 (at 3.48Å)	Xtriage
Refinement program	CNS	Depositor
R, R_{free}	0.290 , 0.360 0.277 , (Not available)	Depositor DCC
R_{free} test set	No test flags present.	wwPDB-VP
Wilson B-factor (Å ²)	56.7	Xtriage
Anisotropy	0.434	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.29 , 42.0	EDS
L-test for twinning ²	$\langle L \rangle = 0.50$, $\langle L^2 \rangle = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.80	EDS
Total number of atoms	25272	wwPDB-VP
Average B, all atoms (Å ²)	15.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.95% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

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	0.47	0/2153	0.73	2/2918 (0.1%)
1	B	0.46	0/2153	0.74	2/2918 (0.1%)
1	C	0.46	0/2153	0.73	0/2918
1	D	0.44	0/2153	0.75	0/2918
1	E	0.43	0/2153	0.71	1/2918 (0.0%)
1	F	0.45	0/2153	0.70	1/2918 (0.0%)
1	G	0.44	0/2153	0.71	1/2918 (0.0%)
1	H	0.43	0/2153	0.70	2/2918 (0.1%)
1	I	0.49	0/2153	0.77	2/2918 (0.1%)
1	J	0.46	0/2153	0.78	4/2918 (0.1%)
1	K	0.45	0/2153	0.71	0/2918
1	L	0.49	0/2153	0.72	2/2918 (0.1%)
All	All	0.46	0/25836	0.73	17/35016 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	D	0	1
1	L	0	1
All	All	0	2

There are no bond length outliers.

All (17) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	44	LEU	CA-CB-CG	6.78	130.90	115.30
1	E	177	GLN	N-CA-C	-6.53	93.38	111.00
1	G	38	LEU	CA-CB-CG	6.40	130.03	115.30
1	H	38	LEU	CA-CB-CG	6.34	129.88	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	H	177	GLN	N-CA-C	-6.27	94.06	111.00
1	I	279	LYS	N-CA-C	6.18	127.68	111.00
1	J	177	GLN	N-CA-C	-6.04	94.71	111.00
1	A	105	LYS	N-CA-C	-5.82	95.29	111.00
1	L	171	LEU	N-CA-C	-5.50	96.14	111.00
1	B	252	SER	N-CA-C	-5.44	96.31	111.00
1	J	273	GLY	N-CA-C	5.36	126.50	113.10
1	A	44	LEU	CA-CB-CG	5.25	127.38	115.30
1	F	158	PRO	N-CA-C	-5.19	98.61	112.10
1	J	284	ILE	N-CA-C	-5.15	97.10	111.00
1	L	271	LEU	N-CA-C	-5.13	97.16	111.00
1	J	158	PRO	N-CA-C	-5.11	98.82	112.10
1	I	158	PRO	N-CA-C	-5.04	99.01	112.10

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	D	107	TYR	Sidechain
1	L	62	TYR	Sidechain

5.2 Too-close contacts

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	2106	0	2051	310	0
1	B	2106	0	2051	346	0
1	C	2106	0	2051	373	0
1	D	2106	0	2051	395	0
1	E	2106	0	2051	375	0
1	F	2106	0	2051	332	0
1	G	2106	0	2051	364	0
1	H	2106	0	2051	332	0
1	I	2106	0	2051	343	0
1	J	2106	0	2051	370	0
1	K	2106	0	2051	359	0
1	L	2106	0	2051	314	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
All	All	25272	0	24612	3838	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 77.

