



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 6, 2026 – 08:48 PM UTC

PDB ID : 1Z7Q / pdb_00001z7q
Title : Crystal structure of the 20s proteasome from yeast in complex with the proteasome activator PA26 from Trypanosome brucei at 3.2 angstroms resolution
Authors : Forster, A.; Whitby, F.G.; Hill, C.P.
Deposited on : 2005-03-26
Resolution : 3.22 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 types of validation reports are described at

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

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

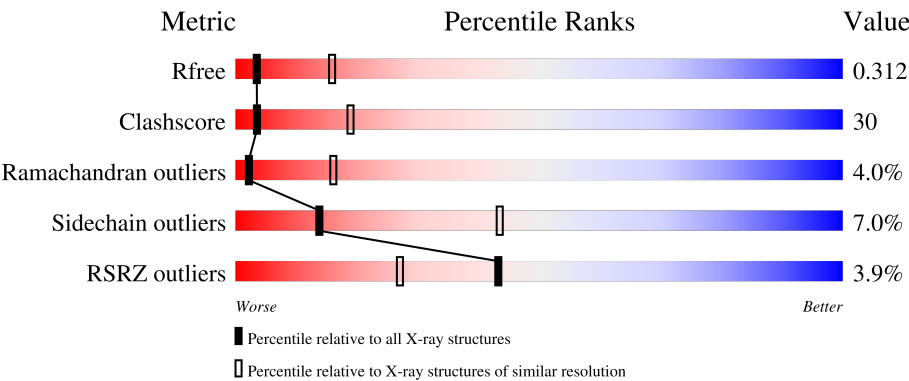
MolProbity	:	4-5-2 with Phenix2.0
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

1 Overall quality at a glance ⓘ

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.22 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R _{free}	180053	1768 (3.24-3.20)
Clashscore	190562	1879 (3.24-3.20)
Ramachandran outliers	187476	1844 (3.24-3.20)
Sidechain outliers	187428	1843 (3.24-3.20)
RSRZ outliers	180081	1768 (3.24-3.20)

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 of 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	252	8% 27% 54% 15%
1	O	252	4% 27% 53% 14%
2	B	250	4% 36% 50% 13%
2	P	250	% 35% 50% 14%
3	C	258	2% 38% 43% 12% 6%

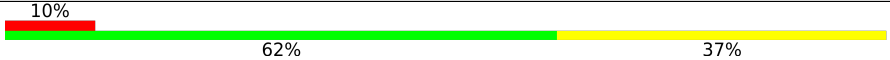
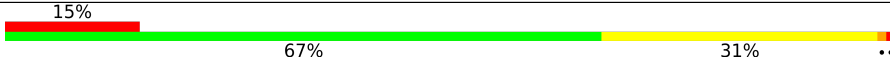
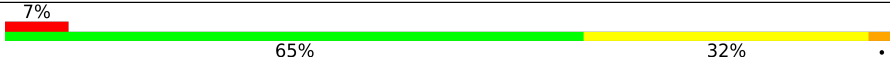
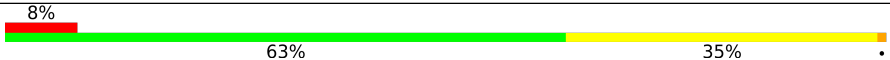
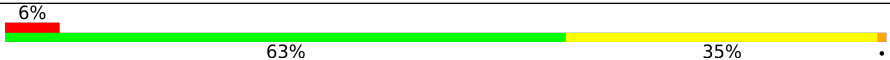
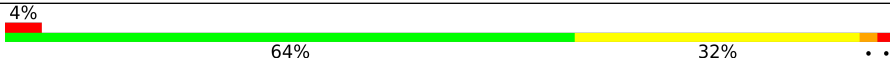
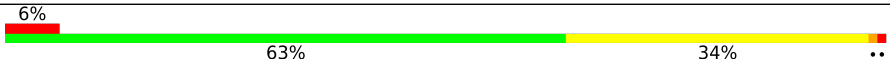
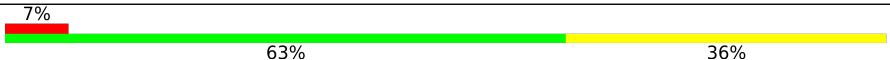
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Mol	Chain	Length	Quality of chain
3	Q	258	
4	D	254	
4	R	254	
5	E	260	
5	S	260	
6	F	234	
6	T	234	
7	G	288	
7	U	288	
8	H	196	
8	V	196	
9	I	222	
9	W	222	
10	J	205	
10	X	205	
11	K	198	
11	Y	198	
12	L	212	
12	Z	212	
13	M	222	
13	a	222	
14	N	233	
14	b	233	
15	c	231	
15	d	231	

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Mol	Chain	Length	Quality of chain
15	e	231	
15	f	231	
15	g	231	
15	h	231	
15	i	231	
15	j	231	
15	k	231	
15	l	231	
15	m	231	
15	n	231	
15	o	231	
15	p	231	