All (3838) 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:F:119:VAL:HG11	1:F:268:ILE:HB	1.31	1.11
1:I:275:ASN:HB2	1:I:277:LYS:HE3	1.18	1.11
1:C:43:ASN:HB2	1:C:277:LYS:HD2	1.33	1.10
1:D:163:ALA:HB3	1:E:187:ALA:HB2	1.26	1.10
1:K:278:VAL:HG23	1:K:279:LYS:H	1.14	1.10
1:J:117:MET:HG3	1:J:118:GLY:H	1.10	1.10
1:G:163:ALA:HB3	1:H:187:ALA:HB2	1.27	1.10
1:C:47:THR:HG21	1:C:73:TYR:H	1.17	1.10
1:H:97:SER:HB3	1:H:98:PRO:HD2	1.32	1.09
1:J:89:GLN:HG3	1:J:91:THR:H	1.17	1.08
1:A:275:ASN:HB3	1:A:277:LYS:HE2	1.34	1.08
1:F:15:ILE:HA	1:F:18:GLN:HE21	1.12	1.07
1:L:278:VAL:HG12	1:L:279:LYS:H	1.19	1.07
1:K:109:TYR:H	1:K:112:MET:HB3	1.11	1.06
1:C:274:LEU:HD23	1:C:276:VAL:H	1.16	1.05
1:J:85:ASP:HB2	1:J:89:GLN:H	1.17	1.04
1:A:108:ASN:HD21	1:A:117:MET:HB2	1.16	1.04
1:F:108:ASN:HD21	1:F:271:LEU:HB2	1.16	1.04
1:I:117:MET:HG2	1:I:271:LEU:HD13	1.36	1.04
1:J:223:THR:HG23	1:J:250:ILE:HG12	1.37	1.04
1:F:277:LYS:NZ	1:F:278:VAL:H	1.56	1.04
1:K:250:ILE:HD13	1:K:250:ILE:H	1.18	1.03
1:D:85:ASP:CG	1:D:89:GLN:HB3	1.79	1.03
1:B:43:ASN:N	1:B:277:LYS:HZ3	1.56	1.02
1:D:57:ILE:HG22	1:D:123:ASN:HB2	1.38	1.02
1:D:265:CYS:SG	1:D:276:VAL:HA	1.98	1.02
1:H:81:SER:HB3	1:H:94:ARG:HE	1.19	1.02
1:C:249:GLN:HG2	1:D:222:MET:HE2	1.38	1.02
1:F:277:LYS:HZ2	1:F:277:LYS:N	1.58	1.02
1:B:84:ARG:HB3	1:B:88:ASN:HA	1.41	1.02
1:C:109:TYR:HB3	1:C:112:MET:SD	1.99	1.02
1:J:147:ILE:HG12	1:K:156:LYS:HE3	1.41	1.01
1:F:41:TRP:HA	1:F:278:VAL:HA	1.39	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:174:VAL:HG13	1:E:177:GLN:HE21	1.24	1.01
1:K:43:ASN:HB3	1:K:277:LYS:HD2	1.43	1.00
1:A:275:ASN:HB3	1:A:277:LYS:CE	1.91	1.00
1:H:201:THR:HG23	1:I:159:VAL:HG11	1.42	0.99
1:C:164:ASN:HB3	1:C:195:SER:HA	1.43	0.99
1:H:182:ALA:HB1	1:H:183:PRO:HD2	1.45	0.99
1:I:163:ALA:HB3	1:J:187:ALA:HB2	1.45	0.99
1:J:66:TYR:HB2	1:J:104:PHE:CZ	1.96	0.99
1:K:162:ARG:NH1	1:L:193:SER:HA	1.77	0.99
1:E:201:THR:HG23	1:F:159:VAL:HG11	1.44	0.98
1:D:158:PRO:O	1:D:159:VAL:HG23	1.62	0.98
1:B:163:ALA:HB3	1:C:187:ALA:HB2	1.41	0.98
1:E:261:ARG:HG3	1:E:261:ARG:HH11	1.24	0.98
1:K:158:PRO:O	1:K:159:VAL:HG23	1.64	0.98
1:A:66:TYR:HB2	1:A:104:PHE:CZ	1.97	0.98
1:G:177:GLN:HG2	1:G:179:GLU:HG2	1.45	0.98
1:J:124:ASN:HD21	1:J:128:PHE:HB2	1.25	0.98
1:D:67:LYS:HB2	1:D:117:MET:HE2	1.42	0.97
1:E:81:SER:HA	1:E:84:ARG:HH22	1.22	0.97
1:A:187:ALA:HB2	1:L:163:ALA:HB3	1.46	0.97
1:C:40:GLU:HB2	1:C:281:ARG:HE	1.28	0.97
1:E:163:ALA:HB3	1:F:187:ALA:HB2	1.45	0.97
1:K:85:ASP:OD1	1:K:89:GLN:HB3	1.65	0.97
1:F:85:ASP:HB3	1:F:89:GLN:HG3	1.47	0.96
1:C:257:PHE:HB3	1:C:261:ARG:HH21	1.27	0.96
1:D:201:THR:HG23	1:E:159:VAL:HG11	1.48	0.96
1:G:41:TRP:HA	1:G:277:LYS:HB3	1.46	0.96
1:E:93:PHE:HB3	1:E:104:PHE:HB2	1.48	0.96
1:I:11:SER:HB3	1:J:172:LYS:HE2	1.48	0.96
1:K:265:CYS:SG	1:K:276:VAL:HA	2.06	0.96
1:H:93:PHE:HB2	1:H:106:LEU:HD21	1.48	0.96
1:J:269:ASN:HD21	1:J:275:ASN:HB2	1.31	0.95
1:A:159:VAL:HG11	1:L:201:THR:HG23	1.48	0.95
1:G:17:ARG:HG3	1:G:20:ARG:HH21	1.28	0.95
1:F:13:ASN:HD21	1:H:179:GLU:HA	1.29	0.95
1:E:44:LEU:HG	1:E:277:LYS:HZ1	1.29	0.95
1:F:84:ARG:HB3	1:F:88:ASN:HA	1.46	0.94
1:E:37:GLN:O	1:E:281:ARG:HD2	1.67	0.94
1:E:93:PHE:HB3	1:E:104:PHE:CB	1.97	0.94
1:K:109:TYR:H	1:K:112:MET:CB	1.79	0.94
1:L:274:LEU:HD23	1:L:276:VAL:H	1.32	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:225:LYS:HE3	1:J:227:GLN:HE21	1.32	0.94
1:L:164:ASN:HD22	1:L:195:SER:HA	1.32	0.94
1:D:84:ARG:HH11	1:D:84:ARG:HB3	1.33	0.94
1:K:67:LYS:HG2	1:K:117:MET:HG2	1.48	0.94
1:K:55:LYS:HB3	1:K:59:GLN:HE22	1.31	0.93
1:H:163:ALA:HB3	1:I:187:ALA:HB2	1.47	0.93
1:A:85:ASP:OD1	1:A:89:GLN:HB2	1.69	0.93
1:D:174:VAL:HG12	1:D:177:GLN:NE2	1.83	0.92
1:D:11:SER:N	1:F:179:GLU:HB3	1.83	0.92
1:K:117:MET:HB2	1:K:271:LEU:HD13	1.51	0.92
1:I:123:ASN:ND2	1:I:261:ARG:HH21	1.67	0.92
1:J:249:GLN:O	1:J:253:SER:HB2	1.69	0.92
1:E:78:GLY:HA3	1:E:95:ALA:HA	1.50	0.92
1:I:162:ARG:NH1	1:J:193:SER:HA	1.85	0.92
1:J:222:MET:HB3	1:J:227:GLN:HB2	1.52	0.91
1:B:87:TYR:O	1:B:88:ASN:HB2	1.70	0.91
1:D:174:VAL:HG12	1:D:177:GLN:HE21	1.34	0.91
1:J:77:ASN:H	1:J:77:ASN:HD22	1.04	0.91
1:E:265:CYS:O	1:E:268:ILE:HG22	1.69	0.91
1:K:269:ASN:ND2	1:K:275:ASN:H	1.69	0.91
1:B:43:ASN:HB2	1:B:277:LYS:HD2	1.51	0.90
1:D:174:VAL:O	1:D:177:GLN:HG3	1.70	0.90
1:D:269:ASN:HB3	1:D:274:LEU:HA	1.53	0.90
1:E:99:VAL:HG13	1:E:100:TYR:H	1.34	0.90
1:A:163:ALA:HB3	1:B:187:ALA:HB2	1.53	0.90
1:J:67:LYS:HZ2	1:J:272:TYR:HE2	0.94	0.90
1:F:261:ARG:HD2	1:F:261:ARG:H	1.33	0.89
1:F:41:TRP:HZ3	1:F:265:CYS:HB3	1.34	0.89
1:H:53:LEU:HG	1:H:65:PHE:CZ	2.07	0.89
1:L:15:ILE:HA	1:L:18:GLN:HE21	1.37	0.89
1:J:89:GLN:HG3	1:J:91:THR:N	1.88	0.89
1:K:269:ASN:HD21	1:K:275:ASN:H	1.18	0.89
1:L:248:GLU:O	1:L:250:ILE:N	2.05	0.89
1:D:117:MET:HG3	1:D:271:LEU:HD13	1.55	0.89
1:E:66:TYR:HB2	1:E:104:PHE:CZ	2.08	0.89
1:B:42:GLU:C	1:B:277:LYS:HZ3	1.76	0.89
1:K:163:ALA:HB3	1:L:187:ALA:HB2	1.52	0.89
1:I:201:THR:HG23	1:J:159:VAL:HG11	1.55	0.89
1:H:13:ASN:HA	1:H:16:GLN:HE21	1.38	0.88
1:J:201:THR:HG23	1:K:159:VAL:HG11	1.55	0.88
1:B:117:MET:HB2	1:B:271:LEU:HD13	1.54	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:48:ILE:HD11	1:J:73:TYR:HB3	1.56	0.88
1:D:44:LEU:HD23	1:D:275:ASN:ND2	1.87	0.88
1:B:108:ASN:ND2	1:B:119:VAL:HG21	1.88	0.88
1:C:43:ASN:N	1:C:277:LYS:HZ3	1.71	0.88
1:J:275:ASN:O	1:J:277:LYS:HG3	1.74	0.88
1:G:89:GLN:NE2	1:G:91:THR:HA	1.89	0.87
1:J:77:ASN:HD22	1:J:77:ASN:N	1.70	0.87
1:D:148:ILE:HG23	1:D:207:VAL:HG13	1.56	0.87
1:L:42:GLU:O	1:L:43:ASN:HB2	1.73	0.87
1:B:270:GLU:O	1:B:271:LEU:HG	1.74	0.87
1:F:164:ASN:HB3	1:F:195:SER:HA	1.54	0.87
1:H:97:SER:HB3	1:H:98:PRO:CD	2.04	0.87
1:C:131:THR:O	1:C:135:GLU:HG3	1.75	0.87
1:B:223:THR:HG23	1:B:250:ILE:HG23	1.57	0.87
1:G:16:GLN:HG3	1:G:20:ARG:NE	1.89	0.87
1:K:193:SER:O	1:K:194:ASP:HB2	1.75	0.87
1:D:107:TYR:HB2	1:D:267:LYS:HD3	1.56	0.86
1:A:201:THR:HG23	1:B:159:VAL:HG11	1.55	0.86
1:C:163:ALA:HB3	1:D:187:ALA:CB	2.05	0.86
1:K:94:ARG:HG3	1:K:103:GLU:HG2	1.57	0.86
1:K:109:TYR:N	1:K:112:MET:HB3	1.89	0.86
1:F:47:THR:HG21	1:F:72:SER:HB3	1.55	0.86
1:G:163:ALA:HB3	1:H:187:ALA:CB	2.05	0.86
1:I:112:MET:O	1:I:113:LYS:HB2	1.74	0.86
1:A:164:ASN:HB3	1:A:195:SER:HA	1.57	0.86
1:H:62:TYR:HE2	1:H:79:ALA:HA	1.39	0.86
1:A:108:ASN:ND2	1:A:117:MET:HB2	1.91	0.86
1:G:168:GLN:HB3	1:G:188:HIS:NE2	1.89	0.86
1:K:105:LYS:NZ	1:K:114:GLU:HG2	1.90	0.86
1:D:44:LEU:HD23	1:D:275:ASN:HD21	1.37	0.86
1:I:117:MET:CE	1:I:271:LEU:HD22	2.06	0.86
1:I:28:LEU:HD11	1:I:135:GLU:HG2	1.58	0.86
1:A:104:PHE:O	1:A:105:LYS:HG3	1.74	0.85
1:D:43:ASN:O	1:D:44:LEU:HB2	1.76	0.85
1:E:44:LEU:HA	1:E:275:ASN:HD21	1.42	0.85
1:I:124:ASN:HD21	1:I:128:PHE:H	1.24	0.85
1:D:105:LYS:HE2	1:D:105:LYS:H	1.39	0.85
1:F:277:LYS:HZ3	1:F:278:VAL:H	1.19	0.85
1:F:31:LEU:HB3	1:F:134:LEU:HD22	1.56	0.85
1:K:102:LYS:HG3	1:K:103:GLU:H	1.39	0.85
1:A:133:THR:HG21	1:A:224:PHE:CE2	2.12	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:44:LEU:HD23	1:B:275:ASN:HD21	1.39	0.85
1:H:44:LEU:HB3	1:H:45:PRO:HD2	1.57	0.85
1:J:117:MET:HG3	1:J:118:GLY:N	1.91	0.85
1:D:249:GLN:HG3	1:D:250:ILE:HD12	1.59	0.85
1:I:74:ILE:HG12	1:I:75:ALA:H	1.41	0.85
1:I:258:LEU:HD21	1:I:278:VAL:HG13	1.55	0.85
1:K:42:GLU:C	1:K:277:LYS:HZ3	1.80	0.85
1:I:61:GLY:O	1:I:63:VAL:HG23	1.77	0.85
1:J:174:VAL:CG1	1:J:177:GLN:HE21	1.89	0.85
1:B:108:ASN:CG	1:B:267:LYS:HB3	1.97	0.84
1:J:108:ASN:ND2	1:J:271:LEU:HB2	1.92	0.84
1:I:277:LYS:HG3	1:I:278:VAL:H	1.42	0.84
1:K:53:LEU:HD21	1:K:121:ILE:HD12	1.58	0.84
1:C:53:LEU:HD12	1:C:63:VAL:HG21	1.57	0.84
1:D:43:ASN:H	1:D:277:LYS:HD2	1.41	0.84
1:K:41:TRP:O	1:K:277:LYS:HG2	1.77	0.84
1:L:126:MET:HG2	1:L:128:PHE:CZ	2.12	0.84
1:I:56:SER:HB3	1:I:63:VAL:HG22	1.59	0.84
1:A:261:ARG:HB3	1:A:278:VAL:HG13	1.60	0.84
1:J:258:LEU:HD12	1:J:278:VAL:HG12	1.60	0.84
1:H:124:ASN:ND2	1:H:128:PHE:HB2	1.93	0.84
1:I:42:GLU:O	1:I:43:ASN:HB2	1.77	0.84
1:C:89:GLN:HE22	1:C:107:TYR:HD2	1.25	0.84
1:A:43:ASN:O	1:A:44:LEU:HB2	1.76	0.83
1:L:106:LEU:HD22	1:L:120:VAL:HG23	1.58	0.83
1:L:117:MET:CE	1:L:271:LEU:HG	2.08	0.83
1:B:42:GLU:H	1:B:277:LYS:HB3	1.43	0.83
1:D:18:GLN:HG2	1:D:22:ARG:HH12	1.42	0.83
1:K:275:ASN:HD22	1:K:277:LYS:HE2	1.43	0.83
1:A:274:LEU:O	1:A:275:ASN:HB2	1.76	0.83
1:B:16:GLN:HG2	1:B:20:ARG:HD2	1.59	0.83
1:C:119:VAL:HG11	1:C:268:ILE:HG22	1.61	0.83
1:A:93:PHE:H	1:A:104:PHE:HB2	1.43	0.83
1:G:81:SER:HB3	1:G:94:ARG:HE	1.40	0.83
1:H:81:SER:CB	1:H:94:ARG:HE	1.90	0.83
1:K:278:VAL:HG23	1:K:279:LYS:N	1.93	0.83
1:J:201:THR:HG21	1:L:183:PRO:HG3	1.60	0.83
1:E:44:LEU:HD12	1:E:44:LEU:N	1.93	0.83
1:G:188:HIS:O	1:G:190:ALA:N	2.10	0.83
1:E:49:ASN:HD21	1:E:51:SER:HB3	1.43	0.83
1:I:266:GLU:HA	1:I:269:ASN:HD22	1.42	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:69:PRO:O	1:L:70:VAL:HG13	1.79	0.83
1:A:93:PHE:HB3	1:A:104:PHE:CG	2.14	0.83
1:I:117:MET:CG	1:I:271:LEU:HD13	2.09	0.82
1:E:44:LEU:HG	1:E:277:LYS:NZ	1.94	0.82
1:J:89:GLN:CG	1:J:91:THR:H	1.92	0.82
1:C:283:ASP:HB3	1:C:284:ILE:HD12	1.58	0.82
1:D:179:GLU:HG3	1:D:181:ASN:H	1.41	0.82
1:C:102:LYS:HG3	1:C:103:GLU:H	1.43	0.82
1:D:276:VAL:O	1:D:277:LYS:HG3	1.80	0.82
1:I:43:ASN:HB3	1:I:277:LYS:NZ	1.94	0.82
1:E:182:ALA:HB1	1:E:183:PRO:HD2	1.60	0.82
1:H:256:VAL:HG11	1:I:33:SER:HB3	1.62	0.82
1:L:117:MET:HG2	1:L:271:LEU:HD21	1.60	0.82
1:C:163:ALA:HB3	1:D:187:ALA:HB2	1.61	0.82
1:F:107:TYR:HB2	1:F:267:LYS:HD3	1.61	0.82
1:E:11:SER:N	1:G:181:ASN:HD22	1.76	0.82
1:I:228:THR:HB	1:I:250:ILE:HD11	1.62	0.82
1:C:47:THR:CG2	1:C:73:TYR:H	1.92	0.81
1:F:117:MET:HE2	1:F:271:LEU:HD11	1.61	0.81
1:H:81:SER:HB3	1:H:94:ARG:NE	1.94	0.81
1:G:148:ILE:O	1:G:152:GLN:HG3	1.80	0.81
1:G:221:MET:HE2	1:G:221:MET:O	1.81	0.81
1:I:262:GLU:HG2	1:I:278:VAL:HG22	1.60	0.81
1:D:43:ASN:H	1:D:277:LYS:CD	1.92	0.81
1:E:174:VAL:CG1	1:E:177:GLN:HE21	1.94	0.81
1:J:117:MET:CG	1:J:118:GLY:H	1.87	0.81
1:B:43:ASN:N	1:B:277:LYS:NZ	2.29	0.81
1:K:250:ILE:HD13	1:K:250:ILE:N	1.95	0.81
1:A:148:ILE:HG23	1:A:207:VAL:HG13	1.62	0.81
1:C:63:VAL:CG1	1:C:121:ILE:HB	2.11	0.81
1:E:16:GLN:NE2	1:E:20:ARG:HH21	1.78	0.81
1:G:249:GLN:HA	1:G:252:SER:HB2	1.61	0.81
1:C:41:TRP:O	1:C:277:LYS:HB3	1.80	0.81
1:F:93:PHE:HB2	1:F:106:LEU:HD21	1.61	0.81
1:D:84:ARG:NH1	1:D:84:ARG:HB3	1.94	0.81
1:H:13:ASN:HD22	1:J:179:GLU:HG2	1.43	0.81
1:K:124:ASN:ND2	1:K:126:MET:H	1.77	0.81
1:B:62:TYR:HE2	1:B:80:LEU:HG	1.46	0.81
1:G:89:GLN:HE21	1:G:91:THR:HA	1.44	0.81
1:B:168:GLN:HE22	1:B:169:LEU:HG	1.45	0.81
1:C:268:ILE:HD12	1:C:275:ASN:HD22	1.46	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:283:ASP:O	1:D:285:VAL:HG13	1.79	0.81
1:D:44:LEU:HA	1:D:275:ASN:HD21	1.46	0.81
1:E:174:VAL:HG13	1:E:177:GLN:NE2	1.95	0.81
1:G:17:ARG:HG3	1:G:20:ARG:NH2	1.95	0.81
1:I:278:VAL:HG12	1:I:279:LYS:N	1.94	0.81
1:C:40:GLU:HG3	1:C:281:ARG:HH21	1.45	0.80
1:K:259:LYS:O	1:K:262:GLU:HG2	1.81	0.80
1:A:223:THR:HG23	1:A:250:ILE:HG12	1.64	0.80
1:C:117:MET:SD	1:C:271:LEU:HB2	2.21	0.80
1:G:148:ILE:HG23	1:G:207:VAL:HG13	1.64	0.80
1:L:201:THR:O	1:L:201:THR:HG22	1.80	0.80
1:B:174:VAL:O	1:B:177:GLN:HG2	1.81	0.80
1:D:250:ILE:HD12	1:D:250:ILE:H	1.46	0.80
1:K:109:TYR:C	1:K:111:ASP:H	1.82	0.80
1:H:87:TYR:CD1	1:I:49:ASN:HB2	2.17	0.80
1:E:81:SER:HA	1:E:84:ARG:NH2	1.96	0.80
1:J:258:LEU:CD1	1:J:278:VAL:HG12	2.12	0.80
1:L:274:LEU:HD23	1:L:275:ASN:N	1.95	0.80
1:B:274:LEU:C	1:B:274:LEU:HD23	2.02	0.80
1:J:205:TYR:CZ	1:J:207:VAL:HB	2.16	0.80
1:I:164:ASN:HB2	1:I:195:SER:HA	1.61	0.80
1:F:248:GLU:OE2	1:G:227:GLN:HA	1.82	0.79
1:K:250:ILE:CD1	1:K:250:ILE:H	1.86	0.79
1:C:43:ASN:HB2	1:C:277:LYS:CD	2.12	0.79
1:I:45:PRO:HG2	1:I:48:ILE:HD13	1.64	0.79
1:L:117:MET:HE3	1:L:271:LEU:HG	1.62	0.79
1:H:40:GLU:HB2	1:H:281:ARG:HG2	1.63	0.79
1:K:106:LEU:HD22	1:K:120:VAL:HG23	1.63	0.79
1:D:124:ASN:HB2	1:D:256:VAL:O	1.83	0.79
1:D:163:ALA:HB3	1:E:187:ALA:CB	2.11	0.79
1:A:90:ALA:HB3	1:A:106:LEU:HD12	1.63	0.79
1:E:163:ALA:O	1:F:187:ALA:HA	1.83	0.79
1:G:15:ILE:O	1:G:18:GLN:HB2	1.83	0.79
1:B:78:GLY:HA3	1:B:94:ARG:O	1.82	0.79
1:C:107:TYR:CZ	1:C:109:TYR:HB2	2.18	0.79
1:C:223:THR:HG23	1:C:250:ILE:HD13	1.63	0.79
1:L:41:TRP:HE3	1:L:277:LYS:HG3	1.48	0.79
1:D:68:ASP:OD2	1:D:71:ILE:HG12	1.83	0.79
1:K:110:ARG:HG3	1:K:111:ASP:OD1	1.83	0.79
1:F:277:LYS:NZ	1:F:277:LYS:N	2.31	0.78
1:L:271:LEU:O	1:L:272:TYR:HB2	1.84	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:123:ASN:ND2	1:C:261:ARG:HH22	1.81	0.78
1:C:274:LEU:HD23	1:C:276:VAL:N	1.96	0.78
1:C:40:GLU:HB2	1:C:281:ARG:NE	1.98	0.78
1:G:222:MET:HB3	1:G:227:GLN:HB2	1.63	0.78
1:D:197:GLU:HG2	1:D:199:PHE:CZ	2.18	0.78
1:B:249:GLN:O	1:B:253:SER:HB2	1.83	0.78
1:B:108:ASN:HD21	1:B:119:VAL:HG11	1.47	0.78
1:D:279:LYS:HB3	1:D:279:LYS:HZ2	1.48	0.78
1:G:67:LYS:HA	1:G:73:TYR:HA	1.66	0.78
1:I:168:GLN:HB3	1:I:188:HIS:CE1	2.18	0.78
1:A:115:GLU:O	1:A:116:ASP:HB3	1.84	0.78
1:G:19:LYS:HG3	1:G:22:ARG:HH12	1.49	0.78
1:H:278:VAL:HG23	1:H:279:LYS:H	1.49	0.78
1:K:275:ASN:O	1:K:277:LYS:HD3	1.84	0.78
1:L:57:ILE:HG12	1:L:63:VAL:HG21	1.65	0.78
1:G:85:ASP:HB3	1:G:89:GLN:N	1.97	0.78
1:J:172:LYS:HE3	1:K:179:GLU:OE2	1.84	0.78
1:L:73:TYR:HE2	1:L:271:LEU:HD13	1.47	0.78
1:B:39:PHE:HA	1:B:279:LYS:O	1.83	0.78
1:D:258:LEU:HA	1:D:261:ARG:HD2	1.65	0.78
1:D:284:ILE:HD12	1:D:284:ILE:N	1.98	0.78
1:E:28:LEU:HD11	1:E:135:GLU:HG2	1.66	0.78
1:J:262:GLU:HA	1:J:278:VAL:HG21	1.66	0.78
1:K:269:ASN:HD21	1:K:275:ASN:N	1.82	0.78
1:C:257:PHE:HB3	1:C:261:ARG:NH2	1.97	0.78
1:B:53:LEU:HD11	1:B:121:ILE:HD12	1.65	0.77
1:C:271:LEU:HD12	1:C:271:LEU:O	1.85	0.77
1:G:80:LEU:HB3	1:G:90:ALA:CB	2.15	0.77
1:H:264:ALA:HA	1:H:267:LYS:HG3	1.65	0.77
1:K:85:ASP:CG	1:K:89:GLN:HB3	2.04	0.77
1:L:15:ILE:HA	1:L:18:GLN:NE2	1.99	0.77
1:D:87:TYR:OH	1:E:48:ILE:HA	1.85	0.77
1:E:158:PRO:O	1:E:159:VAL:HB	1.85	0.77
1:E:65:PHE:CD2	1:E:268:ILE:HD11	2.19	0.77
1:G:170:SER:O	1:G:174:VAL:HG23	1.84	0.77
1:I:74:ILE:HG12	1:I:75:ALA:N	2.00	0.77
1:L:274:LEU:HD23	1:L:276:VAL:N	1.99	0.77
1:D:169:LEU:HB3	1:D:186:PHE:CE1	2.20	0.77
1:H:87:TYR:OH	1:I:48:ILE:HA	1.84	0.77
1:B:117:MET:HB3	1:B:271:LEU:HD22	1.67	0.77
1:D:43:ASN:HB2	1:D:277:LYS:HE2	1.65	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:86:VAL:N	1:I:99:VAL:HG11	2.00	0.77
1:C:174:VAL:O	1:C:177:GLN:HB3	1.85	0.77
1:D:117:MET:HG3	1:D:271:LEU:CD1	2.14	0.77
1:H:123:ASN:HD22	1:H:261:ARG:NH2	1.83	0.77
1:H:11:SER:N	1:J:181:ASN:HD22	1.81	0.77
1:K:67:LYS:CG	1:K:117:MET:HG2	2.15	0.77
1:A:143:GLU:O	1:A:147:ILE:HG13	1.84	0.77
1:B:171:LEU:O	1:B:172:LYS:HB3	1.83	0.77
1:B:44:LEU:HA	1:B:275:ASN:ND2	1.99	0.77
1:F:277:LYS:O	1:F:279:LYS:N	2.18	0.77
1:J:67:LYS:HD3	1:J:117:MET:SD	2.26	0.77
1:L:168:GLN:HE22	1:L:169:LEU:HG	1.48	0.77
1:C:89:GLN:HG2	1:C:90:ALA:O	1.84	0.76
1:D:81:SER:HB3	1:D:94:ARG:NH2	1.99	0.76
1:E:165:ASP:OD1	1:E:191:LEU:HA	1.84	0.76
1:I:259:LYS:O	1:I:263:GLU:HG2	1.86	0.76
1:C:201:THR:CG2	1:D:159:VAL:HG11	2.16	0.76
1:E:158:PRO:HB2	1:E:200:LYS:NZ	2.00	0.76
1:D:89:GLN:HG2	1:D:90:ALA:N	1.99	0.76
1:E:263:GLU:HG2	1:E:267:LYS:HZ2	1.50	0.76
1:J:164:ASN:HB3	1:J:195:SER:HA	1.66	0.76
1:A:226:LEU:HD11	1:A:283:ASP:OD1	1.85	0.76
1:B:91:THR:HG22	1:B:92:VAL:HG23	1.68	0.76
1:F:277:LYS:NZ	1:F:278:VAL:N	2.34	0.76
1:I:100:TYR:OH	1:I:102:LYS:HD2	1.85	0.76
1:I:106:LEU:HD22	1:I:120:VAL:HG23	1.67	0.76
1:I:68:ASP:OD1	1:I:69:PRO:HD2	1.85	0.76
1:D:279:LYS:HB3	1:D:279:LYS:NZ	2.01	0.76
1:G:274:LEU:O	1:G:275:ASN:HB2	1.83	0.76
1:J:177:GLN:O	1:J:179:GLU:N	2.18	0.76
1:A:20:ARG:HG2	1:A:146:GLU:HG3	1.68	0.76
1:G:90:ALA:O	1:G:92:VAL:N	2.18	0.76
1:J:156:LYS:O	1:J:157:THR:HG23	1.86	0.76
1:K:87:TYR:O	1:K:88:ASN:HB2	1.85	0.76
1:E:53:LEU:HB2	1:E:63:VAL:HG21	1.67	0.76
1:G:41:TRP:CA	1:G:277:LYS:HB3	2.16	0.76
1:I:201:THR:HG22	1:I:201:THR:O	1.85	0.76
1:C:259:LYS:HG3	1:D:281:ARG:NH2	2.00	0.76
1:F:277:LYS:HZ2	1:F:277:LYS:CA	1.99	0.76
1:H:82:GLY:HA3	1:H:91:THR:HB	1.67	0.76
1:I:162:ARG:HH12	1:J:193:SER:HA	1.48	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:163:ALA:HB3	1:J:187:ALA:CB	2.15	0.76
1:J:110:ARG:HD3	1:K:46:PRO:HG3	1.68	0.76
1:F:21:ASN:O	1:F:25:ILE:HG13	1.85	0.76
1:G:38:LEU:HD11	1:G:225:LYS:HB2	1.67	0.76
1:L:117:MET:HG2	1:L:271:LEU:CD2	2.15	0.76
1:C:106:LEU:HD22	1:C:120:VAL:HG13	1.67	0.75
1:H:123:ASN:ND2	1:H:261:ARG:HH22	1.84	0.75
1:K:83:GLN:HE21	1:K:84:ARG:H	1.34	0.75
1:L:278:VAL:HG12	1:L:279:LYS:N	2.00	0.75
1:A:14:GLU:HA	1:A:17:ARG:HG3	1.68	0.75
1:C:222:MET:HB3	1:C:227:GLN:CB	2.16	0.75
1:D:248:GLU:O	1:D:252:SER:HB2	1.86	0.75
1:A:276:VAL:HG13	1:A:277:LYS:H	1.50	0.75
1:A:41:TRP:O	1:A:277:LYS:HA	1.87	0.75
1:A:28:LEU:O	1:A:32:GLN:HG3	1.86	0.75
1:F:163:ALA:HB3	1:G:187:ALA:HB2	1.68	0.75
1:H:43:ASN:HB3	1:H:277:LYS:HZ1	1.51	0.75
1:H:74:ILE:HD12	1:H:74:ILE:N	2.01	0.75
1:B:62:TYR:CE2	1:B:80:LEU:HG	2.20	0.75
1:E:68:ASP:CG	1:E:71:ILE:H	1.88	0.75
1:E:84:ARG:HH11	1:E:90:ALA:HA	1.51	0.75
1:K:37:GLN:O	1:K:281:ARG:HD2	1.86	0.75
1:A:163:ALA:HB3	1:B:187:ALA:CB	2.15	0.75
1:B:42:GLU:CA	1:B:277:LYS:HG2	2.16	0.75
1:E:172:LYS:HB2	1:F:185:ILE:HD12	1.68	0.75
1:H:123:ASN:ND2	1:H:261:ARG:NH2	2.35	0.75
1:J:67:LYS:HZ3	1:J:271:LEU:HD21	1.49	0.75
1:A:151:ASN:O	1:A:154:ALA:HB3	1.87	0.75
1:A:165:ASP:HB2	1:A:195:SER:HB2	1.69	0.75
1:C:146:GLU:O	1:C:150:VAL:HG23	1.86	0.75
1:E:32:GLN:OE1	1:E:134:LEU:HD12	1.87	0.75
1:F:38:LEU:H	1:F:38:LEU:HD23	1.52	0.75
1:H:55:LYS:HD3	1:H:59:GLN:NE2	2.02	0.75
1:J:77:ASN:ND2	1:J:77:ASN:H	1.83	0.75
1:L:164:ASN:HB3	1:L:195:SER:HA	1.69	0.75
1:E:109:TYR:HB2	1:E:112:MET:CG	2.17	0.75
1:G:19:LYS:HA	1:G:22:ARG:CZ	2.17	0.75
1:I:194:ASP:OD1	1:J:193:SER:HB3	1.87	0.75
1:I:252:SER:HB2	1:J:37:GLN:OE1	1.87	0.75
1:L:277:LYS:HA	1:L:277:LYS:NZ	2.02	0.75
1:A:93:PHE:HB2	1:A:106:LEU:HD21	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:40:GLU:HG2	1:A:279:LYS:NZ	2.01	0.75
1:B:44:LEU:HD23	1:B:275:ASN:ND2	2.02	0.75
1:B:258:LEU:HD22	1:B:262:GLU:HG3	1.68	0.74
1:B:42:GLU:C	1:B:277:LYS:HG2	2.08	0.74
1:C:168:GLN:HB3	1:C:188:HIS:CD2	2.22	0.74
1:C:42:GLU:C	1:C:277:LYS:NZ	2.41	0.74
1:F:47:THR:HG21	1:F:73:TYR:H	1.52	0.74
1:J:222:MET:HB3	1:J:227:GLN:CB	2.16	0.74
1:C:255:THR:HA	1:C:258:LEU:HB3	1.70	0.74
1:E:174:VAL:O	1:E:177:GLN:HG3	1.87	0.74
1:E:201:THR:O	1:E:201:THR:HG22	1.85	0.74
1:F:222:MET:HB3	1:F:227:GLN:CB	2.16	0.74
1:G:269:ASN:HD21	1:G:275:ASN:HB3	1.50	0.74
1:G:47:THR:HG21	1:G:73:TYR:O	1.85	0.74
1:J:41:TRP:HB3	1:J:277:LYS:HE2	1.68	0.74
1:K:42:GLU:O	1:K:43:ASN:HB2	1.87	0.74
1:L:98:PRO:HG2	1:L:99:VAL:HG23	1.70	0.74
1:F:68:ASP:HB3	1:F:69:PRO:HD2	1.68	0.74
1:G:105:LYS:NZ	1:G:105:LYS:H	1.84	0.74
1:B:103:GLU:HG2	1:B:104:PHE:N	2.03	0.74
1:B:201:THR:O	1:B:201:THR:HG22	1.88	0.74
1:B:42:GLU:HG2	1:B:279:LYS:HZ1	1.52	0.74
1:H:43:ASN:HB3	1:H:277:LYS:NZ	2.03	0.74
1:H:158:PRO:O	1:H:159:VAL:HB	1.86	0.74
1:F:13:ASN:ND2	1:H:179:GLU:HA	2.03	0.74
1:I:124:ASN:ND2	1:I:128:PHE:H	1.85	0.74
1:I:59:GLN:O	1:I:129:PRO:HB3	1.86	0.74
1:K:21:ASN:O	1:K:25:ILE:HG13	1.87	0.74
1:K:147:ILE:HG12	1:L:156:LYS:HD2	1.69	0.74
1:D:197:GLU:HG2	1:D:199:PHE:CE1	2.23	0.74
1:D:42:GLU:HB3	1:D:277:LYS:CD	2.18	0.74
1:H:152:GLN:O	1:H:155:GLN:HG2	1.88	0.74
1:F:277:LYS:NZ	1:F:277:LYS:H	1.85	0.74
1:I:56:SER:HB3	1:I:63:VAL:CG2	2.16	0.74
1:J:60:PHE:HD1	1:J:60:PHE:O	1.71	0.74
1:K:90:ALA:O	1:K:91:THR:HB	1.88	0.74
1:G:109:TYR:HB2	1:G:112:MET:HB2	1.68	0.74
1:G:162:ARG:HH21	1:G:164:ASN:HB2	1.52	0.74
1:K:213:GLN:HE22	1:L:211:ASN:CG	1.90	0.74
1:B:125:ASP:O	1:B:126:MET:HB2	1.87	0.74
1:E:44:LEU:HD12	1:E:44:LEU:H	1.52	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:274:LEU:HD13	1:A:275:ASN:N	2.02	0.74
1:B:181:ASN:O	1:B:182:ALA:HB2	1.86	0.74
1:D:171:LEU:HD22	1:D:175:TYR:CE1	2.23	0.74
1:D:260:SER:O	1:D:263:GLU:N	2.19	0.74
1:D:284:ILE:HD12	1:D:284:ILE:H	1.53	0.74
1:I:282:TYR:CG	1:I:283:ASP:N	2.56	0.74
1:B:168:GLN:HB3	1:B:188:HIS:NE2	2.03	0.73
1:G:262:GLU:C	1:G:264:ALA:H	1.91	0.73
1:L:205:TYR:CZ	1:L:207:VAL:HB	2.23	0.73
1:A:187:ALA:CB	1:L:163:ALA:HB3	2.17	0.73
1:C:53:LEU:O	1:C:56:SER:HB2	1.88	0.73
1:D:188:HIS:O	1:D:189:GLU:HB3	1.86	0.73
1:J:171:LEU:O	1:J:173:GLN:N	2.20	0.73
1:A:41:TRP:C	1:A:277:LYS:HA	2.09	0.73
1:E:81:SER:CA	1:E:84:ARG:HH22	2.00	0.73
1:L:117:MET:CE	1:L:118:GLY:H	2.00	0.73
1:E:38:LEU:O	1:E:39:PHE:HB2	1.89	0.73
1:I:271:LEU:C	1:I:273:GLY:H	1.90	0.73
1:I:62:TYR:HE2	1:I:79:ALA:HA	1.52	0.73
1:L:277:LYS:HA	1:L:277:LYS:HZ3	1.52	0.73
1:K:259:LYS:HD2	1:L:281:ARG:NH1	2.02	0.73
1:C:168:GLN:HB3	1:C:188:HIS:NE2	2.04	0.73
1:H:168:GLN:HB3	1:H:188:HIS:CD2	2.23	0.73
1:C:133:THR:HG21	1:C:224:PHE:CE2	2.23	0.73
1:D:23:TRP:CE2	1:D:145:LYS:HE3	2.23	0.73
1:F:225:LYS:HB3	1:F:225:LYS:NZ	2.04	0.73
1:C:55:LYS:HG2	1:C:59:GLN:OE1	1.89	0.73
1:H:109:TYR:OH	1:I:46:PRO:HB2	1.87	0.73
1:I:86:VAL:HG12	1:J:99:VAL:HG12	1.69	0.73
1:A:248:GLU:O	1:A:249:GLN:HB3	1.88	0.73
1:C:37:GLN:O	1:C:281:ARG:HD2	1.89	0.73
1:J:278:VAL:O	1:J:280:PHE:N	2.22	0.73
1:L:35:ALA:O	1:L:38:LEU:HG	1.89	0.73
1:C:47:THR:HG21	1:C:73:TYR:N	2.01	0.73
1:J:44:LEU:HG	1:J:277:LYS:CE	2.19	0.73
1:A:169:LEU:HD22	1:A:186:PHE:HE1	1.54	0.73
1:B:90:ALA:HB3	1:B:106:LEU:HD13	1.69	0.73
1:B:188:HIS:O	1:B:189:GLU:HB3	1.89	0.73
1:C:110:ARG:C	1:C:112:MET:H	1.92	0.73
1:L:39:PHE:CZ	1:L:257:PHE:HB2	2.24	0.73
1:K:86:VAL:HG13	1:L:99:VAL:CG1	2.18	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:277:LYS:HG3	1:A:278:VAL:HG23	1.71	0.72
1:E:263:GLU:HG2	1:E:267:LYS:NZ	2.04	0.72
1:H:124:ASN:C	1:H:126:MET:H	1.90	0.72
1:E:11:SER:N	1:G:179:GLU:HB2	2.04	0.72
1:I:42:GLU:C	1:I:277:LYS:HZ3	1.91	0.72
1:C:263:GLU:O	1:C:267:LYS:HG3	1.88	0.72
1:F:106:LEU:HA	1:F:118:GLY:HA3	1.71	0.72
1:J:77:ASN:ND2	1:J:77:ASN:N	2.34	0.72
1:K:62:TYR:O	1:K:63:VAL:HG12	1.89	0.72
1:L:41:TRP:HA	1:L:277:LYS:HB3	1.72	0.72
1:D:172:LYS:HB2	1:E:185:ILE:HD12	1.68	0.72
1:G:17:ARG:O	1:G:21:ASN:HB2	1.89	0.72
1:I:271:LEU:HG	1:I:271:LEU:O	1.89	0.72
1:A:167:ASN:HB3	1:A:188:HIS:CD2	2.24	0.72
1:E:261:ARG:NH1	1:E:261:ARG:HG3	1.91	0.72
1:K:41:TRP:HA	1:K:277:LYS:HB3	1.71	0.72
1:A:117:MET:CG	1:A:118:GLY:H	1.99	0.72
1:A:148:ILE:O	1:A:152:GLN:HG3	1.90	0.72
1:D:226:LEU:HD22	1:D:280:PHE:CD2	2.25	0.72
1:K:117:MET:HG3	1:K:118:GLY:N	2.04	0.72
1:G:81:SER:HB3	1:G:94:ARG:NE	2.05	0.72
1:J:188:HIS:CD2	1:J:190:ALA:HB3	2.25	0.72
1:A:41:TRP:CE3	1:A:277:LYS:HB2	2.25	0.72
1:B:38:LEU:HD21	1:B:227:GLN:HE22	1.53	0.72
1:F:265:CYS:HA	1:F:268:ILE:HG22	1.72	0.72
1:B:269:ASN:HD21	1:B:275:ASN:N	1.87	0.72
1:C:13:ASN:HA	1:C:16:GLN:HE21	1.54	0.72
1:D:253:SER:O	1:D:256:VAL:HB	1.90	0.72
1:D:95:ALA:HB3	1:D:102:LYS:H	1.55	0.72
1:I:186:PHE:CD2	1:I:196:ILE:HD11	2.25	0.72
1:D:267:LYS:HA	1:D:270:GLU:OE1	1.90	0.71
1:G:177:GLN:HG2	1:G:179:GLU:CG	2.19	0.71
1:A:20:ARG:HG2	1:A:146:GLU:CG	2.20	0.71
1:C:171:LEU:O	1:C:173:GLN:N	2.22	0.71
1:J:226:LEU:HD22	1:J:280:PHE:CE2	2.25	0.71
1:E:66:TYR:HB2	1:E:104:PHE:CE1	2.24	0.71
1:F:41:TRP:CZ3	1:F:265:CYS:HB3	2.24	0.71
1:K:159:VAL:CG1	1:L:183:PRO:HB3	2.20	0.71
1:B:205:TYR:CZ	1:B:207:VAL:HB	2.24	0.71
1:B:41:TRP:C	1:B:277:LYS:HZ2	1.94	0.71
1:G:168:GLN:OE1	1:G:169:LEU:HG	1.90	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:171:LEU:HB3	1:J:185:ILE:HD13	1.71	0.71
1:K:43:ASN:HB3	1:K:277:LYS:CD	2.20	0.71
1:L:268:ILE:O	1:L:271:LEU:HB2	1.91	0.71
1:F:115:GLU:O	1:F:116:ASP:HB3	1.88	0.71
1:F:15:ILE:HA	1:F:18:GLN:NE2	1.97	0.71
1:F:195:SER:O	1:F:196:ILE:HG13	1.90	0.71
1:I:162:ARG:NE	1:I:164:ASN:HD21	1.89	0.71
1:J:201:THR:HG22	1:J:201:THR:O	1.88	0.71
1:J:86:VAL:HA	1:K:99:VAL:HG11	1.73	0.71
1:B:85:ASP:CG	1:B:89:GLN:HB3	2.11	0.71
1:E:84:ARG:HB3	1:E:88:ASN:C	2.10	0.71
1:J:108:ASN:CG	1:J:270:GLU:HB2	2.11	0.71
1:E:53:LEU:HA	1:E:63:VAL:HG21	1.73	0.71
1:E:72:SER:O	1:E:73:TYR:HB2	1.90	0.71
1:E:84:ARG:HB3	1:E:88:ASN:O	1.90	0.71
1:I:273:GLY:O	1:I:274:LEU:HG	1.91	0.71
1:B:126:MET:O	1:B:128:PHE:N	2.21	0.71
1:H:60:PHE:O	1:H:62:TYR:N	2.22	0.71
1:G:269:ASN:HD22	1:G:269:ASN:N	1.87	0.71
1:A:158:PRO:O	1:A:159:VAL:HB	1.87	0.71
1:A:52:PHE:O	1:A:56:SER:HB2	1.89	0.71
1:C:269:ASN:HD21	1:C:276:VAL:HG21	1.56	0.71
1:G:124:ASN:C	1:G:126:MET:H	1.91	0.71
1:H:97:SER:CB	1:H:98:PRO:HD2	2.16	0.71
1:J:163:ALA:HB3	1:K:187:ALA:CB	2.21	0.71
1:J:108:ASN:CG	1:J:271:LEU:HB2	2.11	0.71
1:A:105:LYS:HD2	1:A:116:ASP:OD2	1.91	0.70
1:A:13:ASN:O	1:A:17:ARG:HG3	1.91	0.70
1:A:227:GLN:O	1:A:228:THR:O	2.08	0.70
1:D:107:TYR:CB	1:D:267:LYS:HD3	2.21	0.70
1:F:48:ILE:HD12	1:F:48:ILE:O	1.91	0.70
1:G:121:ILE:HD11	1:G:268:ILE:HD11	1.73	0.70
1:I:248:GLU:OE2	1:J:226:LEU:HG	1.89	0.70
1:L:69:PRO:O	1:L:70:VAL:HG22	1.90	0.70
1:B:163:ALA:HB3	1:C:187:ALA:CB	2.20	0.70
1:E:49:ASN:ND2	1:E:51:SER:HB3	2.05	0.70
1:J:48:ILE:HD11	1:J:73:TYR:CB	2.20	0.70
1:C:108:ASN:H	1:C:108:ASN:HD22	1.37	0.70
1:E:78:GLY:O	1:E:94:ARG:HB2	1.91	0.70
1:G:19:LYS:HA	1:G:22:ARG:NH1	2.06	0.70
1:L:171:LEU:O	1:L:173:GLN:N	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:274:LEU:HD13	1:A:275:ASN:H	1.57	0.70
1:A:49:ASN:HB2	1:L:87:TYR:CE1	2.27	0.70
1:C:171:LEU:C	1:C:173:GLN:H	1.94	0.70
1:F:67:LYS:HD3	1:F:73:TYR:CZ	2.27	0.70
1:K:108:ASN:HA	1:K:112:MET:CG	2.22	0.70
1:L:106:LEU:O	1:L:107:TYR:HB3	1.91	0.70
1:K:171:LEU:HB3	1:L:185:ILE:HD13	1.73	0.70
1:A:226:LEU:HA	1:A:250:ILE:HG23	1.73	0.70
1:E:275:ASN:O	1:E:277:LYS:HD3	1.92	0.70
1:G:177:GLN:O	1:G:179:GLU:N	2.24	0.70
1:G:55:LYS:HB3	1:G:59:GLN:NE2	2.07	0.70
1:K:283:ASP:CG	1:K:284:ILE:H	1.94	0.70
1:K:201:THR:O	1:L:159:VAL:HG21	1.90	0.70
1:D:201:THR:O	1:D:201:THR:HG22	1.91	0.70
1:E:126:MET:O	1:E:128:PHE:N	2.24	0.70
1:G:28:LEU:O	1:G:32:GLN:HG3	1.91	0.70
1:G:85:ASP:CB	1:G:89:GLN:HB3	2.22	0.70
1:J:41:TRP:HE3	1:J:277:LYS:HD3	1.56	0.70
1:H:107:TYR:HD1	1:H:267:LYS:HD3	1.55	0.70
1:H:74:ILE:HG22	1:H:75:ALA:N	2.07	0.70
1:K:188:HIS:O	1:K:189:GLU:CB	2.39	0.70
1:C:227:GLN:HA	1:C:227:GLN:OE1	1.91	0.70
1:E:109:TYR:HB2	1:E:112:MET:HG2	1.73	0.70
1:E:117:MET:CB	1:E:271:LEU:HD13	2.21	0.70
1:I:44:LEU:HD22	1:I:45:PRO:HD2	1.74	0.70
1:J:41:TRP:CE3	1:J:277:LYS:HD3	2.27	0.70
1:K:226:LEU:C	1:K:227:GLN:HG2	2.11	0.70
1:B:45:PRO:HB2	1:B:47:THR:HG22	1.74	0.70
1:J:136:LEU:CD1	1:K:22:ARG:HD2	2.22	0.70
1:C:41:TRP:O	1:C:42:GLU:HB2	1.92	0.69
1:E:40:GLU:O	1:E:279:LYS:HB2	1.91	0.69
1:K:171:LEU:HD22	1:K:175:TYR:HE1	1.55	0.69
1:A:41:TRP:O	1:A:42:GLU:HB2	1.92	0.69
1:B:60:PHE:O	1:B:62:TYR:N	2.22	0.69
1:E:205:TYR:CZ	1:E:207:VAL:HB	2.27	0.69
1:G:79:ALA:O	1:G:94:ARG:HG3	1.91	0.69
1:K:119:VAL:HG12	1:K:120:VAL:N	2.05	0.69
1:F:130:THR:HG22	1:F:134:LEU:HG	1.74	0.69
1:K:97:SER:OG	1:K:99:VAL:HG12	1.93	0.69
1:B:148:ILE:HG23	1:B:207:VAL:HG13	1.75	0.69
1:C:268:ILE:HB	1:C:271:LEU:HD23	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:120:VAL:HG21	1:D:122:TYR:CE1	2.27	0.69
1:F:221:MET:CE	1:F:225:LYS:HE2	2.22	0.69
1:L:109:TYR:HB2	1:L:112:MET:O	1.92	0.69
1:C:17:ARG:O	1:C:21:ASN:HB2	1.91	0.69
1:D:261:ARG:HB3	1:D:278:VAL:HG11	1.73	0.69
1:F:172:LYS:O	1:F:176:ASN:OD1	2.11	0.69
1:G:16:GLN:NE2	1:G:20:ARG:HG3	2.07	0.69
1:L:213:GLN:O	1:L:217:VAL:HG23	1.90	0.69
1:A:270:GLU:O	1:A:271:LEU:HD22	1.92	0.69
1:C:13:ASN:HD22	1:C:16:GLN:HB3	1.57	0.69
1:C:59:GLN:O	1:C:60:PHE:CD1	2.46	0.69
1:D:274:LEU:HD13	1:D:275:ASN:N	2.08	0.69
1:K:105:LYS:HZ2	1:K:114:GLU:HG2	1.56	0.69
1:K:105:LYS:HZ3	1:K:114:GLU:HG2	1.57	0.69
1:L:255:THR:HG22	1:L:259:LYS:HG3	1.75	0.69
1:L:258:LEU:CD2	1:L:262:GLU:HG3	2.22	0.69
1:A:275:ASN:O	1:A:277:LYS:HG2	1.92	0.69
1:D:274:LEU:O	1:D:275:ASN:HB2	1.90	0.69
1:E:117:MET:HB2	1:E:271:LEU:HD13	1.73	0.69
1:I:87:TYR:O	1:I:88:ASN:HB2	1.91	0.69
1:J:213:GLN:HA	1:J:213:GLN:NE2	2.07	0.69
1:E:81:SER:C	1:E:84:ARG:HH12	1.96	0.69
1:F:126:MET:HE3	1:F:126:MET:H	1.58	0.69
1:A:172:LYS:H	1:A:175:TYR:HD1	1.40	0.69
1:B:269:ASN:OD1	1:B:276:VAL:HG23	1.92	0.69
1:E:86:VAL:HG12	1:E:87:TYR:N	2.07	0.69
1:F:277:LYS:HZ2	1:F:278:VAL:H	1.39	0.69
1:G:179:GLU:OE2	1:G:181:ASN:HB2	1.93	0.69
1:K:102:LYS:HG3	1:K:103:GLU:N	2.08	0.69
1:D:81:SER:HB3	1:D:94:ARG:CZ	2.23	0.69
1:E:40:GLU:HG3	1:E:281:ARG:NH2	2.08	0.69
1:D:125:ASP:OD2	1:E:33:SER:HB2	1.93	0.69
1:E:71:ILE:CG2	1:E:74:ILE:HB	2.23	0.69
1:F:74:ILE:HG21	1:F:100:TYR:CE2	2.28	0.69
1:G:169:LEU:HD12	1:G:187:ALA:O	1.93	0.69
1:J:151:ASN:OD1	1:J:207:VAL:HG23	1.93	0.69
1:K:247:ASP:N	1:K:250:ILE:HD11	2.08	0.69
1:L:179:GLU:HG3	1:L:181:ASN:H	1.57	0.69
1:H:182:ALA:HB1	1:H:183:PRO:CD	2.22	0.69
1:K:125:ASP:OD1	1:K:256:VAL:HG13	1.93	0.69
1:F:171:LEU:HB3	1:G:185:ILE:HD13	1.73	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:222:MET:HB3	1:K:227:GLN:CB	2.22	0.68
1:E:27:TYR:O	1:E:31:LEU:HG	1.93	0.68
1:E:62:TYR:O	1:E:63:VAL:HG12	1.92	0.68
1:F:265:CYS:HA	1:F:268:ILE:CG2	2.23	0.68
1:H:259:LYS:HD2	1:I:281:ARG:NH1	2.09	0.68
1:A:168:GLN:CA	1:A:168:GLN:HE21	2.06	0.68
1:D:107:TYR:HD1	1:D:108:ASN:N	1.92	0.68
1:D:222:MET:HB3	1:D:227:GLN:CB	2.23	0.68
1:I:258:LEU:CD2	1:I:278:VAL:HG13	2.23	0.68
1:I:201:THR:HG21	1:K:183:PRO:HG3	1.75	0.68
1:K:259:LYS:HD2	1:L:281:ARG:HH12	1.57	0.68
1:F:260:SER:O	1:F:263:GLU:HG2	1.94	0.68
1:F:47:THR:CG2	1:F:72:SER:HB3	2.22	0.68
1:G:45:PRO:HG2	1:G:48:ILE:HG12	1.76	0.68
1:F:42:GLU:HB3	1:F:277:LYS:HD2	1.76	0.68
1:I:117:MET:SD	1:I:271:LEU:HD22	2.34	0.68
1:I:150:VAL:HG11	1:J:156:LYS:HG3	1.75	0.68
1:J:91:THR:C	1:J:106:LEU:HD12	2.13	0.68
1:B:179:GLU:HB3	1:L:11:SER:HA	1.75	0.68
1:C:17:ARG:N	1:C:17:ARG:HD2	2.08	0.68
1:E:44:LEU:CG	1:E:277:LYS:HZ1	2.03	0.68
1:J:45:PRO:HG2	1:J:48:ILE:HD13	1.75	0.68
1:K:43:ASN:HD22	1:K:275:ASN:HA	1.58	0.68
1:C:98:PRO:O	1:C:99:VAL:HB	1.94	0.68
1:J:86:VAL:HG12	1:K:99:VAL:HG22	1.74	0.68
1:A:275:ASN:HB3	1:A:277:LYS:NZ	2.09	0.68
1:D:179:GLU:HG3	1:D:181:ASN:N	2.08	0.68
1:J:44:LEU:HG	1:J:277:LYS:NZ	2.09	0.68
1:K:124:ASN:ND2	1:K:126:MET:O	2.27	0.68
1:C:107:TYR:CE2	1:C:109:TYR:HB2	2.29	0.68
1:C:171:LEU:HB2	1:D:185:ILE:HD13	1.76	0.68
1:E:71:ILE:HG21	1:E:74:ILE:HB	1.76	0.68
1:H:40:GLU:HG2	1:H:42:GLU:OE2	1.94	0.68
1:C:226:LEU:O	1:C:227:GLN:HG2	1.93	0.68
1:F:259:LYS:HG2	1:F:263:GLU:OE2	1.94	0.68
1:G:85:ASP:OD2	1:G:87:TYR:N	2.24	0.68
1:I:249:GLN:HB3	1:J:222:MET:CE	2.24	0.68
1:L:171:LEU:HD22	1:L:175:TYR:CE1	2.29	0.68
1:C:269:ASN:HD21	1:C:276:VAL:CG2	2.06	0.67
1:C:55:LYS:O	1:C:59:GLN:HG3	1.94	0.67
1:E:170:SER:O	1:E:173:GLN:HB2	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:275:ASN:HB2	1:I:277:LYS:CE	2.11	0.67
1:B:108:ASN:ND2	1:B:267:LYS:HB3	2.09	0.67
1:D:222:MET:HB3	1:D:227:GLN:HB2	1.75	0.67
1:G:174:VAL:O	1:G:177:GLN:HB2	1.94	0.67
1:C:15:ILE:HA	1:C:18:GLN:HE21	1.59	0.67
1:G:175:TYR:C	1:G:177:GLN:H	1.96	0.67
1:H:91:THR:HG22	1:H:92:VAL:HG23	1.73	0.67
1:G:66:TYR:CE2	1:G:68:ASP:HA	2.29	0.67
1:C:63:VAL:HG11	1:C:121:ILE:HB	1.77	0.67
1:D:148:ILE:O	1:D:152:GLN:HG3	1.94	0.67
1:D:66:TYR:CE1	1:D:116:ASP:HA	2.29	0.67
1:F:148:ILE:O	1:F:152:GLN:HG2	1.94	0.67
1:F:223:THR:HG23	1:F:250:ILE:HD13	1.75	0.67
1:F:284:ILE:N	1:F:284:ILE:HD12	2.08	0.67
1:K:57:ILE:CG2	1:K:123:ASN:HB2	2.25	0.67
1:L:41:TRP:HE3	1:L:277:LYS:CG	2.07	0.67
1:B:43:ASN:O	1:B:44:LEU:HB2	1.95	0.67
1:C:182:ALA:HB1	1:C:183:PRO:HD2	1.77	0.67
1:G:81:SER:HB3	1:G:94:ARG:HH21	1.60	0.67
1:J:110:ARG:CD	1:K:46:PRO:HG3	2.24	0.67
1:K:109:TYR:CD2	1:K:112:MET:HB2	2.30	0.67
1:D:11:SER:N	1:D:13:ASN:HD21	1.93	0.67
1:E:80:LEU:HD22	1:E:90:ALA:HB3	1.75	0.67
1:F:71:ILE:HD12	1:F:71:ILE:N	2.10	0.67
1:G:259:LYS:HE2	1:H:281:ARG:NH2	2.10	0.67
1:I:248:GLU:HG2	1:J:282:TYR:CD2	2.29	0.67
1:J:195:SER:O	1:J:196:ILE:HG13	1.95	0.67
1:J:39:PHE:HZ	1:J:257:PHE:HB2	1.58	0.67
1:J:41:TRP:HE3	1:J:277:LYS:CD	2.07	0.67
1:L:84:ARG:HB3	1:L:88:ASN:HA	1.77	0.67
1:C:102:LYS:HG3	1:C:103:GLU:N	2.10	0.67
1:D:41:TRP:O	1:D:43:ASN:N	2.27	0.67
1:E:165:ASP:O	1:E:167:ASN:N	2.28	0.67
1:G:12:ILE:HD12	1:I:181:ASN:OD1	1.94	0.67
1:G:182:ALA:HB1	1:G:183:PRO:HD2	1.76	0.67
1:J:158:PRO:O	1:J:159:VAL:HB	1.95	0.67
1:K:124:ASN:HA	1:K:256:VAL:O	1.95	0.67
1:A:46:PRO:HG3	1:L:110:ARG:HD3	1.77	0.67
1:E:20:ARG:HG2	1:E:146:GLU:HG3	1.77	0.67
1:F:261:ARG:HG2	1:F:261:ARG:HH11	1.59	0.67
1:J:148:ILE:O	1:J:152:GLN:HG3	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:168:GLN:HE22	1:B:169:LEU:CG	2.08	0.66
1:B:274:LEU:HD23	1:B:275:ASN:N	2.11	0.66
1:D:171:LEU:HB3	1:E:185:ILE:HD13	1.76	0.66
1:G:171:LEU:O	1:G:173:GLN:N	2.29	0.66
1:I:43:ASN:CB	1:I:277:LYS:NZ	2.59	0.66
1:A:40:GLU:HG2	1:A:279:LYS:HZ2	1.60	0.66
1:F:40:GLU:HB2	1:F:281:ARG:HE	1.58	0.66
1:K:189:GLU:C	1:K:191:LEU:H	1.99	0.66
1:K:57:ILE:O	1:K:61:GLY:HA2	1.96	0.66
1:B:137:PHE:CD2	1:B:221:MET:HB2	2.31	0.66
1:B:44:LEU:HA	1:B:275:ASN:HD21	1.59	0.66
1:C:172:LYS:HE2	1:D:179:GLU:OE1	1.95	0.66
1:D:57:ILE:HG22	1:D:123:ASN:CB	2.19	0.66
1:H:163:ALA:O	1:I:187:ALA:HA	1.95	0.66
1:I:11:SER:HB3	1:J:172:LYS:CE	2.24	0.66
1:J:59:GLN:O	1:J:60:PHE:C	2.33	0.66
1:L:142:ALA:O	1:L:146:GLU:HB2	1.96	0.66
1:B:269:ASN:ND2	1:B:275:ASN:N	2.44	0.66
1:B:39:PHE:CZ	1:B:257:PHE:HB3	2.31	0.66
1:K:55:LYS:HB3	1:K:59:GLN:NE2	2.08	0.66
1:F:278:VAL:O	1:F:279:LYS:HD3	1.95	0.66
1:I:84:ARG:HD3	1:I:90:ALA:HA	1.77	0.66
1:C:158:PRO:O	1:C:159:VAL:HB	1.94	0.66
1:C:47:THR:OG1	1:C:72:SER:HB3	1.95	0.66
1:E:42:GLU:C	1:E:277:LYS:HZ3	1.98	0.66
1:G:59:GLN:O	1:G:129:PRO:HB3	1.95	0.66
1:J:67:LYS:HG2	1:J:117:MET:HG2	1.76	0.66
1:K:226:LEU:O	1:K:227:GLN:HG2	1.96	0.66
1:K:225:LYS:O	1:K:227:GLN:HG2	1.95	0.66
1:L:117:MET:SD	1:L:118:GLY:N	2.68	0.66
1:B:106:LEU:O	1:B:107:TYR:HB2	1.95	0.66
1:B:125:ASP:OD1	1:B:256:VAL:HG13	1.94	0.66
1:B:269:ASN:O	1:B:271:LEU:N	2.25	0.66
1:B:60:PHE:C	1:B:62:TYR:H	1.98	0.66
1:F:39:PHE:HZ	1:F:257:PHE:HB2	1.60	0.66
1:H:269:ASN:HA	1:H:273:GLY:HA3	1.78	0.66
1:H:53:LEU:HD21	1:H:121:ILE:HD12	1.77	0.66
1:K:23:TRP:NE1	1:K:145:LYS:HE2	2.11	0.66
1:L:164:ASN:ND2	1:L:195:SER:HA	2.10	0.66
1:C:44:LEU:HB2	1:C:45:PRO:HD2	1.78	0.66
1:E:55:LYS:O	1:E:59:GLN:HG3	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:39:PHE:CZ	1:F:257:PHE:HB2	2.31	0.66
1:C:222:MET:HB3	1:C:227:GLN:HB2	1.78	0.66
1:F:124:ASN:HD21	1:F:128:PHE:HB2	1.60	0.66
1:K:65:PHE:HD1	1:K:121:ILE:HD11	1.61	0.66
1:C:82:GLY:O	1:C:84:ARG:NH1	2.29	0.65
1:J:67:LYS:NZ	1:J:272:TYR:HE2	1.82	0.65
1:J:163:ALA:HB3	1:K:187:ALA:HB2	1.78	0.65
1:C:124:ASN:HD21	1:C:128:PHE:HB2	1.59	0.65
1:D:66:TYR:HE1	1:D:116:ASP:HA	1.59	0.65
1:D:97:SER:C	1:D:99:VAL:H	1.97	0.65
1:J:84:ARG:HA	1:J:89:GLN:O	1.97	0.65
1:E:221:MET:HE2	1:E:225:LYS:HD3	1.77	0.65
1:F:65:PHE:HB2	1:F:119:VAL:HB	1.78	0.65
1:F:84:ARG:HH11	1:F:84:ARG:HG3	1.59	0.65
1:G:188:HIS:O	1:G:188:HIS:CG	2.47	0.65
1:I:182:ALA:HB1	1:I:183:PRO:HD2	1.77	0.65
1:I:259:LYS:HA	1:I:262:GLU:OE1	1.97	0.65
1:J:44:LEU:HD22	1:J:48:ILE:HB	1.77	0.65
1:K:12:ILE:HG22	1:K:12:ILE:O	1.96	0.65
1:L:168:GLN:NE2	1:L:169:LEU:HG	2.10	0.65
1:A:12:ILE:HG23	1:A:15:ILE:HB	1.77	0.65
1:F:277:LYS:H	1:F:277:LYS:CE	2.09	0.65
1:F:117:MET:HG3	1:F:118:GLY:N	2.12	0.65
1:H:201:THR:HG21	1:J:183:PRO:HG3	1.78	0.65
1:J:80:LEU:HB3	1:J:90:ALA:HB2	1.78	0.65
1:K:269:ASN:ND2	1:K:275:ASN:N	2.38	0.65
1:L:43:ASN:N	1:L:277:LYS:HE2	2.11	0.65
1:A:159:VAL:HG21	1:L:202:ASP:O	1.96	0.65
1:F:222:MET:HB3	1:F:227:GLN:HB2	1.78	0.65
1:H:39:PHE:HE2	1:H:258:LEU:HB2	1.62	0.65
1:C:40:GLU:O	1:C:278:VAL:O	2.15	0.65
1:G:50:PRO:O	1:G:51:SER:HB2	1.96	0.65
1:J:40:GLU:HB2	1:J:281:ARG:HG2	1.77	0.65
1:A:173:GLN:HA	1:A:176:ASN:HD22	1.61	0.65
1:C:205:TYR:CZ	1:C:207:VAL:HB	2.32	0.65
1:D:120:VAL:HG21	1:D:122:TYR:CZ	2.32	0.65
1:D:247:ASP:OD1	1:D:248:GLU:N	2.30	0.65
1:E:158:PRO:HB2	1:E:200:LYS:HZ1	1.60	0.65
1:G:86:VAL:HG13	1:G:87:TYR:N	2.11	0.65
1:K:188:HIS:HB3	1:K:191:LEU:HD21	1.79	0.65
1:C:40:GLU:CG	1:C:281:ARG:HH21	2.09	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:19:LYS:HA	1:E:22:ARG:HB2	1.78	0.65
1:H:85:ASP:C	1:I:99:VAL:HG21	2.17	0.65
1:J:85:ASP:OD1	1:J:89:GLN:HG2	1.97	0.65
1:D:133:THR:HG21	1:D:224:PHE:CE2	2.32	0.65
1:G:81:SER:CB	1:G:94:ARG:HE	2.08	0.65
1:I:28:LEU:CD1	1:I:135:GLU:HG2	2.27	0.65
1:H:150:VAL:HG11	1:I:156:LYS:HG3	1.77	0.65
1:K:20:ARG:NE	1:K:146:GLU:OE1	2.30	0.65
1:A:226:LEU:O	1:A:227:GLN:HG2	1.98	0.64
1:A:282:TYR:O	1:A:284:ILE:HG22	1.97	0.64
1:B:158:PRO:O	1:B:159:VAL:HB	1.97	0.64
1:C:40:GLU:OE1	1:C:279:LYS:NZ	2.30	0.64
1:D:169:LEU:HB3	1:D:186:PHE:CZ	2.32	0.64
1:D:283:ASP:HB2	1:D:284:ILE:HD12	1.79	0.64
1:E:169:LEU:HB3	1:E:186:PHE:CE1	2.31	0.64
1:J:85:ASP:HB2	1:J:89:GLN:N	2.02	0.64
1:A:172:LYS:HZ1	1:L:11:SER:HB3	1.61	0.64
1:E:74:ILE:HG12	1:E:75:ALA:N	2.11	0.64
1:F:227:GLN:O	1:F:228:THR:O	2.15	0.64
1:L:40:GLU:HG3	1:L:281:ARG:HH21	1.62	0.64
1:A:164:ASN:O	1:A:164:ASN:ND2	2.30	0.64
1:C:43:ASN:CB	1:C:277:LYS:HD2	2.20	0.64
1:E:16:GLN:O	1:E:20:ARG:HG3	1.98	0.64
1:E:248:GLU:O	1:E:250:ILE:N	2.31	0.64
1:F:166:ASN:HD21	1:G:187:ALA:HB1	1.61	0.64
1:F:201:THR:HG22	1:F:201:THR:O	1.97	0.64
1:B:99:VAL:HG12	1:B:99:VAL:O	1.97	0.64
1:F:225:LYS:HB3	1:F:225:LYS:HZ2	1.61	0.64
1:F:108:ASN:ND2	1:F:271:LEU:HB2	2.00	0.64
1:G:55:LYS:HB3	1:G:59:GLN:HE22	1.61	0.64
1:H:85:ASP:O	1:I:99:VAL:HG21	1.96	0.64
1:J:228:THR:HB	1:J:250:ILE:CD1	2.27	0.64
1:L:104:PHE:CD2	1:L:118:GLY:HA3	2.32	0.64
1:B:42:GLU:H	1:B:277:LYS:CB	2.11	0.64
1:E:53:LEU:CA	1:E:63:VAL:HG21	2.28	0.64
1:G:262:GLU:HG2	1:G:278:VAL:HG22	1.79	0.64
1:B:117:MET:CB	1:B:271:LEU:HD13	2.25	0.64
1:E:53:LEU:HD23	1:E:54:GLU:H	1.61	0.64
1:G:114:GLU:HG2	1:G:115:GLU:H	1.61	0.64
1:H:204:PRO:HG3	1:I:202:ASP:OD1	1.97	0.64
1:H:62:TYR:CE2	1:H:79:ALA:HA	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:109:TYR:C	1:K:111:ASP:N	2.51	0.64
1:K:275:ASN:HD22	1:K:277:LYS:CE	2.10	0.64
1:E:262:GLU:HG2	1:E:278:VAL:HG22	1.80	0.64
1:F:265:CYS:O	1:F:269:ASN:HB2	1.97	0.64
1:H:206:VAL:O	1:H:210:LEU:HG	1.98	0.64
1:C:89:GLN:NE2	1:C:107:TYR:HD2	1.95	0.64
1:D:280:PHE:HB2	1:D:283:ASP:OD2	1.97	0.64
1:G:92:VAL:HG22	1:G:93:PHE:O	1.98	0.64
1:I:107:TYR:HA	1:I:119:VAL:HG22	1.77	0.64
1:J:225:LYS:HE3	1:J:227:GLN:NE2	2.08	0.64
1:B:171:LEU:HB3	1:C:185:ILE:HD13	1.78	0.64
1:C:42:GLU:O	1:C:277:LYS:HG2	1.98	0.64
1:E:168:GLN:OE1	1:E:169:LEU:HG	1.97	0.64
1:F:277:LYS:HZ2	1:F:278:VAL:N	1.95	0.64
1:H:188:HIS:O	1:H:188:HIS:CG	2.49	0.64
1:K:172:LYS:HE3	1:L:179:GLU:OE2	1.97	0.64
1:B:16:GLN:HG2	1:B:20:ARG:CD	2.27	0.64
1:D:267:LYS:O	1:D:270:GLU:HG2	1.98	0.64
1:E:269:ASN:HA	1:E:272:TYR:O	1.98	0.64
1:E:42:GLU:O	1:E:43:ASN:HB3	1.98	0.64
1:G:165:ASP:C	1:G:167:ASN:H	1.99	0.64
1:K:119:VAL:CG1	1:K:120:VAL:N	2.61	0.64
1:L:112:MET:SD	1:L:112:MET:O	2.55	0.64
1:L:42:GLU:C	1:L:277:LYS:HZ1	2.01	0.64
1:D:179:GLU:HB2	1:D:181:ASN:ND2	2.13	0.63
1:K:174:VAL:O	1:K:177:GLN:HG3	1.98	0.63
1:K:174:VAL:HG13	1:K:177:GLN:HE21	1.63	0.63
1:J:125:ASP:HB3	1:K:55:LYS:HE2	1.79	0.63
1:L:203:ALA:O	1:L:204:PRO:C	2.37	0.63
1:A:209:LYS:HD3	1:B:205:TYR:CD2	2.34	0.63
1:F:163:ALA:HB3	1:G:187:ALA:CB	2.28	0.63
1:E:249:GLN:HE22	1:F:218:TRP:HE1	1.45	0.63
1:H:163:ALA:HB3	1:I:187:ALA:CB	2.26	0.63
1:H:188:HIS:O	1:H:190:ALA:N	2.30	0.63
1:B:183:PRO:HG3	1:L:201:THR:HG21	1.79	0.63
1:A:222:MET:HB3	1:A:227:GLN:HB2	1.80	0.63
1:A:54:GLU:OE1	1:A:261:ARG:NH1	2.30	0.63
1:B:108:ASN:OD1	1:B:267:LYS:HB3	1.97	0.63
1:D:53:LEU:O	1:D:57:ILE:HG13	1.97	0.63
1:H:107:TYR:CD1	1:H:267:LYS:HD3	2.32	0.63
1:I:117:MET:HE3	1:I:271:LEU:HB2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:66:TYR:HB2	1:I:104:PHE:CZ	2.33	0.63
1:J:60:PHE:CD1	1:J:60:PHE:O	2.51	0.63
1:K:93:PHE:HB2	1:K:106:LEU:HD21	1.81	0.63
1:K:249:GLN:HG3	1:K:250:ILE:HD13	1.80	0.63
1:E:91:THR:O	1:E:106:LEU:HG	1.98	0.63
1:F:117:MET:CE	1:F:271:LEU:HD21	2.28	0.63
1:H:226:LEU:HD12	1:H:251:ASP:HA	1.80	0.63
1:B:181:ASN:O	1:B:182:ALA:CB	2.46	0.63
1:B:42:GLU:OE1	1:B:279:LYS:HB2	1.98	0.63
1:D:188:HIS:O	1:D:189:GLU:CB	2.46	0.63
1:H:13:ASN:ND2	1:J:179:GLU:HA	2.13	0.63
1:I:271:LEU:O	1:I:273:GLY:N	2.27	0.63
1:J:103:GLU:O	1:J:104:PHE:HB2	1.96	0.63
1:J:117:MET:HB2	1:J:271:LEU:HD13	1.79	0.63
1:J:85:ASP:HB3	1:J:87:TYR:H	1.61	0.63
1:K:85:ASP:C	1:K:87:TYR:H	2.02	0.63
1:C:15:ILE:HA	1:C:18:GLN:NE2	2.13	0.63
1:D:11:SER:N	1:D:13:ASN:ND2	2.47	0.63
1:D:169:LEU:HD11	1:D:187:ALA:O	1.99	0.63
1:D:35:ALA:HB2	1:D:225:LYS:HZ3	1.64	0.63
1:E:168:GLN:HB3	1:E:188:HIS:CD2	2.34	0.63
1:G:80:LEU:HB3	1:G:90:ALA:HB2	1.80	0.63
1:I:108:ASN:O	1:I:109:TYR:HB3	1.96	0.63
1:A:81:SER:OG	1:A:94:ARG:HG3	1.98	0.63
1:D:105:LYS:H	1:D:105:LYS:CE	2.11	0.63
1:I:269:ASN:ND2	1:I:276:VAL:HG22	2.12	0.63
1:J:108:ASN:OD1	1:J:270:GLU:HB2	1.99	0.63
1:L:109:TYR:CB	1:L:112:MET:HB3	2.29	0.63
1:A:174:VAL:O	1:A:177:GLN:HB2	1.97	0.63
1:D:131:THR:O	1:D:135:GLU:HG3	1.98	0.63
1:D:263:GLU:O	1:D:264:ALA:C	2.35	0.63
1:F:97:SER:O	1:F:100:TYR:O	2.17	0.63
1:G:47:THR:HG22	1:G:48:ILE:HD13	1.78	0.63
1:I:164:ASN:HD22	1:I:164:ASN:N	1.94	0.63
1:I:209:LYS:HD2	1:J:205:TYR:CD2	2.34	0.63
1:J:275:ASN:CG	1:J:277:LYS:HD2	2.19	0.63
1:A:41:TRP:HE3	1:A:277:LYS:HD3	1.64	0.63
1:B:213:GLN:HE22	1:C:211:ASN:CG	2.02	0.63
1:B:43:ASN:O	1:B:44:LEU:CB	2.47	0.63
1:C:109:TYR:O	1:C:111:ASP:N	2.32	0.63
1:C:84:ARG:HD2	1:C:88:ASN:O	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:63:VAL:HG22	1:G:64:GLY:H	1.62	0.63
1:J:165:ASP:C	1:J:167:ASN:H	2.01	0.63
1:J:174:VAL:O	1:J:177:GLN:HG3	1.99	0.63
1:J:271:LEU:O	1:J:272:TYR:HB2	1.97	0.63
1:K:205:TYR:CZ	1:K:207:VAL:HB	2.34	0.63
1:K:249:GLN:HA	1:K:252:SER:HG	1.64	0.63
1:L:13:ASN:HA	1:L:16:GLN:CB	2.28	0.63
1:A:188:HIS:HB3	1:A:191:LEU:HG	1.81	0.62
1:A:205:TYR:CZ	1:A:207:VAL:HB	2.33	0.62
1:B:171:LEU:O	1:B:172:LYS:CB	2.47	0.62
1:D:20:ARG:HD3	1:D:146:GLU:OE1	1.99	0.62
1:D:66:TYR:CE2	1:D:68:ASP:HA	2.33	0.62
1:H:38:LEU:HD11	1:H:225:LYS:HB3	1.81	0.62
1:K:124:ASN:HD22	1:K:126:MET:H	1.47	0.62
1:L:282:TYR:O	1:L:283:ASP:CB	2.47	0.62
1:A:269:ASN:N	1:A:269:ASN:HD22	1.96	0.62
1:A:41:TRP:HE3	1:A:277:LYS:HB2	1.61	0.62
1:B:188:HIS:ND1	1:B:188:HIS:O	2.33	0.62
1:D:278:VAL:O	1:D:279:LYS:O	2.17	0.62
1:F:62:TYR:O	1:F:63:VAL:HG12	1.98	0.62
1:F:203:ALA:HB1	1:G:158:PRO:HG3	1.79	0.62
1:H:124:ASN:ND2	1:H:128:PHE:O	2.31	0.62
1:J:188:HIS:HD2	1:J:190:ALA:HB3	1.64	0.62
1:K:17:ARG:HA	1:K:20:ARG:HB2	1.81	0.62
1:K:94:ARG:HG3	1:K:103:GLU:CG	2.29	0.62
1:F:148:ILE:HG23	1:F:207:VAL:HG13	1.81	0.62
1:F:268:ILE:O	1:F:271:LEU:HB3	2.00	0.62
1:G:226:LEU:HA	1:G:250:ILE:HG23	1.79	0.62
1:J:174:VAL:HG13	1:J:177:GLN:HE21	1.61	0.62
1:J:136:LEU:HD13	1:K:22:ARG:HD2	1.79	0.62
1:A:93:PHE:HB3	1:A:104:PHE:CD1	2.35	0.62
1:H:108:ASN:CG	1:H:271:LEU:HD11	2.19	0.62
1:E:105:LYS:HE3	1:E:116:ASP:O	2.00	0.62
1:H:92:VAL:HG12	1:H:93:PHE:N	2.15	0.62
1:B:12:ILE:HG22	1:B:13:ASN:H	1.63	0.62
1:C:53:LEU:HD11	1:C:121:ILE:HD12	1.81	0.62
1:E:68:ASP:OD1	1:E:71:ILE:HB	1.99	0.62
1:K:165:ASP:HB3	1:K:167:ASN:ND2	2.15	0.62
1:A:41:TRP:CE3	1:A:277:LYS:HD3	2.35	0.62
1:C:214:LYS:NZ	1:C:214:LYS:HB3	2.14	0.62
1:F:13:ASN:O	1:F:17:ARG:HD3	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:283:ASP:O	1:I:285:VAL:HG23	1.99	0.62
1:I:66:TYR:HB2	1:I:104:PHE:CE1	2.34	0.62
1:B:37:GLN:O	1:B:281:ARG:HD2	1.99	0.62
1:B:30:TYR:O	1:B:34:LEU:HG	1.99	0.62
1:C:13:ASN:HD21	1:C:17:ARG:NE	1.98	0.62
1:D:170:SER:O	1:D:174:VAL:HG23	1.99	0.62
1:F:162:ARG:NH1	1:F:197:GLU:OE1	2.28	0.62
1:F:94:ARG:HB3	1:F:103:GLU:OE1	2.00	0.62
1:J:84:ARG:HD2	1:J:88:ASN:O	1.99	0.62
1:A:129:PRO:O	1:A:132:PRO:HD2	1.99	0.62
1:A:11:SER:N	1:B:176:ASN:OD1	2.33	0.62
1:B:81:SER:OG	1:B:82:GLY:N	2.30	0.62
1:J:174:VAL:C	1:J:176:ASN:H	2.04	0.62
1:K:138:ALA:HA	1:K:141:LEU:HD12	1.81	0.62
1:L:106:LEU:HD23	1:L:118:GLY:C	2.19	0.62
1:L:16:GLN:HG2	1:L:20:ARG:HE	1.65	0.62
1:A:39:PHE:CZ	1:A:257:PHE:HB2	2.35	0.62
1:C:42:GLU:N	1:C:277:LYS:HZ2	1.97	0.62
1:C:201:THR:HG23	1:D:159:VAL:HG11	1.82	0.62
1:D:248:GLU:O	1:D:252:SER:CB	2.47	0.62
1:F:50:PRO:O	1:F:51:SER:CB	2.48	0.62
1:F:50:PRO:O	1:F:51:SER:HB3	1.99	0.62
1:F:59:GLN:O	1:F:60:PHE:CD1	2.53	0.62
1:H:201:THR:HG22	1:H:201:THR:O	1.99	0.62
1:B:247:ASP:HA	1:B:250:ILE:HD11	1.80	0.61
1:B:43:ASN:HB2	1:B:277:LYS:CD	2.26	0.61
1:D:274:LEU:HD13	1:D:275:ASN:H	1.64	0.61
1:D:95:ALA:HB3	1:D:101:GLN:HA	1.82	0.61
1:E:11:SER:N	1:G:181:ASN:HB2	2.16	0.61
1:F:169:LEU:HD23	1:F:170:SER:H	1.63	0.61
1:G:124:ASN:HB2	1:G:126:MET:O	2.00	0.61
1:G:138:ALA:HA	1:G:141:LEU:HD12	1.82	0.61
1:G:16:GLN:HG3	1:G:20:ARG:CZ	2.29	0.61
1:K:78:GLY:HA3	1:K:95:ALA:HA	1.81	0.61
1:K:86:VAL:HG13	1:L:99:VAL:HG11	1.79	0.61
1:L:13:ASN:HA	1:L:16:GLN:HB3	1.81	0.61
1:D:182:ALA:HB1	1:D:183:PRO:HD2	1.82	0.61
1:E:71:ILE:CD1	1:E:74:ILE:HD12	2.29	0.61
1:F:260:SER:HA	1:F:263:GLU:OE2	1.99	0.61
1:G:81:SER:H	1:G:90:ALA:HB1	1.65	0.61
1:H:267:LYS:HA	1:H:270:GLU:OE1	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:274:LEU:CD1	1:I:275:ASN:HB3	2.31	0.61
1:J:144:LEU:O	1:J:148:ILE:HG13	2.00	0.61
1:J:262:GLU:HB3	1:J:278:VAL:HG11	1.80	0.61
1:A:169:LEU:HD22	1:A:186:PHE:CE1	2.35	0.61
1:B:123:ASN:O	1:B:124:ASN:HB3	1.98	0.61
1:B:84:ARG:HB3	1:B:88:ASN:CA	2.24	0.61
1:C:268:ILE:C	1:C:270:GLU:H	2.04	0.61
1:I:250:ILE:HG22	1:I:251:ASP:N	2.14	0.61
1:H:66:TYR:HE2	1:H:100:TYR:OH	1.83	0.61
1:I:51:SER:O	1:I:55:LYS:HG3	2.01	0.61
1:I:55:LYS:O	1:I:59:GLN:HB2	2.01	0.61
1:K:189:GLU:C	1:K:191:LEU:N	2.54	0.61
1:B:124:ASN:HA	1:B:260:SER:HB3	1.82	0.61
1:B:42:GLU:N	1:B:277:LYS:HG2	2.15	0.61
1:C:41:TRP:HB3	1:C:277:LYS:HZ1	1.64	0.61
1:D:275:ASN:C	1:D:277:LYS:HE3	2.21	0.61
1:G:30:TYR:CE2	1:G:218:TRP:CH2	2.89	0.61
1:J:188:HIS:O	1:J:189:GLU:HB3	2.00	0.61
1:K:48:ILE:HD13	1:K:73:TYR:HB3	1.81	0.61
1:A:201:THR:O	1:B:159:VAL:HG21	2.01	0.61
1:B:115:GLU:O	1:B:116:ASP:HB2	2.00	0.61
1:D:81:SER:O	1:D:92:VAL:N	2.34	0.61
1:J:222:MET:HA	1:J:227:GLN:HG3	1.82	0.61
1:J:228:THR:HB	1:J:250:ILE:HD11	1.82	0.61
1:L:37:GLN:O	1:L:281:ARG:HD2	2.01	0.61
1:B:38:LEU:HD21	1:B:227:GLN:NE2	2.15	0.61
1:G:172:LYS:H	1:G:175:TYR:HD1	1.46	0.61
1:J:258:LEU:HD22	1:J:280:PHE:CE1	2.35	0.61
1:K:107:TYR:HE1	1:K:109:TYR:HH	1.48	0.61
1:L:269:ASN:OD1	1:L:274:LEU:HA	2.01	0.61
1:D:39:PHE:CE1	1:D:258:LEU:HB2	2.36	0.61
1:G:275:ASN:C	1:G:277:LYS:HD3	2.21	0.61
1:H:37:GLN:O	1:H:281:ARG:HG3	2.00	0.61
1:I:20:ARG:HG2	1:I:146:GLU:HG3	1.82	0.61
1:J:31:LEU:HB3	1:J:134:LEU:HD22	1.81	0.61
1:L:66:TYR:HB2	1:L:104:PHE:CZ	2.36	0.61
1:C:42:GLU:C	1:C:277:LYS:HZ2	2.03	0.61
1:E:125:ASP:O	1:E:126:MET:HB2	2.00	0.61
1:E:28:LEU:CD1	1:E:135:GLU:HG2	2.31	0.61
1:F:31:LEU:O	1:F:35:ALA:N	2.32	0.61
1:G:162:ARG:NH2	1:G:194:ASP:O	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:283:ASP:HB3	1:C:284:ILE:CD1	2.29	0.60
1:H:218:TRP:O	1:H:221:MET:HB3	2.01	0.60
1:H:43:ASN:HB3	1:H:275:ASN:OD1	2.00	0.60
1:H:65:PHE:HA	1:H:74:ILE:O	2.00	0.60
1:H:72:SER:O	1:H:73:TYR:HB2	2.00	0.60
1:J:277:LYS:O	1:J:279:LYS:N	2.33	0.60
1:K:269:ASN:CG	1:K:274:LEU:HA	2.21	0.60
1:K:34:LEU:O	1:K:37:GLN:NE2	2.33	0.60
1:K:66:TYR:CE2	1:K:68:ASP:HA	2.35	0.60
1:L:117:MET:HE2	1:L:118:GLY:H	1.64	0.60
1:L:178:TYR:O	1:L:179:GLU:HB3	2.01	0.60
1:L:41:TRP:O	1:L:277:LYS:NZ	2.34	0.60
1:B:168:GLN:NE2	1:B:169:LEU:HG	2.15	0.60
1:C:186:PHE:CD2	1:C:196:ILE:HD11	2.36	0.60
1:C:226:LEU:O	1:C:227:GLN:CG	2.49	0.60
1:C:271:LEU:O	1:C:272:TYR:HB2	2.01	0.60
1:C:201:THR:HG21	1:D:161:ILE:HD11	1.81	0.60
1:E:188:HIS:CG	1:E:188:HIS:O	2.53	0.60
1:F:117:MET:CG	1:F:118:GLY:H	2.12	0.60
1:G:222:MET:HB3	1:G:227:GLN:CB	2.31	0.60
1:F:110:ARG:HD2	1:G:46:PRO:CG	2.30	0.60
1:I:172:LYS:HA	1:I:175:TYR:HB2	1.82	0.60
1:J:108:ASN:ND2	1:J:271:LEU:CB	2.64	0.60
1:K:71:ILE:O	1:K:73:TYR:N	2.34	0.60
1:L:265:CYS:O	1:L:268:ILE:N	2.34	0.60
1:A:74:ILE:HG12	1:A:75:ALA:N	2.16	0.60
1:E:92:VAL:HA	1:E:104:PHE:O	2.02	0.60
1:E:96:ALA:O	1:E:97:SER:HB3	2.00	0.60
1:F:98:PRO:C	1:F:100:TYR:H	2.05	0.60
1:G:124:ASN:C	1:G:126:MET:N	2.55	0.60
1:H:110:ARG:O	1:H:111:ASP:HB2	2.00	0.60
1:J:264:ALA:HA	1:J:267:LYS:HE2	1.82	0.60
1:K:84:ARG:NH1	1:K:84:ARG:HB3	2.15	0.60
1:L:188:HIS:O	1:L:188:HIS:CG	2.55	0.60
1:L:15:ILE:HG23	1:L:18:GLN:NE2	2.17	0.60
1:L:280:PHE:O	1:L:281:ARG:HB3	2.01	0.60
1:L:57:ILE:CG1	1:L:63:VAL:HG21	2.31	0.60
1:B:158:PRO:O	1:B:159:VAL:CB	2.49	0.60
1:B:247:ASP:HA	1:B:250:ILE:CD1	2.31	0.60
1:D:115:GLU:O	1:D:116:ASP:HB2	2.00	0.60
1:J:81:SER:O	1:J:90:ALA:O	2.18	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:174:VAL:CG1	1:K:177:GLN:HE21	2.14	0.60
1:L:41:TRP:CE3	1:L:277:LYS:HG3	2.34	0.60
1:L:282:TYR:O	1:L:283:ASP:HB2	2.00	0.60
1:A:226:LEU:HD21	1:A:283:ASP:OD2	2.02	0.60
1:C:57:ILE:O	1:C:61:GLY:HA2	2.00	0.60
1:D:258:LEU:C	1:D:258:LEU:HD23	2.22	0.60
1:E:28:LEU:HD23	1:E:32:GLN:HG2	1.83	0.60
1:H:177:GLN:O	1:H:179:GLU:N	2.34	0.60
1:K:67:LYS:HD3	1:K:117:MET:HE2	1.81	0.60
1:K:145:LYS:HD2	1:K:145:LYS:O	2.01	0.60
1:K:162:ARG:HH12	1:L:193:SER:HA	1.64	0.60
1:A:49:ASN:HB2	1:L:87:TYR:CD1	2.37	0.60
1:B:42:GLU:HG2	1:B:279:LYS:NZ	2.16	0.60
1:C:42:GLU:HG3	1:C:279:LYS:NZ	2.17	0.60
1:D:179:GLU:CG	1:D:180:GLY:N	2.64	0.60
1:E:152:GLN:O	1:E:155:GLN:HG2	2.00	0.60
1:E:158:PRO:O	1:E:159:VAL:CB	2.49	0.60
1:F:265:CYS:SG	1:F:276:VAL:HA	2.42	0.60
1:F:117:MET:CE	1:F:271:LEU:HD11	2.31	0.60
1:H:108:ASN:O	1:H:109:TYR:HB2	2.02	0.60
1:H:99:VAL:HG12	1:H:99:VAL:O	2.01	0.60
1:L:274:LEU:CD2	1:L:275:ASN:N	2.64	0.60
1:A:45:PRO:HG3	1:A:73:TYR:CG	2.37	0.60
1:B:108:ASN:HB3	1:B:271:LEU:HG	1.83	0.60
1:B:200:LYS:HD3	1:B:202:ASP:OD2	2.01	0.60
1:D:43:ASN:N	1:D:277:LYS:HD2	2.13	0.60
1:E:43:ASN:O	1:E:275:ASN:ND2	2.35	0.60
1:G:213:GLN:O	1:G:216:ALA:HB3	2.01	0.60
1:I:171:LEU:O	1:I:172:LYS:HB2	2.02	0.60
1:I:228:THR:CB	1:I:250:ILE:HD11	2.31	0.60
1:B:226:LEU:HD22	1:B:251:ASP:CG	2.21	0.60
1:E:275:ASN:C	1:E:277:LYS:HD3	2.22	0.60
1:F:59:GLN:O	1:F:61:GLY:N	2.35	0.60
1:F:84:ARG:HD3	1:F:89:GLN:O	2.01	0.60
1:H:265:CYS:HA	1:H:268:ILE:HD12	1.82	0.60
1:J:90:ALA:O	1:J:92:VAL:N	2.29	0.60
1:K:42:GLU:C	1:K:277:LYS:NZ	2.55	0.60
1:K:57:ILE:HG23	1:K:123:ASN:HB2	1.83	0.60
1:L:222:MET:HB3	1:L:227:GLN:HB2	1.84	0.60
1:L:54:GLU:HG2	1:L:261:ARG:HH22	1.67	0.60
1:A:283:ASP:O	1:A:284:ILE:HB	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:148:ILE:O	1:C:152:GLN:HG3	2.02	0.60
1:D:42:GLU:HB3	1:D:277:LYS:HD3	1.83	0.60
1:E:279:LYS:C	1:E:281:ARG:H	2.03	0.60
1:G:200:LYS:NZ	1:G:202:ASP:OD1	2.33	0.60
1:I:124:ASN:C	1:I:126:MET:H	2.04	0.60
1:I:158:PRO:O	1:I:159:VAL:HB	2.01	0.60
1:B:148:ILE:O	1:B:152:GLN:HG3	2.01	0.60
1:B:91:THR:CG2	1:B:92:VAL:HG23	2.31	0.60
1:D:258:LEU:HD21	1:D:262:GLU:HG2	1.84	0.60
1:E:79:ALA:CB	1:E:94:ARG:HH21	2.14	0.60
1:G:109:TYR:N	1:G:112:MET:HB2	2.17	0.60
1:G:277:LYS:N	1:G:277:LYS:HD3	2.16	0.60
1:H:109:TYR:CG	1:H:110:ARG:N	2.69	0.60
1:I:98:PRO:O	1:I:99:VAL:HB	2.01	0.60
1:J:117:MET:CE	1:J:271:LEU:HD22	2.32	0.60
1:L:179:GLU:CG	1:L:181:ASN:H	2.15	0.60
1:L:23:TRP:NE1	1:L:145:LYS:HE3	2.17	0.60
1:A:182:ALA:HB1	1:A:183:PRO:HD2	1.84	0.59
1:A:43:ASN:ND2	1:A:276:VAL:HG12	2.17	0.59
1:B:125:ASP:O	1:B:126:MET:HE2	2.02	0.59
1:I:20:ARG:NE	1:I:146:GLU:HG3	2.16	0.59
1:I:153:ASN:C	1:I:155:GLN:H	2.05	0.59
1:I:47:THR:HB	1:I:73:TYR:O	2.01	0.59
1:J:34:LEU:O	1:J:37:GLN:NE2	2.35	0.59
1:K:39:PHE:CE1	1:K:258:LEU:HB2	2.36	0.59
1:A:168:GLN:HA	1:A:168:GLN:HE21	1.68	0.59
1:C:110:ARG:O	1:C:112:MET:N	2.35	0.59
1:B:201:THR:HG23	1:C:159:VAL:HG11	1.84	0.59
1:B:136:LEU:HD13	1:C:22:ARG:HD2	1.84	0.59
1:D:123:ASN:O	1:D:124:ASN:OD1	2.19	0.59
1:E:175:TYR:C	1:E:177:GLN:H	2.06	0.59
1:E:53:LEU:CB	1:E:63:VAL:HG21	2.32	0.59
1:F:160:LEU:HD11	1:G:171:LEU:HD21	1.84	0.59
1:H:259:LYS:HD2	1:I:281:ARG:HH12	1.65	0.59
1:I:43:ASN:CB	1:I:277:LYS:HZ3	2.14	0.59
1:I:85:ASP:CG	1:I:89:GLN:HB3	2.21	0.59
1:J:117:MET:HB2	1:J:271:LEU:CD1	2.30	0.59
1:K:67:LYS:HD3	1:K:117:MET:CE	2.31	0.59
1:L:12:ILE:O	1:L:16:GLN:HB2	2.02	0.59
1:A:12:ILE:CG2	1:A:15:ILE:HB	2.33	0.59
1:D:39:PHE:CZ	1:D:257:PHE:O	2.55	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:147:ILE:HG12	1:E:156:LYS:HD2	1.83	0.59
1:F:37:GLN:O	1:F:281:ARG:HD2	2.02	0.59
1:I:117:MET:HE2	1:I:118:GLY:H	1.65	0.59
1:I:84:ARG:HD2	1:I:88:ASN:O	2.02	0.59
1:J:201:THR:CG2	1:L:183:PRO:HG3	2.31	0.59
1:A:156:LYS:HE3	1:B:178:TYR:CE1	2.37	0.59
1:D:158:PRO:O	1:D:159:VAL:CG2	2.43	0.59
1:F:38:LEU:O	1:F:39:PHE:HB2	2.01	0.59
1:G:179:GLU:OE2	1:G:181:ASN:N	2.36	0.59
1:I:109:TYR:HE2	1:I:112:MET:SD	2.25	0.59
1:L:113:LYS:O	1:L:114:GLU:HG3	2.03	0.59
1:E:67:LYS:HE3	1:E:117:MET:HG2	1.83	0.59
1:F:213:GLN:O	1:F:216:ALA:HB3	2.02	0.59
1:G:171:LEU:O	1:G:172:LYS:HB3	2.01	0.59
1:G:170:SER:OG	1:G:173:GLN:HB2	2.03	0.59
1:G:171:LEU:HD23	1:G:175:TYR:CE1	2.37	0.59
1:J:49:ASN:HB3	1:J:52:PHE:HB3	1.84	0.59
1:J:53:LEU:O	1:J:56:SER:HB2	2.02	0.59
1:K:39:PHE:HE1	1:K:258:LEU:HB2	1.66	0.59
1:D:111:ASP:O	1:D:112:MET:HG2	2.02	0.59
1:D:146:GLU:O	1:D:150:VAL:HG23	2.02	0.59
1:F:201:THR:HG23	1:G:159:VAL:HG11	1.83	0.59
1:I:117:MET:HG2	1:I:271:LEU:CD1	2.24	0.59
1:I:170:SER:OG	1:I:173:GLN:HB2	2.03	0.59
1:I:50:PRO:O	1:I:54:GLU:HG3	2.03	0.59
1:A:91:THR:O	1:A:92:VAL:HB	2.02	0.59
1:D:174:VAL:O	1:D:177:GLN:CG	2.50	0.59
1:D:264:ALA:O	1:D:268:ILE:N	2.25	0.59
1:F:221:MET:HE1	1:F:225:LYS:HE2	1.84	0.59
1:F:53:LEU:HD11	1:F:121:ILE:HD12	1.83	0.59
1:F:67:LYS:HG3	1:F:72:SER:O	2.03	0.59
1:G:147:ILE:HG23	1:H:156:LYS:HG3	1.84	0.59
1:G:40:GLU:HB3	1:G:279:LYS:HZ3	1.66	0.59
1:H:264:ALA:O	1:H:268:ILE:HG13	2.03	0.59
1:H:64:GLY:O	1:H:75:ALA:HA	2.01	0.59
1:I:171:LEU:O	1:I:172:LYS:CB	2.50	0.59
1:I:34:LEU:O	1:I:37:GLN:NE2	2.36	0.59
1:J:174:VAL:HG12	1:J:177:GLN:HE21	1.67	0.59
1:K:92:VAL:HG12	1:K:92:VAL:O	2.03	0.59
1:E:258:LEU:HD21	1:E:278:VAL:HG13	1.85	0.59
1:E:41:TRP:O	1:E:277:LYS:HG2	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:44:LEU:CD1	1:E:44:LEU:N	2.63	0.59
1:F:186:PHE:CD2	1:F:196:ILE:HD11	2.37	0.59
1:F:122:TYR:O	1:F:260:SER:OG	2.18	0.59
1:J:133:THR:HG21	1:J:224:PHE:CE2	2.37	0.59
1:L:56:SER:HB3	1:L:63:VAL:HG22	1.84	0.59
1:A:124:ASN:HD21	1:A:128:PHE:HB2	1.68	0.59
1:A:41:TRP:O	1:A:42:GLU:CB	2.50	0.59
1:B:84:ARG:HA	1:B:89:GLN:O	2.03	0.59
1:D:186:PHE:CD2	1:D:196:ILE:HD11	2.38	0.59
1:E:12:ILE:HD12	1:E:15:ILE:HD12	1.85	0.59
1:G:81:SER:HB3	1:G:94:ARG:NH2	2.18	0.59
1:H:222:MET:HB3	1:H:227:GLN:HB2	1.84	0.59
1:H:222:MET:HB3	1:H:227:GLN:CB	2.32	0.59
1:H:275:ASN:HB3	1:H:277:LYS:NZ	2.17	0.59
1:G:126:MET:HG2	1:H:55:LYS:NZ	2.18	0.59
1:K:283:ASP:CG	1:K:284:ILE:N	2.53	0.59
1:A:276:VAL:O	1:A:277:LYS:HG2	2.03	0.59
1:B:53:LEU:O	1:B:57:ILE:HG13	2.03	0.59
1:C:81:SER:N	1:C:90:ALA:HB1	2.17	0.59
1:C:248:GLU:OE2	1:D:226:LEU:HG	2.02	0.59
1:E:171:LEU:HD22	1:E:175:TYR:HE1	1.67	0.59
1:E:266:GLU:O	1:E:270:GLU:OE2	2.20	0.59
1:H:275:ASN:O	1:H:277:LYS:HG3	2.03	0.59
1:I:39:PHE:CZ	1:I:257:PHE:HB2	2.38	0.59
1:A:273:GLY:O	1:A:274:LEU:O	2.20	0.58
1:B:103:GLU:CG	1:B:104:PHE:N	2.65	0.58
1:E:65:PHE:CE2	1:E:268:ILE:HD11	2.37	0.58
1:G:37:GLN:O	1:G:281:ARG:NE	2.24	0.58
1:G:41:TRP:O	1:G:42:GLU:HB2	2.03	0.58
1:H:126:MET:HG2	1:H:128:PHE:CZ	2.38	0.58
1:I:61:GLY:O	1:I:62:TYR:C	2.42	0.58
1:J:84:ARG:HD3	1:J:89:GLN:O	2.02	0.58
1:B:98:PRO:O	1:B:100:TYR:N	2.35	0.58
1:D:37:GLN:O	1:D:281:ARG:HD2	2.03	0.58
1:D:284:ILE:CD1	1:D:284:ILE:N	2.65	0.58
1:E:62:TYR:HE2	1:E:79:ALA:HA	1.68	0.58
1:H:98:PRO:C	1:H:100:TYR:H	2.04	0.58
1:J:103:GLU:O	1:J:104:PHE:CB	2.50	0.58
1:L:43:ASN:CA	1:L:277:LYS:HE2	2.32	0.58
1:A:188:HIS:O	1:A:188:HIS:CG	2.56	0.58
1:A:40:GLU:CG	1:A:279:LYS:NZ	2.66	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:81:SER:O	1:B:82:GLY:O	2.21	0.58
1:E:171:LEU:HD22	1:E:175:TYR:CE1	2.39	0.58
1:G:110:ARG:HG2	1:G:111:ASP:OD1	2.04	0.58
1:G:275:ASN:O	1:G:277:LYS:HE2	2.03	0.58
1:H:71:ILE:O	1:H:74:ILE:HD11	2.03	0.58
1:I:131:THR:O	1:I:135:GLU:HG3	2.03	0.58
1:B:126:MET:C	1:B:128:PHE:H	2.04	0.58
1:D:74:ILE:HG12	1:D:75:ALA:N	2.17	0.58
1:H:201:THR:CG2	1:I:159:VAL:HG11	2.24	0.58
1:B:59:GLN:O	1:B:60:PHE:C	2.41	0.58
1:B:74:ILE:HG12	1:B:75:ALA:N	2.17	0.58
1:B:91:THR:HG22	1:B:92:VAL:N	2.17	0.58
1:D:269:ASN:CB	1:D:274:LEU:HA	2.30	0.58
1:E:20:ARG:HG2	1:E:146:GLU:CG	2.32	0.58
1:E:68:ASP:OD2	1:E:70:VAL:N	2.28	0.58
1:E:52:PHE:HE2	1:E:76:CYS:H	1.51	0.58
1:L:57:ILE:HG12	1:L:63:VAL:CG2	2.32	0.58
1:C:201:THR:HG22	1:D:159:VAL:HG11	1.86	0.58
1:D:258:LEU:O	1:D:259:LYS:C	2.41	0.58
1:F:261:ARG:N	1:F:261:ARG:HD2	2.13	0.58
1:J:110:ARG:HB2	1:K:46:PRO:HB2	1.84	0.58
1:A:90:ALA:HB3	1:A:106:LEU:CD1	2.33	0.58
1:A:123:ASN:OD1	1:A:261:ARG:NH2	2.36	0.58
1:B:268:ILE:O	1:B:271:LEU:HB2	2.04	0.58
1:C:249:GLN:HG2	1:D:222:MET:CE	2.24	0.58
1:C:50:PRO:O	1:C:51:SER:HB3	2.04	0.58
1:D:41:TRP:O	1:D:277:LYS:HD2	2.04	0.58
1:D:79:ALA:HB1	1:D:94:ARG:NH2	2.19	0.58
1:E:20:ARG:NE	1:E:146:GLU:CD	2.57	0.58
1:E:258:LEU:O	1:E:261:ARG:HB2	2.04	0.58
1:G:102:LYS:HE3	1:G:102:LYS:HA	1.85	0.58
1:J:269:ASN:OD1	1:J:274:LEU:HA	2.04	0.58
1:J:275:ASN:O	1:J:277:LYS:N	2.37	0.58
1:A:117:MET:CG	1:A:118:GLY:N	2.66	0.58
1:E:74:ILE:HG12	1:E:75:ALA:H	1.66	0.58
1:E:81:SER:C	1:E:84:ARG:NH1	2.57	0.58
1:A:276:VAL:C	1:A:277:LYS:HG2	2.24	0.58
1:B:137:PHE:HE2	1:B:220:GLU:HB3	1.68	0.58
1:B:152:GLN:O	1:B:155:GLN:HG2	2.03	0.58
1:D:186:PHE:HD2	1:D:196:ILE:HD11	1.68	0.58
1:E:42:GLU:O	1:E:277:LYS:HG2	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:275:ASN:ND2	1:G:277:LYS:HD2	2.19	0.58
1:I:38:LEU:O	1:I:39:PHE:HB2	2.04	0.58
1:I:87:TYR:OH	1:J:48:ILE:HA	2.04	0.58
1:A:226:LEU:HA	1:A:250:ILE:CG2	2.34	0.58
1:B:276:VAL:C	1:B:277:LYS:HD3	2.24	0.58
1:C:166:ASN:ND2	1:C:170:SER:HA	2.19	0.58
1:E:66:TYR:HB2	1:E:104:PHE:HZ	1.64	0.58
1:I:258:LEU:O	1:I:262:GLU:HG3	2.03	0.58
1:J:108:ASN:HD21	1:J:271:LEU:CB	2.17	0.58
1:J:188:HIS:O	1:J:189:GLU:CB	2.52	0.58
1:J:262:GLU:CA	1:J:278:VAL:HG21	2.33	0.58
1:K:247:ASP:O	1:K:250:ILE:HG12	2.04	0.58
1:L:44:LEU:HD23	1:L:275:ASN:OD1	2.04	0.58
1:A:172:LYS:NZ	1:L:11:SER:HB3	2.19	0.57
1:A:248:GLU:HB3	1:B:282:TYR:CE2	2.39	0.57
1:C:109:TYR:CE1	1:D:47:THR:HG23	2.39	0.57
1:G:269:ASN:ND2	1:G:275:ASN:HB3	2.17	0.57
1:L:93:PHE:HB2	1:L:106:LEU:HD11	1.86	0.57
1:L:222:MET:HB3	1:L:227:GLN:CB	2.34	0.57
1:B:222:MET:HB3	1:B:227:GLN:HB2	1.86	0.57
1:E:57:ILE:O	1:E:61:GLY:HA2	2.05	0.57
1:F:117:MET:HE1	1:F:271:LEU:HD21	1.85	0.57
1:H:258:LEU:HD22	1:H:280:PHE:CE1	2.39	0.57
1:I:43:ASN:HB3	1:I:277:LYS:HZ1	1.69	0.57
1:J:39:PHE:CZ	1:J:257:PHE:HB2	2.38	0.57
1:K:63:VAL:CG1	1:K:121:ILE:HB	2.33	0.57
1:L:106:LEU:HD23	1:L:118:GLY:O	2.04	0.57
1:A:40:GLU:CG	1:A:279:LYS:HZ3	2.17	0.57
1:B:158:PRO:O	1:B:158:PRO:HG2	2.04	0.57
1:B:108:ASN:ND2	1:B:267:LYS:C	2.58	0.57
1:E:164:ASN:HB3	1:E:195:SER:O	2.03	0.57
1:E:196:ILE:HG22	1:E:197:GLU:N	2.19	0.57
1:E:263:GLU:O	1:E:267:LYS:HD2	2.04	0.57
1:F:43:ASN:HB2	1:F:277:LYS:HE2	1.85	0.57
1:J:131:THR:HG22	1:J:132:PRO:HD3	1.86	0.57
1:K:247:ASP:HA	1:K:250:ILE:HG12	1.85	0.57
1:B:247:ASP:O	1:B:250:ILE:HG13	2.04	0.57
1:D:193:SER:O	1:D:194:ASP:HB2	2.03	0.57
1:E:196:ILE:CG2	1:E:197:GLU:N	2.67	0.57
1:E:38:LEU:O	1:E:39:PHE:CB	2.52	0.57
1:E:71:ILE:HD12	1:E:74:ILE:HD12	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:252:SER:HB2	1:G:37:GLN:OE1	2.04	0.57
1:G:105:LYS:HZ2	1:G:105:LYS:HB2	1.69	0.57
1:G:273:GLY:C	1:G:274:LEU:HD23	2.24	0.57
1:H:74:ILE:HG22	1:H:75:ALA:H	1.68	0.57
1:I:205:TYR:CZ	1:I:207:VAL:HB	2.39	0.57
1:K:188:HIS:O	1:K:189:GLU:HB3	2.04	0.57
1:L:109:TYR:HB3	1:L:112:MET:HB3	1.87	0.57
1:B:140:GLU:CD	1:C:145:LYS:NZ	2.58	0.57
1:E:143:GLU:OE2	1:F:153:ASN:ND2	2.36	0.57
1:E:249:GLN:CG	1:E:250:ILE:HD12	2.35	0.57
1:E:59:GLN:O	1:E:60:PHE:CG	2.58	0.57
1:E:87:TYR:O	1:E:88:ASN:HB3	2.04	0.57
1:F:224:PHE:C	1:F:225:LYS:HD2	2.24	0.57
1:G:249:GLN:HA	1:G:252:SER:CB	2.31	0.57
1:G:39:PHE:CZ	1:G:257:PHE:HB3	2.40	0.57
1:G:52:PHE:C	1:G:52:PHE:CD2	2.77	0.57
1:G:86:VAL:HG13	1:G:87:TYR:H	1.69	0.57
1:F:86:VAL:N	1:G:99:VAL:HG11	2.18	0.57
1:J:126:MET:O	1:J:128:PHE:N	2.35	0.57
1:K:222:MET:HB3	1:K:227:GLN:HB2	1.85	0.57
1:L:62:TYR:CE2	1:L:80:LEU:HG	2.39	0.57
1:C:117:MET:CE	1:C:271:LEU:HD13	2.34	0.57
1:D:106:LEU:HA	1:D:118:GLY:O	2.05	0.57
1:E:124:ASN:HD21	1:E:128:PHE:HD1	1.51	0.57
1:E:262:GLU:C	1:E:264:ALA:H	2.08	0.57
1:I:108:ASN:HD21	1:I:271:LEU:N	2.02	0.57
1:J:144:LEU:HD21	1:K:152:GLN:HG2	1.87	0.57
1:L:153:ASN:O	1:L:156:LYS:HB2	2.04	0.57
1:E:186:PHE:CD2	1:E:196:ILE:HD11	2.39	0.57
1:H:68:ASP:HB3	1:H:74:ILE:HD13	1.85	0.57
1:J:172:LYS:H	1:J:175:TYR:HD1	1.53	0.57
1:J:169:LEU:HB3	1:J:186:PHE:CE1	2.40	0.57
1:K:23:TRP:CE2	1:K:145:LYS:HE2	2.40	0.57
1:B:164:ASN:HB3	1:B:195:SER:HA	1.85	0.57
1:D:179:GLU:HG2	1:D:180:GLY:H	1.69	0.57
1:D:265:CYS:SG	1:D:276:VAL:CA	2.86	0.57
1:F:67:LYS:HB3	1:F:117:MET:CE	2.35	0.57
1:G:269:ASN:CG	1:G:274:LEU:O	2.43	0.57
1:H:42:GLU:OE1	1:H:279:LYS:HG3	2.04	0.57
1:H:92:VAL:HG12	1:H:93:PHE:H	1.68	0.57
1:J:170:SER:C	1:J:171:LEU:O	2.41	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:117:MET:HB3	1:K:271:LEU:HD22	1.85	0.57
1:C:181:ASN:O	1:C:182:ALA:HB2	2.05	0.57
1:E:109:TYR:C	1:E:111:ASP:H	2.07	0.57
1:E:53:LEU:HA	1:E:63:VAL:CG2	2.34	0.57
1:F:275:ASN:HA	1:F:277:LYS:CE	2.35	0.57
1:F:47:THR:HB	1:F:73:TYR:HB2	1.85	0.57
1:G:262:GLU:O	1:G:264:ALA:N	2.33	0.57
1:G:84:ARG:HH11	1:G:84:ARG:HG2	1.70	0.57
1:H:168:GLN:OE1	1:H:169:LEU:HG	2.05	0.57
1:I:117:MET:SD	1:I:271:LEU:HD13	2.44	0.57
1:D:179:GLU:CG	1:D:180:GLY:H	2.18	0.57
1:D:277:LYS:C	1:D:279:LYS:H	2.07	0.57
1:D:72:SER:OG	1:D:73:TYR:N	2.35	0.57
1:H:63:VAL:HG11	1:H:121:ILE:HB	1.87	0.57
1:H:157:THR:HG21	1:I:178:TYR:HE2	1.70	0.57
1:I:49:ASN:HD22	1:I:52:PHE:CB	2.18	0.57
1:K:172:LYS:HE3	1:L:179:GLU:CD	2.25	0.57
1:L:258:LEU:HD22	1:L:262:GLU:HG3	1.87	0.57
1:B:284:ILE:O	1:B:284:ILE:HG22	2.04	0.56
1:E:165:ASP:HB2	1:E:191:LEU:HD23	1.87	0.56
1:G:109:TYR:H	1:G:112:MET:HB2	1.70	0.56
1:G:89:GLN:HG3	1:G:107:TYR:HE1	1.69	0.56
1:L:271:LEU:O	1:L:272:TYR:CB	2.53	0.56
1:A:108:ASN:HB2	1:A:119:VAL:HG23	1.86	0.56
1:C:143:GLU:O	1:C:147:ILE:HG13	2.05	0.56
1:E:249:GLN:HG3	1:E:250:ILE:HD12	1.87	0.56
1:F:65:PHE:O	1:F:119:VAL:HG23	2.05	0.56
1:G:47:THR:CB	1:G:72:SER:O	2.53	0.56
1:I:42:GLU:O	1:I:43:ASN:CB	2.52	0.56
1:J:105:LYS:HD3	1:J:114:GLU:OE2	2.05	0.56
1:J:12:ILE:O	1:L:181:ASN:ND2	2.38	0.56
1:A:261:ARG:HB3	1:A:278:VAL:CG1	2.34	0.56
1:A:269:ASN:N	1:A:269:ASN:ND2	2.54	0.56
1:B:51:SER:O	1:B:55:LYS:HG3	2.04	0.56
1:D:107:TYR:CD1	1:D:108:ASN:N	2.74	0.56
1:E:148:ILE:HG23	1:E:207:VAL:HG13	1.88	0.56
1:E:38:LEU:HD11	1:E:225:LYS:HZ3	1.70	0.56
1:F:179:GLU:OE2	1:F:181:ASN:HB2	2.04	0.56
1:G:120:VAL:HG23	1:G:120:VAL:O	2.05	0.56
1:I:43:ASN:HB3	1:I:277:LYS:CE	2.35	0.56
1:J:281:ARG:HH11	1:J:281:ARG:HG3	1.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:61:GLY:O	1:J:62:TYR:C	2.43	0.56
1:J:110:ARG:HB2	1:K:46:PRO:CB	2.35	0.56
1:C:42:GLU:C	1:C:277:LYS:HZ3	2.03	0.56
1:D:174:VAL:CG1	1:D:177:GLN:NE2	2.64	0.56
1:E:201:THR:CG2	1:E:201:THR:O	2.53	0.56
1:G:117:MET:HB3	1:G:271:LEU:HD22	1.86	0.56
1:J:31:LEU:HD22	1:J:221:MET:HG2	1.87	0.56
1:L:115:GLU:O	1:L:116:ASP:HB2	2.05	0.56
1:A:56:SER:O	1:A:59:GLN:O	2.23	0.56
1:E:67:LYS:HB2	1:E:117:MET:HG2	1.87	0.56
1:E:84:ARG:NH1	1:E:90:ALA:HA	2.20	0.56
1:I:110:ARG:O	1:I:112:MET:N	2.38	0.56
1:I:110:ARG:CB	1:J:46:PRO:HB2	2.36	0.56
1:J:84:ARG:HB3	1:J:88:ASN:HA	1.86	0.56
1:B:85:ASP:OD2	1:B:89:GLN:HB3	2.05	0.56
1:C:145:LYS:HD2	1:C:145:LYS:O	2.06	0.56
1:C:13:ASN:ND2	1:C:17:ARG:NE	2.52	0.56
1:B:248:GLU:HB2	1:C:282:TYR:CE2	2.40	0.56
1:C:80:LEU:HB3	1:C:90:ALA:CB	2.35	0.56
1:D:269:ASN:ND2	1:D:274:LEU:O	2.38	0.56
1:F:171:LEU:O	1:F:173:GLN:N	2.37	0.56
1:G:248:GLU:HG3	1:G:249:GLN:N	2.20	0.56
1:H:161:ILE:HG12	1:H:198:VAL:HG22	1.88	0.56
1:I:124:ASN:HD22	1:I:126:MET:HB2	1.71	0.56
1:A:222:MET:HB3	1:A:227:GLN:CB	2.36	0.56
1:B:151:ASN:O	1:B:154:ALA:HB3	2.05	0.56
1:E:90:ALA:O	1:E:106:LEU:HD11	2.06	0.56
1:F:87:TYR:O	1:F:88:ASN:HB2	2.05	0.56
1:H:171:LEU:HD22	1:H:175:TYR:CE1	2.40	0.56
1:H:64:GLY:C	1:H:65:PHE:CD1	2.79	0.56
1:J:144:LEU:HD21	1:K:152:GLN:CG	2.36	0.56
1:H:11:SER:N	1:J:181:ASN:ND2	2.51	0.56
1:K:269:ASN:HB3	1:K:274:LEU:HD22	1.88	0.56
1:K:68:ASP:OD1	1:K:70:VAL:N	2.38	0.56
1:L:274:LEU:CD2	1:L:275:ASN:H	2.18	0.56
1:L:41:TRP:CA	1:L:277:LYS:HB3	2.35	0.56
1:C:123:ASN:ND2	1:C:261:ARG:NH2	2.54	0.56
1:C:60:PHE:HA	1:C:129:PRO:HG3	1.88	0.56
1:B:144:LEU:HD21	1:C:152:GLN:NE2	2.21	0.56
1:D:164:ASN:HD22	1:D:195:SER:HA	1.71	0.56
1:D:61:GLY:H	1:D:129:PRO:HG3	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:82:GLY:HA3	1:E:92:VAL:HG23	1.87	0.56
1:G:165:ASP:C	1:G:167:ASN:N	2.59	0.56
1:I:151:ASN:OD1	1:I:207:VAL:HG23	2.06	0.56
1:I:258:LEU:HD22	1:I:262:GLU:CG	2.36	0.56
1:I:97:SER:OG	1:I:98:PRO:HD2	2.06	0.56
1:K:197:GLU:OE1	1:K:199:PHE:CZ	2.59	0.56
1:L:226:LEU:O	1:L:227:GLN:CD	2.44	0.56
1:L:48:ILE:HD11	1:L:73:TYR:C	2.26	0.56
1:B:40:GLU:N	1:B:278:VAL:O	2.39	0.56
1:C:92:VAL:HG13	1:C:104:PHE:O	2.06	0.56
1:C:108:ASN:H	1:C:108:ASN:ND2	2.02	0.56
1:C:43:ASN:O	1:C:44:LEU:HG	2.06	0.56
1:D:18:GLN:CG	1:D:22:ARG:HH12	2.15	0.56
1:D:205:TYR:CZ	1:D:207:VAL:HB	2.41	0.56
1:E:34:LEU:O	1:E:37:GLN:NE2	2.38	0.56
1:F:222:MET:HB3	1:F:227:GLN:HB3	1.87	0.56
1:G:173:GLN:HA	1:G:176:ASN:HD22	1.70	0.56
1:I:222:MET:HB3	1:I:227:GLN:CB	2.36	0.56
1:A:108:ASN:O	1:A:109:TYR:O	2.23	0.56
1:A:11:SER:HB3	1:B:176:ASN:HD21	1.70	0.56
1:B:90:ALA:O	1:B:91:THR:HB	2.06	0.56
1:B:249:GLN:HB2	1:C:222:MET:CE	2.36	0.56
1:C:269:ASN:ND2	1:C:276:VAL:CG2	2.68	0.56
1:C:275:ASN:HA	1:C:277:LYS:HE2	1.88	0.56
1:C:41:TRP:C	1:C:277:LYS:HZ2	2.09	0.56
1:C:43:ASN:N	1:C:277:LYS:NZ	2.48	0.56
1:I:48:ILE:CD1	1:I:73:TYR:HB3	2.36	0.56
1:J:117:MET:HB3	1:J:271:LEU:HD21	1.87	0.56
1:K:171:LEU:HD22	1:K:175:TYR:CE1	2.40	0.56
1:K:193:SER:O	1:K:194:ASP:CB	2.52	0.56
1:K:59:GLN:O	1:K:61:GLY:N	2.39	0.56
1:A:52:PHE:CZ	1:A:77:ASN:ND2	2.74	0.56
1:B:274:LEU:CD2	1:B:274:LEU:C	2.72	0.56
1:B:277:LYS:O	1:B:279:LYS:N	2.38	0.56
1:E:106:LEU:HA	1:E:118:GLY:O	2.06	0.56
1:E:16:GLN:NE2	1:E:20:ARG:NH2	2.51	0.56
1:F:44:LEU:HD23	1:F:275:ASN:CG	2.26	0.56
1:I:107:TYR:OH	1:I:109:TYR:CZ	2.58	0.56
1:I:188:HIS:O	1:I:189:GLU:CB	2.53	0.56
1:I:222:MET:HB3	1:I:227:GLN:HB2	1.87	0.56
1:J:110:ARG:NE	1:K:46:PRO:HG3	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:117:MET:HE3	1:J:271:LEU:HD22	1.88	0.56
1:J:117:MET:SD	1:J:271:LEU:HD22	2.45	0.56
1:J:205:TYR:CE1	1:J:207:VAL:HB	2.40	0.56
1:K:172:LYS:HE3	1:L:179:GLU:OE1	2.06	0.56
1:K:275:ASN:CG	1:K:275:ASN:O	2.45	0.56
1:L:104:PHE:CE2	1:L:118:GLY:HA3	2.41	0.56
1:L:172:LYS:O	1:L:176:ASN:HB2	2.06	0.56
1:A:124:ASN:HD21	1:A:128:PHE:H	1.53	0.55
1:D:179:GLU:OE2	1:D:181:ASN:HB2	2.06	0.55
1:D:177:GLN:NE2	1:D:184:VAL:HG13	2.22	0.55
1:D:23:TRP:O	1:D:27:TYR:HD1	1.89	0.55
1:E:109:TYR:HD2	1:E:112:MET:HG3	1.71	0.55
1:F:150:VAL:HG11	1:G:156:LYS:HG2	1.88	0.55
1:H:171:LEU:O	1:H:174:VAL:N	2.38	0.55
1:J:47:THR:HG21	1:J:72:SER:HB3	1.89	0.55
1:K:159:VAL:HG12	1:L:183:PRO:HB3	1.86	0.55
1:K:275:ASN:ND2	1:K:277:LYS:HE2	2.19	0.55
1:L:158:PRO:O	1:L:159:VAL:HB	2.06	0.55
1:L:68:ASP:C	1:L:68:ASP:OD1	2.44	0.55
1:A:16:GLN:C	1:A:18:GLN:H	2.10	0.55
1:A:226:LEU:C	1:A:227:GLN:HG2	2.26	0.55
1:B:259:LYS:O	1:B:263:GLU:HG3	2.05	0.55
1:D:261:ARG:HB3	1:D:278:VAL:CG1	2.36	0.55
1:D:85:ASP:OD2	1:D:89:GLN:N	2.33	0.55
1:F:91:THR:O	1:F:106:LEU:HG	2.05	0.55
1:G:20:ARG:HD2	1:G:146:GLU:CD	2.27	0.55
1:H:62:TYR:O	1:H:63:VAL:HG12	2.06	0.55
1:I:261:ARG:O	1:I:264:ALA:HB3	2.06	0.55
1:J:78:GLY:HA3	1:J:95:ALA:HA	1.88	0.55
1:L:265:CYS:O	1:L:267:LYS:N	2.40	0.55
1:C:62:TYR:CE1	1:C:127:ALA:HB1	2.42	0.55
1:C:219:ASN:HD22	1:C:219:ASN:N	2.03	0.55
1:C:21:ASN:O	1:C:24:PHE:HB3	2.05	0.55
1:C:265:CYS:HA	1:C:268:ILE:HG12	1.89	0.55
1:D:170:SER:O	1:D:173:GLN:HB3	2.06	0.55
1:F:107:TYR:N	1:F:118:GLY:O	2.39	0.55
1:F:126:MET:HE3	1:F:126:MET:N	2.21	0.55
1:F:13:ASN:HD21	1:H:179:GLU:CA	2.11	0.55
1:I:44:LEU:CD2	1:I:45:PRO:HD2	2.36	0.55
1:J:89:GLN:NE2	1:J:107:TYR:CZ	2.75	0.55
1:J:144:LEU:HD21	1:K:152:GLN:CD	2.27	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:67:LYS:HG3	1:K:67:LYS:O	2.07	0.55
1:D:17:ARG:O	1:D:21:ASN:ND2	2.40	0.55
1:D:222:MET:HE3	1:D:227:GLN:HB3	1.89	0.55
1:F:38:LEU:O	1:F:39:PHE:CB	2.54	0.55
1:H:278:VAL:HG23	1:H:279:LYS:N	2.21	0.55
1:I:123:ASN:ND2	1:I:261:ARG:NH2	2.46	0.55
1:K:35:ALA:HA	1:K:38:LEU:CD1	2.37	0.55
1:K:68:ASP:C	1:K:70:VAL:H	2.07	0.55
1:A:153:ASN:O	1:A:156:LYS:HB2	2.06	0.55
1:A:37:GLN:C	1:A:37:GLN:NE2	2.59	0.55
1:B:267:LYS:O	1:B:270:GLU:HB2	2.06	0.55
1:C:42:GLU:OE2	1:C:279:LYS:NZ	2.35	0.55
1:F:117:MET:CG	1:F:118:GLY:N	2.68	0.55
1:G:137:PHE:CD2	1:G:221:MET:HB2	2.42	0.55
1:H:267:LYS:O	1:H:268:ILE:C	2.43	0.55
1:I:169:LEU:HB3	1:I:186:PHE:HE1	1.71	0.55
1:I:171:LEU:CB	1:J:185:ILE:HD13	2.36	0.55
1:J:162:ARG:NH1	1:J:197:GLU:OE1	2.38	0.55
1:J:40:GLU:N	1:J:280:PHE:O	2.39	0.55
1:J:162:ARG:NH1	1:K:193:SER:HA	2.22	0.55
1:L:97:SER:CB	1:L:98:PRO:HD2	2.36	0.55
1:A:85:ASP:CG	1:A:89:GLN:HB2	2.27	0.55
1:D:20:ARG:CD	1:D:146:GLU:OE1	2.55	0.55
1:D:213:GLN:HG3	1:E:207:VAL:CG1	2.37	0.55
1:E:275:ASN:O	1:E:277:LYS:N	2.39	0.55
1:E:66:TYR:O	1:E:73:TYR:HA	2.06	0.55
1:G:151:ASN:HB3	1:G:207:VAL:HG22	1.89	0.55
1:G:271:LEU:C	1:G:272:TYR:HD2	2.10	0.55
1:H:168:GLN:HB3	1:H:188:HIS:NE2	2.21	0.55
1:J:227:GLN:O	1:J:228:THR:O	2.25	0.55
1:K:117:MET:CG	1:K:118:GLY:H	2.20	0.55
1:K:158:PRO:O	1:K:159:VAL:CG2	2.48	0.55
1:L:73:TYR:CE2	1:L:271:LEU:HD13	2.36	0.55
1:A:169:LEU:HD21	1:A:174:VAL:CG2	2.37	0.55
1:E:115:GLU:OE1	1:E:116:ASP:N	2.40	0.55
1:F:41:TRP:CA	1:F:278:VAL:HA	2.26	0.55
1:F:86:VAL:HG12	1:G:100:TYR:HB2	1.88	0.55
1:G:166:ASN:OD1	1:G:170:SER:HA	2.06	0.55
1:H:269:ASN:C	1:H:271:LEU:H	2.09	0.55
1:A:200:LYS:HE2	1:A:202:ASP:OD1	2.06	0.55
1:E:11:SER:OG	1:E:12:ILE:N	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:44:LEU:HB3	1:H:45:PRO:CD	2.28	0.55
1:J:188:HIS:CG	1:J:188:HIS:O	2.60	0.55
1:J:256:VAL:HG11	1:K:33:SER:HB2	1.89	0.55
1:J:58:HIS:O	1:J:130:THR:N	2.39	0.55
1:K:66:TYR:HE2	1:K:68:ASP:HA	1.71	0.55
1:C:265:CYS:HA	1:C:268:ILE:CD1	2.37	0.55
1:D:166:ASN:O	1:D:167:ASN:C	2.45	0.55
1:F:69:PRO:HG2	1:F:70:VAL:H	1.70	0.55
1:G:177:GLN:C	1:G:179:GLU:N	2.60	0.55
1:G:137:PHE:HE2	1:G:220:GLU:HB3	1.71	0.55
1:H:144:LEU:O	1:H:148:ILE:HG13	2.07	0.55
1:H:60:PHE:C	1:H:62:TYR:H	2.10	0.55
1:J:263:GLU:HG2	1:J:263:GLU:O	2.06	0.55
1:K:20:ARG:CD	1:K:146:GLU:OE1	2.55	0.55
1:L:274:LEU:CD2	1:L:276:VAL:H	2.14	0.55
1:L:67:LYS:O	1:L:68:ASP:HB3	2.07	0.55
1:A:144:LEU:O	1:A:148:ILE:HG13	2.06	0.55
1:A:205:TYR:CD2	1:L:209:LYS:HD3	2.42	0.55
1:D:151:ASN:O	1:D:154:ALA:HB3	2.07	0.55
1:E:61:GLY:HA2	1:E:123:ASN:HB2	1.89	0.55
1:E:20:ARG:CZ	1:E:146:GLU:OE1	2.55	0.55
1:E:250:ILE:H	1:E:250:ILE:HD12	1.72	0.55
1:F:188:HIS:C	1:F:190:ALA:H	2.10	0.55
1:G:187:ALA:O	1:G:188:HIS:HB2	2.07	0.55
1:G:209:LYS:HD3	1:H:205:TYR:CD2	2.42	0.55
1:H:91:THR:HG22	1:H:92:VAL:CG2	2.37	0.55
1:K:269:ASN:ND2	1:K:274:LEU:HA	2.21	0.55
1:L:53:LEU:HD23	1:L:63:VAL:HG11	1.88	0.55
1:F:261:ARG:HG2	1:F:261:ARG:NH1	2.22	0.54
1:F:42:GLU:O	1:F:43:ASN:HB2	2.07	0.54
1:G:262:GLU:C	1:G:264:ALA:N	2.60	0.54
1:H:109:TYR:O	1:H:113:LYS:HB2	2.07	0.54
1:J:67:LYS:HE2	1:J:117:MET:HG2	1.88	0.54
1:J:222:MET:CA	1:J:227:GLN:HG3	2.37	0.54
1:J:86:VAL:HA	1:K:99:VAL:CG1	2.36	0.54
1:K:188:HIS:HB3	1:K:191:LEU:CD2	2.37	0.54
1:K:248:GLU:OE1	1:L:226:LEU:HG	2.07	0.54
1:K:43:ASN:CB	1:K:277:LYS:HD2	2.27	0.54
1:C:119:VAL:CG1	1:C:268:ILE:HG22	2.33	0.54
1:D:169:LEU:HD12	1:D:188:HIS:HB2	1.89	0.54
1:D:43:ASN:N	1:D:277:LYS:CD	2.69	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:85:ASP:O	1:E:86:VAL:C	2.44	0.54
1:F:49:ASN:HD22	1:F:49:ASN:C	2.09	0.54
1:I:258:LEU:HD22	1:I:262:GLU:HG3	1.87	0.54
1:K:249:GLN:HA	1:K:252:SER:OG	2.06	0.54
1:A:164:ASN:ND2	1:B:191:LEU:O	2.40	0.54
1:B:226:LEU:C	1:B:227:GLN:HG2	2.27	0.54
1:C:63:VAL:HG12	1:C:121:ILE:O	2.07	0.54
1:C:193:SER:O	1:C:194:ASP:HB2	2.07	0.54
1:G:270:GLU:C	1:G:272:TYR:H	2.11	0.54
1:H:41:TRP:HZ3	1:H:265:CYS:HG	1.54	0.54
1:H:86:VAL:CA	1:I:99:VAL:HG11	2.36	0.54
1:I:110:ARG:HB3	1:J:46:PRO:HB2	1.88	0.54
1:K:189:GLU:O	1:K:191:LEU:N	2.41	0.54
1:K:71:ILE:O	1:K:72:SER:C	2.44	0.54
1:A:117:MET:CE	1:A:271:LEU:HB3	2.37	0.54
1:C:117:MET:HE1	1:C:271:LEU:HD13	1.89	0.54
1:C:177:GLN:O	1:C:178:TYR:C	2.45	0.54
1:E:171:LEU:C	1:E:173:GLN:H	2.09	0.54
1:F:205:TYR:CZ	1:F:207:VAL:HB	2.42	0.54
1:F:271:LEU:O	1:F:272:TYR:HB2	2.07	0.54
1:G:47:THR:OG1	1:G:72:SER:OG	2.25	0.54
1:H:44:LEU:CB	1:H:45:PRO:HD2	2.35	0.54
1:I:162:ARG:CD	1:I:164:ASN:HD21	2.19	0.54
1:J:209:LYS:HB3	1:K:205:TYR:CE2	2.43	0.54
1:J:108:ASN:HD21	1:J:271:LEU:CA	2.20	0.54
1:J:87:TYR:O	1:J:88:ASN:HB2	2.08	0.54
1:K:93:PHE:HE2	1:K:95:ALA:HB2	1.72	0.54
1:A:170:SER:C	1:A:171:LEU:O	2.42	0.54
1:C:107:TYR:CD1	1:C:107:TYR:C	2.79	0.54
1:D:89:GLN:NE2	1:D:107:TYR:CE2	2.76	0.54
1:F:42:GLU:O	1:F:277:LYS:HD3	2.08	0.54
1:F:49:ASN:ND2	1:F:49:ASN:C	2.61	0.54
1:G:114:GLU:HG2	1:G:115:GLU:N	2.22	0.54
1:G:123:ASN:OD1	1:G:261:ARG:NH2	2.41	0.54
1:H:13:ASN:HD22	1:J:179:GLU:CG	2.19	0.54
1:H:108:ASN:ND2	1:H:271:LEU:HD11	2.22	0.54
1:H:53:LEU:HG	1:H:65:PHE:HZ	1.63	0.54
1:H:98:PRO:C	1:H:100:TYR:N	2.61	0.54
1:K:67:LYS:CD	1:K:117:MET:HG2	2.37	0.54
1:K:201:THR:HG23	1:L:159:VAL:HG11	1.88	0.54
1:L:164:ASN:HB3	1:L:195:SER:CA	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:271:LEU:O	1:A:272:TYR:HB2	2.06	0.54
1:B:265:CYS:O	1:B:266:GLU:C	2.45	0.54
1:C:126:MET:C	1:C:128:PHE:H	2.11	0.54
1:E:153:ASN:O	1:E:156:LYS:HB2	2.06	0.54
1:E:164:ASN:O	1:E:166:ASN:N	2.34	0.54
1:F:158:PRO:O	1:F:159:VAL:HB	2.08	0.54
1:G:17:ARG:CG	1:G:20:ARG:HH21	2.10	0.54
1:I:108:ASN:ND2	1:I:271:LEU:N	2.55	0.54
1:I:121:ILE:HG12	1:I:264:ALA:HB1	1.88	0.54
1:K:65:PHE:CD1	1:K:121:ILE:HD11	2.41	0.54
1:L:39:PHE:HA	1:L:279:LYS:O	2.08	0.54
1:A:108:ASN:ND2	1:A:271:LEU:HG	2.22	0.54
1:B:31:LEU:HB3	1:B:134:LEU:HD22	1.90	0.54
1:C:170:SER:C	1:C:171:LEU:O	2.45	0.54
1:D:106:LEU:HD23	1:D:118:GLY:O	2.08	0.54
1:D:209:LYS:O	1:D:212:ALA:HB3	2.07	0.54
1:F:165:ASP:CG	1:F:195:SER:HB2	2.27	0.54
1:F:177:GLN:O	1:F:179:GLU:N	2.40	0.54
1:F:148:ILE:CG2	1:F:207:VAL:HG13	2.37	0.54
1:F:223:THR:C	1:F:225:LYS:H	2.10	0.54
1:F:44:LEU:HD23	1:F:275:ASN:ND2	2.22	0.54
1:G:177:GLN:C	1:G:179:GLU:H	2.10	0.54
1:I:124:ASN:O	1:I:126:MET:N	2.40	0.54
1:A:93:PHE:N	1:A:104:PHE:HB2	2.19	0.54
1:A:280:PHE:CB	1:A:283:ASP:HB2	2.37	0.54
1:C:117:MET:SD	1:C:271:LEU:HD13	2.48	0.54
1:C:188:HIS:O	1:C:190:ALA:N	2.38	0.54
1:C:42:GLU:N	1:C:277:LYS:NZ	2.56	0.54
1:D:152:GLN:O	1:D:155:GLN:HG2	2.08	0.54
1:F:275:ASN:HA	1:F:277:LYS:HE3	1.90	0.54
1:G:168:GLN:HB3	1:G:188:HIS:CD2	2.43	0.54
1:G:50:PRO:O	1:G:52:PHE:N	2.38	0.54
1:G:89:GLN:HG3	1:G:107:TYR:CE1	2.43	0.54
1:J:124:ASN:ND2	1:J:128:PHE:HB2	2.08	0.54
1:L:162:ARG:HH21	1:L:164:ASN:HB2	1.73	0.54
1:C:268:ILE:CD1	1:C:275:ASN:HB2	2.38	0.54
1:D:83:GLN:O	1:D:83:GLN:HG3	2.08	0.54
1:E:268:ILE:HG23	1:E:269:ASN:HD22	1.72	0.54
1:G:213:GLN:HG3	1:H:207:VAL:CG1	2.38	0.54
1:J:30:TYR:O	1:J:34:LEU:HB2	2.08	0.54
1:J:80:LEU:HB3	1:J:90:ALA:CB	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:260:SER:HA	1:K:263:GLU:CD	2.28	0.54
1:L:186:PHE:CD2	1:L:196:ILE:HD11	2.43	0.54
1:D:164:ASN:ND2	1:D:165:ASP:OD2	2.40	0.54
1:D:265:CYS:SG	1:D:275:ASN:O	2.66	0.54
1:D:60:PHE:HD1	1:D:60:PHE:O	1.91	0.54
1:D:96:ALA:O	1:D:97:SER:HB3	2.08	0.54
1:G:87:TYR:O	1:G:88:ASN:HB2	2.07	0.54
1:I:213:GLN:HG3	1:J:207:VAL:CG1	2.38	0.54
1:J:252:SER:HB2	1:K:37:GLN:OE1	2.08	0.54
1:J:62:TYR:O	1:J:63:VAL:HG12	2.07	0.54
1:K:117:MET:HB2	1:K:271:LEU:CD1	2.32	0.54
1:A:111:ASP:N	1:A:111:ASP:OD1	2.41	0.53
1:A:248:GLU:HB3	1:B:282:TYR:CD2	2.43	0.53
1:A:72:SER:OG	1:A:73:TYR:N	2.41	0.53
1:F:34:LEU:O	1:F:37:GLN:NE2	2.41	0.53
1:G:85:ASP:OD2	1:G:86:VAL:N	2.40	0.53
1:H:174:VAL:O	1:H:177:GLN:HB3	2.08	0.53
1:I:172:LYS:CA	1:I:175:TYR:HB2	2.38	0.53
1:I:123:ASN:HD22	1:I:261:ARG:HH21	1.50	0.53
1:I:278:VAL:HG12	1:I:279:LYS:H	1.69	0.53
1:C:97:SER:O	1:C:100:TYR:O	2.27	0.53
1:E:118:GLY:O	1:E:119:VAL:HG23	2.09	0.53
1:F:110:ARG:HD2	1:G:46:PRO:HG2	1.88	0.53
1:H:124:ASN:C	1:H:126:MET:N	2.59	0.53
1:H:55:LYS:HD3	1:H:59:GLN:HE22	1.74	0.53
1:I:259:LYS:HD2	1:J:281:ARG:NH2	2.23	0.53
1:I:49:ASN:HD22	1:I:52:PHE:HB2	1.73	0.53
1:L:133:THR:HG21	1:L:224:PHE:CE2	2.44	0.53
1:A:108:ASN:CG	1:A:271:LEU:HG	2.28	0.53
1:B:97:SER:OG	1:B:98:PRO:CD	2.56	0.53
1:C:137:PHE:HE2	1:C:220:GLU:HB3	1.73	0.53
1:D:119:VAL:HG21	1:D:268:ILE:HG13	1.89	0.53
1:D:47:THR:HG21	1:D:72:SER:HB3	1.90	0.53
1:H:192:ASP:O	1:H:195:SER:HB3	2.07	0.53
1:H:263:GLU:HG2	1:H:263:GLU:O	2.08	0.53
1:J:200:LYS:HE2	1:J:202:ASP:OD1	2.08	0.53
1:K:172:LYS:H	1:K:175:TYR:HD1	1.56	0.53
1:A:188:HIS:O	1:A:189:GLU:HB3	2.07	0.53
1:B:97:SER:OG	1:B:98:PRO:HD3	2.07	0.53
1:C:158:PRO:O	1:C:159:VAL:CB	2.55	0.53
1:D:213:GLN:HG3	1:E:207:VAL:HG12	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:169:LEU:CD2	1:F:170:SER:H	2.20	0.53
1:F:133:THR:HG21	1:F:224:PHE:CE2	2.43	0.53
1:G:44:LEU:CD2	1:G:277:LYS:NZ	2.72	0.53
1:G:90:ALA:C	1:G:92:VAL:H	2.12	0.53
1:H:222:MET:O	1:H:227:GLN:HG2	2.08	0.53
1:I:124:ASN:ND2	1:I:128:PHE:HB2	2.24	0.53
1:J:226:LEU:HD22	1:J:280:PHE:HE2	1.71	0.53
1:J:45:PRO:O	1:J:47:THR:N	2.41	0.53
1:L:59:GLN:O	1:L:60:PHE:O	2.25	0.53
1:A:91:THR:O	1:A:92:VAL:CB	2.55	0.53
1:B:24:PHE:O	1:B:28:LEU:HB2	2.09	0.53
1:C:93:PHE:HB2	1:C:106:LEU:HD23	1.90	0.53
1:C:85:ASP:C	1:C:87:TYR:H	2.12	0.53
1:E:147:ILE:HG23	1:F:156:LYS:HG3	1.89	0.53
1:E:37:GLN:HG2	1:E:281:ARG:CD	2.38	0.53
1:F:106:LEU:HD22	1:F:120:VAL:CG2	2.38	0.53
1:F:225:LYS:O	1:F:226:LEU:O	2.27	0.53
1:G:125:ASP:O	1:H:55:LYS:NZ	2.41	0.53
1:E:11:SER:N	1:G:181:ASN:ND2	2.51	0.53
1:H:51:SER:O	1:H:55:LYS:HB2	2.08	0.53
1:I:145:LYS:HD2	1:I:145:LYS:O	2.08	0.53
1:I:277:LYS:O	1:I:278:VAL:HG23	2.08	0.53
1:L:57:ILE:O	1:L:61:GLY:HA2	2.08	0.53
1:A:67:LYS:HA	1:A:73:TYR:HA	1.90	0.53
1:D:171:LEU:O	1:D:173:GLN:N	2.37	0.53
1:D:39:PHE:CE1	1:D:258:LEU:HD12	2.44	0.53
1:D:85:ASP:OD2	1:D:87:TYR:N	2.41	0.53
1:D:95:ALA:HB3	1:D:102:LYS:N	2.22	0.53
1:E:93:PHE:CB	1:E:104:PHE:HB2	2.32	0.53
1:E:53:LEU:HG	1:E:54:GLU:N	2.23	0.53
1:G:168:GLN:HB3	1:G:188:HIS:CE1	2.43	0.53
1:G:24:PHE:CZ	1:G:28:LEU:HD12	2.43	0.53
1:G:58:HIS:O	1:G:130:THR:N	2.42	0.53
1:I:11:SER:N	1:K:179:GLU:HB3	2.24	0.53
1:K:188:HIS:HB3	1:K:191:LEU:CG	2.39	0.53
1:L:179:GLU:HG3	1:L:181:ASN:HB2	1.90	0.53
1:A:14:GLU:HA	1:A:17:ARG:CG	2.38	0.53
1:C:93:PHE:HB3	1:C:104:PHE:CE1	2.44	0.53
1:C:24:PHE:HD1	1:C:138:ALA:O	1.91	0.53
1:C:57:ILE:HA	1:C:62:TYR:O	2.08	0.53
1:C:47:THR:CG2	1:C:72:SER:HB3	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:66:TYR:HD2	1:E:100:TYR:HH	1.57	0.53
1:E:71:ILE:O	1:E:73:TYR:N	2.41	0.53
1:H:74:ILE:CG2	1:H:75:ALA:N	2.72	0.53
1:H:82:GLY:CA	1:H:91:THR:HB	2.37	0.53
1:I:37:GLN:O	1:I:281:ARG:HD2	2.08	0.53
1:J:226:LEU:C	1:J:227:GLN:HG2	2.29	0.53
1:K:174:VAL:HG13	1:K:177:GLN:NE2	2.23	0.53
1:K:57:ILE:HG21	1:K:261:ARG:NH1	2.24	0.53
1:K:90:ALA:HB1	1:K:106:LEU:HD12	1.91	0.53
1:B:258:LEU:CD2	1:B:262:GLU:HG3	2.35	0.53
1:E:20:ARG:NE	1:E:146:GLU:OE2	2.42	0.53
1:F:104:PHE:HD2	1:F:118:GLY:HA2	1.73	0.53
1:F:110:ARG:HG2	1:F:111:ASP:CG	2.28	0.53
1:F:90:ALA:O	1:F:92:VAL:N	2.40	0.53
1:G:41:TRP:HE3	1:G:277:LYS:HZ1	1.54	0.53
1:H:66:TYR:OH	1:H:102:LYS:HG2	2.09	0.53
1:I:153:ASN:O	1:I:155:GLN:N	2.42	0.53
1:I:168:GLN:OE1	1:I:169:LEU:HG	2.08	0.53
1:I:277:LYS:O	1:I:278:VAL:CB	2.57	0.53
1:J:169:LEU:HD22	1:J:170:SER:H	1.73	0.53
1:K:108:ASN:HA	1:K:112:MET:CB	2.38	0.53
1:K:117:MET:HG3	1:K:118:GLY:H	1.71	0.53
1:C:170:SER:O	1:C:171:LEU:O	2.27	0.53
1:C:39:PHE:CZ	1:C:257:PHE:HB2	2.44	0.53
1:C:42:GLU:CD	1:C:279:LYS:HZ3	2.13	0.53
1:C:42:GLU:HG3	1:C:279:LYS:HZ3	1.72	0.53
1:D:165:ASP:C	1:D:167:ASN:N	2.61	0.53
1:D:165:ASP:OD1	1:D:195:SER:HB3	2.09	0.53
1:F:173:GLN:HA	1:F:173:GLN:OE1	2.08	0.53
1:F:226:LEU:O	1:F:227:GLN:CD	2.47	0.53
1:I:271:LEU:C	1:I:273:GLY:N	2.62	0.53
1:J:66:TYR:CE2	1:J:68:ASP:HA	2.43	0.53
1:A:49:ASN:HB3	1:A:52:PHE:HB3	1.90	0.53
1:A:66:TYR:HE2	1:A:68:ASP:HA	1.74	0.53
1:B:157:THR:HG21	1:C:178:TYR:CE2	2.43	0.53
1:C:201:THR:HG21	1:E:183:PRO:HG3	1.90	0.53
1:G:213:GLN:HG2	1:H:208:ASP:OD1	2.09	0.53
1:G:258:LEU:HD21	1:G:278:VAL:HG13	1.91	0.53
1:I:123:ASN:HD21	1:I:261:ARG:HH21	1.50	0.53
1:K:76:CYS:SG	1:K:95:ALA:HB2	2.49	0.53
1:L:107:TYR:CE2	1:L:109:TYR:CZ	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:267:LYS:HA	1:B:270:GLU:OE2	2.08	0.52
1:B:34:LEU:O	1:B:37:GLN:HB3	2.09	0.52
1:C:66:TYR:OH	1:C:102:LYS:HE2	2.09	0.52
1:C:177:GLN:HG2	1:C:179:GLU:HG3	1.92	0.52
1:C:15:ILE:O	1:C:17:ARG:N	2.42	0.52
1:E:109:TYR:CD2	1:E:112:MET:HG3	2.44	0.52
1:H:215:ASN:O	1:H:219:ASN:ND2	2.42	0.52
1:H:227:GLN:O	1:H:228:THR:C	2.48	0.52
1:K:159:VAL:HG11	1:L:183:PRO:HB3	1.89	0.52
1:L:20:ARG:HD3	1:L:146:GLU:HG3	1.91	0.52
1:A:109:TYR:CE2	1:A:111:ASP:HB2	2.43	0.52
1:B:227:GLN:O	1:B:228:THR:O	2.27	0.52
1:B:280:PHE:O	1:B:282:TYR:N	2.35	0.52
1:C:13:ASN:HA	1:C:16:GLN:CB	2.38	0.52
1:C:20:ARG:NH2	1:C:143:GLU:HG3	2.24	0.52
1:C:221:MET:O	1:C:221:MET:HE2	2.09	0.52
1:D:113:LYS:HD2	1:D:271:LEU:HD23	1.89	0.52
1:E:282:TYR:CG	1:E:283:ASP:N	2.76	0.52
1:E:84:ARG:HB3	1:E:88:ASN:CA	2.39	0.52
1:E:99:VAL:HG13	1:E:100:TYR:N	2.14	0.52
1:F:84:ARG:NH1	1:F:84:ARG:HG3	2.24	0.52
1:G:136:LEU:HG	1:H:23:TRP:CZ2	2.43	0.52
1:H:39:PHE:CZ	1:H:257:PHE:HB2	2.43	0.52
1:I:221:MET:HE2	1:I:225:LYS:HE3	1.92	0.52
1:J:125:ASP:HB3	1:K:55:LYS:CE	2.39	0.52
1:K:57:ILE:CG1	1:K:63:VAL:HG11	2.38	0.52
1:B:108:ASN:ND2	1:B:119:VAL:CG2	2.68	0.52
1:C:225:LYS:O	1:C:226:LEU:HB3	2.09	0.52
1:C:265:CYS:HA	1:C:268:ILE:HD11	1.91	0.52
1:D:261:ARG:CB	1:D:278:VAL:HG11	2.39	0.52
1:G:258:LEU:HD21	1:G:278:VAL:CG1	2.39	0.52
1:G:272:TYR:N	1:G:272:TYR:CD2	2.77	0.52
1:H:97:SER:CB	1:H:98:PRO:CD	2.78	0.52
1:I:124:ASN:HD21	1:I:128:PHE:HB2	1.74	0.52
1:I:221:MET:CE	1:I:225:LYS:HE3	2.40	0.52
1:I:226:LEU:O	1:I:227:GLN:HG2	2.09	0.52
1:J:108:ASN:OD1	1:J:271:LEU:N	2.42	0.52
1:K:85:ASP:N	1:K:85:ASP:OD2	2.42	0.52
1:L:165:ASP:O	1:L:166:ASN:HB2	2.08	0.52
1:A:125:ASP:OD2	1:A:126:MET:HE2	2.09	0.52
1:B:269:ASN:ND2	1:B:275:ASN:H	2.06	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:140:GLU:CD	1:C:145:LYS:HZ3	2.11	0.52
1:C:280:PHE:O	1:C:281:ARG:HB3	2.09	0.52
1:D:109:TYR:N	1:D:112:MET:HB2	2.25	0.52
1:D:172:LYS:H	1:D:175:TYR:HD1	1.58	0.52
1:D:85:ASP:OD1	1:D:89:GLN:HB3	2.09	0.52
1:E:222:MET:HB3	1:E:227:GLN:HB2	1.92	0.52
1:E:275:ASN:ND2	1:E:277:LYS:HE2	2.24	0.52
1:G:227:GLN:O	1:G:228:THR:C	2.47	0.52
1:G:269:ASN:ND2	1:G:269:ASN:N	2.56	0.52
1:H:124:ASN:O	1:H:126:MET:N	2.39	0.52
1:K:43:ASN:ND2	1:K:275:ASN:HA	2.23	0.52
1:L:93:PHE:CE1	1:L:120:VAL:HG22	2.45	0.52
1:B:117:MET:HG3	1:B:118:GLY:H	1.73	0.52
1:D:31:LEU:HD22	1:D:221:MET:HG2	1.92	0.52
1:D:59:GLN:O	1:D:60:PHE:CD1	2.63	0.52
1:G:44:LEU:HD21	1:G:277:LYS:NZ	2.24	0.52
1:I:266:GLU:HA	1:I:269:ASN:ND2	2.21	0.52
1:I:277:LYS:O	1:I:278:VAL:HB	2.09	0.52
1:J:41:TRP:HH2	1:J:121:ILE:HG21	1.74	0.52
1:L:110:ARG:C	1:L:112:MET:N	2.63	0.52
1:L:27:TYR:O	1:L:31:LEU:HG	2.09	0.52
1:B:145:LYS:O	1:B:145:LYS:HD2	2.09	0.52
1:B:201:THR:O	1:B:201:THR:CG2	2.57	0.52
1:C:168:GLN:CB	1:C:188:HIS:NE2	2.72	0.52
1:C:284:ILE:N	1:C:284:ILE:HD12	2.25	0.52
1:G:113:LYS:HE3	1:G:271:LEU:HG	1.92	0.52
1:G:133:THR:HG21	1:G:224:PHE:CE2	2.45	0.52
1:G:249:GLN:NE2	1:H:222:MET:HG3	2.25	0.52
1:F:126:MET:SD	1:G:33:SER:HB3	2.50	0.52
1:H:20:ARG:HD2	1:H:146:GLU:CD	2.30	0.52
1:K:247:ASP:HA	1:K:250:ILE:CG1	2.40	0.52
1:L:17:ARG:O	1:L:21:ASN:ND2	2.42	0.52
1:C:124:ASN:C	1:C:126:MET:H	2.13	0.52
1:F:108:ASN:O	1:F:109:TYR:CB	2.57	0.52
1:F:84:ARG:NH1	1:F:88:ASN:OD1	2.41	0.52
1:G:170:SER:C	1:G:171:LEU:O	2.45	0.52