2 Entry composition

There are 15 unique types of molecules in this entry. The entry contains 74222 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 Proteasome component C7-alpha.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	243	Total	C	N	O	S	0	0	0
			1921	1221	322	370	8			
1	O	243	Total	C	N	O	S	0	0	0
			1921	1221	322	370	8			

- Molecule 2 is a protein called Proteasome component Y7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	249	Total	C	N	O	S	0	0	0
			1907	1214	314	376	3			
2	P	249	Total	C	N	O	S	0	0	0
			1907	1214	314	376	3			

- Molecule 3 is a protein called Proteasome component Y13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	243	Total	C	N	O	S	0	0	0
			1900	1199	320	378	3			
3	Q	243	Total	C	N	O	S	0	0	0
			1900	1199	320	378	3			

- Molecule 4 is a protein called Proteasome component PRE6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	241	Total	C	N	O	S	0	0	0
			1890	1181	331	374	4			
4	R	241	Total	C	N	O	S	0	0	0
			1890	1181	331	374	4			

- Molecule 5 is a protein called Proteasome component PUP2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	E	245	Total	C	N	O	S	0	0	0
			1888	1179	317	385	7			
5	S	245	Total	C	N	O	S	0	0	0
			1888	1179	317	385	7			

- Molecule 6 is a protein called Proteasome component PRE5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	234	Total	C	N	O	S	0	0	0
			1803	1134	313	351	5			
6	T	234	Total	C	N	O	S	0	0	0
			1803	1134	313	351	5			

- Molecule 7 is a protein called Proteasome component C1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	G	243	Total	C	N	O	S	0	0	0
			1892	1203	329	356	4			
7	U	243	Total	C	N	O	S	0	0	0
			1892	1203	329	356	4			

- Molecule 8 is a protein called Proteasome component PRE3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	H	196	Total	C	N	O	S	0	0	0
			1512	955	250	300	7			
8	V	196	Total	C	N	O	S	0	0	0
			1512	955	250	300	7			

- Molecule 9 is a protein called Proteasome component PUP1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	I	222	Total	C	N	O	S	0	0	0
			1685	1061	293	324	7			
9	W	222	Total	C	N	O	S	0	0	0
			1685	1061	293	324	7			

- Molecule 10 is a protein called Proteasome component PUP3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	J	204	Total	C	N	O	S	0	0	0
			1581	1010	258	305	8			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	X	204	Total	C	N	O	S	0	0	0
			1581	1010	258	305	8			

- Molecule 11 is a protein called Proteasome component C11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	K	198	Total	C	N	O	S	0	0	0
			1585	1005	269	305	6			
11	Y	198	Total	C	N	O	S	0	0	0
			1585	1005	269	305	6			

- Molecule 12 is a protein called Proteasome component PRE2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	L	212	Total	C	N	O	S	0	0	0
			1646	1045	282	312	7			
12	Z	212	Total	C	N	O	S	0	0	0
			1646	1045	282	312	7			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
L	33	ARG	LYS	conflict	UNP P30656
Z	33	ARG	LYS	conflict	UNP P30656

- Molecule 13 is a protein called Potential proteasome component C5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	M	222	Total	C	N	O	S	0	0	0
			1757	1115	303	335	4			
13	a	222	Total	C	N	O	S	0	0	0
			1757	1115	303	335	4			

- Molecule 14 is a protein called Proteasome component PRE4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	N	233	Total	C	N	O	S	0	0	0
			1824	1154	312	351	7			
14	b	233	Total	C	N	O	S	0	0	0
			1824	1154	312	351	7			

- Molecule 15 is a protein called proteasome activator protein PA26.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	c	230	Total 1760	C 1101	N 310	O 343	S 6	219	0	0
15	d	230	Total 1760	C 1101	N 310	O 343	S 6	219	0	0
15	e	230	Total 1760	C 1101	N 310	O 343	S 6	219	0	0
15	f	230	Total 1760	C 1101	N 310	O 343	S 6	219	0	0
15	g	230	Total 1760	C 1101	N 310	O 343	S 6	219	0	0
15	h	230	Total 1760	C 1101	N 310	O 343	S 6	219	0	0
15	i	230	Total 1760	C 1101	N 310	O 343	S 6	249	0	0
15	j	230	Total 1760	C 1101	N 310	O 343	S 6	219	0	0
15	k	230	Total 1760	C 1101	N 310	O 343	S 6	219	0	0
15	l	230	Total 1760	C 1101	N 310	O 343	S 6	219	0	0
15	m	230	Total 1760	C 1101	N 310	O 343	S 6	219	0	0
15	n	230	Total 1760	C 1101	N 310	O 343	S 6	219	0	0
15	o	230	Total 1760	C 1101	N 310	O 343	S 6	219	0	0
15	p	230	Total 1760	C 1101	N 310	O 343	S 6	249	0	0

There are 42 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
c	1049	VAL	THR	conflict	UNP Q9U8G2
c	?	-	SER	deletion	UNP Q9U8G2
c	1171	GLY	-	insertion	UNP Q9U8G2
d	1049	VAL	THR	conflict	UNP Q9U8G2
d	?	-	SER	deletion	UNP Q9U8G2
d	1171	GLY	-	insertion	UNP Q9U8G2
e	1049	VAL	THR	conflict	UNP Q9U8G2
e	?	-	SER	deletion	UNP Q9U8G2
e	1171	GLY	-	insertion	UNP Q9U8G2
f	1049	VAL	THR	conflict	UNP Q9U8G2
f	?	-	SER	deletion	UNP Q9U8G2
f	1171	GLY	-	insertion	UNP Q9U8G2

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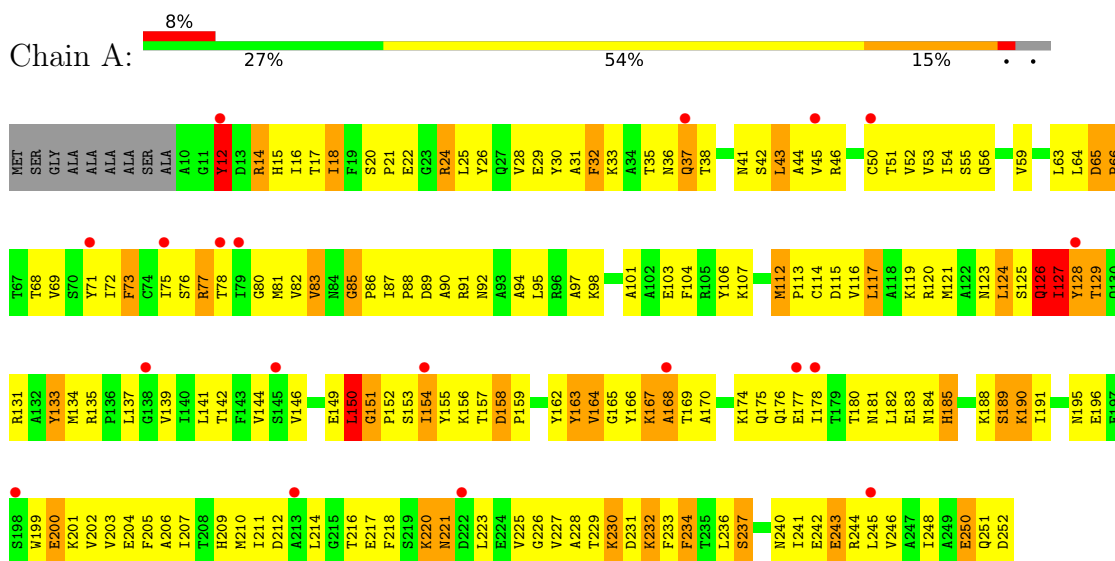
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Chain	Residue	Modelled	Actual	Comment	Reference
g	1049	VAL	THR	conflict	UNP Q9U8G2
g	?	-	SER	deletion	UNP Q9U8G2
g	1171	GLY	-	insertion	UNP Q9U8G2
h	1049	VAL	THR	conflict	UNP Q9U8G2
h	?	-	SER	deletion	UNP Q9U8G2
h	1171	GLY	-	insertion	UNP Q9U8G2
i	1049	VAL	THR	conflict	UNP Q9U8G2
i	?	-	SER	deletion	UNP Q9U8G2
i	1171	GLY	-	insertion	UNP Q9U8G2
j	1049	VAL	THR	conflict	UNP Q9U8G2
j	?	-	SER	deletion	UNP Q9U8G2
j	1171	GLY	-	insertion	UNP Q9U8G2
k	1049	VAL	THR	conflict	UNP Q9U8G2
k	?	-	SER	deletion	UNP Q9U8G2
k	1171	GLY	-	insertion	UNP Q9U8G2
l	1049	VAL	THR	conflict	UNP Q9U8G2
l	?	-	SER	deletion	UNP Q9U8G2
l	1171	GLY	-	insertion	UNP Q9U8G2
m	1049	VAL	THR	conflict	UNP Q9U8G2
m	?	-	SER	deletion	UNP Q9U8G2
m	1171	GLY	-	insertion	UNP Q9U8G2
n	1049	VAL	THR	conflict	UNP Q9U8G2
n	?	-	SER	deletion	UNP Q9U8G2
n	1171	GLY	-	insertion	UNP Q9U8G2
o	1049	VAL	THR	conflict	UNP Q9U8G2
o	?	-	SER	deletion	UNP Q9U8G2
o	1171	GLY	-	insertion	UNP Q9U8G2
p	1049	VAL	THR	conflict	UNP Q9U8G2
p	?	-	SER	deletion	UNP Q9U8G2
p	1171	GLY	-	insertion	UNP Q9U8G2