1:G:255:THR:CG2	1:G:259:LYS:HB2	2.39	0.52
1:G:47:THR:HB	1:G:72:SER:O	2.08	0.52
1:H:108:ASN:O	1:H:109:TYR:CB	2.58	0.52
1:H:113:LYS:HD3	1:H:114:GLU:N	2.25	0.52
1:H:41:TRP:CE3	1:H:277:LYS:HB2	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:147:ILE:HG12	1:I:156:LYS:HD3	1.91	0.52
1:J:165:ASP:C	1:J:167:ASN:N	2.63	0.52
1:K:108:ASN:HA	1:K:112:MET:HB3	1.91	0.52
1:A:38:LEU:O	1:A:39:PHE:HB2	2.10	0.52
1:B:17:ARG:HA	1:B:20:ARG:HD3	1.92	0.52
1:D:226:LEU:O	1:D:226:LEU:HG	2.09	0.52
1:D:97:SER:C	1:D:99:VAL:N	2.63	0.52
1:E:78:GLY:HA3	1:E:95:ALA:CA	2.32	0.52
1:F:105:LYS:NZ	1:F:114:GLU:HB2	2.25	0.52
1:F:197:GLU:HG2	1:F:199:PHE:CZ	2.45	0.52
1:F:201:THR:CG2	1:F:201:THR:O	2.58	0.52
1:G:121:ILE:HD11	1:G:268:ILE:CD1	2.39	0.52
1:I:277:LYS:HG3	1:I:278:VAL:N	2.20	0.52
1:I:42:GLU:C	1:I:277:LYS:NZ	2.63	0.52
1:J:63:VAL:CG1	1:J:63:VAL:O	2.56	0.52
1:L:117:MET:CG	1:L:271:LEU:HD21	2.35	0.52
1:B:107:TYR:CE2	1:B:109:TYR:HB2	2.45	0.52
1:B:188:HIS:O	1:B:189:GLU:CB	2.56	0.52
1:C:44:LEU:HA	1:C:275:ASN:OD1	2.10	0.52
1:D:223:THR:HG23	1:D:250:ILE:HG13	1.92	0.52
1:G:143:GLU:OE2	1:H:153:ASN:ND2	2.37	0.52
1:H:67:LYS:N	1:H:117:MET:SD	2.81	0.52
1:H:248:GLU:HB2	1:I:282:TYR:CZ	2.44	0.52
1:H:73:TYR:C	1:H:74:ILE:HD12	2.30	0.52
1:I:146:GLU:O	1:I:149:SER:HB3	2.10	0.52
1:I:283:ASP:C	1:I:285:VAL:N	2.63	0.52
1:J:78:GLY:HA3	1:J:94:ARG:O	2.09	0.52
1:A:27:TYR:O	1:A:31:LEU:HG	2.09	0.52
1:C:110:ARG:C	1:C:112:MET:N	2.60	0.52
1:C:268:ILE:O	1:C:271:LEU:HD23	2.10	0.52
1:E:60:PHE:O	1:E:60:PHE:CD1	2.62	0.52
1:E:60:PHE:O	1:E:62:TYR:N	2.43	0.52
1:J:66:TYR:HB2	1:J:104:PHE:HZ	1.63	0.52
1:K:67:LYS:HE2	1:K:117:MET:N	2.25	0.52
1:K:76:CYS:HG	1:K:93:PHE:HE2	1.57	0.52
1:L:41:TRP:HB3	1:L:277:LYS:HE3	1.91	0.52
1:A:110:ARG:CG	1:A:111:ASP:H	2.22	0.51
1:A:201:THR:HG22	1:A:201:THR:O	2.10	0.51
1:C:284:ILE:HG22	1:C:284:ILE:O	2.10	0.51
1:B:87:TYR:HB3	1:C:49:ASN:ND2	2.25	0.51
1:D:140:GLU:HB3	1:D:217:VAL:HG11	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:73:TYR:OH	1:E:273:GLY:HA2	2.10	0.51
1:G:19:LYS:HG3	1:G:22:ARG:NH1	2.20	0.51
1:G:44:LEU:HA	1:G:275:ASN:HD21	1.76	0.51
1:H:123:ASN:O	1:H:257:PHE:HA	2.09	0.51
1:H:68:ASP:HB3	1:H:74:ILE:CD1	2.40	0.51
1:I:12:ILE:N	1:I:12:ILE:HD12	2.24	0.51
1:I:258:LEU:HD21	1:I:278:VAL:CG1	2.34	0.51
1:I:248:GLU:HG2	1:J:282:TYR:CG	2.45	0.51
1:K:119:VAL:CG1	1:K:120:VAL:H	2.23	0.51
1:L:101:GLN:O	1:L:101:GLN:CD	2.48	0.51
1:L:275:ASN:OD1	1:L:277:LYS:HD3	2.09	0.51
1:A:226:LEU:O	1:A:227:GLN:CG	2.59	0.51
1:A:259:LYS:O	1:A:263:GLU:HB3	2.09	0.51
1:A:85:ASP:OD2	1:A:89:GLN:HG3	2.11	0.51
1:B:203:ALA:O	1:B:204:PRO:C	2.49	0.51
1:B:258:LEU:HD13	1:B:262:GLU:OE1	2.09	0.51
1:B:260:SER:HA	1:B:263:GLU:OE2	2.11	0.51
1:A:259:LYS:HD2	1:B:281:ARG:NH1	2.25	0.51
1:A:109:TYR:HE1	1:B:46:PRO:O	1.93	0.51
1:B:45:PRO:HG2	1:B:48:ILE:CD1	2.40	0.51
1:B:63:VAL:O	1:B:63:VAL:CG1	2.57	0.51
1:C:44:LEU:C	1:C:44:LEU:HD12	2.31	0.51
1:D:151:ASN:HB3	1:D:207:VAL:HG22	1.92	0.51
1:E:38:LEU:HD11	1:E:225:LYS:NZ	2.25	0.51
1:I:226:LEU:O	1:I:227:GLN:CG	2.58	0.51
1:I:249:GLN:O	1:I:253:SER:OG	2.26	0.51
1:K:42:GLU:O	1:K:43:ASN:CB	2.57	0.51
1:A:276:VAL:HG13	1:A:277:LYS:N	2.24	0.51
1:A:31:LEU:HD21	1:A:218:TRP:CZ3	2.45	0.51
1:F:57:ILE:HG22	1:F:123:ASN:HD22	1.75	0.51
1:D:11:SER:OG	1:F:181:ASN:ND2	2.37	0.51
1:F:51:SER:OG	1:F:55:LYS:HE2	2.10	0.51
1:G:104:PHE:HE1	1:G:106:LEU:HD21	1.75	0.51
1:G:19:LYS:CG	1:G:22:ARG:HH12	2.20	0.51
1:G:85:ASP:C	1:G:85:ASP:OD2	2.48	0.51
1:H:137:PHE:CD2	1:H:221:MET:HB2	2.45	0.51
1:J:68:ASP:HB2	1:J:100:TYR:OH	2.10	0.51
1:J:147:ILE:HD11	1:K:153:ASN:ND2	2.26	0.51
1:J:54:GLU:OE2	1:J:261:ARG:NH1	2.44	0.51
1:J:38:LEU:HD11	1:J:225:LYS:HD2	1.92	0.51
1:L:13:ASN:O	1:L:14:GLU:C	2.49	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:247:ASP:O	1:A:248:GLU:O	2.29	0.51
1:A:261:ARG:O	1:A:265:CYS:HB2	2.11	0.51
1:B:87:TYR:HB3	1:C:49:ASN:HD22	1.74	0.51
1:D:62:TYR:HA	1:D:122:TYR:HA	1.92	0.51
1:D:38:LEU:HD12	1:D:39:PHE:CE2	2.44	0.51
1:D:61:GLY:O	1:D:62:TYR:CG	2.64	0.51
1:D:86:VAL:HG12	1:D:87:TYR:CE1	2.45	0.51
1:D:85:ASP:CB	1:D:89:GLN:HB3	2.40	0.51
1:F:200:LYS:HE2	1:F:202:ASP:OD1	2.10	0.51
1:F:221:MET:HE2	1:F:225:LYS:HE2	1.92	0.51
1:H:273:GLY:O	1:H:274:LEU:HD13	2.09	0.51
1:J:41:TRP:HE3	1:J:277:LYS:CE	2.21	0.51
1:K:109:TYR:N	1:K:112:MET:CB	2.58	0.51
1:A:35:ALA:O	1:A:38:LEU:HG	2.11	0.51
1:A:59:GLN:O	1:A:60:PHE:HB2	2.11	0.51
1:B:80:LEU:HD11	1:B:122:TYR:HE2	1.74	0.51
1:C:49:ASN:ND2	1:C:52:PHE:HB2	2.26	0.51
1:D:248:GLU:HB3	1:E:282:TYR:CE2	2.45	0.51
1:E:84:ARG:HB3	1:E:88:ASN:HA	1.92	0.51
1:E:78:GLY:H	1:E:93:PHE:HE2	1.59	0.51
1:G:171:LEU:CD2	1:G:175:TYR:HE1	2.23	0.51
1:H:21:ASN:O	1:H:25:ILE:HG13	2.10	0.51
1:G:136:LEU:HD13	1:H:22:ARG:HD2	1.91	0.51
1:H:68:ASP:O	1:H:71:ILE:O	2.28	0.51
1:I:193:SER:O	1:I:194:ASP:HB2	2.10	0.51
1:K:171:LEU:O	1:K:172:LYS:CB	2.59	0.51
1:L:23:TRP:CE2	1:L:145:LYS:HE3	2.46	0.51
1:A:172:LYS:HE3	1:B:179:GLU:OE2	2.11	0.51
1:A:39:PHE:HZ	1:A:257:PHE:HB2	1.76	0.51
1:B:164:ASN:O	1:C:189:GLU:HA	2.11	0.51
1:B:57:ILE:HG12	1:B:63:VAL:CG1	2.41	0.51
1:C:123:ASN:HD22	1:C:261:ARG:HH22	1.57	0.51
1:D:175:TYR:C	1:D:177:GLN:H	2.14	0.51
1:D:40:GLU:N	1:D:278:VAL:O	2.44	0.51
1:D:43:ASN:O	1:D:44:LEU:CB	2.55	0.51
1:H:179:GLU:HG3	1:H:180:GLY:N	2.26	0.51
1:L:158:PRO:O	1:L:159:VAL:CB	2.59	0.51
1:A:159:VAL:CG2	1:L:202:ASP:O	2.58	0.51
1:B:108:ASN:HD21	1:B:119:VAL:CG1	2.18	0.51
1:B:20:ARG:HG2	1:B:146:GLU:OE2	2.11	0.51
1:B:42:GLU:OE2	1:B:277:LYS:HG3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:42:GLU:O	1:C:43:ASN:HB2	2.10	0.51
1:D:192:ASP:O	1:D:194:ASP:N	2.43	0.51
1:E:164:ASN:ND2	1:E:165:ASP:OD2	2.44	0.51
1:E:41:TRP:HB3	1:E:277:LYS:NZ	2.26	0.51
1:E:53:LEU:O	1:E:57:ILE:N	2.38	0.51
1:F:110:ARG:O	1:F:111:ASP:C	2.49	0.51
1:F:57:ILE:O	1:F:61:GLY:HA2	2.11	0.51
1:F:74:ILE:HG21	1:F:100:TYR:HE2	1.73	0.51
1:G:151:ASN:O	1:G:152:GLN:C	2.49	0.51
1:H:167:ASN:OD1	1:H:168:GLN:N	2.44	0.51
1:H:123:ASN:ND2	1:H:257:PHE:HD2	2.08	0.51
1:I:28:LEU:O	1:I:32:GLN:HG3	2.10	0.51
1:K:157:THR:HG21	1:L:178:TYR:HE2	1.76	0.51
1:K:43:ASN:N	1:K:277:LYS:NZ	2.59	0.51
1:L:124:ASN:C	1:L:126:MET:H	2.13	0.51
1:L:174:VAL:O	1:L:177:GLN:HB3	2.11	0.51
1:A:14:GLU:CA	1:A:17:ARG:HG3	2.38	0.51
1:A:275:ASN:O	1:A:277:LYS:HE2	2.11	0.51
1:C:281:ARG:HG3	1:C:281:ARG:O	2.11	0.51
1:D:86:VAL:HG12	1:D:87:TYR:CD1	2.46	0.51
1:E:210:LEU:O	1:E:213:GLN:HB2	2.11	0.51
1:E:37:GLN:HG2	1:E:281:ARG:HD3	1.91	0.51
1:F:226:LEU:O	1:F:227:GLN:NE2	2.44	0.51
1:F:42:GLU:OE2	1:F:279:LYS:NZ	2.42	0.51
1:F:67:LYS:H	1:F:117:MET:CE	2.24	0.51
1:G:171:LEU:HB2	1:H:185:ILE:HD13	1.93	0.51
1:I:175:TYR:O	1:I:178:TYR:CG	2.64	0.51
1:J:271:LEU:O	1:J:272:TYR:CB	2.59	0.51
1:K:108:ASN:HA	1:K:112:MET:SD	2.51	0.51
1:K:257:PHE:HB3	1:K:261:ARG:HH21	1.76	0.51
1:K:35:ALA:O	1:K:38:LEU:HD12	2.11	0.51
1:A:276:VAL:O	1:A:277:LYS:CG	2.59	0.51
1:B:39:PHE:HZ	1:B:257:PHE:HB3	1.76	0.51
1:B:89:GLN:CD	1:B:91:THR:H	2.11	0.51
1:C:125:ASP:O	1:C:126:MET:SD	2.69	0.51
1:C:188:HIS:CG	1:C:188:HIS:O	2.63	0.51
1:C:265:CYS:O	1:C:268:ILE:HG12	2.11	0.51
1:C:35:ALA:O	1:C:38:LEU:HG	2.11	0.51
1:D:167:ASN:OD1	1:D:168:GLN:N	2.44	0.51
1:D:226:LEU:O	1:D:227:GLN:OE1	2.29	0.51
1:G:274:LEU:O	1:G:275:ASN:CB	2.58	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:39:PHE:HZ	1:H:257:PHE:HB2	1.75	0.51
1:I:124:ASN:HD21	1:I:128:PHE:N	2.00	0.51
1:I:62:TYR:CE2	1:I:80:LEU:HG	2.46	0.51
1:A:40:GLU:HB2	1:A:281:ARG:HB2	1.91	0.51
1:B:226:LEU:HD12	1:B:227:GLN:N	2.26	0.51
1:B:67:LYS:HG2	1:B:67:LYS:O	2.11	0.51
1:F:48:ILE:O	1:F:50:PRO:HD3	2.11	0.51
1:G:175:TYR:C	1:G:177:GLN:N	2.64	0.51
1:G:226:LEU:O	1:G:227:GLN:HG2	2.11	0.51
1:G:28:LEU:HD23	1:G:28:LEU:O	2.11	0.51
1:G:60:PHE:O	1:G:62:TYR:N	2.44	0.51
1:I:218:TRP:O	1:I:221:MET:HB3	2.11	0.51
1:J:158:PRO:O	1:J:159:VAL:CB	2.55	0.51
1:K:123:ASN:OD1	1:K:261:ARG:NH2	2.44	0.51
1:K:203:ALA:HB1	1:L:158:PRO:HG3	1.93	0.51
1:L:168:GLN:HB3	1:L:188:HIS:CE1	2.46	0.51
1:A:124:ASN:C	1:A:126:MET:H	2.13	0.50
1:B:160:LEU:HD23	1:C:184:VAL:HB	1.92	0.50
1:B:275:ASN:C	1:B:277:LYS:HD3	2.32	0.50
1:C:215:ASN:O	1:C:219:ASN:ND2	2.44	0.50
1:E:177:GLN:HB3	1:E:179:GLU:HG2	1.93	0.50
1:D:178:TYR:OH	1:E:182:ALA:HB2	2.11	0.50
1:E:45:PRO:C	1:E:47:THR:H	2.13	0.50
1:F:248:GLU:HG3	1:G:282:TYR:CG	2.45	0.50
1:H:249:GLN:HA	1:H:252:SER:OG	2.11	0.50
1:H:283:ASP:C	1:H:285:VAL:H	2.13	0.50
1:J:143:GLU:O	1:J:147:ILE:HG13	2.11	0.50
1:K:140:GLU:OE2	1:L:145:LYS:HE2	2.11	0.50
1:K:262:GLU:CG	1:K:263:GLU:N	2.74	0.50
1:L:82:GLY:O	1:L:83:GLN:O	2.28	0.50
1:A:68:ASP:OD1	1:A:70:VAL:N	2.43	0.50
1:B:54:GLU:HA	1:B:54:GLU:OE1	2.10	0.50
1:C:175:TYR:O	1:C:178:TYR:CD2	2.64	0.50
1:E:41:TRP:HB3	1:E:277:LYS:HZ2	1.76	0.50
1:F:164:ASN:C	1:F:165:ASP:OD2	2.50	0.50
1:F:45:PRO:O	1:F:47:THR:N	2.41	0.50
1:H:74:ILE:CG2	1:H:75:ALA:H	2.24	0.50
1:I:283:ASP:C	1:I:285:VAL:H	2.12	0.50
1:J:177:GLN:C	1:J:179:GLU:N	2.64	0.50
1:K:226:LEU:O	1:K:227:GLN:CG	2.59	0.50
1:B:172:LYS:O	1:B:176:ASN:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:123:ASN:HD22	1:C:261:ARG:NH2	2.08	0.50
1:E:268:ILE:HG23	1:E:269:ASN:ND2	2.25	0.50
1:E:248:GLU:OE2	1:F:226:LEU:HG	2.11	0.50
1:G:186:PHE:CD2	1:G:196:ILE:HD11	2.46	0.50
1:H:179:GLU:HG3	1:H:181:ASN:H	1.77	0.50
1:H:272:TYR:N	1:H:272:TYR:CD2	2.77	0.50
1:J:107:TYR:HB3	1:J:119:VAL:HG13	1.92	0.50
1:J:11:SER:O	1:J:12:ILE:C	2.50	0.50
1:J:275:ASN:OD1	1:J:277:LYS:HE3	2.11	0.50
1:B:168:GLN:CD	1:B:169:LEU:N	2.64	0.50
1:B:177:GLN:O	1:B:178:TYR:C	2.50	0.50
1:B:67:LYS:HA	1:B:73:TYR:HA	1.94	0.50
1:C:203:ALA:O	1:C:204:PRO:C	2.48	0.50
1:B:126:MET:SD	1:C:55:LYS:HE2	2.52	0.50
1:D:99:VAL:O	1:D:100:TYR:HB3	2.11	0.50
1:D:93:PHE:HB2	1:D:106:LEU:HD11	1.94	0.50
1:D:151:ASN:O	1:D:152:GLN:C	2.47	0.50
1:E:203:ALA:O	1:E:204:PRO:C	2.50	0.50
1:H:18:GLN:HA	1:H:21:ASN:HD22	1.75	0.50
1:J:92:VAL:HG12	1:J:93:PHE:N	2.26	0.50
1:K:89:GLN:NE2	1:K:107:TYR:HB3	2.26	0.50
1:A:83:GLN:OE1	1:A:84:ARG:O	2.29	0.50
1:C:168:GLN:OE1	1:C:169:LEU:HG	2.10	0.50
1:C:85:ASP:OD2	1:C:85:ASP:N	2.39	0.50
1:D:120:VAL:O	1:D:121:ILE:C	2.49	0.50
1:D:19:LYS:O	1:D:22:ARG:N	2.45	0.50
1:D:258:LEU:CD2	1:D:262:GLU:HG2	2.41	0.50
1:E:96:ALA:O	1:E:97:SER:CB	2.60	0.50
1:G:108:ASN:OD1	1:G:271:LEU:HD12	2.12	0.50
1:G:278:VAL:O	1:G:279:LYS:O	2.30	0.50
1:H:278:VAL:CG2	1:H:279:LYS:H	2.20	0.50
1:J:108:ASN:O	1:J:112:MET:O	2.29	0.50
1:K:161:ILE:HG12	1:K:198:VAL:HG22	1.93	0.50
1:L:21:ASN:O	1:L:25:ILE:HG13	2.11	0.50
1:A:124:ASN:ND2	1:A:128:PHE:H	2.10	0.50
1:A:108:ASN:OD1	1:A:271:LEU:HD21	2.12	0.50
1:C:137:PHE:C	1:C:139:ALA:H	2.15	0.50
1:C:27:TYR:O	1:C:31:LEU:HG	2.11	0.50
1:I:53:LEU:HD23	1:I:53:LEU:O	2.12	0.50
1:I:71:ILE:O	1:I:72:SER:HB3	2.11	0.50
1:J:146:GLU:O	1:J:150:VAL:HG23	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:110:ARG:O	1:L:111:ASP:OD1	2.28	0.50
1:L:168:GLN:OE1	1:L:169:LEU:HG	2.11	0.50
1:B:106:LEU:HD23	1:B:118:GLY:O	2.12	0.50
1:B:172:LYS:O	1:B:176:ASN:HB2	2.11	0.50
1:B:17:ARG:HG3	1:B:17:ARG:HH11	1.77	0.50
1:C:47:THR:HB	1:C:73:TYR:HB2	1.94	0.50
1:D:62:TYR:C	1:D:62:TYR:CD2	2.85	0.50
1:E:99:VAL:HG22	1:E:100:TYR:N	2.27	0.50
1:H:98:PRO:O	1:H:100:TYR:N	2.44	0.50
1:H:174:VAL:O	1:H:177:GLN:CB	2.60	0.50
1:H:171:LEU:HB3	1:I:185:ILE:HD13	1.94	0.50
1:I:262:GLU:CG	1:I:278:VAL:HG22	2.37	0.50
1:J:271:LEU:O	1:J:272:TYR:CD2	2.64	0.50
1:J:49:ASN:ND2	1:J:51:SER:OG	2.45	0.50
1:J:125:ASP:O	1:K:55:LYS:NZ	2.42	0.50
1:L:98:PRO:O	1:L:100:TYR:N	2.44	0.50
1:L:119:VAL:HG11	1:L:267:LYS:HB2	1.94	0.50
1:L:162:ARG:NH1	1:L:197:GLU:OE1	2.44	0.50
1:C:152:GLN:O	1:C:155:GLN:HG2	2.11	0.50
1:C:268:ILE:HD12	1:C:275:ASN:HB2	1.94	0.50
1:D:283:ASP:CB	1:D:284:ILE:HD12	2.42	0.50
1:F:98:PRO:O	1:F:100:TYR:N	2.44	0.50
1:F:107:TYR:CD2	1:F:107:TYR:O	2.65	0.50
1:J:171:LEU:O	1:J:172:LYS:HB3	2.11	0.50
1:J:37:GLN:O	1:J:281:ARG:HG3	2.11	0.50
1:K:101:GLN:O	1:K:102:LYS:HB2	2.12	0.50
1:B:71:ILE:O	1:B:72:SER:HB3	2.12	0.50
1:C:53:LEU:HD12	1:C:63:VAL:CG2	2.37	0.50
1:D:16:GLN:HE22	1:D:20:ARG:HH21	1.58	0.50
1:E:125:ASP:O	1:E:126:MET:CB	2.59	0.50
1:F:42:GLU:HB3	1:F:277:LYS:CD	2.41	0.50
1:F:70:VAL:HB	1:F:71:ILE:HD12	1.94	0.50
1:G:209:LYS:O	1:G:212:ALA:HB3	2.11	0.50
1:H:162:ARG:NH1	1:H:197:GLU:OE1	2.45	0.50
1:H:284:ILE:N	1:H:284:ILE:HD12	2.27	0.50
1:H:53:LEU:HD23	1:H:63:VAL:HG21	1.94	0.50
1:I:164:ASN:N	1:I:164:ASN:ND2	2.59	0.50
1:J:255:THR:O	1:J:259:LYS:HB3	2.11	0.50
1:K:84:ARG:HB3	1:K:84:ARG:HH11	1.76	0.50
1:A:42:GLU:O	1:A:43:ASN:HB2	2.12	0.49
1:C:164:ASN:CB	1:C:195:SER:HA	2.29	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:21:ASN:O	1:D:24:PHE:HB3	2.12	0.49
1:F:43:ASN:O	1:F:44:LEU:HB2	2.12	0.49
1:F:96:ALA:O	1:F:97:SER:HB3	2.12	0.49
1:G:16:GLN:NE2	1:G:16:GLN:HA	2.27	0.49
1:I:57:ILE:O	1:I:61:GLY:HA2	2.12	0.49
1:I:84:ARG:CD	1:I:90:ALA:HA	2.42	0.49
1:J:45:PRO:HG2	1:J:48:ILE:CD1	2.40	0.49
1:A:66:TYR:CE2	1:A:68:ASP:HA	2.46	0.49
1:B:87:TYR:CB	1:C:49:ASN:HD22	2.25	0.49
1:E:169:LEU:HB3	1:E:186:PHE:HE1	1.76	0.49
1:E:54:GLU:O	1:E:57:ILE:HB	2.12	0.49
1:E:11:SER:OG	1:G:181:ASN:ND2	2.45	0.49
1:G:171:LEU:CB	1:H:185:ILE:HD13	2.42	0.49
1:H:205:TYR:CZ	1:H:207:VAL:HB	2.46	0.49
1:J:62:TYR:HE2	1:J:79:ALA:HA	1.78	0.49
1:B:39:PHE:CE2	1:B:257:PHE:HB3	2.48	0.49
1:B:121:ILE:HG23	1:B:264:ALA:CB	2.43	0.49
1:B:57:ILE:O	1:B:61:GLY:HA2	2.13	0.49
1:D:222:MET:HA	1:D:227:GLN:HG3	1.94	0.49
1:E:280:PHE:C	1:E:282:TYR:H	2.15	0.49
1:F:63:VAL:CG1	1:F:63:VAL:O	2.60	0.49
1:G:41:TRP:CE3	1:G:277:LYS:HB2	2.48	0.49
1:J:104:PHE:CE2	1:J:118:GLY:CA	2.95	0.49
1:K:223:THR:O	1:K:223:THR:HG22	2.11	0.49
1:L:191:LEU:HD22	1:L:195:SER:OG	2.12	0.49
1:L:57:ILE:HA	1:L:61:GLY:O	2.13	0.49
1:A:109:TYR:HB2	1:A:270:GLU:OE1	2.11	0.49
1:A:173:GLN:OE1	1:A:173:GLN:HA	2.11	0.49
1:B:108:ASN:N	1:B:108:ASN:OD1	2.46	0.49
1:C:50:PRO:O	1:C:51:SER:CB	2.61	0.49
1:D:269:ASN:HA	1:D:274:LEU:O	2.12	0.49
1:F:105:LYS:HB2	1:F:117:MET:O	2.12	0.49
1:G:137:PHE:HZ	1:G:220:GLU:OE2	1.95	0.49
1:H:134:LEU:O	1:H:138:ALA:N	2.38	0.49
1:H:282:TYR:CD2	1:H:283:ASP:N	2.80	0.49
1:I:282:TYR:O	1:I:283:ASP:HB2	2.13	0.49
1:J:269:ASN:HD22	1:J:269:ASN:N	2.10	0.49
1:J:90:ALA:C	1:J:92:VAL:H	2.12	0.49
1:L:110:ARG:O	1:L:112:MET:N	2.45	0.49
1:A:179:GLU:OE2	1:L:172:LYS:HE2	2.12	0.49
1:A:93:PHE:HD2	1:A:104:PHE:CE1	2.31	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:199:PHE:CE2	1:B:196:ILE:HG22	2.48	0.49
1:A:259:LYS:HD2	1:B:281:ARG:HH12	1.78	0.49
1:D:119:VAL:HG12	1:D:120:VAL:N	2.27	0.49
1:D:63:VAL:O	1:D:120:VAL:O	2.31	0.49
1:E:38:LEU:HD11	1:E:225:LYS:HE2	1.94	0.49
1:G:283:ASP:C	1:G:285:VAL:N	2.66	0.49
1:H:66:TYR:CE2	1:H:100:TYR:OH	2.63	0.49
1:I:151:ASN:O	1:I:155:GLN:HG2	2.12	0.49
1:I:227:GLN:O	1:I:228:THR:O	2.30	0.49
1:J:41:TRP:CE3	1:J:277:LYS:HB2	2.48	0.49
1:L:188:HIS:O	1:L:189:GLU:HB3	2.13	0.49
1:A:108:ASN:HB2	1:A:119:VAL:CG2	2.43	0.49
1:B:157:THR:HG21	1:C:178:TYR:HE2	1.78	0.49
1:B:269:ASN:HD21	1:B:275:ASN:CB	2.25	0.49
1:C:188:HIS:C	1:C:190:ALA:H	2.16	0.49
1:F:158:PRO:O	1:F:159:VAL:CB	2.58	0.49
1:I:158:PRO:O	1:I:159:VAL:CB	2.58	0.49
1:K:282:TYR:O	1:K:283:ASP:C	2.50	0.49
1:L:154:ALA:C	1:L:156:LYS:H	2.15	0.49
1:B:93:PHE:HD2	1:B:104:PHE:CZ	2.30	0.49
1:B:95:ALA:O	1:B:101:GLN:HA	2.13	0.49
1:C:15:ILE:O	1:C:18:GLN:N	2.45	0.49
1:F:56:SER:O	1:F:59:GLN:O	2.31	0.49
1:F:65:PHE:CD2	1:F:268:ILE:HD12	2.47	0.49
1:G:249:GLN:O	1:G:250:ILE:C	2.49	0.49
1:I:274:LEU:O	1:I:275:ASN:OD1	2.30	0.49
1:J:12:ILE:HG22	1:J:16:GLN:HB2	1.95	0.49
1:J:63:VAL:O	1:J:63:VAL:HG13	2.12	0.49
1:K:85:ASP:OD1	1:K:107:TYR:CE1	2.65	0.49
1:K:85:ASP:C	1:K:87:TYR:N	2.66	0.49
1:A:90:ALA:O	1:A:91:THR:C	2.50	0.49
1:B:158:PRO:O	1:B:158:PRO:CG	2.61	0.49
1:B:41:TRP:C	1:B:277:LYS:NZ	2.63	0.49
1:C:218:TRP:O	1:C:222:MET:HG2	2.12	0.49
1:C:262:GLU:O	1:C:265:CYS:HB2	2.13	0.49
1:D:25:ILE:HG22	1:D:29:ASN:ND2	2.28	0.49
1:H:23:TRP:CE2	1:H:145:LYS:HD3	2.48	0.49
1:H:94:ARG:HA	1:H:103:GLU:HG2	1.94	0.49
1:I:269:ASN:HD21	1:I:276:VAL:HA	1.78	0.49
1:I:94:ARG:HA	1:I:103:GLU:HA	1.93	0.49
1:K:269:ASN:CG	1:K:275:ASN:H	2.16	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:65:PHE:N	1:A:119:VAL:O	2.29	0.49
1:A:168:GLN:C	1:A:168:GLN:HE21	2.15	0.49
1:E:130:THR:C	1:E:132:PRO:HD2	2.33	0.49
1:E:273:GLY:O	1:E:274:LEU:HB2	2.13	0.49
1:G:172:LYS:HE2	1:H:179:GLU:CD	2.32	0.49
1:G:50:PRO:O	1:G:51:SER:CB	2.59	0.49
1:G:81:SER:HB3	1:G:94:ARG:CZ	2.42	0.49
1:H:38:LEU:O	1:H:39:PHE:HB2	2.12	0.49
1:I:20:ARG:CD	1:I:146:GLU:HG3	2.43	0.49
1:I:62:TYR:HE2	1:I:79:ALA:CA	2.24	0.49
1:J:215:ASN:O	1:J:219:ASN:ND2	2.42	0.49
1:B:179:GLU:HA	1:L:13:ASN:ND2	2.27	0.49
1:L:170:SER:C	1:L:171:LEU:O	2.48	0.49
1:L:201:THR:CG2	1:L:201:THR:O	2.53	0.49
1:A:142:ALA:O	1:A:146:GLU:HB2	2.13	0.49
1:A:175:TYR:O	1:A:178:TYR:CG	2.66	0.49
1:B:131:THR:N	1:B:132:PRO:HD2	2.28	0.49
1:C:41:TRP:O	1:C:277:LYS:CB	2.58	0.49
1:C:201:THR:CG2	1:D:161:ILE:HD11	2.42	0.49
1:E:174:VAL:HG21	1:E:186:PHE:HD1	1.78	0.49
1:E:81:SER:CA	1:E:84:ARG:HH12	2.26	0.49
1:F:182:ALA:HB1	1:F:183:PRO:HD2	1.94	0.49
1:F:71:ILE:CD1	1:F:71:ILE:N	2.76	0.49
1:G:261:ARG:O	1:G:265:CYS:HB2	2.13	0.49
1:H:267:LYS:O	1:H:270:GLU:N	2.46	0.49
1:J:87:TYR:HA	1:K:52:PHE:CE1	2.48	0.49
1:L:170:SER:OG	1:L:173:GLN:HB2	2.12	0.49
1:L:69:PRO:C	1:L:70:VAL:HG22	2.32	0.49
1:A:108:ASN:HD21	1:A:117:MET:CB	2.05	0.48
1:A:226:LEU:HD12	1:A:251:ASP:HA	1.94	0.48
1:A:96:ALA:O	1:A:97:SER:CB	2.61	0.48
1:C:123:ASN:HD21	1:C:261:ARG:HH22	1.60	0.48
1:C:43:ASN:CA	1:C:277:LYS:HZ3	2.25	0.48
1:C:164:ASN:O	1:D:189:GLU:HA	2.13	0.48
1:D:22:ARG:NH1	1:D:22:ARG:HB2	2.28	0.48
1:D:260:SER:O	1:D:261:ARG:C	2.52	0.48
1:D:274:LEU:CD1	1:D:275:ASN:N	2.76	0.48
1:E:182:ALA:HB1	1:E:183:PRO:CD	2.38	0.48
1:E:261:ARG:NH1	1:E:261:ARG:CG	2.65	0.48
1:H:125:ASP:O	1:I:55:LYS:NZ	2.41	0.48
1:H:188:HIS:O	1:H:189:GLU:HG2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:226:LEU:HB2	1:H:254:GLY:HA3	1.95	0.48
1:J:123:ASN:ND2	1:J:261:ARG:NH2	2.60	0.48
1:K:166:ASN:O	1:K:169:LEU:O	2.31	0.48
1:L:110:ARG:O	1:L:111:ASP:CG	2.50	0.48
1:L:11:SER:C	1:L:12:ILE:HG13	2.33	0.48
1:L:255:THR:CG2	1:L:259:LYS:HG3	2.42	0.48
1:A:41:TRP:HE3	1:A:277:LYS:CB	2.26	0.48
1:B:168:GLN:HE22	1:B:169:LEU:CD2	2.26	0.48
1:B:87:TYR:O	1:B:88:ASN:CB	2.51	0.48
1:C:276:VAL:O	1:C:277:LYS:HG3	2.13	0.48
1:D:81:SER:C	1:D:90:ALA:HB1	2.33	0.48
1:E:13:ASN:HA	1:E:16:GLN:HB3	1.95	0.48
1:E:258:LEU:HD23	1:E:258:LEU:O	2.13	0.48
1:F:170:SER:C	1:F:171:LEU:O	2.48	0.48
1:G:11:SER:O	1:G:12:ILE:C	2.51	0.48
1:H:126:MET:HG2	1:H:128:PHE:CE2	2.48	0.48
1:H:126:MET:C	1:H:128:PHE:H	2.16	0.48
1:H:269:ASN:O	1:H:273:GLY:N	2.46	0.48
1:I:175:TYR:O	1:I:178:TYR:CD1	2.66	0.48
1:I:225:LYS:HG2	1:I:225:LYS:O	2.13	0.48
1:I:92:VAL:HG12	1:I:93:PHE:N	2.28	0.48
1:J:105:LYS:CD	1:J:114:GLU:HB2	2.42	0.48
1:J:20:ARG:CZ	1:J:146:GLU:OE1	2.62	0.48
1:L:137:PHE:CZ	1:L:220:GLU:HG2	2.48	0.48
1:L:117:MET:HE1	1:L:271:LEU:HG	1.91	0.48
1:B:62:TYR:CE1	1:B:78:GLY:O	2.67	0.48
1:B:87:TYR:HD2	1:C:52:PHE:CG	2.30	0.48
1:D:40:GLU:O	1:D:278:VAL:C	2.51	0.48
1:E:268:ILE:CG2	1:E:269:ASN:N	2.76	0.48
1:E:53:LEU:CG	1:E:54:GLU:N	2.76	0.48
1:F:146:GLU:O	1:F:150:VAL:HG23	2.13	0.48
1:F:219:ASN:O	1:F:220:GLU:C	2.50	0.48
1:F:87:TYR:HB3	1:G:52:PHE:CD1	2.48	0.48
1:G:104:PHE:HD1	1:G:105:LYS:O	1.96	0.48
1:G:280:PHE:O	1:G:281:ARG:CB	2.62	0.48
1:H:168:GLN:CB	1:H:188:HIS:NE2	2.76	0.48
1:H:43:ASN:CB	1:H:275:ASN:OD1	2.61	0.48
1:I:104:PHE:HD1	1:I:118:GLY:HA3	1.78	0.48
1:J:172:LYS:HB2	1:K:185:ILE:HD12	1.94	0.48
1:J:91:THR:CA	1:J:106:LEU:HD12	2.43	0.48
1:K:108:ASN:HA	1:K:112:MET:HG2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:275:ASN:C	1:K:277:LYS:HD3	2.33	0.48
1:A:110:ARG:HG2	1:A:111:ASP:N	2.28	0.48
1:A:117:MET:HE1	1:A:271:LEU:HB3	1.94	0.48
1:A:125:ASP:OD2	1:B:55:LYS:HE2	2.13	0.48
1:A:275:ASN:CB	1:A:277:LYS:HE2	2.25	0.48
1:A:60:PHE:O	1:A:129:PRO:HG3	2.13	0.48
1:D:143:GLU:O	1:D:146:GLU:HB3	2.13	0.48
1:D:43:ASN:CB	1:D:277:LYS:HE2	2.41	0.48
1:H:260:SER:HA	1:H:263:GLU:OE1	2.14	0.48
1:H:283:ASP:O	1:H:284:ILE:HB	2.12	0.48
1:H:43:ASN:CB	1:H:277:LYS:NZ	2.75	0.48
1:K:226:LEU:HD22	1:K:280:PHE:CG	2.49	0.48
1:L:85:ASP:OD1	1:L:86:VAL:N	2.46	0.48
1:A:81:SER:O	1:A:90:ALA:O	2.30	0.48
1:B:12:ILE:HG22	1:B:13:ASN:N	2.29	0.48
1:B:48:ILE:HD13	1:B:65:PHE:CE1	2.48	0.48
1:C:66:TYR:CE2	1:C:102:LYS:HE2	2.48	0.48
1:D:44:LEU:HA	1:D:275:ASN:ND2	2.23	0.48
1:F:65:PHE:N	1:F:119:VAL:O	2.45	0.48
1:F:203:ALA:O	1:F:204:PRO:C	2.51	0.48
1:H:213:GLN:O	1:H:217:VAL:HG23	2.14	0.48
1:H:86:VAL:HA	1:I:99:VAL:HG11	1.96	0.48
1:I:117:MET:HE3	1:I:271:LEU:HD22	1.94	0.48
1:I:62:TYR:O	1:I:63:VAL:HB	2.14	0.48
1:I:87:TYR:CD1	1:J:49:ASN:HB2	2.48	0.48
1:J:111:ASP:O	1:J:112:MET:C	2.51	0.48
1:K:213:GLN:HG3	1:L:207:VAL:CG1	2.44	0.48
1:L:105:LYS:O	1:L:117:MET:O	2.32	0.48
1:L:106:LEU:O	1:L:107:TYR:CB	2.61	0.48
1:L:66:TYR:HA	1:L:117:MET:SD	2.53	0.48
1:L:42:GLU:O	1:L:277:LYS:NZ	2.27	0.48
1:A:162:ARG:NH1	1:B:193:SER:HA	2.28	0.48
1:B:93:PHE:O	1:B:103:GLU:HG3	2.13	0.48
1:C:278:VAL:O	1:C:279:LYS:O	2.32	0.48
1:C:23:TRP:O	1:C:27:TYR:HD1	1.97	0.48
1:C:282:TYR:O	1:C:283:ASP:CB	2.62	0.48
1:C:80:LEU:HB3	1:C:90:ALA:HB3	1.94	0.48
1:D:92:VAL:HG11	1:D:103:GLU:OE1	2.13	0.48
1:D:263:GLU:O	1:D:265:CYS:N	2.47	0.48
1:D:83:GLN:O	1:D:84:ARG:C	2.52	0.48
1:E:66:TYR:HD2	1:E:100:TYR:OH	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:98:PRO:C	1:E:99:VAL:HG12	2.33	0.48
1:F:109:TYR:CE1	1:G:47:THR:HA	2.49	0.48
1:F:171:LEU:HD22	1:F:175:TYR:CE1	2.48	0.48
1:F:264:ALA:O	1:F:266:GLU:N	2.46	0.48
1:F:41:TRP:CE3	1:F:278:VAL:HG13	2.48	0.48
1:G:218:TRP:O	1:G:222:MET:HG2	2.14	0.48
1:G:249:GLN:HE22	1:H:218:TRP:HE1	1.61	0.48
1:G:85:ASP:HB2	1:G:89:GLN:HB3	1.95	0.48
1:H:164:ASN:CG	1:H:164:ASN:O	2.52	0.48
1:H:60:PHE:N	1:H:60:PHE:CD1	2.82	0.48
1:I:171:LEU:HB3	1:J:185:ILE:CD1	2.41	0.48
1:I:20:ARG:CG	1:I:146:GLU:HG3	2.41	0.48
1:I:121:ILE:HG23	1:I:264:ALA:CB	2.44	0.48
1:K:125:ASP:N	1:K:125:ASP:OD1	2.46	0.48
1:K:264:ALA:O	1:K:265:CYS:C	2.51	0.48
1:A:109:TYR:CZ	1:A:111:ASP:CG	2.87	0.48
1:B:113:LYS:HD3	1:B:271:LEU:HD23	1.96	0.48
1:B:45:PRO:HG2	1:B:48:ILE:HD12	1.95	0.48
1:C:148:ILE:HG23	1:C:207:VAL:HG13	1.95	0.48
1:D:35:ALA:CB	1:D:225:LYS:HZ3	2.26	0.48
1:D:35:ALA:O	1:D:38:LEU:HG	2.13	0.48
1:E:259:LYS:O	1:E:261:ARG:N	2.47	0.48
1:E:279:LYS:C	1:E:281:ARG:N	2.67	0.48
1:F:124:ASN:OD1	1:F:128:PHE:O	2.31	0.48
1:F:119:VAL:CG1	1:F:268:ILE:HB	2.22	0.48
1:G:105:LYS:HZ2	1:G:105:LYS:H	1.60	0.48
1:G:259:LYS:O	1:G:262:GLU:HB2	2.14	0.48
1:H:158:PRO:O	1:H:159:VAL:CB	2.56	0.48
1:I:107:TYR:N	1:I:118:GLY:O	2.45	0.48
1:I:223:THR:HG23	1:I:250:ILE:CG1	2.44	0.48
1:I:225:LYS:O	1:I:226:LEU:O	2.32	0.48
1:J:63:VAL:HG12	1:J:121:ILE:O	2.13	0.48
1:J:60:PHE:O	1:J:61:GLY:C	2.52	0.48
1:K:278:VAL:CG2	1:K:279:LYS:H	1.97	0.48
1:L:38:LEU:HB2	1:L:39:PHE:CD1	2.49	0.48
1:L:49:ASN:C	1:L:49:ASN:OD1	2.51	0.48
1:A:184:VAL:HB	1:L:160:LEU:HD23	1.96	0.48
1:B:98:PRO:C	1:B:100:TYR:H	2.16	0.48
1:B:248:GLU:HG2	1:C:227:GLN:O	2.13	0.48
1:C:45:PRO:HD2	1:C:275:ASN:OD1	2.14	0.48
1:D:30:TYR:CE2	1:D:218:TRP:CH2	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:263:GLU:O	1:E:263:GLU:HG2	2.12	0.48
1:E:24:PHE:CZ	1:E:28:LEU:HD12	2.49	0.48
1:D:87:TYR:HH	1:E:48:ILE:HA	1.77	0.48
1:F:87:TYR:HA	1:G:52:PHE:CE1	2.49	0.48
1:I:108:ASN:HD21	1:I:271:LEU:CA	2.27	0.48
1:J:226:LEU:O	1:J:227:GLN:HG2	2.12	0.48
1:C:116:ASP:O	1:C:117:MET:O	2.31	0.48
1:C:169:LEU:O	1:C:170:SER:HB3	2.14	0.48
1:C:249:GLN:O	1:C:250:ILE:C	2.51	0.48
1:C:21:ASN:O	1:C:25:ILE:HG13	2.14	0.48
1:D:124:ASN:CG	1:D:125:ASP:N	2.66	0.48
1:D:262:GLU:O	1:D:265:CYS:HB3	2.13	0.48
1:D:83:GLN:HE21	1:D:83:GLN:C	2.17	0.48
1:F:105:LYS:O	1:F:118:GLY:HA3	2.14	0.48
1:G:227:GLN:O	1:G:228:THR:O	2.32	0.48
1:G:63:VAL:HG22	1:G:64:GLY:N	2.26	0.48
1:I:129:PRO:HB2	1:I:132:PRO:CD	2.44	0.48
1:H:162:ARG:HH12	1:I:193:SER:HA	1.78	0.48
1:I:252:SER:O	1:I:256:VAL:HG23	2.13	0.48
1:K:275:ASN:HB2	1:K:277:LYS:HE2	1.95	0.48
1:L:59:GLN:O	1:L:60:PHE:CD1	2.67	0.48
1:A:79:ALA:O	1:A:80:LEU:C	2.50	0.48
1:E:266:GLU:O	1:E:268:ILE:N	2.40	0.48
1:F:223:THR:O	1:F:225:LYS:N	2.47	0.48
1:F:284:ILE:CD1	1:F:284:ILE:N	2.75	0.48
1:G:117:MET:HB3	1:G:271:LEU:CD2	2.44	0.48
1:J:126:MET:HE1	1:K:55:LYS:HD3	1.96	0.48
1:K:87:TYR:OH	1:L:48:ILE:HD13	2.14	0.48
1:C:125:ASP:CG	1:C:259:LYS:HZ3	2.17	0.47
1:C:265:CYS:HA	1:C:268:ILE:CG1	2.44	0.47
1:C:98:PRO:O	1:C:99:VAL:CB	2.62	0.47
1:E:125:ASP:OD1	1:E:126:MET:HG3	2.13	0.47
1:E:85:ASP:O	1:E:87:TYR:N	2.45	0.47
1:F:66:TYR:CD2	1:F:100:TYR:OH	2.67	0.47
1:G:16:GLN:CA	1:G:16:GLN:HE21	2.27	0.47
1:G:279:LYS:CB	1:G:279:LYS:HZ2	2.26	0.47
1:H:223:THR:O	1:H:225:LYS:N	2.47	0.47
1:H:226:LEU:O	1:H:226:LEU:HD23	2.14	0.47
1:H:30:TYR:O	1:H:34:LEU:HG	2.14	0.47
1:H:66:TYR:CE1	1:H:68:ASP:HA	2.49	0.47
1:I:65:PHE:N	1:I:119:VAL:O	2.36	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:274:LEU:CD1	1:I:275:ASN:N	2.77	0.47
1:I:275:ASN:ND2	1:I:275:ASN:O	2.47	0.47
1:K:41:TRP:O	1:K:42:GLU:HB3	2.13	0.47
1:L:188:HIS:O	1:L:189:GLU:CB	2.62	0.47
1:L:265:CYS:O	1:L:266:GLU:C	2.52	0.47
1:A:146:GLU:O	1:A:150:VAL:HG23	2.14	0.47
1:B:248:GLU:HB2	1:C:282:TYR:CD2	2.49	0.47
1:C:252:SER:O	1:C:256:VAL:HG23	2.14	0.47
1:D:109:TYR:O	1:D:112:MET:N	2.47	0.47
1:D:130:THR:OG1	1:D:257:PHE:CE2	2.67	0.47
1:D:83:GLN:HE21	1:D:84:ARG:N	2.11	0.47
1:E:106:LEU:HD22	1:E:120:VAL:HG23	1.96	0.47
1:E:78:GLY:N	1:E:93:PHE:CE2	2.82	0.47
1:F:124:ASN:ND2	1:F:128:PHE:H	2.12	0.47
1:F:284:ILE:H	1:F:284:ILE:HD12	1.77	0.47
1:F:79:ALA:O	1:F:80:LEU:C	2.51	0.47
1:G:57:ILE:HG23	1:G:123:ASN:HB2	1.95	0.47
1:G:172:LYS:HE2	1:H:179:GLU:OE1	2.14	0.47
1:H:227:GLN:O	1:H:228:THR:O	2.32	0.47
1:I:68:ASP:CG	1:I:69:PRO:HD2	2.34	0.47
1:J:93:PHE:HB3	1:J:104:PHE:CG	2.48	0.47
1:J:41:TRP:HB2	1:J:44:LEU:HD12	1.96	0.47
1:B:226:LEU:HD22	1:B:251:ASP:OD1	2.15	0.47
1:B:68:ASP:OD1	1:B:102:LYS:HD2	2.14	0.47
1:C:274:LEU:HD23	1:C:275:ASN:N	2.30	0.47
1:D:275:ASN:O	1:D:277:LYS:HE3	2.14	0.47
1:E:28:LEU:HD23	1:E:32:GLN:CG	2.44	0.47
1:E:71:ILE:HD13	1:E:74:ILE:HD12	1.96	0.47
1:G:39:PHE:N	1:G:280:PHE:O	2.47	0.47
1:I:85:ASP:OD1	1:I:89:GLN:O	2.32	0.47
1:J:154:ALA:C	1:J:156:LYS:H	2.16	0.47
1:J:170:SER:O	1:J:171:LEU:O	2.33	0.47
1:J:41:TRP:HA	1:J:277:LYS:HB3	1.97	0.47
1:K:129:PRO:C	1:K:132:PRO:HD2	2.35	0.47
1:K:213:GLN:O	1:K:216:ALA:HB3	2.13	0.47
1:L:182:ALA:HB1	1:L:183:PRO:HD2	1.97	0.47
1:L:151:ASN:OD1	1:L:207:VAL:HG23	2.14	0.47
1:L:22:ARG:HA	1:L:25:ILE:HD12	1.96	0.47
1:L:67:LYS:O	1:L:73:TYR:N	2.46	0.47
1:A:30:TYR:CE2	1:A:218:TRP:HH2	2.32	0.47
1:A:262:GLU:HG2	1:A:278:VAL:CG1	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:282:TYR:O	1:A:283:ASP:C	2.52	0.47
1:B:106:LEU:O	1:B:107:TYR:CB	2.59	0.47
1:C:100:TYR:CZ	1:C:102:LYS:HB2	2.48	0.47
1:C:166:ASN:HD21	1:C:170:SER:CB	2.27	0.47
1:C:17:ARG:N	1:C:17:ARG:CD	2.77	0.47
1:C:42:GLU:CG	1:C:279:LYS:HZ3	2.27	0.47
1:E:165:ASP:CB	1:E:191:LEU:HD23	2.44	0.47
1:E:141:LEU:CD2	1:E:217:VAL:HB	2.45	0.47
1:E:266:GLU:O	1:E:270:GLU:HG2	2.14	0.47
1:E:44:LEU:CA	1:E:275:ASN:HD21	2.21	0.47
1:F:124:ASN:HD21	1:F:128:PHE:H	1.61	0.47
1:F:248:GLU:HG3	1:G:282:TYR:CD2	2.49	0.47
1:G:269:ASN:ND2	1:G:274:LEU:O	2.47	0.47
1:G:98:PRO:O	1:G:99:VAL:HB	2.15	0.47
1:G:162:ARG:NH1	1:H:193:SER:HA	2.29	0.47
1:I:124:ASN:HD21	1:I:128:PHE:CB	2.28	0.47
1:I:131:THR:N	1:I:132:PRO:HD2	2.30	0.47
1:I:226:LEU:O	1:I:227:GLN:CD	2.53	0.47
1:J:67:LYS:CD	1:J:117:MET:SD	3.00	0.47
1:J:89:GLN:NE2	1:J:107:TYR:CE2	2.82	0.47
1:K:262:GLU:HG3	1:K:263:GLU:N	2.29	0.47
1:D:108:ASN:HD21	1:D:270:GLU:HG3	1.79	0.47
1:G:272:TYR:N	1:G:272:TYR:HD2	2.12	0.47
1:G:66:TYR:O	1:G:74:ILE:HG22	2.14	0.47
1:J:104:PHE:CE2	1:J:118:GLY:HA3	2.49	0.47
1:J:171:LEU:HD22	1:J:175:TYR:CE1	2.49	0.47
1:K:250:ILE:O	1:K:253:SER:HB2	2.14	0.47
1:C:158:PRO:O	1:C:158:PRO:HG2	2.14	0.47
1:B:213:GLN:NE2	1:C:211:ASN:CG	2.68	0.47
1:C:283:ASP:C	1:C:284:ILE:HD12	2.34	0.47
1:E:66:TYR:CD2	1:E:68:ASP:HB2	2.50	0.47
1:F:166:ASN:HD22	1:F:166:ASN:N	2.12	0.47
1:F:257:PHE:O	1:F:261:ARG:CD	2.63	0.47
1:G:171:LEU:CD2	1:G:175:TYR:CE1	2.97	0.47
1:H:150:VAL:HG11	1:I:156:LYS:CG	2.45	0.47
1:H:186:PHE:CD2	1:H:196:ILE:HD11	2.49	0.47
1:I:162:ARG:NE	1:I:164:ASN:ND2	2.61	0.47
1:J:266:GLU:O	1:J:270:GLU:HG3	2.14	0.47
1:L:30:TYR:CE2	1:L:218:TRP:CH2	3.03	0.47
1:L:69:PRO:O	1:L:70:VAL:CG1	2.57	0.47
1:A:117:MET:HG3	1:A:118:GLY:N	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:39:PHE:HE1	1:A:258:LEU:HG	1.79	0.47
1:B:123:ASN:ND2	1:B:261:ARG:HH21	2.13	0.47
1:B:15:ILE:O	1:B:15:ILE:HG22	2.15	0.47
1:B:226:LEU:C	1:B:226:LEU:HD12	2.35	0.47
1:B:19:LYS:O	1:B:22:ARG:HB3	2.14	0.47
1:B:38:LEU:O	1:B:39:PHE:HB2	2.14	0.47
1:D:280:PHE:HB2	1:D:283:ASP:CG	2.34	0.47
1:G:158:PRO:O	1:G:159:VAL:HB	2.14	0.47
1:G:226:LEU:C	1:G:227:GLN:HG2	2.35	0.47
1:H:260:SER:HA	1:H:263:GLU:HB3	1.95	0.47
1:J:15:ILE:HG22	1:J:15:ILE:O	2.15	0.47
1:K:223:THR:HG23	1:K:250:ILE:HG23	1.95	0.47
1:A:44:LEU:O	1:A:45:PRO:C	2.52	0.47
1:B:157:THR:N	1:B:158:PRO:HD3	2.29	0.47
1:B:71:ILE:HG22	1:B:71:ILE:O	2.15	0.47
1:C:166:ASN:ND2	1:C:170:SER:CB	2.78	0.47
1:D:23:TRP:CZ2	1:D:145:LYS:HE3	2.49	0.47
1:D:60:PHE:CD1	1:D:60:PHE:O	2.67	0.47
1:D:81:SER:N	1:D:92:VAL:O	2.43	0.47
1:E:24:PHE:CE1	1:E:28:LEU:HD12	2.50	0.47
1:F:103:GLU:C	1:F:104:PHE:HD1	2.18	0.47
1:F:41:TRP:CH2	1:F:121:ILE:HD13	2.49	0.47
1:G:255:THR:HG23	1:G:259:LYS:HB2	1.97	0.47
1:G:275:ASN:C	1:G:277:LYS:CD	2.83	0.47
1:G:283:ASP:O	1:G:285:VAL:N	2.48	0.47
1:H:108:ASN:HD21	1:H:117:MET:HB2	1.80	0.47
1:H:126:MET:O	1:H:128:PHE:N	2.45	0.47
1:H:148:ILE:HG23	1:H:207:VAL:HG13	1.96	0.47
1:J:265:CYS:O	1:J:268:ILE:HB	2.14	0.47
1:K:67:LYS:HB3	1:K:117:MET:HE3	1.97	0.47
1:K:76:CYS:SG	1:K:95:ALA:CB	3.02	0.47
1:A:133:THR:HG21	1:A:224:PHE:CD2	2.48	0.47
1:B:175:TYR:O	1:B:178:TYR:HD2	1.98	0.47
1:B:42:GLU:N	1:B:277:LYS:CB	2.77	0.47
1:C:94:ARG:HG2	1:C:103:GLU:CG	2.44	0.47
1:D:105:LYS:CE	1:D:105:LYS:N	2.78	0.47
1:E:141:LEU:HD23	1:E:217:VAL:HB	1.96	0.47
1:E:174:VAL:O	1:E:177:GLN:CG	2.60	0.47
1:F:41:TRP:HZ3	1:F:265:CYS:CB	2.18	0.47
1:G:12:ILE:HG22	1:G:16:GLN:HB2	1.97	0.47
1:G:16:GLN:HA	1:G:16:GLN:HE21	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:221:MET:HE2	1:G:225:LYS:HE2	1.96	0.47
1:G:249:GLN:CA	1:G:252:SER:HB2	2.39	0.47
1:H:109:TYR:CD1	1:H:110:ARG:N	2.81	0.47
1:H:263:GLU:CG	1:H:263:GLU:O	2.63	0.47
1:H:74:ILE:N	1:H:74:ILE:CD1	2.71	0.47
1:I:109:TYR:CG	1:I:110:ARG:N	2.80	0.47
1:I:271:LEU:CG	1:I:271:LEU:O	2.59	0.47
1:K:67:LYS:HE2	1:K:116:ASP:C	2.35	0.47
1:K:117:MET:CG	1:K:118:GLY:N	2.69	0.47
1:K:129:PRO:O	1:K:132:PRO:HD2	2.15	0.47
1:K:44:LEU:HD13	1:K:48:ILE:CG2	2.45	0.47
1:K:62:TYR:O	1:K:121:ILE:O	2.33	0.47
1:L:106:LEU:HA	1:L:118:GLY:O	2.15	0.47
1:L:20:ARG:HG2	1:L:146:GLU:HG2	1.96	0.47
1:C:151:ASN:O	1:C:154:ALA:HB3	2.15	0.47
1:D:157:THR:N	1:D:158:PRO:HD3	2.30	0.47
1:E:68:ASP:HB3	1:E:71:ILE:O	2.15	0.47
1:G:152:GLN:O	1:G:155:GLN:HG2	2.15	0.47
1:G:82:GLY:HA3	1:G:92:VAL:HG12	1.97	0.47
1:G:86:VAL:CG1	1:G:87:TYR:N	2.78	0.47
1:H:168:GLN:HG3	1:H:188:HIS:CE1	2.50	0.47
1:I:153:ASN:C	1:I:155:GLN:N	2.67	0.47
1:I:117:MET:HE1	1:I:271:LEU:HD22	1.92	0.47
1:J:101:GLN:O	1:J:102:LYS:HB2	2.15	0.47
1:J:269:ASN:CG	1:J:273:GLY:O	2.53	0.47
1:J:275:ASN:CG	1:J:277:LYS:CD	2.83	0.47
1:K:152:GLN:O	1:K:155:GLN:HG2	2.15	0.47
1:K:165:ASP:HB3	1:K:167:ASN:HD21	1.78	0.47
1:K:56:SER:O	1:K:59:GLN:O	2.33	0.47
1:L:13:ASN:HA	1:L:16:GLN:HB2	1.96	0.47
1:L:42:GLU:C	1:L:277:LYS:NZ	2.68	0.47
1:B:103:GLU:CG	1:B:104:PHE:H	2.28	0.47
1:B:72:SER:O	1:B:73:TYR:C	2.53	0.47
1:C:226:LEU:HA	1:C:250:ILE:HG22	1.97	0.47
1:D:250:ILE:HD12	1:D:250:ILE:N	2.21	0.47
1:D:258:LEU:HD13	1:D:280:PHE:CZ	2.49	0.47
1:F:117:MET:SD	1:F:271:LEU:HD11	2.55	0.47
1:I:117:MET:CE	1:I:119:VAL:HG23	2.45	0.47
1:I:274:LEU:HD12	1:I:275:ASN:OD1	2.15	0.47
1:K:31:LEU:HD21	1:K:218:TRP:CZ3	2.50	0.47
1:L:227:GLN:O	1:L:228:THR:O	2.33	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:154:ALA:C	1:A:156:LYS:H	2.18	0.46
1:A:272:TYR:O	1:A:273:GLY:O	2.33	0.46
1:C:53:LEU:O	1:C:57:ILE:HG13	2.16	0.46
1:D:124:ASN:HD22	1:D:256:VAL:HG12	1.81	0.46
1:D:171:LEU:HD22	1:D:175:TYR:HE1	1.75	0.46
1:D:274:LEU:O	1:D:275:ASN:CB	2.59	0.46
1:D:79:ALA:HB3	1:D:94:ARG:CZ	2.45	0.46
1:G:113:LYS:HE2	1:G:272:TYR:HE2	1.79	0.46
1:H:27:TYR:CD2	1:H:141:LEU:HD13	2.50	0.46
1:I:124:ASN:ND2	1:I:126:MET:HB2	2.30	0.46
1:I:211:ASN:O	1:I:214:LYS:HB3	2.15	0.46
1:I:248:GLU:OE2	1:J:226:LEU:CG	2.63	0.46
1:K:258:LEU:HG	1:K:258:LEU:O	2.15	0.46
1:J:224:PHE:CE1	1:K:30:TYR:CD1	3.03	0.46
1:L:40:GLU:O	1:L:278:VAL:O	2.33	0.46
1:L:74:ILE:HG23	1:L:74:ILE:O	2.15	0.46
1:A:168:GLN:NE2	1:A:168:GLN:O	2.48	0.46
1:A:39:PHE:HE1	1:A:280:PHE:HE2	1.62	0.46
1:B:42:GLU:N	1:B:277:LYS:HZ2	2.13	0.46
1:C:13:ASN:HA	1:C:16:GLN:HB3	1.96	0.46
1:E:177:GLN:C	1:E:179:GLU:N	2.67	0.46
1:F:265:CYS:SG	1:F:275:ASN:O	2.73	0.46
1:F:201:THR:O	1:G:159:VAL:HG21	2.15	0.46
1:G:49:ASN:O	1:G:50:PRO:O	2.33	0.46
1:I:278:VAL:CG1	1:I:279:LYS:N	2.64	0.46
1:K:57:ILE:HG22	1:K:123:ASN:HB2	1.97	0.46
1:K:148:ILE:O	1:K:152:GLN:HB2	2.15	0.46
1:K:188:HIS:CD2	1:K:190:ALA:HB3	2.50	0.46
1:K:209:LYS:O	1:K:212:ALA:HB3	2.15	0.46
1:L:168:GLN:HE22	1:L:169:LEU:CG	2.23	0.46
1:A:189:GLU:O	1:A:189:GLU:HG2	2.15	0.46
1:A:66:TYR:O	1:A:74:ILE:HG22	2.15	0.46
1:B:22:ARG:HA	1:B:25:ILE:HD12	1.97	0.46
1:C:134:LEU:HD21	1:C:225:LYS:HE2	1.97	0.46
1:C:262:GLU:HA	1:C:278:VAL:HG21	1.97	0.46
1:D:277:LYS:C	1:D:279:LYS:N	2.69	0.46
1:F:260:SER:O	1:F:261:ARG:C	2.54	0.46
1:G:276:VAL:C	1:G:277:LYS:HD3	2.35	0.46
1:H:259:LYS:O	1:H:261:ARG:N	2.48	0.46
1:I:165:ASP:H	1:I:195:SER:HB2	1.79	0.46
1:I:201:THR:CG2	1:I:201:THR:O	2.58	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:11:SER:O	1:J:179:GLU:OE2	2.34	0.46
1:J:42:GLU:H	1:J:277:LYS:HA	1.80	0.46
1:K:222:MET:HB3	1:K:227:GLN:HB3	1.96	0.46
1:K:280:PHE:C	1:K:282:TYR:H	2.19	0.46
1:K:47:THR:HG21	1:K:73:TYR:O	2.15	0.46
1:L:117:MET:HE2	1:L:118:GLY:N	2.31	0.46
1:L:124:ASN:HD21	1:L:128:PHE:HB2	1.80	0.46
1:A:162:ARG:NH1	1:A:197:GLU:OE1	2.48	0.46
1:B:177:GLN:O	1:B:179:GLU:N	2.47	0.46
1:C:20:ARG:HG2	1:C:20:ARG:O	2.14	0.46
1:D:107:TYR:HB2	1:D:267:LYS:NZ	2.30	0.46
1:D:97:SER:O	1:D:99:VAL:N	2.48	0.46
1:E:41:TRP:C	1:E:277:LYS:NZ	2.69	0.46
1:F:268:ILE:HG12	1:F:268:ILE:O	2.15	0.46
1:H:66:TYR:HB3	1:H:104:PHE:CE1	2.50	0.46
1:H:266:GLU:O	1:H:270:GLU:N	2.40	0.46
1:J:131:THR:HG22	1:J:132:PRO:CD	2.45	0.46
1:J:169:LEU:HD23	1:J:169:LEU:HA	1.77	0.46
1:J:188:HIS:ND1	1:J:188:HIS:O	2.49	0.46
1:K:68:ASP:OD1	1:K:70:VAL:HB	2.16	0.46
1:K:87:TYR:OH	1:L:48:ILE:HA	2.15	0.46
1:L:19:LYS:O	1:L:22:ARG:N	2.48	0.46
1:L:60:PHE:HD1	1:L:60:PHE:O	1.98	0.46
1:A:39:PHE:HE1	1:A:280:PHE:CE2	2.34	0.46
1:B:106:LEU:HD23	1:B:119:VAL:HA	1.96	0.46
1:B:189:GLU:O	1:B:189:GLU:HG2	2.15	0.46
1:B:151:ASN:HB3	1:B:207:VAL:HG22	1.97	0.46
1:B:227:GLN:O	1:B:228:THR:C	2.53	0.46
1:D:84:ARG:HH11	1:D:84:ARG:CB	2.16	0.46
1:E:43:ASN:O	1:E:277:LYS:HE2	2.16	0.46
1:F:106:LEU:HD22	1:F:120:VAL:HG22	1.98	0.46
1:F:188:HIS:O	1:F:190:ALA:N	2.42	0.46
1:G:133:THR:HG21	1:G:224:PHE:CZ	2.50	0.46
1:I:109:TYR:CE2	1:I:112:MET:SD	3.07	0.46
1:I:47:THR:HG21	1:I:72:SER:O	2.15	0.46
1:I:77:ASN:O	1:I:96:ALA:HB3	2.16	0.46
1:I:162:ARG:HH11	1:J:193:SER:HA	1.77	0.46
1:J:41:TRP:HB3	1:J:277:LYS:HB3	1.98	0.46
1:A:265:CYS:SG	1:A:277:LYS:HG3	2.55	0.46
1:C:41:TRP:HB3	1:C:277:LYS:NZ	2.31	0.46
1:E:109:TYR:O	1:E:113:LYS:HG3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:193:SER:O	1:F:194:ASP:CG	2.54	0.46
1:H:166:ASN:O	1:H:167:ASN:C	2.54	0.46
1:H:248:GLU:HG3	1:H:249:GLN:N	2.30	0.46
1:H:79:ALA:HB3	1:H:94:ARG:NH1	2.30	0.46
1:K:38:LEU:O	1:K:39:PHE:HB2	2.16	0.46
1:K:45:PRO:O	1:K:47:THR:N	2.48	0.46
1:B:181:ASN:HD22	1:L:11:SER:N	2.14	0.46
1:L:277:LYS:O	1:L:278:VAL:HB	2.16	0.46
1:L:32:GLN:HG3	1:L:134:LEU:HD12	1.98	0.46
1:A:134:LEU:O	1:A:138:ALA:HB2	2.16	0.46
1:A:274:LEU:CD1	1:A:275:ASN:H	2.26	0.46
1:A:52:PHE:HZ	1:A:77:ASN:ND2	2.13	0.46
1:B:269:ASN:C	1:B:271:LEU:H	2.16	0.46
1:B:49:ASN:HA	1:B:50:PRO:HD2	1.69	0.46
1:B:99:VAL:CG1	1:B:99:VAL:O	2.62	0.46
1:D:14:GLU:O	1:D:15:ILE:C	2.54	0.46
1:E:97:SER:CB	1:E:98:PRO:HD2	2.46	0.46
1:F:227:GLN:C	1:F:228:THR:O	2.54	0.46
1:F:277:LYS:HZ3	1:F:278:VAL:N	1.99	0.46
1:G:66:TYR:CD2	1:G:100:TYR:OH	2.69	0.46
1:I:172:LYS:O	1:I:176:ASN:N	2.49	0.46
1:I:274:LEU:C	1:I:274:LEU:HD12	2.36	0.46
1:K:131:THR:N	1:K:132:PRO:HD2	2.31	0.46
1:K:137:PHE:HZ	1:K:220:GLU:OE2	1.99	0.46
1:K:177:GLN:O	1:K:178:TYR:C	2.54	0.46
1:K:57:ILE:HG12	1:K:63:VAL:CG1	2.46	0.46
1:B:175:TYR:O	1:B:178:TYR:CD2	2.68	0.46
1:B:258:LEU:HD22	1:B:262:GLU:CG	2.41	0.46
1:B:62:TYR:OH	1:B:79:ALA:HA	2.15	0.46
1:C:47:THR:CB	1:C:73:TYR:H	2.28	0.46
1:C:93:PHE:HB2	1:C:106:LEU:CD2	2.46	0.46
1:D:261:ARG:O	1:D:262:GLU:C	2.52	0.46
1:D:47:THR:HB	1:D:73:TYR:O	2.16	0.46
1:C:11:SER:N	1:E:181:ASN:HB2	2.30	0.46
1:F:218:TRP:O	1:F:221:MET:HB3	2.16	0.46
1:G:90:ALA:C	1:G:92:VAL:N	2.67	0.46
1:H:116:ASP:O	1:H:117:MET:O	2.34	0.46
1:H:52:PHE:C	1:H:52:PHE:CD2	2.88	0.46
1:I:15:ILE:O	1:I:18:GLN:HB2	2.15	0.46
1:J:44:LEU:O	1:J:45:PRO:C	2.54	0.46
1:K:115:GLU:O	1:K:116:ASP:HB2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:124:ASN:O	1:L:126:MET:N	2.39	0.46
1:L:168:GLN:OE1	1:L:169:LEU:N	2.49	0.46
1:L:97:SER:HB2	1:L:98:PRO:HD2	1.97	0.46
1:A:16:GLN:C	1:A:18:GLN:N	2.69	0.46
1:B:168:GLN:C	1:B:168:GLN:CD	2.74	0.46
1:B:161:ILE:HG12	1:B:198:VAL:HG22	1.98	0.46
1:B:27:TYR:O	1:B:31:LEU:HG	2.16	0.46
1:C:15:ILE:HG23	1:C:18:GLN:HB2	1.98	0.46
1:B:87:TYR:CE2	1:C:49:ASN:HB3	2.51	0.46
1:D:179:GLU:HG3	1:D:180:GLY:N	2.31	0.46
1:D:45:PRO:HG2	1:D:48:ILE:HD12	1.97	0.46
1:D:79:ALA:CB	1:D:94:ARG:NH2	2.79	0.46
1:F:259:LYS:HE2	1:F:263:GLU:OE1	2.16	0.46
1:H:13:ASN:HB2	1:J:179:GLU:HG2	1.97	0.46
1:I:13:ASN:O	1:I:16:GLN:HB3	2.16	0.46
1:I:168:GLN:HB3	1:I:188:HIS:HE1	1.73	0.46
1:I:277:LYS:CG	1:I:278:VAL:H	2.14	0.46
1:A:274:LEU:CD1	1:A:275:ASN:N	2.76	0.46
1:B:218:TRP:O	1:B:222:MET:HG2	2.16	0.46
1:B:269:ASN:C	1:B:271:LEU:N	2.69	0.46
1:C:65:PHE:HB3	1:C:119:VAL:HG13	1.98	0.46
1:D:264:ALA:O	1:D:265:CYS:C	2.54	0.46
1:C:109:TYR:CE1	1:D:47:THR:CG2	2.99	0.46
1:E:53:LEU:CD2	1:E:54:GLU:H	2.27	0.46
1:F:162:ARG:O	1:F:196:ILE:HA	2.15	0.46
1:F:40:GLU:O	1:F:278:VAL:O	2.34	0.46
1:F:35:ALA:O	1:F:38:LEU:HD23	2.16	0.46
1:G:165:ASP:OD2	1:G:165:ASP:N	2.49	0.46
1:G:19:LYS:HA	1:G:22:ARG:NH2	2.31	0.46
1:G:283:ASP:C	1:G:285:VAL:H	2.18	0.46
1:H:107:TYR:CG	1:H:108:ASN:N	2.84	0.46
1:I:282:TYR:CD2	1:I:283:ASP:N	2.83	0.46
1:J:117:MET:HE3	1:J:271:LEU:HD13	1.97	0.46
1:J:39:PHE:CZ	1:J:257:PHE:CB	2.99	0.46
1:A:20:ARG:CG	1:A:146:GLU:HG3	2.44	0.45
1:B:269:ASN:HD21	1:B:275:ASN:HB3	1.81	0.45
1:B:66:TYR:CD2	1:B:100:TYR:OH	2.68	0.45
1:C:25:ILE:O	1:C:26:HIS:C	2.53	0.45
1:D:66:TYR:HD1	1:D:118:GLY:N	2.15	0.45
1:E:282:TYR:CD2	1:E:283:ASP:HB2	2.52	0.45
1:E:45:PRO:HG3	1:E:73:TYR:HD1	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:84:ARG:CD	1:E:90:ALA:HA	2.46	0.45
1:F:203:ALA:HB1	1:G:158:PRO:CG	2.45	0.45
1:G:213:GLN:HE22	1:H:211:ASN:CG	2.18	0.45
1:J:102:LYS:HG3	1:J:103:GLU:H	1.81	0.45
1:J:265:CYS:O	1:J:268:ILE:N	2.45	0.45
1:K:172:LYS:O	1:K:176:ASN:OD1	2.34	0.45
1:L:279:LYS:HG2	1:L:281:ARG:H	1.81	0.45
1:A:39:PHE:CE1	1:A:258:LEU:HG	2.50	0.45
1:B:176:ASN:C	1:B:178:TYR:N	2.66	0.45
1:C:226:LEU:O	1:C:227:GLN:CD	2.55	0.45
1:D:280:PHE:C	1:D:282:TYR:H	2.19	0.45
1:F:111:ASP:O	1:F:112:MET:HB2	2.16	0.45
1:G:225:LYS:O	1:G:226:LEU:HB3	2.15	0.45
1:G:283:ASP:HB3	1:G:284:ILE:H	1.59	0.45
1:G:83:GLN:NE2	1:G:84:ARG:N	2.65	0.45
1:H:145:LYS:O	1:H:145:LYS:HE2	2.16	0.45
1:H:209:LYS:O	1:H:212:ALA:HB3	2.15	0.45
1:H:47:THR:HG21	1:H:72:SER:OG	2.16	0.45
1:I:107:TYR:CG	1:I:107:TYR:O	2.69	0.45
1:L:221:MET:O	1:L:224:PHE:HB3	2.16	0.45
1:A:13:ASN:O	1:A:17:ARG:CG	2.63	0.45
1:A:282:TYR:O	1:A:284:ILE:N	2.49	0.45
1:A:63:VAL:HG12	1:A:121:ILE:HB	1.98	0.45
1:B:172:LYS:HA	1:B:175:TYR:HB2	1.98	0.45
1:B:80:LEU:HD21	1:B:120:VAL:HG21	1.97	0.45
1:C:248:GLU:HG3	1:D:282:TYR:CG	2.52	0.45
1:E:92:VAL:HG13	1:E:104:PHE:O	2.16	0.45
1:E:37:GLN:NE2	1:E:38:LEU:N	2.64	0.45
1:F:23:TRP:O	1:F:24:PHE:C	2.54	0.45
1:H:113:LYS:HE3	1:H:271:LEU:HD21	1.99	0.45
1:H:65:PHE:N	1:H:65:PHE:CD1	2.84	0.45
1:A:47:THR:OG1	1:A:73:TYR:HB2	2.17	0.45
1:B:112:MET:O	1:B:112:MET:SD	2.74	0.45
1:C:172:LYS:O	1:C:172:LYS:HG3	2.16	0.45
1:C:83:GLN:O	1:C:83:GLN:HG3	2.17	0.45
1:F:14:GLU:H	1:F:14:GLU:CD	2.17	0.45
1:G:89:GLN:HG2	1:G:90:ALA:N	2.31	0.45
1:I:258:LEU:HD22	1:I:262:GLU:CD	2.37	0.45
1:I:264:ALA:O	1:I:265:CYS:C	2.54	0.45
1:I:59:GLN:HB3	1:I:60:PHE:H	1.50	0.45
1:J:41:TRP:CH2	1:J:121:ILE:HG21	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:222:MET:O	1:K:227:GLN:HG3	2.17	0.45
1:B:126:MET:C	1:B:128:PHE:N	2.66	0.45
1:B:12:ILE:O	1:D:181:ASN:ND2	2.46	0.45
1:B:130:THR:HG22	1:B:134:LEU:HG	1.99	0.45
1:B:178:TYR:HE2	1:C:181:ASN:O	1.99	0.45
1:B:89:GLN:OE1	1:B:90:ALA:N	2.49	0.45
1:C:163:ALA:HB3	1:D:187:ALA:CA	2.46	0.45
1:D:199:PHE:N	1:D:199:PHE:CD1	2.85	0.45
1:D:45:PRO:CG	1:D:48:ILE:HD12	2.46	0.45
1:E:171:LEU:O	1:E:172:LYS:HB3	2.17	0.45
1:E:224:PHE:O	1:E:224:PHE:CD2	2.70	0.45
1:F:188:HIS:O	1:F:188:HIS:CG	2.69	0.45
1:G:249:GLN:O	1:G:253:SER:N	2.28	0.45
1:I:169:LEU:HB3	1:I:186:PHE:CE1	2.48	0.45
1:I:38:LEU:O	1:I:39:PHE:CB	2.65	0.45
1:J:117:MET:HB3	1:J:271:LEU:CD2	2.46	0.45
1:K:93:PHE:CE2	1:K:95:ALA:HB2	2.51	0.45
1:L:43:ASN:CB	1:L:277:LYS:HE2	2.47	0.45
1:L:60:PHE:O	1:L:61:GLY:C	2.55	0.45
1:C:162:ARG:HG3	1:D:196:ILE:HD13	1.98	0.45
1:D:119:VAL:CG1	1:D:120:VAL:N	2.79	0.45
1:D:264:ALA:O	1:D:267:LYS:HB3	2.17	0.45
1:D:38:LEU:HB2	1:D:39:PHE:CD2	2.52	0.45
1:E:13:ASN:O	1:E:17:ARG:HB2	2.16	0.45
1:E:177:GLN:O	1:E:178:TYR:C	2.55	0.45
1:E:93:PHE:HB3	1:E:104:PHE:HB3	1.91	0.45
1:F:65:PHE:CG	1:F:268:ILE:HD12	2.51	0.45
1:G:30:TYR:CE2	1:G:218:TRP:HH2	2.34	0.45
1:G:221:MET:HG3	1:G:225:LYS:HE2	1.98	0.45
1:G:74:ILE:HD13	1:G:100:TYR:CE2	2.51	0.45
1:H:110:ARG:O	1:H:111:ASP:CB	2.64	0.45
1:H:124:ASN:HA	1:H:256:VAL:O	2.17	0.45
1:I:146:GLU:OE2	1:J:156:LYS:NZ	2.37	0.45
1:H:201:THR:CG2	1:J:183:PRO:HG3	2.44	0.45
1:J:140:GLU:OE2	1:K:145:LYS:NZ	2.50	0.45
1:K:171:LEU:O	1:K:172:LYS:HB3	2.16	0.45
1:A:14:GLU:C	1:A:16:GLN:H	2.19	0.45
1:A:274:LEU:N	1:A:274:LEU:HD12	2.31	0.45
1:C:126:MET:C	1:C:128:PHE:N	2.69	0.45
1:C:175:TYR:O	1:C:178:TYR:N	2.45	0.45
1:C:34:LEU:O	1:C:37:GLN:NE2	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:107:TYR:HB2	1:D:267:LYS:CD	2.37	0.45
1:G:109:TYR:HB2	1:G:112:MET:CB	2.42	0.45
1:G:51:SER:N	1:G:54:GLU:OE1	2.41	0.45
1:H:57:ILE:HD11	1:H:121:ILE:HB	1.98	0.45
1:H:145:LYS:HB2	1:H:214:LYS:HZ2	1.81	0.45
1:I:168:GLN:C	1:I:168:GLN:CD	2.76	0.45
1:I:87:TYR:O	1:I:88:ASN:CB	2.62	0.45
1:I:92:VAL:CG1	1:I:93:PHE:N	2.80	0.45
1:K:188:HIS:O	1:K:189:GLU:HB2	2.15	0.45
1:K:188:HIS:HB3	1:K:191:LEU:HG	1.98	0.45
1:L:269:ASN:OD1	1:L:274:LEU:CA	2.64	0.45
1:A:52:PHE:C	1:A:52:PHE:CD2	2.90	0.45
1:B:16:GLN:O	1:B:20:ARG:HG3	2.17	0.45
1:D:265:CYS:O	1:D:266:GLU:C	2.55	0.45
1:D:60:PHE:O	1:D:61:GLY:O	2.34	0.45
1:E:106:LEU:HD12	1:E:107:TYR:HB2	1.98	0.45
1:E:115:GLU:OE1	1:E:116:ASP:OD2	2.33	0.45
1:E:136:LEU:HD13	1:F:22:ARG:HD2	1.97	0.45
1:E:221:MET:O	1:E:224:PHE:HB3	2.17	0.45
1:E:265:CYS:SG	1:E:276:VAL:HA	2.57	0.45
1:F:140:GLU:HG3	1:G:23:TRP:CZ2	2.52	0.45
1:G:126:MET:SD	1:H:55:LYS:HE3	2.57	0.45
1:I:150:VAL:HG11	1:J:156:LYS:CG	2.43	0.45
1:I:66:TYR:CE2	1:I:68:ASP:HA	2.52	0.45
1:J:62:TYR:HB3	1:J:63:VAL:H	1.45	0.45
1:K:265:CYS:SG	1:K:276:VAL:CA	2.93	0.45
1:K:59:GLN:O	1:K:60:PHE:C	2.55	0.45
1:L:77:ASN:ND2	1:L:77:ASN:H	2.15	0.45
1:A:44:LEU:HD13	1:A:48:ILE:CG2	2.47	0.45
1:C:281:ARG:CG	1:C:281:ARG:O	2.65	0.45
1:C:68:ASP:OD1	1:C:70:VAL:N	2.33	0.45
1:D:130:THR:OG1	1:D:257:PHE:HE2	2.00	0.45
1:D:170:SER:C	1:D:171:LEU:O	2.54	0.45
1:D:226:LEU:O	1:D:227:GLN:CD	2.54	0.45
1:E:172:LYS:HB2	1:F:185:ILE:CD1	2.44	0.45
1:F:105:LYS:HZ1	1:F:114:GLU:HB2	1.81	0.45
1:F:264:ALA:C	1:F:266:GLU:H	2.20	0.45
1:G:85:ASP:CG	1:G:89:GLN:HB3	2.37	0.45
1:I:148:ILE:HG22	1:I:148:ILE:O	2.17	0.45
1:J:104:PHE:CD2	1:J:118:GLY:HA3	2.52	0.45
1:J:67:LYS:NZ	1:J:271:LEU:HD21	2.27	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:63:VAL:CG1	1:J:121:ILE:HB	2.46	0.45
1:K:164:ASN:HB3	1:K:195:SER:HA	1.99	0.45
1:K:35:ALA:HA	1:K:38:LEU:HD12	1.98	0.45
1:K:74:ILE:HD12	1:K:75:ALA:H	1.80	0.45
1:K:84:ARG:NH1	1:K:88:ASN:O	2.49	0.45
1:A:168:GLN:NE2	1:A:168:GLN:CA	2.78	0.45
1:A:248:GLU:HB3	1:B:282:TYR:CZ	2.51	0.45
1:A:262:GLU:HG2	1:A:278:VAL:HG11	1.99	0.45
1:C:228:THR:HB	1:C:250:ILE:HG13	1.99	0.45
1:D:277:LYS:O	1:D:279:LYS:N	2.43	0.45
1:D:41:TRP:C	1:D:277:LYS:HD2	2.36	0.45
1:E:163:ALA:HB3	1:F:187:ALA:CB	2.33	0.45
1:F:65:PHE:CB	1:F:119:VAL:HB	2.45	0.45
1:H:189:GLU:C	1:H:191:LEU:H	2.19	0.45
1:G:201:THR:HG22	1:H:198:VAL:HG11	1.99	0.45
1:H:162:ARG:NH1	1:I:193:SER:HA	2.32	0.45
1:I:30:TYR:CE2	1:I:218:TRP:CH2	3.05	0.45
1:J:108:ASN:O	1:J:109:TYR:CB	2.65	0.45
1:K:249:GLN:HB3	1:L:222:MET:CE	2.47	0.45
1:A:110:ARG:NH2	1:B:46:PRO:HG2	2.33	0.44
1:A:187:ALA:HA	1:L:163:ALA:O	2.17	0.44
1:A:269:ASN:C	1:A:271:LEU:H	2.20	0.44
1:A:274:LEU:O	1:A:275:ASN:CB	2.55	0.44
1:A:37:GLN:HE21	1:A:37:GLN:C	2.21	0.44
1:B:108:ASN:ND2	1:B:268:ILE:N	2.64	0.44
1:E:222:MET:HB3	1:E:227:GLN:CB	2.46	0.44
1:E:248:GLU:HB3	1:F:282:TYR:CG	2.53	0.44
1:E:268:ILE:CG2	1:E:269:ASN:ND2	2.79	0.44
1:F:57:ILE:CG2	1:F:123:ASN:HA	2.47	0.44
1:F:223:THR:C	1:F:225:LYS:N	2.70	0.44
1:H:81:SER:OG	1:H:92:VAL:HB	2.16	0.44
1:J:108:ASN:OD1	1:J:271:LEU:HB2	2.16	0.44
1:J:60:PHE:O	1:J:61:GLY:O	2.35	0.44
1:L:23:TRP:HE3	1:L:27:TYR:CE1	2.35	0.44
1:A:110:ARG:CG	1:A:111:ASP:N	2.80	0.44
1:A:255:THR:HG22	1:A:255:THR:O	2.17	0.44
1:B:66:TYR:CE2	1:B:100:TYR:OH	2.71	0.44
1:C:125:ASP:OD2	1:C:259:LYS:NZ	2.50	0.44
1:C:228:THR:HB	1:C:250:ILE:CD1	2.47	0.44
1:E:109:TYR:C	1:E:111:ASP:N	2.69	0.44
1:E:258:LEU:HD12	1:E:280:PHE:CZ	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:97:SER:HB2	1:E:98:PRO:HD2	1.99	0.44
1:G:263:GLU:OE1	1:H:50:PRO:HG2	2.17	0.44
1:G:72:SER:O	1:G:73:TYR:HB2	2.16	0.44
1:G:81:SER:N	1:G:90:ALA:HB1	2.32	0.44
1:H:269:ASN:O	1:H:271:LEU:N	2.40	0.44
1:J:156:LYS:O	1:J:157:THR:CG2	2.63	0.44
1:K:63:VAL:HG12	1:K:121:ILE:O	2.17	0.44
1:L:66:TYR:HE1	1:L:117:MET:N	2.15	0.44
1:B:247:ASP:CA	1:B:250:ILE:HG13	2.47	0.44
1:B:42:GLU:N	1:B:277:LYS:NZ	2.65	0.44
1:C:117:MET:HG3	1:C:118:GLY:N	2.33	0.44
1:C:171:LEU:HD23	1:C:186:PHE:CD1	2.52	0.44
1:C:83:GLN:HE21	1:C:83:GLN:CA	2.30	0.44
1:D:16:GLN:NE2	1:D:20:ARG:HE	2.15	0.44
1:C:209:LYS:HB3	1:D:205:TYR:CE2	2.53	0.44
1:D:41:TRP:O	1:D:277:LYS:NZ	2.47	0.44
1:E:110:ARG:O	1:E:111:ASP:HB3	2.17	0.44
1:E:113:LYS:O	1:E:114:GLU:CG	2.65	0.44
1:E:148:ILE:HG22	1:E:152:GLN:HG3	1.99	0.44
1:F:106:LEU:HA	1:F:118:GLY:CA	2.46	0.44
1:F:261:ARG:HA	1:F:264:ALA:HB3	1.98	0.44
1:G:171:LEU:HD22	1:G:175:TYR:HE1	1.82	0.44
1:H:82:GLY:HA3	1:H:91:THR:CB	2.43	0.44
1:H:82:GLY:HA3	1:H:92:VAL:HG23	2.00	0.44
1:J:260:SER:O	1:J:263:GLU:HB3	2.18	0.44
1:A:171:LEU:O	1:A:173:GLN:N	2.50	0.44
1:C:13:ASN:HD21	1:C:17:ARG:HE	1.63	0.44
1:C:39:PHE:HZ	1:C:257:PHE:HB2	1.82	0.44
1:C:283:ASP:O	1:C:284:ILE:HB	2.17	0.44
1:E:205:TYR:CE2	1:E:207:VAL:HB	2.52	0.44
1:E:224:PHE:CG	1:E:224:PHE:O	2.71	0.44
1:F:24:PHE:CE2	1:F:28:LEU:HD12	2.52	0.44
1:G:164:ASN:O	1:G:166:ASN:N	2.48	0.44
1:G:167:ASN:ND2	1:G:190:ALA:HB1	2.31	0.44
1:G:85:ASP:HB3	1:G:88:ASN:C	2.38	0.44
1:I:248:GLU:O	1:I:252:SER:HB3	2.18	0.44
1:K:94:ARG:NE	1:K:103:GLU:OE1	2.51	0.44
1:L:121:ILE:HG12	1:L:264:ALA:HB1	1.99	0.44
1:A:124:ASN:HD21	1:A:128:PHE:N	2.16	0.44
1:A:151:ASN:OD1	1:A:207:VAL:HG23	2.18	0.44
1:D:11:SER:O	1:D:13:ASN:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:203:ALA:O	1:D:204:PRO:C	2.54	0.44
1:C:248:GLU:HG3	1:D:282:TYR:CD2	2.52	0.44
1:D:71:ILE:O	1:D:72:SER:HB3	2.18	0.44
1:F:65:PHE:CD2	1:F:268:ILE:CD1	3.00	0.44
1:F:94:ARG:CB	1:F:103:GLU:OE1	2.65	0.44
1:G:271:LEU:HD23	1:G:271:LEU:O	2.17	0.44
1:H:109:TYR:OH	1:I:46:PRO:CB	2.63	0.44
1:G:163:ALA:O	1:H:187:ALA:HA	2.17	0.44
1:H:188:HIS:C	1:H:190:ALA:H	2.18	0.44
1:G:164:ASN:OD1	1:H:191:LEU:O	2.34	0.44
1:I:101:GLN:OE1	1:I:101:GLN:O	2.35	0.44
1:J:92:VAL:HA	1:J:104:PHE:O	2.18	0.44
1:I:199:PHE:CZ	1:J:196:ILE:HG22	2.53	0.44
1:K:182:ALA:HB1	1:K:183:PRO:HD2	1.98	0.44
1:L:226:LEU:C	1:L:227:GLN:HG2	2.38	0.44
1:A:137:PHE:HE2	1:A:220:GLU:HB3	1.83	0.44
1:A:98:PRO:C	1:A:99:VAL:HG23	2.38	0.44
1:B:258:LEU:O	1:B:259:LYS:C	2.56	0.44
1:B:60:PHE:C	1:B:62:TYR:N	2.68	0.44
1:C:107:TYR:O	1:C:112:MET:SD	2.75	0.44
1:C:158:PRO:CG	1:C:158:PRO:O	2.66	0.44
1:C:15:ILE:C	1:C:17:ARG:N	2.71	0.44
1:C:226:LEU:C	1:C:227:GLN:HG2	2.38	0.44
1:E:45:PRO:C	1:E:47:THR:N	2.71	0.44
1:F:66:TYR:O	1:F:68:ASP:OD2	2.36	0.44
1:G:166:ASN:HD21	1:G:170:SER:HB2	1.82	0.44
1:G:41:TRP:HE3	1:G:277:LYS:NZ	2.16	0.44
1:G:85:ASP:O	1:G:86:VAL:C	2.56	0.44
1:G:79:ALA:HB3	1:G:94:ARG:HD2	1.98	0.44
1:H:23:TRP:O	1:H:26:HIS:HB3	2.18	0.44
1:I:110:ARG:HG3	1:I:111:ASP:N	2.32	0.44
1:J:172:LYS:CE	1:K:179:GLU:OE2	2.60	0.44
1:L:40:GLU:HB2	1:L:281:ARG:HE	1.82	0.44
1:L:97:SER:CB	1:L:98:PRO:CD	2.95	0.44
1:A:80:LEU:HD11	1:A:122:TYR:HE2	1.82	0.44
1:B:278:VAL:O	1:B:279:LYS:O	2.35	0.44
1:B:48:ILE:O	1:B:50:PRO:HD3	2.17	0.44
1:C:13:ASN:HA	1:C:16:GLN:HB2	1.99	0.44
1:C:39:PHE:HE1	1:C:280:PHE:CE2	2.35	0.44
1:C:60:PHE:HA	1:C:129:PRO:CG	2.46	0.44
1:D:100:TYR:CZ	1:D:102:LYS:HB2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:153:ASN:O	1:D:155:GLN:N	2.51	0.44
1:E:137:PHE:HZ	1:E:220:GLU:OE2	2.01	0.44
1:F:283:ASP:HB3	1:F:284:ILE:H	1.54	0.44
1:G:213:GLN:O	1:G:217:VAL:HG23	2.18	0.44
1:J:115:GLU:O	1:J:116:ASP:HB2	2.17	0.44
1:J:16:GLN:O	1:J:16:GLN:HG2	2.17	0.44
1:K:129:PRO:HB2	1:K:132:PRO:HD3	1.99	0.44
1:K:43:ASN:N	1:K:277:LYS:HZ3	2.14	0.44
1:A:173:GLN:HA	1:A:176:ASN:ND2	2.29	0.44
1:A:62:TYR:C	1:A:62:TYR:CD2	2.91	0.44
1:B:247:ASP:C	1:B:249:GLN:H	2.20	0.44
1:B:163:ALA:O	1:C:187:ALA:CB	2.66	0.44
1:B:256:VAL:HG11	1:C:33:SER:OG	2.17	0.44
1:C:32:GLN:HG2	1:C:36:TYR:CZ	2.53	0.44
1:C:44:LEU:O	1:C:44:LEU:HD12	2.17	0.44
1:C:85:ASP:C	1:C:87:TYR:N	2.71	0.44
1:D:250:ILE:H	1:D:250:ILE:CD1	2.21	0.44
1:E:41:TRP:C	1:E:277:LYS:HZ2	2.21	0.44
1:F:170:SER:O	1:F:171:LEU:O	2.36	0.44
1:F:117:MET:SD	1:F:271:LEU:HD21	2.57	0.44
1:G:20:ARG:CD	1:G:146:GLU:CD	2.86	0.44
1:H:20:ARG:HD2	1:H:146:GLU:OE1	2.17	0.44
1:H:62:TYR:HE2	1:H:79:ALA:CA	2.19	0.44
1:I:89:GLN:OE1	1:I:107:TYR:CE2	2.71	0.44
1:J:269:ASN:C	1:J:271:LEU:N	2.71	0.44
1:K:129:PRO:HB2	1:K:132:PRO:CD	2.47	0.44
1:K:167:ASN:HB3	1:K:168:GLN:H	1.59	0.44
1:L:41:TRP:HB3	1:L:277:LYS:HG3	2.00	0.44
1:L:49:ASN:OD1	1:L:52:PHE:N	2.37	0.44
1:A:117:MET:HE2	1:A:271:LEU:HD12	1.99	0.44
1:A:30:TYR:CE2	1:A:218:TRP:CH2	3.06	0.44
1:B:151:ASN:O	1:B:152:GLN:C	2.56	0.44
1:C:130:THR:C	1:C:132:PRO:HD2	2.37	0.44
1:C:108:ASN:OD1	1:C:270:GLU:OE1	2.36	0.44
1:D:153:ASN:C	1:D:155:GLN:N	2.71	0.44
1:D:277:LYS:C	1:D:278:VAL:HG23	2.37	0.44
1:E:174:VAL:CG1	1:E:177:GLN:NE2	2.68	0.44
1:E:250:ILE:N	1:E:250:ILE:HD12	2.33	0.44
1:H:155:GLN:O	1:H:158:PRO:HD3	2.18	0.44
1:H:213:GLN:HG3	1:I:207:VAL:CG1	2.48	0.44
1:I:277:LYS:O	1:I:278:VAL:CG2	2.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:123:ASN:HD21	1:J:261:ARG:NH2	2.15	0.44
1:K:86:VAL:CG1	1:L:100:TYR:HB2	2.47	0.44
1:L:40:GLU:CG	1:L:281:ARG:HH21	2.30	0.44
1:A:109:TYR:CZ	1:A:111:ASP:HB2	2.53	0.43
1:B:108:ASN:HB2	1:B:109:TYR:H	1.43	0.43
1:C:151:ASN:HB3	1:C:207:VAL:HG22	2.00	0.43
1:D:62:TYR:CD2	1:D:80:LEU:HD21	2.53	0.43
1:E:20:ARG:CZ	1:E:146:GLU:CD	2.86	0.43
1:G:153:ASN:O	1:G:156:LYS:HB2	2.18	0.43
1:G:173:GLN:HA	1:G:176:ASN:ND2	2.31	0.43
1:G:49:ASN:HA	1:G:50:PRO:HD2	1.78	0.43
1:G:66:TYR:O	1:G:74:ILE:N	2.50	0.43
1:I:57:ILE:N	1:I:63:VAL:HG21	2.33	0.43
1:I:109:TYR:CE1	1:J:46:PRO:O	2.70	0.43
1:J:67:LYS:HZ3	1:J:117:MET:HB3	1.83	0.43
1:L:42:GLU:C	1:L:277:LYS:CE	2.86	0.43
1:A:222:MET:HB3	1:A:227:GLN:HG3	2.00	0.43
1:B:140:GLU:OE2	1:B:143:GLU:OE1	2.36	0.43
1:B:213:GLN:O	1:B:216:ALA:N	2.51	0.43
1:C:192:ASP:O	1:C:194:ASP:N	2.51	0.43
1:D:113:LYS:HE3	1:D:270:GLU:O	2.18	0.43
1:E:39:PHE:HD1	1:E:261:ARG:HH22	1.61	0.43
1:H:140:GLU:OE2	1:I:145:LYS:NZ	2.49	0.43
1:H:66:TYR:HE2	1:H:100:TYR:HH	1.64	0.43
1:J:84:ARG:HH11	1:J:84:ARG:HG3	1.82	0.43
1:J:85:ASP:CG	1:J:89:GLN:HB3	2.39	0.43
1:J:171:LEU:HB3	1:K:185:ILE:HD13	2.00	0.43
1:K:40:GLU:O	1:K:279:LYS:HB2	2.17	0.43
1:L:30:TYR:CE2	1:L:218:TRP:HH2	2.36	0.43
1:C:162:ARG:NH1	1:C:197:GLU:OE1	2.51	0.43
1:C:169:LEU:HB3	1:C:186:PHE:CE1	2.54	0.43
1:C:260:SER:O	1:C:261:ARG:C	2.57	0.43
1:C:261:ARG:HD2	1:C:278:VAL:HG13	2.00	0.43
1:D:177:GLN:HE22	1:D:184:VAL:CG1	2.31	0.43
1:E:257:PHE:O	1:E:259:LYS:N	2.52	0.43
1:E:93:PHE:HB3	1:E:104:PHE:CG	2.53	0.43
1:F:47:THR:CG2	1:F:73:TYR:H	2.26	0.43
1:F:98:PRO:C	1:F:100:TYR:N	2.70	0.43
1:G:76:CYS:HG	1:G:100:TYR:HE2	1.62	0.43
1:G:172:LYS:HA	1:G:175:TYR:HB2	2.01	0.43
1:G:34:LEU:O	1:G:37:GLN:NE2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:80:LEU:N	1:G:80:LEU:HD23	2.33	0.43
1:H:225:LYS:HB2	1:H:225:LYS:HE3	1.72	0.43
1:H:27:TYR:O	1:H:31:LEU:HG	2.18	0.43
1:H:49:ASN:OD1	1:H:52:PHE:HB3	2.17	0.43
1:H:89:GLN:NE2	1:H:90:ALA:O	2.51	0.43
1:H:256:VAL:CG1	1:I:33:SER:HB3	2.41	0.43
1:K:247:ASP:CA	1:K:250:ILE:HG12	2.48	0.43
1:K:90:ALA:CB	1:K:106:LEU:HD12	2.48	0.43
1:A:185:ILE:HD13	1:L:171:LEU:HB3	2.00	0.43
1:L:48:ILE:HD11	1:L:74:ILE:N	2.33	0.43
1:B:226:LEU:O	1:B:226:LEU:HG	2.18	0.43
1:D:105:LYS:CD	1:D:105:LYS:N	2.81	0.43
1:D:125:ASP:O	1:D:126:MET:O	2.36	0.43
1:D:131:THR:N	1:D:132:PRO:HD2	2.33	0.43
1:D:274:LEU:CD1	1:D:275:ASN:H	2.31	0.43
1:D:62:TYR:CE2	1:D:80:LEU:HD21	2.53	0.43
1:E:124:ASN:OD1	1:E:128:PHE:HB2	2.17	0.43
1:E:169:LEU:HD12	1:E:187:ALA:O	2.19	0.43
1:F:13:ASN:O	1:F:16:GLN:HB3	2.18	0.43
1:G:128:PHE:HA	1:G:129:PRO:HD3	1.75	0.43
1:G:203:ALA:O	1:G:204:PRO:C	2.56	0.43
1:I:248:GLU:O	1:I:252:SER:CB	2.66	0.43
1:I:88:ASN:O	1:I:89:GLN:C	2.57	0.43
1:J:179:GLU:HB3	1:J:181:ASN:ND2	2.33	0.43
1:K:115:GLU:O	1:K:116:ASP:CB	2.65	0.43
1:K:163:ALA:HB3	1:L:187:ALA:CB	2.36	0.43
1:C:137:PHE:C	1:C:139:ALA:N	2.71	0.43
1:C:260:SER:O	1:C:263:GLU:N	2.51	0.43
1:C:276:VAL:C	1:C:277:LYS:HD3	2.39	0.43
1:C:43:ASN:HB3	1:C:44:LEU:H	1.60	0.43
1:D:42:GLU:HB3	1:D:277:LYS:HD2	1.98	0.43
1:E:131:THR:N	1:E:132:PRO:HD2	2.33	0.43
1:E:20:ARG:CG	1:E:146:GLU:HG3	2.47	0.43
1:E:177:GLN:O	1:E:179:GLU:N	2.51	0.43
1:F:102:LYS:O	1:F:103:GLU:OE2	2.36	0.43
1:F:15:ILE:O	1:F:18:GLN:N	2.48	0.43
1:G:249:GLN:O	1:G:252:SER:HB2	2.19	0.43
1:H:266:GLU:O	1:H:270:GLU:HG3	2.19	0.43
1:H:90:ALA:HB3	1:H:106:LEU:HD12	1.99	0.43
1:I:167:ASN:OD1	1:I:168:GLN:N	2.52	0.43
1:K:66:TYR:O	1:K:74:ILE:HG22	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:66:TYR:HD1	1:L:117:MET:SD	2.41	0.43
1:B:179:GLU:CB	1:L:11:SER:HA	2.44	0.43
1:L:134:LEU:O	1:L:138:ALA:HB2	2.18	0.43
1:L:60:PHE:O	1:L:61:GLY:O	2.37	0.43
1:A:222:MET:CA	1:A:227:GLN:HG3	2.48	0.43
1:A:38:LEU:O	1:A:39:PHE:CB	2.66	0.43
1:B:108:ASN:CB	1:B:267:LYS:O	2.66	0.43
1:B:275:ASN:O	1:B:275:ASN:OD1	2.37	0.43
1:B:39:PHE:HZ	1:B:257:PHE:CB	2.31	0.43
1:C:168:GLN:CD	1:C:169:LEU:N	2.72	0.43
1:C:269:ASN:OD1	1:C:274:LEU:HA	2.19	0.43
1:D:174:VAL:C	1:D:176:ASN:N	2.71	0.43
1:G:16:GLN:NE2	1:G:20:ARG:CG	2.80	0.43
1:G:269:ASN:ND2	1:G:275:ASN:CB	2.80	0.43
1:H:113:LYS:HD3	1:H:114:GLU:O	2.18	0.43
1:H:145:LYS:HB2	1:H:214:LYS:NZ	2.33	0.43
1:H:62:TYR:O	1:H:63:VAL:CB	2.66	0.43
1:I:56:SER:HB3	1:I:63:VAL:HG21	1.99	0.43
1:J:177:GLN:C	1:J:179:GLU:H	2.20	0.43
1:K:57:ILE:HG12	1:K:63:VAL:HG11	2.00	0.43
1:L:226:LEU:HD13	1:L:251:ASP:OD1	2.19	0.43
1:L:40:GLU:HB2	1:L:281:ARG:HB2	2.00	0.43
1:A:18:GLN:O	1:A:18:GLN:HG2	2.18	0.43
1:B:215:ASN:O	1:B:219:ASN:OD1	2.37	0.43
1:B:109:TYR:HA	1:B:270:GLU:CD	2.39	0.43
1:C:268:ILE:HB	1:C:271:LEU:CD2	2.45	0.43
1:D:128:PHE:HA	1:D:129:PRO:HD3	1.66	0.43
1:D:39:PHE:CD1	1:D:258:LEU:HD12	2.54	0.43
1:D:265:CYS:O	1:D:269:ASN:N	2.36	0.43
1:D:57:ILE:O	1:D:61:GLY:HA2	2.19	0.43
1:E:261:ARG:O	1:E:264:ALA:N	2.52	0.43
1:E:98:PRO:O	1:E:99:VAL:CB	2.66	0.43
1:G:52:PHE:O	1:G:56:SER:OG	2.36	0.43
1:H:115:GLU:O	1:H:117:MET:N	2.44	0.43
1:H:43:ASN:CG	1:H:275:ASN:OD1	2.56	0.43
1:H:53:LEU:CD2	1:H:53:LEU:C	2.87	0.43
1:I:223:THR:HG23	1:I:250:ILE:HG13	2.01	0.43
1:I:269:ASN:CG	1:I:276:VAL:HG22	2.38	0.43
1:I:52:PHE:O	1:I:56:SER:HB2	2.19	0.43
1:I:80:LEU:HB3	1:I:90:ALA:CB	2.48	0.43
1:J:182:ALA:HB1	1:J:183:PRO:HD2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:91:THR:N	1:J:106:LEU:HD12	2.33	0.43
1:K:201:THR:O	1:K:201:THR:CG2	2.67	0.43
1:K:150:VAL:HG11	1:L:156:LYS:HG2	2.01	0.43
1:L:39:PHE:O	1:L:54:GLU:OE2	2.37	0.43
1:A:40:GLU:CD	1:A:279:LYS:HZ3	2.22	0.43
1:B:35:ALA:C	1:B:37:GLN:N	2.72	0.43
1:C:168:GLN:CD	1:C:168:GLN:C	2.77	0.43
1:C:43:ASN:HB2	1:C:277:LYS:CE	2.48	0.43
1:C:60:PHE:N	1:C:129:PRO:HB3	2.33	0.43
1:D:14:GLU:O	1:D:17:ARG:N	2.47	0.43
1:D:171:LEU:O	1:D:172:LYS:CB	2.66	0.43
1:D:216:ALA:O	1:D:217:VAL:C	2.58	0.43
1:D:85:ASP:OD2	1:D:85:ASP:C	2.57	0.43
1:E:109:TYR:O	1:E:111:ASP:N	2.45	0.43
1:E:129:PRO:O	1:E:132:PRO:HD2	2.19	0.43
1:E:257:PHE:O	1:E:258:LEU:C	2.57	0.43
1:E:63:VAL:O	1:E:63:VAL:CG1	2.67	0.43
1:E:259:LYS:NZ	1:F:281:ARG:NH1	2.66	0.43
1:G:113:LYS:HE3	1:G:271:LEU:HA	2.01	0.43
1:G:38:LEU:HD11	1:G:225:LYS:CB	2.42	0.43
1:H:177:GLN:C	1:H:179:GLU:N	2.71	0.43
1:H:18:GLN:O	1:H:21:ASN:HB2	2.18	0.43
1:H:63:VAL:HG13	1:H:65:PHE:HE1	1.84	0.43
1:I:136:LEU:HD13	1:J:22:ARG:HD2	2.00	0.43
1:I:268:ILE:O	1:I:271:LEU:HB3	2.18	0.43
1:J:223:THR:C	1:J:225:LYS:H	2.22	0.43
1:K:62:TYR:CE1	1:K:127:ALA:HB1	2.54	0.43
1:K:275:ASN:ND2	1:K:277:LYS:CE	2.80	0.43
1:L:168:GLN:CD	1:L:169:LEU:HG	2.39	0.43
1:A:123:ASN:ND2	1:A:130:THR:OG1	2.50	0.43
1:C:106:LEU:CD2	1:C:120:VAL:HG13	2.43	0.43
1:C:259:LYS:HG3	1:D:281:ARG:HH21	1.78	0.43
1:E:148:ILE:O	1:E:152:GLN:HG3	2.19	0.43
1:F:24:PHE:CZ	1:F:28:LEU:HD12	2.53	0.43
1:F:44:LEU:HB3	1:F:48:ILE:HD11	2.00	0.43
1:G:105:LYS:CE	1:G:105:LYS:H	2.32	0.43
1:I:168:GLN:HE22	1:I:169:LEU:CD2	2.32	0.43
1:I:226:LEU:C	1:I:227:GLN:HG2	2.39	0.43
1:L:62:TYR:O	1:L:121:ILE:O	2.36	0.43
1:A:158:PRO:O	1:A:159:VAL:CB	2.57	0.43
1:A:74:ILE:HG12	1:A:75:ALA:H	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:108:ASN:HD21	1:B:119:VAL:HG21	1.79	0.43
1:B:58:HIS:C	1:B:59:GLN:O	2.57	0.43
1:C:252:SER:C	1:C:254:GLY:N	2.72	0.43
1:D:16:GLN:O	1:D:20:ARG:HG3	2.18	0.43
1:D:248:GLU:HB3	1:E:282:TYR:CD2	2.54	0.43
1:E:44:LEU:O	1:E:45:PRO:C	2.57	0.43
1:E:47:THR:HB	1:E:73:TYR:O	2.19	0.43
1:E:86:VAL:CG1	1:E:87:TYR:N	2.73	0.43
1:F:271:LEU:O	1:F:272:TYR:CB	2.67	0.43
1:F:38:LEU:HD11	1:F:225:LYS:HB2	1.99	0.43
1:G:107:TYR:O	1:G:108:ASN:HB3	2.19	0.43
1:H:151:ASN:O	1:H:155:GLN:NE2	2.42	0.43
1:H:71:ILE:C	1:H:74:ILE:HD11	2.39	0.43
1:I:90:ALA:O	1:I:106:LEU:HD12	2.19	0.43
1:I:14:GLU:C	1:I:16:GLN:N	2.71	0.43
1:I:266:GLU:CA	1:I:269:ASN:HD22	2.23	0.43
1:K:191:LEU:HD23	1:K:191:LEU:N	2.33	0.43
1:K:273:GLY:O	1:K:274:LEU:O	2.37	0.43
1:K:43:ASN:HB3	1:K:277:LYS:CE	2.48	0.43
1:L:103:GLU:HG3	1:L:103:GLU:O	2.18	0.43
1:A:109:TYR:CG	1:A:110:ARG:N	2.87	0.42
1:A:162:ARG:CZ	1:B:193:SER:HA	2.49	0.42
1:B:225:LYS:HB3	1:B:257:PHE:HE1	1.83	0.42
1:B:53:LEU:HD11	1:B:121:ILE:CD1	2.42	0.42
1:B:87:TYR:CZ	1:C:49:ASN:HB3	2.53	0.42
1:D:164:ASN:O	1:D:164:ASN:CG	2.57	0.42
1:D:169:LEU:HA	1:D:169:LEU:HD23	1.80	0.42
1:D:271:LEU:HA	1:D:271:LEU:HD23	1.79	0.42
1:D:87:TYR:O	1:D:88:ASN:HB3	2.19	0.42
1:E:125:ASP:OD2	1:F:55:LYS:HD3	2.19	0.42
1:E:171:LEU:C	1:E:173:GLN:N	2.72	0.42
1:E:179:GLU:HG3	1:E:180:GLY:N	2.34	0.42
1:E:38:LEU:HD11	1:E:225:LYS:CE	2.48	0.42
1:E:39:PHE:CD1	1:E:261:ARG:NH1	2.83	0.42
1:E:66:TYR:HD2	1:E:68:ASP:HB2	1.84	0.42
1:E:84:ARG:O	1:E:85:ASP:C	2.56	0.42
1:F:67:LYS:HB3	1:F:117:MET:HE1	2.01	0.42
1:G:142:ALA:O	1:G:146:GLU:HB2	2.19	0.42
1:H:43:ASN:C	1:H:277:LYS:HZ1	2.22	0.42
1:I:110:ARG:HG2	1:J:46:PRO:CG	2.48	0.42
1:I:25:ILE:HG22	1:I:29:ASN:ND2	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:74:ILE:HG13	1:K:75:ALA:N	2.33	0.42
1:L:66:TYR:OH	1:L:116:ASP:HA	2.19	0.42
1:L:177:GLN:O	1:L:178:TYR:O	2.37	0.42
1:K:210:LEU:CD2	1:L:205:TYR:HE1	2.32	0.42
1:A:151:ASN:O	1:A:155:GLN:NE2	2.36	0.42
1:A:15:ILE:O	1:A:15:ILE:HG22	2.19	0.42
1:A:280:PHE:HB3	1:A:283:ASP:HB2	2.01	0.42
1:A:44:LEU:HD13	1:A:48:ILE:HG22	2.01	0.42
1:B:134:LEU:O	1:B:138:ALA:HB2	2.19	0.42
1:B:269:ASN:HD21	1:B:275:ASN:H	1.60	0.42
1:B:62:TYR:CZ	1:B:79:ALA:HA	2.53	0.42
1:B:87:TYR:CD2	1:C:49:ASN:HB3	2.54	0.42
1:C:171:LEU:C	1:C:173:GLN:N	2.59	0.42
1:C:279:LYS:HD2	1:C:281:ARG:H	1.85	0.42
1:C:30:TYR:CZ	1:C:34:LEU:HD11	2.53	0.42
1:C:57:ILE:HG12	1:C:63:VAL:HB	2.02	0.42
1:D:35:ALA:HB2	1:D:225:LYS:NZ	2.32	0.42
1:F:159:VAL:HA	1:F:199:PHE:O	2.20	0.42
1:F:257:PHE:O	1:F:261:ARG:HD2	2.19	0.42
1:F:68:ASP:HB3	1:F:69:PRO:CD	2.43	0.42
1:G:278:VAL:HG12	1:G:279:LYS:N	2.34	0.42
1:G:86:VAL:HG13	1:G:87:TYR:CD1	2.54	0.42
1:H:259:LYS:O	1:H:260:SER:C	2.56	0.42
1:H:68:ASP:HA	1:H:69:PRO:HD2	1.85	0.42
1:I:112:MET:O	1:I:113:LYS:CB	2.54	0.42
1:J:173:GLN:O	1:J:176:ASN:HB2	2.19	0.42
1:J:226:LEU:O	1:J:227:GLN:CG	2.66	0.42
1:J:248:GLU:O	1:J:250:ILE:N	2.53	0.42
1:J:41:TRP:CH2	1:J:261:ARG:HB3	2.54	0.42
1:J:57:ILE:HG12	1:J:63:VAL:HG11	2.00	0.42
1:J:87:TYR:O	1:J:88:ASN:CB	2.68	0.42
1:K:124:ASN:N	1:K:260:SER:OG	2.51	0.42
1:L:258:LEU:O	1:L:259:LYS:C	2.58	0.42
1:A:222:MET:CB	1:A:227:GLN:HG3	2.49	0.42
1:B:151:ASN:OD1	1:B:207:VAL:HG23	2.19	0.42
1:B:35:ALA:O	1:B:37:GLN:N	2.52	0.42
1:C:109:TYR:O	1:C:112:MET:HG3	2.19	0.42
1:C:23:TRP:O	1:C:27:TYR:CD1	2.72	0.42
1:C:172:LYS:HB2	1:D:185:ILE:HD12	2.02	0.42
1:E:144:LEU:O	1:E:148:ILE:HG13	2.18	0.42
1:E:168:GLN:HB3	1:E:188:HIS:CG	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:63:VAL:HG12	1:E:121:ILE:HB	2.00	0.42
1:E:98:PRO:O	1:E:99:VAL:HB	2.19	0.42
1:F:158:PRO:HG2	1:F:158:PRO:O	2.20	0.42
1:F:168:GLN:CD	1:F:169:LEU:N	2.72	0.42
1:G:132:PRO:O	1:G:133:THR:C	2.57	0.42
1:F:172:LYS:NZ	1:G:179:GLU:OE1	2.46	0.42
1:I:104:PHE:CD1	1:I:118:GLY:HA3	2.54	0.42
1:H:109:TYR:CZ	1:I:46:PRO:HB2	2.53	0.42
1:J:281:ARG:NH1	1:J:281:ARG:HG3	2.33	0.42
1:J:47:THR:HG21	1:J:72:SER:CB	2.48	0.42
1:K:120:VAL:HG11	1:K:122:TYR:CZ	2.54	0.42
1:L:67:LYS:N	1:L:117:MET:SD	2.86	0.42
1:A:14:GLU:C	1:A:16:GLN:N	2.72	0.42
1:B:124:ASN:ND2	1:B:125:ASP:O	2.53	0.42
1:C:227:GLN:C	1:C:228:THR:O	2.56	0.42
1:C:274:LEU:CD2	1:C:276:VAL:H	2.06	0.42
1:D:170:SER:HB3	1:D:173:GLN:HB3	2.01	0.42
1:C:109:TYR:CE1	1:D:47:THR:HA	2.55	0.42
1:E:264:ALA:O	1:E:265:CYS:C	2.57	0.42
1:E:75:ALA:O	1:E:76:CYS:O	2.37	0.42
1:F:209:LYS:O	1:F:212:ALA:HB3	2.19	0.42
1:G:44:LEU:HD23	1:G:275:ASN:OD1	2.19	0.42
1:G:48:ILE:N	1:G:48:ILE:HD13	2.34	0.42
1:G:52:PHE:C	1:G:52:PHE:HD2	2.23	0.42
1:H:265:CYS:HA	1:H:268:ILE:CD1	2.48	0.42
1:H:276:VAL:O	1:H:276:VAL:HG23	2.19	0.42
1:I:224:PHE:HB3	1:I:225:LYS:HD2	2.00	0.42
1:I:39:PHE:O	1:I:54:GLU:OE2	2.38	0.42
1:I:44:LEU:HD13	1:I:48:ILE:HG21	2.01	0.42
1:I:98:PRO:O	1:I:99:VAL:CB	2.67	0.42
1:J:203:ALA:O	1:J:204:PRO:C	2.55	0.42
1:J:41:TRP:HE3	1:J:277:LYS:HE2	1.84	0.42
1:L:66:TYR:CD2	1:L:104:PHE:CD1	3.07	0.42
1:K:164:ASN:O	1:L:189:GLU:HA	2.19	0.42
1:K:213:GLN:HG2	1:L:208:ASP:OD1	2.19	0.42
1:L:66:TYR:HB2	1:L:104:PHE:CE2	2.54	0.42
1:A:110:ARG:HE	1:A:111:ASP:H	1.68	0.42
1:A:20:ARG:NE	1:A:146:GLU:CD	2.72	0.42
1:D:169:LEU:CD1	1:D:187:ALA:O	2.68	0.42
1:D:49:ASN:HA	1:D:50:PRO:HD2	1.56	0.42
1:E:253:SER:HA	1:E:256:VAL:HG23	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:172:LYS:HA	1:F:172:LYS:HD2	1.77	0.42
1:F:264:ALA:C	1:F:266:GLU:N	2.73	0.42
1:F:35:ALA:O	1:F:38:LEU:CD2	2.67	0.42
1:F:62:TYR:CD1	1:F:62:TYR:N	2.87	0.42
1:F:48:ILE:HG22	1:F:74:ILE:CA	2.49	0.42
1:G:41:TRP:O	1:G:277:LYS:CG	2.67	0.42
1:G:56:SER:O	1:G:57:ILE:HG13	2.20	0.42
1:H:87:TYR:CE1	1:I:49:ASN:HB2	2.54	0.42
1:J:89:GLN:HG3	1:J:90:ALA:N	2.24	0.42
1:J:87:TYR:CD1	1:K:49:ASN:HB3	2.54	0.42
1:L:213:GLN:O	1:L:216:ALA:HB3	2.18	0.42
1:L:50:PRO:O	1:L:51:SER:C	2.57	0.42
1:C:172:LYS:O	1:C:176:ASN:OD1	2.36	0.42
1:B:248:GLU:OE2	1:C:226:LEU:HG	2.20	0.42
1:C:48:ILE:CD1	1:C:65:PHE:CE1	3.03	0.42
1:D:104:PHE:HA	1:D:105:LYS:NZ	2.34	0.42
1:D:107:TYR:HA	1:D:267:LYS:HD3	2.01	0.42
1:D:125:ASP:O	1:D:126:MET:C	2.55	0.42
1:D:42:GLU:CB	1:D:277:LYS:CD	2.95	0.42
1:F:269:ASN:ND2	1:F:274:LEU:O	2.53	0.42
1:G:66:TYR:CD1	1:G:104:PHE:CD2	3.07	0.42
1:G:16:GLN:CA	1:G:16:GLN:NE2	2.83	0.42
1:G:249:GLN:HE21	1:H:222:MET:CE	2.33	0.42
1:H:225:LYS:O	1:H:226:LEU:HB3	2.19	0.42
1:H:93:PHE:HB2	1:H:106:LEU:CD2	2.35	0.42
1:I:247:ASP:O	1:I:251:ASP:HB2	2.20	0.42
1:I:273:GLY:O	1:I:274:LEU:CG	2.64	0.42
1:J:186:PHE:CD2	1:J:196:ILE:HD11	2.54	0.42
1:J:264:ALA:O	1:J:265:CYS:C	2.56	0.42
1:K:41:TRP:HB3	1:K:277:LYS:HZ2	1.84	0.42
1:L:117:MET:HG2	1:L:271:LEU:HD23	1.98	0.42
1:K:164:ASN:OD1	1:L:191:LEU:O	2.37	0.42
1:A:152:GLN:C	1:A:154:ALA:N	2.73	0.42
1:A:196:ILE:HG22	1:L:199:PHE:CE2	2.54	0.42
1:A:43:ASN:HD21	1:A:276:VAL:HG12	1.84	0.42
1:B:47:THR:CG2	1:B:73:TYR:HB2	2.49	0.42
1:C:53:LEU:HD11	1:C:121:ILE:CD1	2.46	0.42
1:D:165:ASP:O	1:D:166:ASN:C	2.58	0.42
1:E:162:ARG:NH1	1:E:197:GLU:OE1	2.53	0.42
1:E:252:SER:C	1:E:254:GLY:H	2.22	0.42
1:F:93:PHE:HB3	1:F:104:PHE:CZ	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:107:TYR:HD1	1:F:267:LYS:HD3	1.85	0.42
1:F:178:TYR:O	1:F:179:GLU:C	2.56	0.42
1:G:16:GLN:HG3	1:G:20:ARG:CD	2.48	0.42
1:G:277:LYS:N	1:G:277:LYS:CD	2.81	0.42
1:H:262:GLU:HB3	1:H:278:VAL:HG12	2.02	0.42
1:H:283:ASP:OD2	1:H:284:ILE:HD12	2.19	0.42
1:I:113:LYS:O	1:I:114:GLU:HB3	2.20	0.42
1:I:35:ALA:O	1:I:38:LEU:HG	2.20	0.42
1:I:66:TYR:OH	1:I:69:PRO:HD3	2.20	0.42
1:J:12:ILE:O	1:J:13:ASN:ND2	2.53	0.42
1:J:145:LYS:O	1:J:145:LYS:HD2	2.20	0.42
1:K:107:TYR:CD2	1:K:107:TYR:N	2.87	0.42
1:K:192:ASP:O	1:K:194:ASP:N	2.53	0.42
1:K:255:THR:O	1:K:259:LYS:HB2	2.20	0.42
1:K:68:ASP:O	1:K:70:VAL:N	2.53	0.42
1:K:92:VAL:HG13	1:K:93:PHE:O	2.19	0.42
1:K:97:SER:OG	1:K:98:PRO:HD2	2.19	0.42
1:L:66:TYR:CD1	1:L:117:MET:SD	3.12	0.42
1:B:125:ASP:O	1:B:126:MET:CB	2.63	0.42
1:B:158:PRO:O	1:B:159:VAL:HG23	2.19	0.42
1:B:252:SER:C	1:B:254:GLY:H	2.23	0.42
1:D:168:GLN:OE1	1:D:169:LEU:HG	2.19	0.42
1:D:89:GLN:HG2	1:D:90:ALA:O	2.18	0.42
1:F:224:PHE:CD2	1:F:225:LYS:NZ	2.88	0.42
1:F:265:CYS:HB2	1:F:275:ASN:O	2.20	0.42
1:G:150:VAL:HG21	1:H:156:LYS:HG2	2.02	0.42
1:H:166:ASN:O	1:H:168:GLN:N	2.53	0.42
1:I:188:HIS:HD2	1:I:190:ALA:HB3	1.85	0.42
1:K:66:TYR:CD1	1:K:104:PHE:CD1	3.08	0.42
1:K:45:PRO:HB3	1:K:73:TYR:CD1	2.55	0.42
1:L:20:ARG:HD3	1:L:146:GLU:CG	2.50	0.42
1:A:171:LEU:O	1:A:172:LYS:HB3	2.20	0.42
1:B:62:TYR:HB3	1:B:63:VAL:H	1.26	0.42
1:C:259:LYS:HG3	1:D:281:ARG:CZ	2.48	0.42
1:D:79:ALA:CB	1:D:94:ARG:CZ	2.97	0.42
1:F:30:TYR:CD2	1:F:218:TRP:HH2	2.37	0.42
1:G:226:LEU:O	1:G:227:GLN:CG	2.67	0.42
1:G:62:TYR:CE2	1:G:78:GLY:O	2.73	0.42
1:H:275:ASN:HA	1:H:275:ASN:HD22	1.59	0.42
1:J:209:LYS:O	1:J:212:ALA:HB3	2.19	0.42
1:J:96:ALA:O	1:J:97:SER:CB	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:123:ASN:O	1:K:124:ASN:CG	2.59	0.42
1:K:263:GLU:HG3	1:K:263:GLU:H	1.58	0.42
1:K:68:ASP:C	1:K:70:VAL:N	2.73	0.42
1:K:213:GLN:NE2	1:L:211:ASN:CG	2.66	0.42
1:L:278:VAL:CG1	1:L:279:LYS:H	2.01	0.42
1:A:11:SER:O	1:A:12:ILE:C	2.58	0.42
1:B:179:GLU:OE2	1:L:11:SER:N	2.53	0.42
1:B:43:ASN:HB2	1:B:277:LYS:CE	2.50	0.42
1:B:42:GLU:O	1:B:277:LYS:HG2	2.19	0.42
1:C:52:PHE:O	1:C:56:SER:N	2.49	0.42
1:D:20:ARG:CZ	1:D:146:GLU:CD	2.88	0.42
1:D:178:TYR:HE1	1:E:181:ASN:ND2	2.17	0.42
1:D:140:GLU:CB	1:D:217:VAL:HG11	2.50	0.42
1:D:258:LEU:HD21	1:D:262:GLU:CG	2.47	0.42
1:D:89:GLN:HG2	1:D:90:ALA:C	2.40	0.42
1:D:89:GLN:CG	1:D:90:ALA:N	2.78	0.42
1:E:31:LEU:HD21	1:E:218:TRP:CZ3	2.55	0.42
1:E:84:ARG:NH1	1:E:90:ALA:CB	2.82	0.42
1:F:107:TYR:OH	1:F:109:TYR:CE1	2.68	0.42
1:F:277:LYS:O	1:F:278:VAL:HG23	2.19	0.42
1:G:124:ASN:HD22	1:G:128:PHE:H	1.68	0.42
1:G:20:ARG:HG2	1:G:146:GLU:CG	2.49	0.42
1:H:187:ALA:O	1:H:188:HIS:HB2	2.20	0.42
1:I:162:ARG:HA	1:J:186:PHE:O	2.20	0.42
1:I:248:GLU:O	1:I:252:SER:OG	2.33	0.42
1:I:274:LEU:HD13	1:I:275:ASN:HB3	1.99	0.42
1:J:102:LYS:HG3	1:J:103:GLU:N	2.35	0.42
1:J:84:ARG:HA	1:J:84:ARG:HD3	1.89	0.42
1:J:85:ASP:H	1:J:89:GLN:N	2.18	0.42
1:K:39:PHE:CE2	1:K:257:PHE:HB3	2.55	0.42
1:A:64:GLY:HA2	1:A:120:VAL:HA	2.02	0.41
1:A:124:ASN:C	1:A:126:MET:N	2.73	0.41
1:B:62:TYR:O	1:B:121:ILE:O	2.38	0.41
1:C:175:TYR:HB3	1:D:182:ALA:HB2	2.02	0.41
1:C:66:TYR:CZ	1:C:68:ASP:HA	2.54	0.41
1:D:114:GLU:O	1:D:115:GLU:C	2.59	0.41
1:D:13:ASN:OD1	1:F:179:GLU:HA	2.19	0.41
1:E:129:PRO:C	1:E:132:PRO:HD2	2.41	0.41
1:E:38:LEU:HD21	1:E:227:GLN:NE2	2.34	0.41
1:F:85:ASP:C	1:F:87:TYR:H	2.23	0.41
1:G:193:SER:C	1:G:195:SER:H	2.22	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:255:THR:HG22	1:G:259:LYS:HB2	2.02	0.41
1:H:117:MET:SD	1:H:118:GLY:N	2.93	0.41
1:H:13:ASN:HA	1:H:16:GLN:CB	2.50	0.41
1:H:16:GLN:OE1	1:J:179:GLU:O	2.38	0.41
1:H:269:ASN:HA	1:H:273:GLY:CA	2.49	0.41
1:H:27:TYR:O	1:H:28:LEU:C	2.59	0.41
1:H:53:LEU:HG	1:H:65:PHE:CE2	2.51	0.41
1:H:86:VAL:HG23	1:H:87:TYR:H	1.85	0.41
1:L:278:VAL:CG1	1:L:279:LYS:N	2.70	0.41
1:A:193:SER:HB3	1:L:194:ASP:OD1	2.19	0.41
1:A:40:GLU:HB2	1:A:281:ARG:CB	2.50	0.41
1:A:85:ASP:OD1	1:A:89:GLN:CB	2.55	0.41
1:D:172:LYS:HB2	1:E:185:ILE:CD1	2.43	0.41
1:D:41:TRP:HB3	1:D:44:LEU:HG	2.02	0.41
1:E:65:PHE:CG	1:E:268:ILE:HD11	2.54	0.41
1:E:62:TYR:HB3	1:E:63:VAL:H	1.49	0.41
1:E:62:TYR:CE2	1:E:79:ALA:HA	2.53	0.41
1:F:28:LEU:HD11	1:F:135:GLU:CD	2.40	0.41
1:F:158:PRO:C	1:F:159:VAL:HG23	2.39	0.41
1:G:260:SER:O	1:G:264:ALA:HB3	2.19	0.41
1:G:80:LEU:O	1:G:94:ARG:NE	2.53	0.41
1:I:21:ASN:O	1:I:22:ARG:C	2.59	0.41
1:J:201:THR:CG2	1:J:201:THR:O	2.60	0.41
1:J:265:CYS:SG	1:J:278:VAL:HG23	2.60	0.41
1:J:274:LEU:HD12	1:J:275:ASN:H	1.85	0.41
1:J:280:PHE:HB3	1:J:281:ARG:H	1.57	0.41
1:J:44:LEU:HA	1:J:45:PRO:HD2	1.92	0.41
1:L:275:ASN:O	1:L:275:ASN:OD1	2.37	0.41
1:L:42:GLU:O	1:L:43:ASN:CB	2.55	0.41
1:A:66:TYR:HB2	1:A:104:PHE:CE2	2.51	0.41
1:A:67:LYS:HG3	1:A:73:TYR:CD2	2.55	0.41
1:B:148:ILE:HG22	1:B:152:GLN:HE21	1.85	0.41
1:B:97:SER:CB	1:B:98:PRO:CD	2.98	0.41
1:C:227:GLN:O	1:C:228:THR:O	2.38	0.41
1:B:136:LEU:CD1	1:C:22:ARG:HD2	2.50	0.41
1:C:30:TYR:O	1:C:33:SER:HB3	2.21	0.41
1:D:124:ASN:ND2	1:D:125:ASP:CG	2.74	0.41
1:D:154:ALA:HB1	1:D:203:ALA:CB	2.50	0.41
1:E:118:GLY:O	1:E:119:VAL:CG2	2.68	0.41
1:E:137:PHE:CD1	1:E:221:MET:SD	3.13	0.41
1:F:91:THR:N	1:F:106:LEU:HD12	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:108:ASN:O	1:F:109:TYR:HB3	2.19	0.41
1:F:35:ALA:HA	1:F:38:LEU:HD21	2.02	0.41
1:G:41:TRP:O	1:G:42:GLU:CB	2.65	0.41
1:J:103:GLU:HG2	1:J:104:PHE:H	1.84	0.41
1:J:137:PHE:HE2	1:J:220:GLU:HB3	1.86	0.41
1:I:150:VAL:CG1	1:J:156:LYS:HG3	2.48	0.41
1:J:161:ILE:HG21	1:J:171:LEU:CD1	2.50	0.41
1:J:213:GLN:HG2	1:K:207:VAL:HG12	2.01	0.41
1:K:201:THR:HG22	1:K:201:THR:O	2.19	0.41
1:A:152:GLN:HE22	1:L:144:LEU:HD11	1.85	0.41
1:L:43:ASN:C	1:L:277:LYS:HE2	2.40	0.41
1:A:156:LYS:O	1:A:157:THR:HG23	2.21	0.41
1:A:201:THR:HG21	1:C:183:PRO:HG3	2.03	0.41
1:A:248:GLU:O	1:A:249:GLN:CB	2.60	0.41
1:B:221:MET:HE2	1:B:221:MET:O	2.20	0.41
1:B:271:LEU:O	1:B:272:TYR:O	2.38	0.41
1:C:115:GLU:O	1:C:116:ASP:CB	2.68	0.41
1:C:207:VAL:O	1:C:207:VAL:HG12	2.20	0.41
1:D:168:GLN:HB3	1:D:188:HIS:CE1	2.54	0.41
1:E:275:ASN:HD22	1:E:275:ASN:HA	1.64	0.41
1:E:280:PHE:O	1:E:282:TYR:N	2.53	0.41
1:E:78:GLY:N	1:E:93:PHE:HE2	2.17	0.41
1:F:103:GLU:O	1:F:104:PHE:HB3	2.20	0.41
1:F:201:THR:CG2	1:H:183:PRO:HG3	2.50	0.41
1:F:48:ILE:HG12	1:F:65:PHE:CZ	2.55	0.41
1:F:85:ASP:C	1:G:99:VAL:HG11	2.40	0.41
1:H:123:ASN:ND2	1:H:257:PHE:CD2	2.88	0.41
1:H:262:GLU:OE2	1:H:278:VAL:CG1	2.69	0.41
1:I:159:VAL:HA	1:I:199:PHE:O	2.20	0.41
1:I:277:LYS:HE2	1:I:277:LYS:HB3	1.80	0.41
1:J:128:PHE:HA	1:J:129:PRO:HD3	1.77	0.41
1:J:173:GLN:OE1	1:J:176:ASN:ND2	2.53	0.41
1:K:148:ILE:HG23	1:K:207:VAL:HG13	2.02	0.41
1:B:109:TYR:HB3	1:B:110:ARG:H	1.65	0.41
1:B:105:LYS:NZ	1:B:114:GLU:OE1	2.53	0.41
1:B:167:ASN:HB3	1:B:188:HIS:CD2	2.55	0.41
1:C:159:VAL:HG13	1:C:198:VAL:CG1	2.50	0.41
1:D:227:GLN:O	1:D:228:THR:O	2.38	0.41
1:D:269:ASN:N	1:D:269:ASN:HD22	2.17	0.41
1:F:261:ARG:O	1:F:264:ALA:HB3	2.20	0.41
1:G:16:GLN:O	1:G:19:LYS:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:108:ASN:ND2	1:H:271:LEU:CD1	2.83	0.41
1:J:192:ASP:O	1:J:194:ASP:N	2.51	0.41
1:J:34:LEU:HD22	1:J:225:LYS:NZ	2.35	0.41
1:K:109:TYR:HD2	1:K:112:MET:HB2	1.79	0.41
1:A:282:TYR:CE2	1:L:248:GLU:HG2	2.55	0.41
1:B:247:ASP:C	1:B:249:GLN:N	2.74	0.41
1:D:107:TYR:CA	1:D:267:LYS:HD3	2.50	0.41
1:D:284:ILE:O	1:D:285:VAL:HG22	2.21	0.41
1:E:116:ASP:O	1:E:117:MET:O	2.38	0.41
1:E:179:GLU:HG3	1:E:180:GLY:H	1.85	0.41
1:E:39:PHE:CG	1:E:261:ARG:NH1	2.83	0.41
1:F:23:TRP:O	1:F:26:HIS:HB3	2.20	0.41
1:G:104:PHE:CD1	1:G:104:PHE:C	2.93	0.41
1:G:109:TYR:CB	1:G:112:MET:HB2	2.45	0.41
1:G:80:LEU:O	1:G:81:SER:HB3	2.21	0.41
1:G:85:ASP:HB3	1:G:89:GLN:CA	2.50	0.41
1:H:114:GLU:HB3	1:H:115:GLU:H	1.59	0.41
1:H:92:VAL:CG1	1:H:93:PHE:N	2.82	0.41
1:I:152:GLN:O	1:I:155:GLN:HG2	2.20	0.41
1:I:262:GLU:OE2	1:I:278:VAL:CG2	2.69	0.41
1:K:68:ASP:HB3	1:K:71:ILE:HB	2.03	0.41
1:K:48:ILE:CD1	1:K:73:TYR:HB3	2.48	0.41
1:L:158:PRO:C	1:L:159:VAL:HG23	2.41	0.41
1:L:226:LEU:O	1:L:227:GLN:CG	2.68	0.41
1:L:43:ASN:HB2	1:L:277:LYS:HZ1	1.85	0.41
1:A:128:PHE:HA	1:A:129:PRO:HD3	1.96	0.41
1:A:282:TYR:CD2	1:L:248:GLU:HG2	2.56	0.41
1:B:177:GLN:CG	1:B:178:TYR:N	2.84	0.41
1:B:108:ASN:HB3	1:B:271:LEU:CD1	2.51	0.41
1:B:32:GLN:HB3	1:B:36:TYR:CE2	2.56	0.41
1:C:124:ASN:ND2	1:C:126:MET:O	2.53	0.41
1:C:124:ASN:ND2	1:C:128:PHE:HB2	2.29	0.41
1:C:274:LEU:CD2	1:C:276:VAL:HG23	2.51	0.41
1:C:109:TYR:HE1	1:D:47:THR:CG2	2.34	0.41
1:E:37:GLN:HG2	1:E:281:ARG:HD2	2.03	0.41
1:E:84:ARG:HD2	1:E:90:ALA:HA	2.02	0.41
1:F:56:SER:O	1:F:57:ILE:C	2.58	0.41
1:F:67:LYS:HD3	1:F:73:TYR:OH	2.20	0.41
1:F:87:TYR:HA	1:G:52:PHE:HE1	1.86	0.41
1:G:130:THR:HG22	1:G:134:LEU:HG	2.02	0.41
1:H:221:MET:HE3	1:H:221:MET:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:259:LYS:C	1:H:261:ARG:N	2.74	0.41
1:H:83:GLN:O	1:H:91:THR:OG1	2.26	0.41
1:I:100:TYR:HH	1:I:102:LYS:HD2	1.83	0.41
1:J:21:ASN:O	1:J:22:ARG:C	2.59	0.41
1:J:277:LYS:C	1:J:278:VAL:HG23	2.41	0.41
1:J:64:GLY:O	1:J:75:ALA:HA	2.21	0.41
1:K:107:TYR:HD2	1:K:107:TYR:N	2.19	0.41
1:K:161:ILE:HG21	1:K:171:LEU:HD11	2.02	0.41
1:L:154:ALA:C	1:L:156:LYS:N	2.74	0.41
1:B:125:ASP:HB2	1:B:126:MET:HE1	2.02	0.41
1:C:213:GLN:O	1:C:216:ALA:HB3	2.21	0.41
1:D:108:ASN:HB2	1:D:112:MET:O	2.20	0.41
1:D:120:VAL:CG2	1:D:122:TYR:CE1	3.01	0.41
1:D:81:SER:O	1:D:90:ALA:HB1	2.21	0.41
1:E:126:MET:O	1:E:127:ALA:C	2.59	0.41
1:E:80:LEU:HD22	1:E:90:ALA:CB	2.45	0.41
1:G:137:PHE:O	1:G:141:LEU:HG	2.20	0.41
1:G:275:ASN:O	1:G:277:LYS:CE	2.69	0.41
1:G:62:TYR:HE2	1:G:78:GLY:O	2.03	0.41
1:G:86:VAL:CG1	1:G:87:TYR:H	2.32	0.41
1:H:223:THR:HG23	1:H:250:ILE:HD13	2.02	0.41
1:H:49:ASN:OD1	1:H:49:ASN:O	2.39	0.41
1:I:130:THR:O	1:I:134:LEU:HG	2.20	0.41
1:I:203:ALA:O	1:I:204:PRO:C	2.57	0.41
1:J:105:LYS:HD2	1:J:114:GLU:HB2	2.02	0.41
1:J:20:ARG:HG2	1:J:146:GLU:HG3	2.02	0.41
1:J:141:LEU:O	1:J:214:LYS:HE3	2.21	0.41
1:K:101:GLN:CD	1:K:101:GLN:C	2.79	0.41
1:K:203:ALA:O	1:K:204:PRO:C	2.57	0.41
1:K:248:GLU:O	1:K:252:SER:CB	2.69	0.41
1:L:53:LEU:O	1:L:57:ILE:HG13	2.20	0.41
1:L:56:SER:CB	1:L:63:VAL:HG22	2.50	0.41
1:A:110:ARG:O	1:A:112:MET:N	2.53	0.41
1:A:80:LEU:HD22	1:A:90:ALA:HB2	2.02	0.41
1:C:101:GLN:O	1:C:101:GLN:CD	2.59	0.41
1:C:147:ILE:HD13	1:D:152:GLN:HB3	2.03	0.41
1:C:166:ASN:HD21	1:C:170:SER:HA	1.84	0.41
1:C:268:ILE:C	1:C:270:GLU:N	2.71	0.41
1:D:172:LYS:HA	1:D:175:TYR:HB2	2.02	0.41
1:D:174:VAL:C	1:D:176:ASN:H	2.24	0.41
1:D:263:GLU:O	1:D:266:GLU:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:274:LEU:N	1:D:274:LEU:HD12	2.36	0.41
1:D:283:ASP:HB2	1:D:284:ILE:CD1	2.47	0.41
1:E:111:ASP:C	1:E:112:MET:HG2	2.42	0.41
1:D:249:GLN:NE2	1:E:228:THR:HG23	2.36	0.41
1:E:62:TYR:HE2	1:E:79:ALA:CA	2.34	0.41
1:F:144:LEU:O	1:F:148:ILE:HG13	2.21	0.41
1:G:120:VAL:HG23	1:G:122:TYR:CE1	2.56	0.41
1:G:15:ILE:O	1:G:19:LYS:N	2.48	0.41
1:G:23:TRP:O	1:G:26:HIS:HB3	2.21	0.41
1:G:270:GLU:C	1:G:272:TYR:N	2.74	0.41
1:G:28:LEU:HD23	1:G:28:LEU:C	2.41	0.41
1:I:108:ASN:OD1	1:I:117:MET:HB2	2.21	0.41
1:J:87:TYR:CE1	1:K:49:ASN:HB3	2.56	0.41
1:K:57:ILE:HD11	1:K:121:ILE:CG2	2.51	0.41
1:K:60:PHE:O	1:K:61:GLY:C	2.59	0.41
1:A:107:TYR:CZ	1:A:109:TYR:CE1	3.09	0.41
1:B:89:GLN:OE1	1:B:91:THR:N	2.37	0.41
1:C:47:THR:HG21	1:C:72:SER:HB3	2.01	0.41
1:E:147:ILE:HG23	1:F:156:LYS:CG	2.51	0.41
1:E:252:SER:C	1:E:254:GLY:N	2.74	0.41
1:E:56:SER:O	1:E:59:GLN:O	2.39	0.41
1:F:131:THR:N	1:F:132:PRO:HD2	2.36	0.41
1:F:45:PRO:HA	1:F:46:PRO:HD2	1.89	0.41
1:G:274:LEU:HG	1:G:275:ASN:N	2.36	0.41
1:G:74:ILE:HD13	1:G:100:TYR:CZ	2.56	0.41
1:G:85:ASP:OD1	1:G:89:GLN:HB3	2.21	0.41
1:F:201:THR:HG21	1:H:183:PRO:HG3	2.03	0.41
1:I:128:PHE:HA	1:I:129:PRO:HD3	1.95	0.41
1:I:49:ASN:HD22	1:I:52:PHE:H	1.69	0.41
1:J:174:VAL:C	1:J:176:ASN:N	2.73	0.41
1:J:177:GLN:O	1:J:178:TYR:C	2.59	0.41
1:J:144:LEU:CD2	1:K:152:GLN:HG2	2.49	0.41
1:K:47:THR:HB	1:K:48:ILE:H	1.58	0.41
1:L:121:ILE:HD11	1:L:268:ILE:HD11	2.02	0.41
1:L:164:ASN:HB3	1:L:195:SER:C	2.41	0.41
1:L:171:LEU:HD22	1:L:175:TYR:CD1	2.55	0.41
1:K:87:TYR:CD1	1:L:49:ASN:HB3	2.56	0.41
1:A:284:ILE:HD12	1:A:284:ILE:HA	1.83	0.41
1:A:93:PHE:HB3	1:A:104:PHE:CB	2.50	0.41
1:C:62:TYR:O	1:C:63:VAL:HB	2.21	0.41
1:D:108:ASN:OD1	1:D:267:LYS:HG2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:158:PRO:CB	1:E:200:LYS:NZ	2.79	0.41
1:F:67:LYS:CB	1:F:117:MET:HE1	2.51	0.41
1:F:82:GLY:O	1:F:83:GLN:O	2.39	0.41
1:H:269:ASN:C	1:H:271:LEU:N	2.75	0.41
1:J:48:ILE:O	1:J:50:PRO:HD3	2.20	0.41
1:J:67:LYS:HE2	1:J:117:MET:CG	2.50	0.41
1:K:14:GLU:O	1:K:16:GLN:N	2.54	0.41
1:K:15:ILE:HA	1:K:18:GLN:HB2	2.02	0.41
1:L:225:LYS:O	1:L:226:LEU:O	2.39	0.41
1:L:78:GLY:N	1:L:93:PHE:HE2	2.18	0.41
1:A:172:LYS:NZ	1:B:179:GLU:CD	2.75	0.40
1:B:250:ILE:H	1:B:250:ILE:HG13	1.72	0.40
1:B:44:LEU:HD23	1:B:275:ASN:CG	2.41	0.40
1:C:109:TYR:HE1	1:D:47:THR:O	2.03	0.40
1:C:12:ILE:O	1:C:16:GLN:HB2	2.21	0.40
1:C:151:ASN:O	1:C:152:GLN:C	2.60	0.40
1:C:222:MET:HB3	1:C:227:GLN:HB3	2.00	0.40
1:C:82:GLY:O	1:C:83:GLN:C	2.59	0.40
1:D:109:TYR:O	1:D:110:ARG:C	2.58	0.40
1:D:113:LYS:HD2	1:D:271:LEU:CD2	2.51	0.40
1:C:147:ILE:HG12	1:D:156:LYS:HD2	2.03	0.40
1:D:172:LYS:C	1:D:174:VAL:N	2.73	0.40
1:D:169:LEU:CD1	1:D:188:HIS:HB2	2.51	0.40
1:D:213:GLN:O	1:D:217:VAL:HG23	2.21	0.40
1:E:171:LEU:O	1:E:172:LYS:CB	2.69	0.40
1:D:210:LEU:CD2	1:E:205:TYR:HE1	2.33	0.40
1:E:221:MET:HE3	1:E:224:PHE:HB3	2.02	0.40
1:F:224:PHE:O	1:F:225:LYS:HB3	2.21	0.40
1:F:258:LEU:HD11	1:F:262:GLU:OE2	2.21	0.40
1:G:16:GLN:CD	1:G:20:ARG:HD3	2.41	0.40
1:G:183:PRO:O	1:G:185:ILE:HG13	2.21	0.40
1:H:68:ASP:CB	1:H:74:ILE:HD13	2.49	0.40
1:I:108:ASN:ND2	1:I:270:GLU:C	2.74	0.40
1:I:62:TYR:CE2	1:I:79:ALA:HA	2.42	0.40
1:J:169:LEU:HD13	1:J:186:PHE:CE1	2.55	0.40
1:L:59:GLN:O	1:L:60:PHE:C	2.59	0.40
1:B:85:ASP:OD1	1:B:89:GLN:HB3	2.21	0.40
1:C:16:GLN:C	1:C:17:ARG:HD2	2.41	0.40
1:D:124:ASN:O	1:D:125:ASP:O	2.40	0.40
1:D:177:GLN:HE22	1:D:184:VAL:HG13	1.87	0.40
1:E:175:TYR:C	1:E:177:GLN:N	2.72	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:188:HIS:O	1:E:189:GLU:HB3	2.22	0.40
1:E:42:GLU:O	1:E:277:LYS:NZ	2.36	0.40
1:E:45:PRO:HG3	1:E:73:TYR:CD1	2.56	0.40
1:F:117:MET:HG3	1:F:118:GLY:H	1.75	0.40
1:G:85:ASP:OD1	1:G:89:GLN:OE1	2.39	0.40
1:I:106:LEU:CD2	1:I:120:VAL:HG23	2.45	0.40
1:I:188:HIS:O	1:I:189:GLU:HB3	2.20	0.40
1:I:39:PHE:HZ	1:I:257:PHE:HB2	1.81	0.40
1:J:169:LEU:HD13	1:J:186:PHE:CD1	2.56	0.40
1:J:147:ILE:HD11	1:K:153:ASN:CG	2.41	0.40
1:K:266:GLU:O	1:K:267:LYS:C	2.60	0.40
1:K:266:GLU:O	1:K:269:ASN:N	2.54	0.40
1:J:248:GLU:HA	1:K:282:TYR:CE1	2.56	0.40
1:A:113:LYS:HD2	1:A:113:LYS:HA	1.86	0.40
1:A:41:TRP:CZ3	1:A:278:VAL:HG22	2.57	0.40
1:D:150:VAL:HG21	1:E:156:LYS:HG2	2.04	0.40
1:D:66:TYR:HB2	1:D:104:PHE:CE1	2.56	0.40
1:D:68:ASP:HB3	1:D:71:ILE:HG12	2.03	0.40
1:E:113:LYS:O	1:E:114:GLU:HG2	2.21	0.40
1:E:134:LEU:O	1:E:138:ALA:N	2.45	0.40
1:E:54:GLU:OE1	1:E:54:GLU:HA	2.21	0.40
1:E:59:GLN:O	1:E:60:PHE:CD1	2.74	0.40
1:F:222:MET:O	1:F:227:GLN:HG2	2.21	0.40
1:G:201:THR:HB	1:H:159:VAL:HG11	2.03	0.40
1:G:41:TRP:O	1:G:277:LYS:HG3	2.21	0.40
1:G:89:GLN:CD	1:G:107:TYR:OH	2.60	0.40
1:H:23:TRP:CG	1:H:145:LYS:HG2	2.56	0.40
1:H:65:PHE:CE2	1:H:75:ALA:CB	3.05	0.40
1:I:144:LEU:HD13	1:I:214:LYS:HA	2.04	0.40
1:I:213:GLN:HG3	1:J:207:VAL:HG11	2.03	0.40
1:I:25:ILE:O	1:I:26:HIS:C	2.58	0.40
1:I:85:ASP:OD1	1:I:85:ASP:N	2.54	0.40
1:K:62:TYR:N	1:K:62:TYR:CD1	2.90	0.40
1:K:89:GLN:CD	1:K:90:ALA:N	2.74	0.40
1:L:110:ARG:C	1:L:112:MET:H	2.24	0.40
1:L:93:PHE:CD1	1:L:120:VAL:HG22	2.56	0.40
1:L:158:PRO:O	1:L:158:PRO:HG2	2.21	0.40
1:L:167:ASN:N	1:L:167:ASN:HD22	2.19	0.40
1:L:218:TRP:O	1:L:221:MET:HB3	2.21	0.40
1:A:110:ARG:O	1:A:111:ASP:C	2.59	0.40
1:A:114:GLU:O	1:A:114:GLU:CG	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:162:ARG:NH2	1:A:197:GLU:OE1	2.53	0.40
1:A:173:GLN:O	1:A:176:ASN:HB2	2.22	0.40
1:A:253:SER:O	1:A:254:GLY:C	2.59	0.40
1:A:271:LEU:O	1:A:272:TYR:CB	2.69	0.40
1:B:117:MET:HB2	1:B:271:LEU:CD1	2.36	0.40
1:B:98:PRO:C	1:B:100:TYR:N	2.75	0.40
1:D:107:TYR:HA	1:D:119:VAL:HG22	2.03	0.40
1:D:105:LYS:HE2	1:D:116:ASP:HB3	2.04	0.40
1:E:36:TYR:CG	1:E:55:LYS:HD3	2.57	0.40
1:E:42:GLU:OE2	1:E:279:LYS:HE3	2.21	0.40
1:F:103:GLU:C	1:F:104:PHE:CD1	2.95	0.40
1:G:175:TYR:O	1:G:178:TYR:HD2	2.03	0.40
1:H:13:ASN:ND2	1:J:179:GLU:HG2	2.24	0.40
1:J:41:TRP:CB	1:J:277:LYS:HB3	2.52	0.40
1:K:97:SER:OG	1:K:99:VAL:CG1	2.67	0.40
1:L:104:PHE:CD1	1:L:104:PHE:N	2.81	0.40
1:L:258:LEU:O	1:L:261:ARG:N	2.55	0.40
1:A:125:ASP:O	1:B:55:LYS:NZ	2.46	0.40
1:A:281:ARG:HD3	1:L:255:THR:HG21	2.04	0.40
1:A:68:ASP:HB2	1:A:100:TYR:OH	2.21	0.40
1:B:107:TYR:CD2	1:B:112:MET:SD	3.14	0.40
1:B:97:SER:CB	1:B:98:PRO:HD3	2.52	0.40
1:D:227:GLN:OE1	1:D:227:GLN:HA	2.20	0.40
1:D:65:PHE:CD1	1:D:65:PHE:C	2.94	0.40
1:E:100:TYR:CE2	1:E:102:LYS:HB2	2.56	0.40
1:E:255:THR:O	1:E:256:VAL:C	2.60	0.40
1:E:80:LEU:HB3	1:E:90:ALA:CB	2.51	0.40
1:F:188:HIS:C	1:F:190:ALA:N	2.75	0.40
1:F:284:ILE:CD1	1:F:284:ILE:H	2.34	0.40
1:H:274:LEU:HD22	1:H:274:LEU:N	2.36	0.40
1:H:48:ILE:HD13	1:H:65:PHE:CD2	2.57	0.40
1:J:166:ASN:O	1:J:167:ASN:C	2.59	0.40
1:L:165:ASP:CG	1:L:195:SER:HB2	2.41	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	253/309 (82%)	170 (67%)	48 (19%)	35 (14%)	0	1
1	B	253/309 (82%)	160 (63%)	49 (19%)	44 (17%)	0	0
1	C	253/309 (82%)	172 (68%)	45 (18%)	36 (14%)	0	1
1	D	253/309 (82%)	150 (59%)	60 (24%)	43 (17%)	0	0
1	E	253/309 (82%)	151 (60%)	50 (20%)	52 (21%)	0	0
1	F	253/309 (82%)	166 (66%)	47 (19%)	40 (16%)	0	1
1	G	253/309 (82%)	160 (63%)	53 (21%)	40 (16%)	0	1
1	H	253/309 (82%)	176 (70%)	41 (16%)	36 (14%)	0	1
1	I	253/309 (82%)	187 (74%)	34 (13%)	32 (13%)	0	1
1	J	253/309 (82%)	175 (69%)	39 (15%)	39 (15%)	0	1
1	K	253/309 (82%)	169 (67%)	46 (18%)	38 (15%)	0	1
1	L	253/309 (82%)	163 (64%)	46 (18%)	44 (17%)	0	0
All	All	3036/3708 (82%)	1999 (66%)	558 (18%)	479 (16%)	0	1