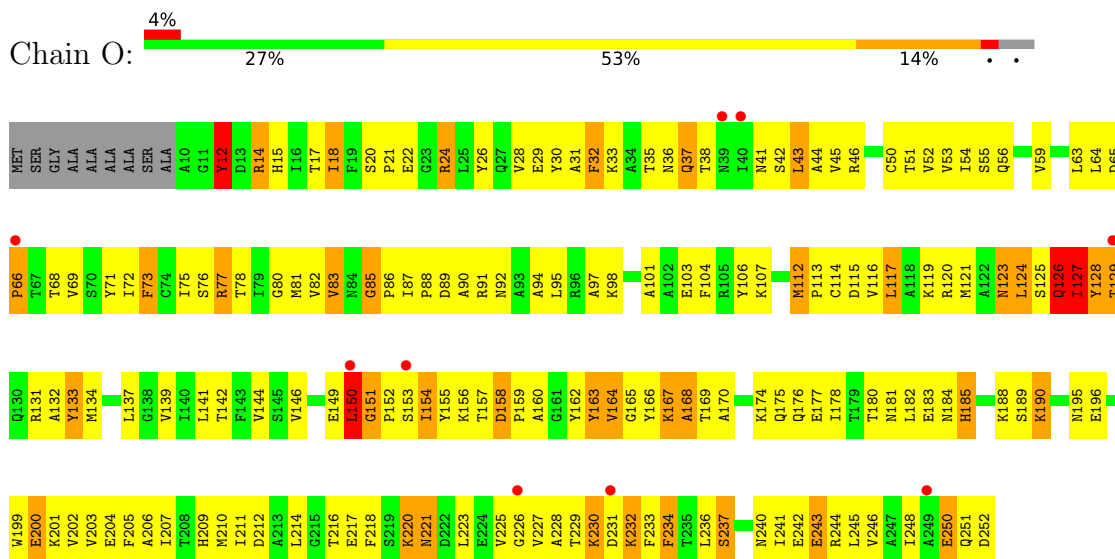
3 Residue-property plots [i](#)

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

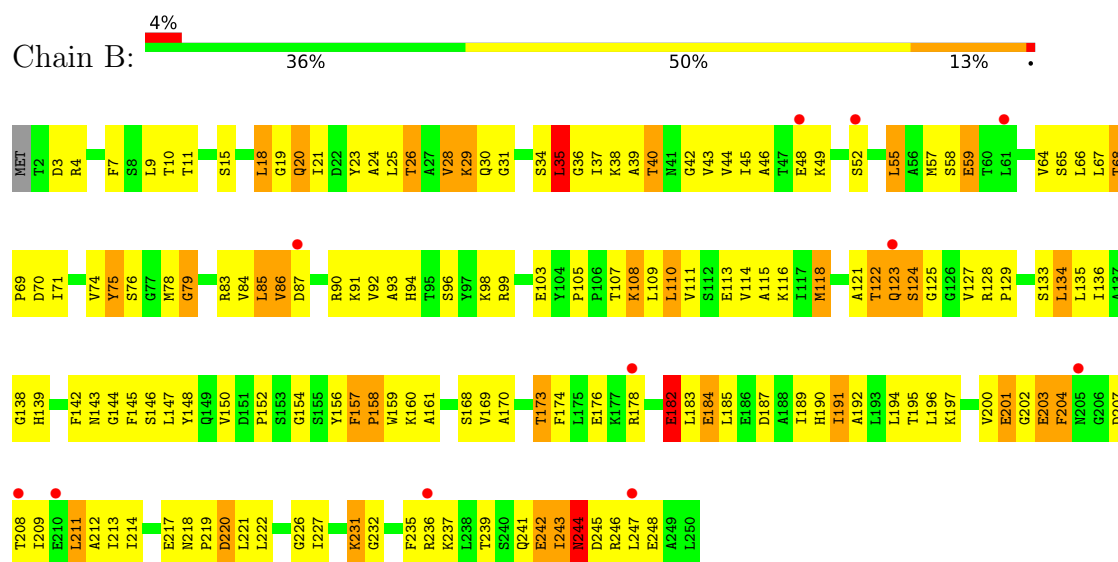
• Molecule 1: Proteasome component C7-alpha



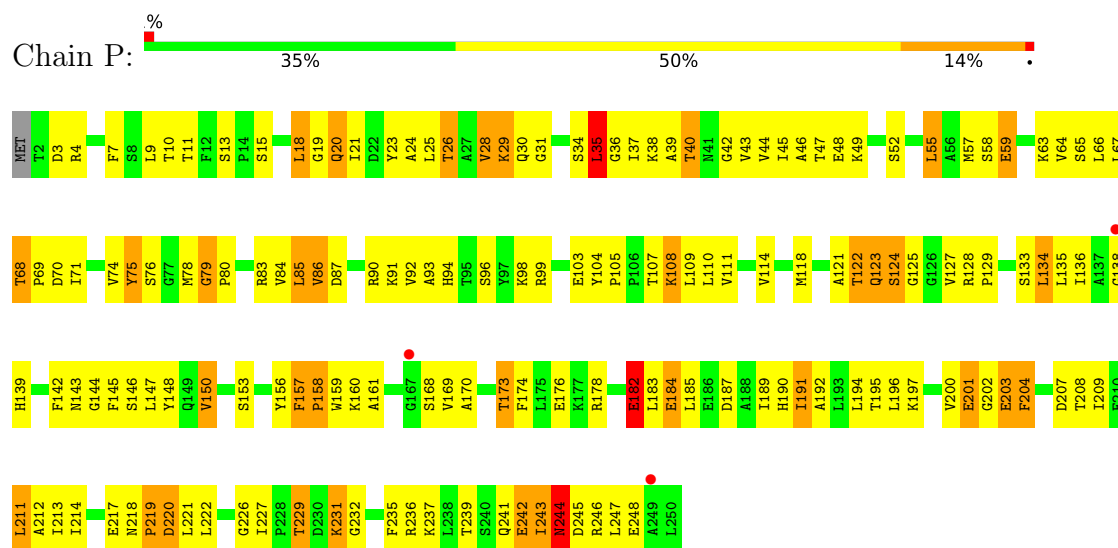
• Molecule 1: Proteasome component C7-alpha