All (479) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	12	ILE
1	A	42	GLU
1	A	92	VAL
1	A	97	SER
1	A	105	LYS
1	A	109	TYR
1	A	110	ARG
1	A	111	ASP
1	A	117	MET
1	A	167	ASN
1	A	194	ASP
1	A	248	GLU

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Mol	Chain	Res	Type
1	A	273	GLY
1	A	274	LEU
1	A	283	ASP
1	A	284	ILE
1	B	43	ASN
1	B	82	GLY
1	B	88	ASN
1	B	97	SER
1	B	99	VAL
1	B	107	TYR
1	B	117	MET
1	B	182	ALA
1	B	226	LEU
1	B	259	LYS
1	B	271	LEU
1	B	272	TYR
1	B	279	LYS
1	C	43	ASN
1	C	63	VAL
1	C	99	VAL
1	C	110	ARG
1	C	111	ASP
1	C	117	MET
1	C	167	ASN
1	C	171	LEU
1	C	172	LYS
1	C	194	ASP
1	C	279	LYS
1	C	283	ASP
1	D	39	PHE
1	D	42	GLU
1	D	61	GLY
1	D	117	MET
1	D	126	MET
1	D	159	VAL
1	D	167	ASN
1	D	194	ASP
1	D	260	SER
1	D	261	ARG
1	D	263	GLU
1	D	274	LEU
1	D	275	ASN