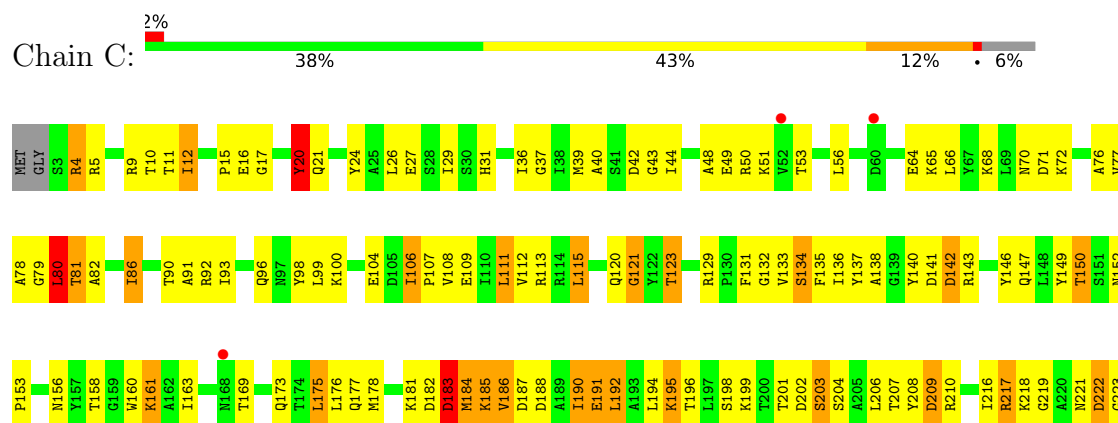
• Molecule 2: Proteasome component Y7



- Molecule 2: Proteasome component Y7



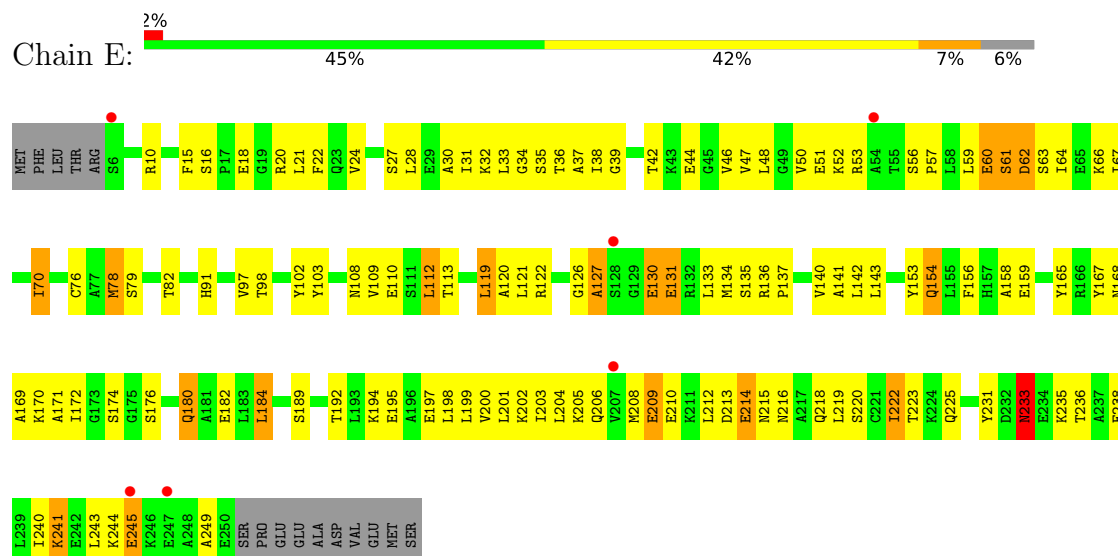
- Molecule 3: Proteasome component Y13



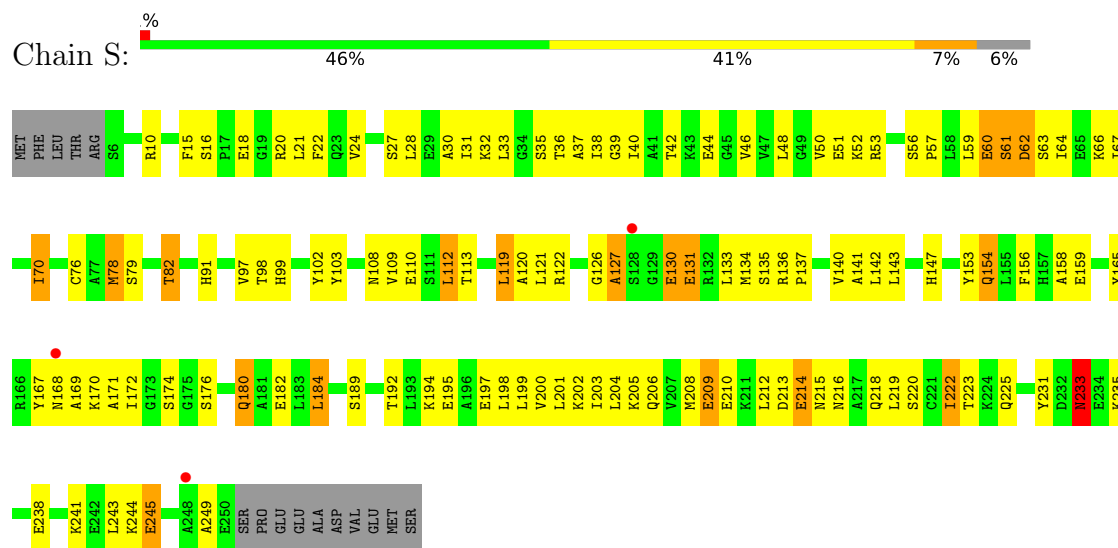


HIS

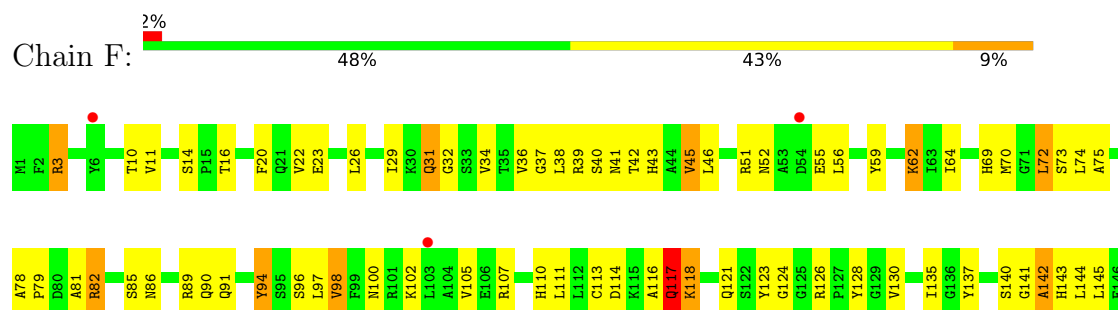
- Molecule 5: Proteasome component PUP2

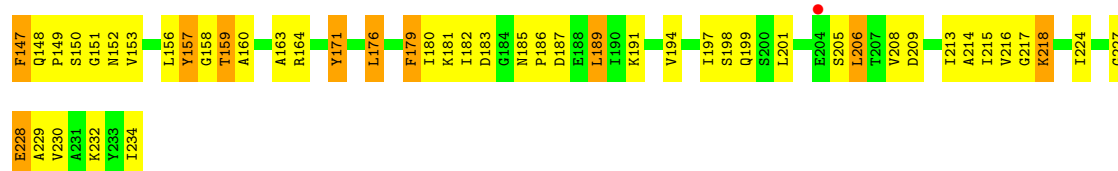