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Mol	Chain	Res	Type
1	D	279	LYS
1	D	284	ILE
1	E	61	GLY
1	E	72	SER
1	E	76	CYS
1	E	86	VAL
1	E	88	ASN
1	E	97	SER
1	E	99	VAL
1	E	102	LYS
1	E	111	ASP
1	E	117	MET
1	E	127	ALA
1	E	165	ASP
1	E	248	GLU
1	E	259	LYS
1	E	275	ASN
1	E	276	VAL
1	F	43	ASN
1	F	51	SER
1	F	60	PHE
1	F	99	VAL
1	F	107	TYR
1	F	112	MET
1	F	171	LEU
1	F	178	TYR
1	F	226	LEU
1	F	278	VAL
1	G	12	ILE
1	G	50	PRO
1	G	88	ASN
1	G	91	THR
1	G	117	MET
1	G	167	ASN
1	G	178	TYR
1	G	189	GLU
1	G	274	LEU
1	G	275	ASN
1	G	278	VAL
1	G	279	LYS
1	H	61	GLY
1	H	97	SER

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Mol	Chain	Res	Type
1	H	117	MET
1	H	167	ASN
1	H	178	TYR
1	H	189	GLU
1	H	209	LYS
1	H	284	ILE
1	I	14	GLU
1	I	43	ASN
1	I	59	GLN
1	I	85	ASP
1	I	95	ALA
1	I	97	SER
1	I	98	PRO
1	I	107	TYR
1	I	109	TYR
1	I	113	LYS
1	I	117	MET
1	I	172	LYS
1	I	194	ASP
1	I	226	LEU
1	I	273	GLY
1	I	278	VAL
1	I	279	LYS
1	J	46	PRO
1	J	61	GLY
1	J	99	VAL
1	J	104	PHE
1	J	107	TYR
1	J	108	ASN
1	J	117	MET
1	J	167	ASN
1	J	171	LEU
1	J	178	TYR
1	J	194	ASP
1	J	248	GLU
1	J	272	TYR
1	J	280	PHE
1	J	284	ILE
1	K	14	GLU
1	K	43	ASN
1	K	60	PHE
1	K	72	SER

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Mol	Chain	Res	Type
1	K	89	GLN
1	K	99	VAL
1	K	158	PRO
1	K	159	VAL
1	K	189	GLU
1	K	193	SER
1	K	194	ASP
1	K	226	LEU
1	K	274	LEU
1	K	278	VAL
1	K	283	ASP
1	L	43	ASN
1	L	60	PHE
1	L	70	VAL
1	L	83	GLN
1	L	109	TYR
1	L	114	GLU
1	L	117	MET
1	L	166	ASN
1	L	178	TYR
1	L	179	GLU
1	L	194	ASP
1	L	226	LEU
1	L	248	GLU
1	L	249	GLN
1	L	272	TYR
1	L	278	VAL
1	L	283	ASP
1	A	41	TRP
1	A	89	GLN
1	A	227	GLN
1	A	249	GLN
1	A	275	ASN
1	B	13	ASN
1	B	26	HIS
1	B	61	GLY
1	B	62	TYR
1	B	124	ASN
1	B	127	ALA
1	B	152	GLN
1	B	159	VAL
1	B	172	LYS

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Mol	Chain	Res	Type
1	B	178	TYR
1	B	189	GLU
1	B	190	ALA
1	B	270	GLU
1	C	16	GLN
1	C	62	TYR
1	C	116	ASP
1	C	129	PRO
1	C	159	VAL
1	C	193	SER
1	C	273	GLY
1	C	278	VAL
1	D	14	GLU
1	D	60	PHE
1	D	107	TYR
1	D	118	GLY
1	D	125	ASP
1	D	181	ASN
1	D	189	GLU
1	D	264	ALA
1	D	265	CYS
1	E	39	PHE
1	E	60	PHE
1	E	68	ASP
1	E	94	ARG
1	E	96	ALA
1	E	101	GLN
1	E	124	ASN
1	E	159	VAL
1	E	188	HIS
1	E	225	LYS
1	E	226	LEU
1	E	249	GLN
1	E	258	LEU
1	E	260	SER
1	E	267	LYS
1	E	268	ILE
1	E	273	GLY
1	E	279	LYS
1	F	39	PHE
1	F	63	VAL
1	F	83	GLN

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Mol	Chain	Res	Type
1	F	193	SER
1	F	224	PHE
1	F	225	LYS
1	F	260	SER
1	G	39	PHE
1	G	57	ILE
1	G	61	GLY
1	G	72	SER
1	G	89	GLN
1	G	108	ASN
1	G	188	HIS
1	G	272	TYR
1	G	281	ARG
1	H	42	GLU
1	H	51	SER
1	H	63	VAL
1	H	88	ASN
1	H	111	ASP
1	H	181	ASN
1	H	188	HIS
1	H	259	LYS
1	H	275	ASN
1	H	278	VAL
1	H	279	LYS
1	I	73	TYR
1	I	125	ASP
1	I	154	ALA
1	I	227	GLN
1	J	13	ASN
1	J	51	SER
1	J	60	PHE
1	J	63	VAL
1	J	82	GLY
1	J	112	MET
1	J	114	GLU
1	J	225	LYS
1	J	249	GLN
1	J	279	LYS
1	K	48	ILE
1	K	61	GLY
1	K	63	VAL
1	K	107	TYR

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Mol	Chain	Res	Type
1	K	116	ASP
1	K	124	ASN
1	K	271	LEU
1	K	279	LYS
1	K	284	ILE
1	L	26	HIS
1	L	39	PHE
1	L	61	GLY
1	L	62	TYR
1	L	63	VAL
1	L	71	ILE
1	L	99	VAL
1	L	102	LYS
1	L	125	ASP
1	L	202	ASP
1	L	266	GLU
1	L	274	LEU
1	L	277	LYS
1	A	43	ASN
1	A	159	VAL
1	A	171	LEU
1	A	277	LYS
1	B	44	LEU
1	B	59	GLN
1	B	153	ASN
1	B	227	GLN
1	B	258	LEU
1	C	42	GLU
1	C	170	SER
1	C	178	TYR
1	C	255	THR
1	C	274	LEU
1	D	44	LEU
1	D	72	SER
1	D	84	ARG
1	D	158	PRO
1	D	193	SER
1	D	226	LEU
1	D	272	TYR
1	E	42	GLU
1	E	166	ASN
1	E	178	TYR

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Mol	Chain	Res	Type
1	E	181	ASN
1	E	281	ARG
1	F	42	GLU
1	F	57	ILE
1	F	67	LYS
1	F	86	VAL
1	F	89	GLN
1	F	108	ASN
1	F	188	HIS
1	F	265	CYS
1	F	279	LYS
1	G	59	GLN
1	G	104	PHE
1	G	116	ASP
1	G	171	LEU
1	G	259	LYS
1	G	263	GLU
1	G	264	ALA
1	H	62	TYR
1	H	94	ARG
1	H	96	ALA
1	H	99	VAL
1	H	109	TYR
1	H	159	VAL
1	H	171	LEU
1	H	172	LYS
1	H	224	PHE
1	H	270	GLU
1	I	46	PRO
1	I	63	VAL
1	I	99	VAL
1	I	189	GLU
1	I	272	TYR
1	I	277	LYS
1	J	39	PHE
1	J	62	TYR
1	J	88	ASN
1	J	193	SER
1	J	275	ASN
1	K	94	ARG
1	K	113	LYS
1	K	125	ASP

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Mol	Chain	Res	Type
1	K	209	LYS
1	L	97	SER
1	L	159	VAL
1	L	279	LYS
1	A	44	LEU
1	A	226	LEU
1	A	272	TYR
1	B	126	MET
1	B	158	PRO
1	B	168	GLN
1	C	83	GLN
1	C	88	ASN
1	C	125	ASP
1	C	227	GLN
1	C	277	LYS
1	D	62	TYR
1	D	121	ILE
1	E	63	VAL
1	E	171	LEU
1	E	195	SER
1	E	263	GLU
1	F	41	TRP
1	F	56	SER
1	F	109	TYR
1	F	159	VAL
1	F	194	ASP
1	G	101	GLN
1	G	159	VAL
1	G	194	ASP
1	H	125	ASP
1	H	127	ALA
1	I	159	VAL
1	I	193	SER
1	J	101	GLN
1	J	159	VAL
1	J	226	LEU
1	J	278	VAL
1	J	283	ASP
1	K	42	GLU
1	K	102	LYS
1	K	227	GLN
1	L	73	TYR

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Mol	Chain	Res	Type
1	L	98	PRO
1	A	99	VAL
1	A	108	ASN
1	A	116	ASP
1	A	255	THR
1	B	39	PHE
1	B	63	VAL
1	B	98	PRO
1	B	108	ASN
1	C	182	ALA
1	C	276	VAL
1	D	26	HIS
1	D	97	SER
1	D	124	ASN
1	D	154	ALA
1	D	258	LEU
1	D	277	LYS
1	E	79	ALA
1	E	107	TYR
1	E	193	SER
1	E	224	PHE
1	E	274	LEU
1	F	49	ASN
1	F	272	TYR
1	G	127	ALA
1	G	165	ASP
1	G	226	LEU
1	G	227	GLN
1	H	39	PHE
1	H	260	SER
1	I	284	ILE
1	J	53	LEU
1	J	97	SER
1	J	281	ARG
1	K	16	GLN
1	K	46	PRO
1	K	127	ALA
1	K	190	ALA
1	L	107	TYR
1	L	111	ASP
1	L	193	SER
1	L	204	PRO

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Mol	Chain	Res	Type
1	L	225	LYS
1	L	265	CYS
1	A	80	LEU
1	A	278	VAL
1	B	260	SER
1	C	226	LEU
1	D	69	PRO
1	E	204	PRO
1	F	46	PRO
1	F	204	PRO
1	G	164	ASN
1	G	193	SER
1	H	226	LEU
1	H	250	ILE
1	I	72	SER
1	K	39	PHE
1	K	47	THR
1	L	68	ASP
1	A	276	VAL
1	B	15	ILE
1	C	284	ILE
1	E	284	ILE
1	G	284	ILE
1	I	158	PRO
1	K	69	PRO
1	L	276	VAL
1	D	15	ILE
1	F	69	PRO
1	H	268	ILE
1	J	12	ILE
1	L	12	ILE
1	B	118	GLY
1	B	129	PRO
1	B	204	PRO
1	C	250	ILE
1	D	12	ILE
1	D	98	PRO
1	E	45	PRO
1	F	97	SER
1	F	158	PRO
1	G	158	PRO
1	C	131	THR

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Mol	Chain	Res	Type
1	E	78	GLY
1	F	98	PRO
1	G	97	SER
1	B	278	VAL
1	F	82	GLY

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	230/278 (83%)	198 (86%)	32 (14%)	3	16
1	B	230/278 (83%)	201 (87%)	29 (13%)	4	21
1	C	230/278 (83%)	199 (86%)	31 (14%)	4	18
1	D	230/278 (83%)	201 (87%)	29 (13%)	4	21
1	E	230/278 (83%)	209 (91%)	21 (9%)	9	34
1	F	230/278 (83%)	196 (85%)	34 (15%)	3	14
1	G	230/278 (83%)	200 (87%)	30 (13%)	4	19
1	H	230/278 (83%)	203 (88%)	27 (12%)	5	23
1	I	230/278 (83%)	202 (88%)	28 (12%)	5	22
1	J	230/278 (83%)	197 (86%)	33 (14%)	3	15
1	K	230/278 (83%)	200 (87%)	30 (13%)	4	19
1	L	230/278 (83%)	203 (88%)	27 (12%)	5	23
All	All	2760/3336 (83%)	2409 (87%)	351 (13%)	4	20

All (351) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	14	GLU
1	A	37	GLN
1	A	51	SER
1	A	53	LEU
1	A	56	SER

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Mol	Chain	Res	Type
1	A	62	TYR
1	A	83	GLN
1	A	84	ARG
1	A	97	SER
1	A	107	TYR
1	A	109	TYR
1	A	111	ASP
1	A	115	GLU
1	A	117	MET
1	A	124	ASN
1	A	131	THR
1	A	143	GLU
1	A	149	SER
1	A	160	LEU
1	A	164	ASN
1	A	166	ASN
1	A	168	GLN
1	A	169	LEU
1	A	173	GLN
1	A	178	TYR
1	A	194	ASP
1	A	213	GLN
1	A	247	ASP
1	A	261	ARG
1	A	274	LEU
1	A	277	LYS
1	A	279	LYS
1	B	28	LEU
1	B	37	GLN
1	B	42	GLU
1	B	60	PHE
1	B	63	VAL
1	B	84	ARG
1	B	88	ASN
1	B	89	GLN
1	B	91	THR
1	B	105	LYS
1	B	108	ASN
1	B	112	MET
1	B	123	ASN
1	B	125	ASP
1	B	160	LEU

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Mol	Chain	Res	Type
1	B	168	GLN
1	B	178	TYR
1	B	179	GLU
1	B	194	ASP
1	B	226	LEU
1	B	247	ASP
1	B	248	GLU
1	B	249	GLN
1	B	250	ILE
1	B	258	LEU
1	B	272	TYR
1	B	277	LYS
1	B	279	LYS
1	B	280	PHE
1	C	13	ASN
1	C	17	ARG
1	C	20	ARG
1	C	28	LEU
1	C	32	GLN
1	C	37	GLN
1	C	44	LEU
1	C	47	THR
1	C	81	SER
1	C	83	GLN
1	C	89	GLN
1	C	105	LYS
1	C	106	LEU
1	C	108	ASN
1	C	111	ASP
1	C	114	GLU
1	C	120	VAL
1	C	124	ASN
1	C	131	THR
1	C	146	GLU
1	C	149	SER
1	C	160	LEU
1	C	166	ASN
1	C	173	GLN
1	C	178	TYR
1	C	213	GLN
1	C	214	LYS
1	C	253	SER

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Mol	Chain	Res	Type
1	C	271	LEU
1	C	277	LYS
1	C	279	LYS
1	D	17	ARG
1	D	28	LEU
1	D	37	GLN
1	D	38	LEU
1	D	42	GLU
1	D	65	PHE
1	D	83	GLN
1	D	84	ARG
1	D	85	ASP
1	D	91	THR
1	D	105	LYS
1	D	107	TYR
1	D	116	ASP
1	D	124	ASN
1	D	125	ASP
1	D	143	GLU
1	D	149	SER
1	D	151	ASN
1	D	158	PRO
1	D	160	LEU
1	D	164	ASN
1	D	200	LYS
1	D	228	THR
1	D	251	ASP
1	D	255	THR
1	D	274	LEU
1	D	276	VAL
1	D	279	LYS
1	D	284	ILE
1	E	37	GLN
1	E	44	LEU
1	E	49	ASN
1	E	63	VAL
1	E	76	CYS
1	E	97	SER
1	E	104	PHE
1	E	105	LYS
1	E	115	GLU
1	E	160	LEU

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Mol	Chain	Res	Type
1	E	173	GLN
1	E	176	ASN
1	E	178	TYR
1	E	181	ASN
1	E	202	ASP
1	E	219	ASN
1	E	225	LYS
1	E	251	ASP
1	E	275	ASN
1	E	277	LYS
1	E	280	PHE
1	F	14	GLU
1	F	17	ARG
1	F	28	LEU
1	F	37	GLN
1	F	38	LEU
1	F	49	ASN
1	F	60	PHE
1	F	62	TYR
1	F	63	VAL
1	F	83	GLN
1	F	101	GLN
1	F	107	TYR
1	F	109	TYR
1	F	111	ASP
1	F	112	MET
1	F	113	LYS
1	F	125	ASP
1	F	126	MET
1	F	160	LEU
1	F	166	ASN
1	F	169	LEU
1	F	173	GLN
1	F	179	GLU
1	F	193	SER
1	F	213	GLN
1	F	225	LYS
1	F	226	LEU
1	F	251	ASP
1	F	261	ARG
1	F	275	ASN
1	F	276	VAL

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Mol	Chain	Res	Type
1	F	277	LYS
1	F	278	VAL
1	F	279	LYS
1	G	16	GLN
1	G	21	ASN
1	G	37	GLN
1	G	52	PHE
1	G	60	PHE
1	G	84	ARG
1	G	85	ASP
1	G	89	GLN
1	G	94	ARG
1	G	97	SER
1	G	102	LYS
1	G	105	LYS
1	G	116	ASP
1	G	133	THR
1	G	146	GLU
1	G	149	SER
1	G	151	ASN
1	G	160	LEU
1	G	165	ASP
1	G	171	LEU
1	G	173	GLN
1	G	179	GLU
1	G	208	ASP
1	G	209	LYS
1	G	226	LEU
1	G	269	ASN
1	G	272	TYR
1	G	275	ASN
1	G	277	LYS
1	G	283	ASP
1	H	12	ILE
1	H	28	LEU
1	H	37	GLN
1	H	43	ASN
1	H	47	THR
1	H	53	LEU
1	H	55	LYS
1	H	60	PHE
1	H	63	VAL

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Mol	Chain	Res	Type
1	H	70	VAL
1	H	101	GLN
1	H	102	LYS
1	H	115	GLU
1	H	117	MET
1	H	123	ASN
1	H	124	ASN
1	H	145	LYS
1	H	146	GLU
1	H	165	ASP
1	H	172	LYS
1	H	173	GLN
1	H	178	TYR
1	H	248	GLU
1	H	249	GLN
1	H	275	ASN
1	H	278	VAL
1	H	281	ARG
1	I	37	GLN
1	I	47	THR
1	I	56	SER
1	I	60	PHE
1	I	85	ASP
1	I	88	ASN
1	I	98	PRO
1	I	101	GLN
1	I	107	TYR
1	I	108	ASN
1	I	109	TYR
1	I	123	ASN
1	I	146	GLU
1	I	160	LEU
1	I	168	GLN
1	I	173	GLN
1	I	178	TYR
1	I	192	ASP
1	I	213	GLN
1	I	225	LYS
1	I	228	THR
1	I	248	GLU
1	I	250	ILE
1	I	251	ASP

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Mol	Chain	Res	Type
1	I	258	LEU
1	I	263	GLU
1	I	272	TYR
1	I	274	LEU
1	J	28	LEU
1	J	32	GLN
1	J	37	GLN
1	J	44	LEU
1	J	49	ASN
1	J	60	PHE
1	J	77	ASN
1	J	85	ASP
1	J	89	GLN
1	J	97	SER
1	J	101	GLN
1	J	104	PHE
1	J	115	GLU
1	J	120	VAL
1	J	123	ASN
1	J	126	MET
1	J	131	THR
1	J	149	SER
1	J	160	LEU
1	J	164	ASN
1	J	168	GLN
1	J	169	LEU
1	J	173	GLN
1	J	194	ASP
1	J	202	ASP
1	J	213	GLN
1	J	226	LEU
1	J	251	ASP
1	J	260	SER
1	J	266	GLU
1	J	269	ASN
1	J	280	PHE
1	J	281	ARG
1	K	13	ASN
1	K	37	GLN
1	K	53	LEU
1	K	60	PHE
1	K	63	VAL

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Mol	Chain	Res	Type
1	K	84	ARG
1	K	85	ASP
1	K	86	VAL
1	K	92	VAL
1	K	107	TYR
1	K	108	ASN
1	K	115	GLU
1	K	125	ASP
1	K	131	THR
1	K	149	SER
1	K	152	GLN
1	K	158	PRO
1	K	160	LEU
1	K	168	GLN
1	K	169	LEU
1	K	173	GLN
1	K	196	ILE
1	K	214	LYS
1	K	228	THR
1	K	250	ILE
1	K	263	GLU
1	K	271	LEU
1	K	274	LEU
1	K	277	LYS
1	K	279	LYS
1	L	28	LEU
1	L	37	GLN
1	L	38	LEU
1	L	42	GLU
1	L	49	ASN
1	L	53	LEU
1	L	68	ASP
1	L	74	ILE
1	L	77	ASN
1	L	84	ARG
1	L	97	SER
1	L	107	TYR
1	L	112	MET
1	L	123	ASN
1	L	160	LEU
1	L	171	LEU
1	L	173	GLN

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Mol	Chain	Res	Type
1	L	176	ASN
1	L	178	TYR
1	L	179	GLU
1	L	183	PRO
1	L	202	ASP
1	L	213	GLN
1	L	249	GLN
1	L	258	LEU
1	L	272	TYR
1	L	277	LYS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (154) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	18	GLN
1	A	32	GLN
1	A	37	GLN
1	A	43	ASN
1	A	59	GLN
1	A	83	GLN
1	A	89	GLN
1	A	124	ASN
1	A	152	GLN
1	A	164	ASN
1	A	166	ASN
1	A	168	GLN
1	A	181	ASN
1	A	269	ASN
1	B	13	ASN
1	B	16	GLN
1	B	29	ASN
1	B	32	GLN
1	B	37	GLN
1	B	88	ASN
1	B	108	ASN
1	B	123	ASN
1	B	152	GLN
1	B	166	ASN
1	B	167	ASN
1	B	176	ASN
1	B	177	GLN
1	B	213	GLN

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Mol	Chain	Res	Type
1	B	249	GLN
1	B	269	ASN
1	B	275	ASN
1	C	13	ASN
1	C	16	GLN
1	C	18	GLN
1	C	32	GLN
1	C	37	GLN
1	C	49	ASN
1	C	83	GLN
1	C	108	ASN
1	C	123	ASN
1	C	152	GLN
1	C	166	ASN
1	C	167	ASN
1	C	219	ASN
1	D	16	GLN
1	D	18	GLN
1	D	29	ASN
1	D	32	GLN
1	D	37	GLN
1	D	59	GLN
1	D	83	GLN
1	D	124	ASN
1	D	164	ASN
1	D	166	ASN
1	D	177	GLN
1	D	213	GLN
1	D	249	GLN
1	D	269	ASN
1	E	16	GLN
1	E	26	HIS
1	E	37	GLN
1	E	108	ASN
1	E	164	ASN
1	E	177	GLN
1	E	181	ASN
1	E	249	GLN
1	E	269	ASN
1	E	275	ASN
1	F	13	ASN
1	F	16	GLN

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Mol	Chain	Res	Type
1	F	18	GLN
1	F	32	GLN
1	F	37	GLN
1	F	49	ASN
1	F	59	GLN
1	F	101	GLN
1	F	108	ASN
1	F	123	ASN
1	F	152	GLN
1	F	166	ASN
1	G	13	ASN
1	G	16	GLN
1	G	26	HIS
1	G	32	GLN
1	G	59	GLN
1	G	152	GLN
1	G	176	ASN
1	G	181	ASN
1	G	213	GLN
1	G	249	GLN
1	G	269	ASN
1	H	13	ASN
1	H	16	GLN
1	H	21	ASN
1	H	32	GLN
1	H	43	ASN
1	H	59	GLN
1	H	89	GLN
1	H	108	ASN
1	H	123	ASN
1	H	177	GLN
1	H	213	GLN
1	H	219	ASN
1	H	269	ASN
1	I	13	ASN
1	I	26	HIS
1	I	29	ASN
1	I	37	GLN
1	I	49	ASN
1	I	58	HIS
1	I	59	GLN
1	I	89	GLN

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Mol	Chain	Res	Type
1	I	101	GLN
1	I	123	ASN
1	I	124	ASN
1	I	164	ASN
1	I	269	ASN
1	J	16	GLN
1	J	32	GLN
1	J	37	GLN
1	J	49	ASN
1	J	77	ASN
1	J	89	GLN
1	J	123	ASN
1	J	153	ASN
1	J	164	ASN
1	J	177	GLN
1	J	213	GLN
1	J	227	GLN
1	K	32	GLN
1	K	37	GLN
1	K	43	ASN
1	K	59	GLN
1	K	83	GLN
1	K	124	ASN
1	K	167	ASN
1	K	168	GLN
1	K	213	GLN
1	K	269	ASN
1	K	275	ASN
1	L	16	GLN
1	L	18	GLN
1	L	21	ASN
1	L	29	ASN
1	L	32	GLN
1	L	37	GLN
1	L	43	ASN
1	L	59	GLN
1	L	77	ASN
1	L	88	ASN
1	L	123	ASN
1	L	153	ASN
1	L	164	ASN
1	L	188	HIS

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 ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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	257/309 (83%)	0.01	8 (3%)	49	32	1, 7, 33, 38	0
1	B	257/309 (83%)	0.17	11 (4%)	35	22	1, 13, 32, 46	0
1	C	257/309 (83%)	0.27	16 (6%)	20	11	1, 13, 32, 39	0
1	D	257/309 (83%)	0.06	7 (2%)	54	39	1, 16, 35, 43	0
1	E	257/309 (83%)	0.56	33 (12%)	3	2	1, 21, 35, 42	0
1	F	257/309 (83%)	0.22	17 (6%)	18	11	1, 16, 35, 40	0
1	G	257/309 (83%)	0.22	15 (5%)	23	13	1, 14, 36, 51	0
1	H	257/309 (83%)	0.41	21 (8%)	11	6	1, 16, 34, 41	0
1	I	257/309 (83%)	0.00	7 (2%)	54	39	1, 9, 32, 43	0
1	J	257/309 (83%)	-0.01	7 (2%)	54	39	1, 9, 30, 43	0
1	K	257/309 (83%)	0.21	12 (4%)	31	19	1, 13, 33, 47	0
1	L	257/309 (83%)	0.01	7 (2%)	54	39	1, 11, 32, 41	0
All	All	3084/3708 (83%)	0.18	161 (5%)	27	15	1, 13, 34, 51	0

All (161) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	H	11	SER	7.4
1	B	108	ASN	6.1
1	A	11	SER	6.1
1	C	11	SER	5.6
1	H	12	ILE	5.5
1	H	99	VAL	5.0
1	G	11	SER	5.0
1	J	11	SER	4.8
1	A	12	ILE	4.7
1	K	12	ILE	4.6
1	C	12	ILE	4.5

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Mol	Chain	Res	Type	RSRZ
1	B	12	ILE	4.3
1	E	272	TYR	4.3
1	B	11	SER	4.2
1	E	275	ASN	4.2
1	F	72	SER	4.0
1	B	109	TYR	4.0
1	J	12	ILE	4.0
1	K	11	SER	4.0
1	D	12	ILE	4.0
1	L	12	ILE	3.9
1	G	12	ILE	3.9
1	F	11	SER	3.9
1	J	108	ASN	3.8
1	H	283	ASP	3.7
1	H	111	ASP	3.7
1	E	118	GLY	3.7
1	E	108	ASN	3.7
1	H	117	MET	3.6
1	H	98	PRO	3.6
1	I	97	SER	3.5
1	C	275	ASN	3.5
1	E	11	SER	3.5
1	D	42	GLU	3.4
1	E	71	ILE	3.4
1	C	168	GLN	3.4
1	K	247	ASP	3.4
1	L	168	GLN	3.4
1	G	167	ASN	3.3
1	D	168	GLN	3.3
1	E	96	ALA	3.3
1	H	118	GLY	3.3
1	B	99	VAL	3.3
1	F	99	VAL	3.3
1	E	110	ARG	3.2
1	E	109	TYR	3.2
1	H	109	TYR	3.2
1	I	111	ASP	3.2
1	H	65	PHE	3.1
1	A	167	ASN	3.1
1	A	109	TYR	3.1
1	E	122	TYR	3.1
1	K	272	TYR	3.1

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Mol	Chain	Res	Type	RSRZ
1	A	283	ASP	3.1
1	E	111	ASP	3.1
1	I	109	TYR	3.1
1	H	272	TYR	3.0
1	E	168	GLN	3.0
1	I	13	ASN	3.0
1	C	109	TYR	3.0
1	F	95	ALA	3.0
1	F	96	ALA	3.0
1	H	94	ARG	2.9
1	A	108	ASN	2.9
1	L	11	SER	2.9
1	E	72	SER	2.9
1	B	168	GLN	2.9
1	C	97	SER	2.8
1	H	276	VAL	2.8
1	K	111	ASP	2.8
1	E	107	TYR	2.8
1	I	168	GLN	2.8
1	E	120	VAL	2.8
1	K	168	GLN	2.8
1	B	275	ASN	2.7
1	I	11	SER	2.7
1	G	111	ASP	2.7
1	F	12	ILE	2.7
1	G	89	GLN	2.7
1	F	13	ASN	2.6
1	G	178	TYR	2.6
1	H	273	GLY	2.6
1	E	112	MET	2.6
1	G	168	GLN	2.6
1	F	110	ARG	2.6
1	B	13	ASN	2.5
1	G	275	ASN	2.5
1	L	272	TYR	2.5
1	G	85	ASP	2.5
1	E	86	VAL	2.5
1	E	119	VAL	2.5
1	F	168	GLN	2.5
1	K	13	ASN	2.5
1	G	283	ASP	2.5
1	F	169	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
1	C	228	THR	2.4
1	E	43	ASN	2.4
1	J	272	TYR	2.4
1	C	98	PRO	2.4
1	L	117	MET	2.4
1	E	42	GLU	2.4
1	D	178	TYR	2.4
1	F	275	ASN	2.4
1	D	283	ASP	2.4
1	C	72	SER	2.4
1	E	178	TYR	2.4
1	H	96	ALA	2.4
1	I	117	MET	2.4
1	F	108	ASN	2.3
1	F	112	MET	2.3
1	E	65	PHE	2.3
1	F	117	MET	2.3
1	A	105	LYS	2.3
1	C	118	GLY	2.3
1	E	64	GLY	2.3
1	C	16	GLN	2.3
1	B	251	ASP	2.3
1	A	90	ALA	2.3
1	F	62	TYR	2.3
1	J	109	TYR	2.3
1	G	13	ASN	2.3
1	K	116	ASP	2.3
1	K	99	VAL	2.3
1	E	273	GLY	2.3
1	E	45	PRO	2.3
1	E	74	ILE	2.2
1	E	285	VAL	2.2
1	H	269	ASN	2.2
1	H	86	VAL	2.2
1	G	18	GLN	2.2
1	K	276	VAL	2.2
1	L	99	VAL	2.2
1	G	248	GLU	2.2
1	E	106	LEU	2.2
1	E	274	LEU	2.2
1	J	110	ARG	2.1
1	H	108	ASN	2.1

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Mol	Chain	Res	Type	RSRZ
1	F	167	ASN	2.1
1	G	14	GLU	2.1
1	F	111	ASP	2.1
1	H	90	ALA	2.1
1	B	167	ASN	2.1
1	K	62	TYR	2.1
1	E	18	GLN	2.1
1	C	69	PRO	2.1
1	B	276	VAL	2.1
1	J	276	VAL	2.1
1	G	110	ARG	2.1
1	L	13	ASN	2.1
1	H	116	ASP	2.1
1	C	13	ASN	2.1
1	D	83	GLN	2.0
1	C	95	ALA	2.0
1	E	77	ASN	2.0
1	K	121	ILE	2.0
1	C	78	GLY	2.0
1	C	111	ASP	2.0
1	H	13	ASN	2.0
1	E	105	LYS	2.0
1	E	278	VAL	2.0
1	D	169	LEU	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.