- Molecule 5: Proteasome component PUP2



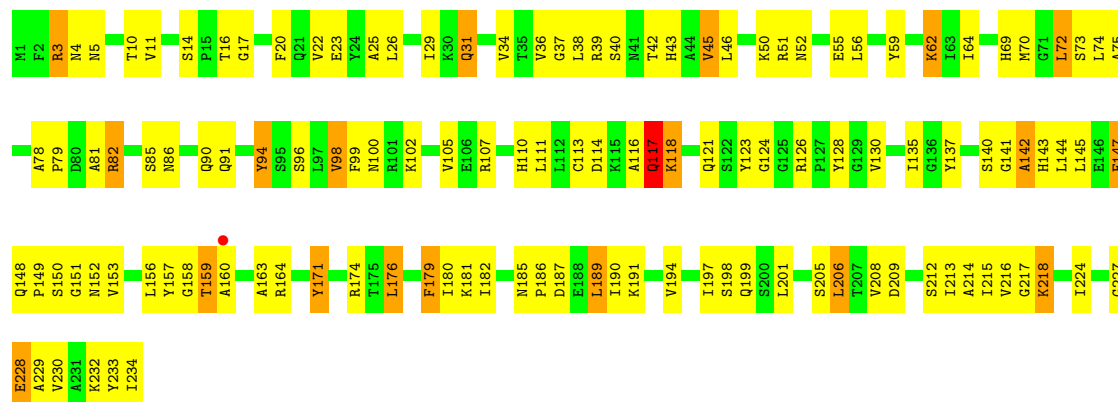
- Molecule 6: Proteasome component PRE5





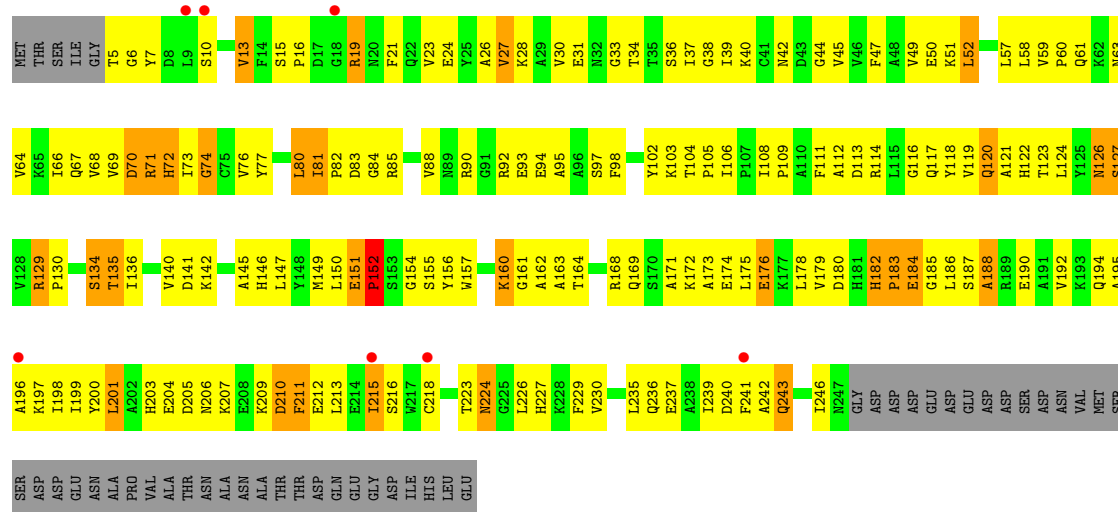
• Molecule 6: Proteasome component PRE5

Chain T: 46% 46% 8%



• Molecule 7: Proteasome component C1

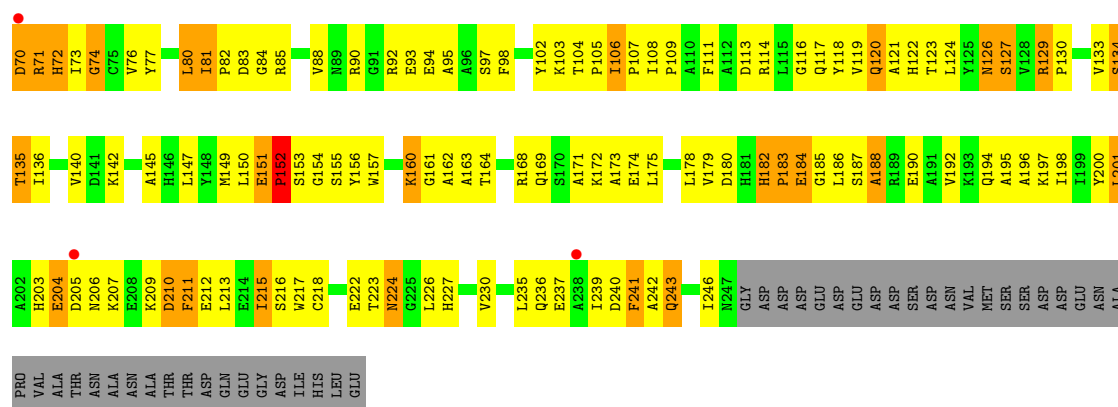
Chain G: 2% 27% 47% 10% 16%



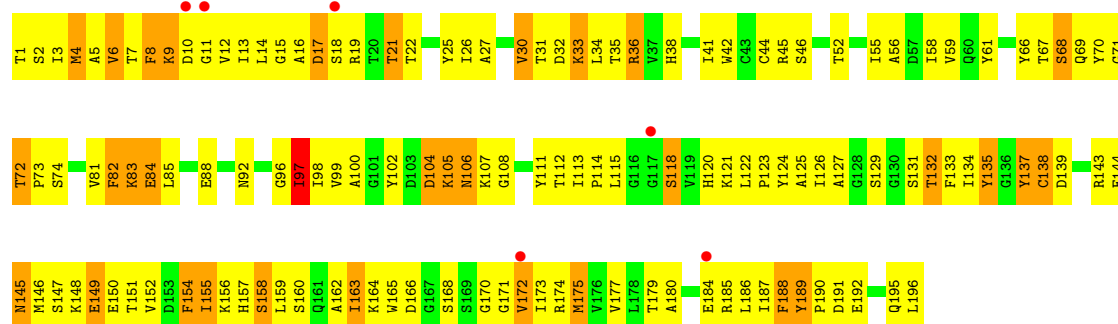
• Molecule 7: Proteasome component C1

Chain U: 2% 29% 44% 11% 16%

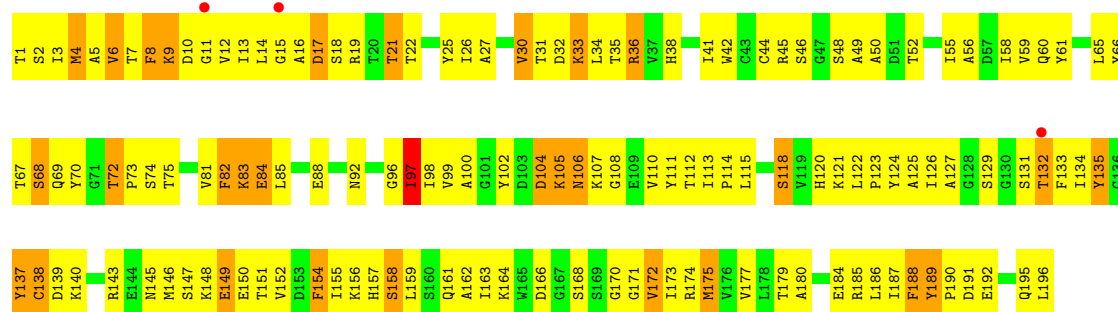




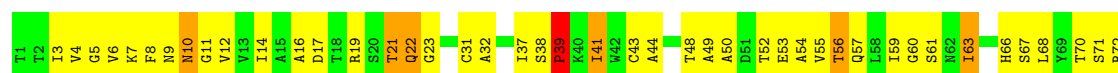
• Molecule 8: Proteasome component PRE3

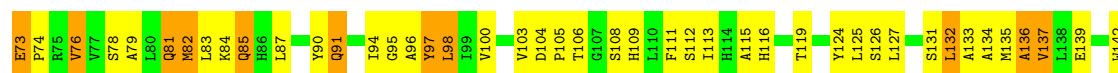


• Molecule 8: Proteasome component PRE3

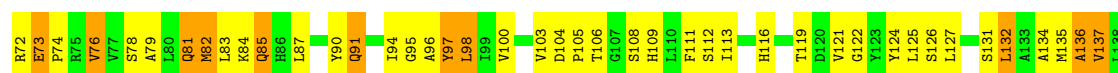
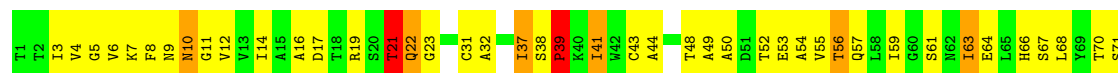


• Molecule 9: Proteasome component PUP1





• Molecule 9: Proteasome component PUP1



• Molecule 10: Proteasome component PUP3

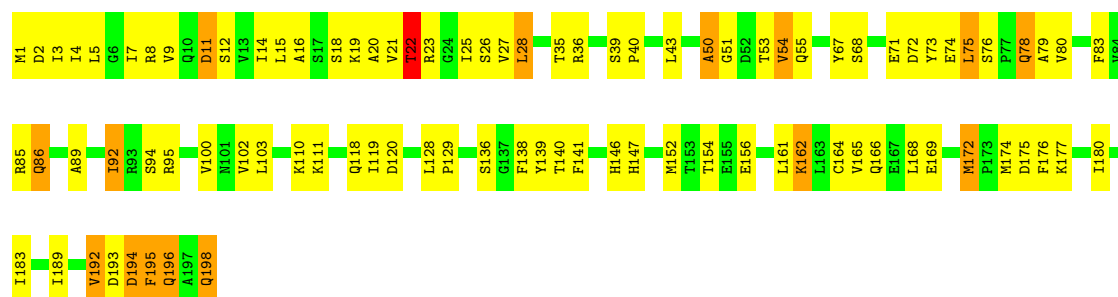


• Molecule 10: Proteasome component PUP3



• Molecule 11: Proteasome component C11

Chain K:  54% 38% 8%



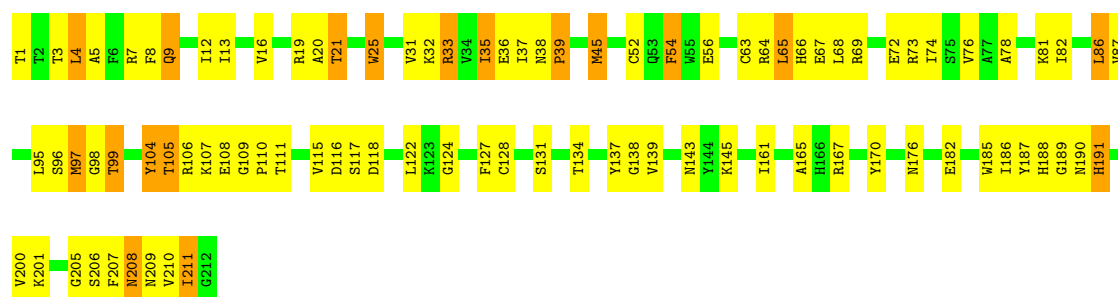
• Molecule 11: Proteasome component C11

Chain Y:  51% 39% 9%



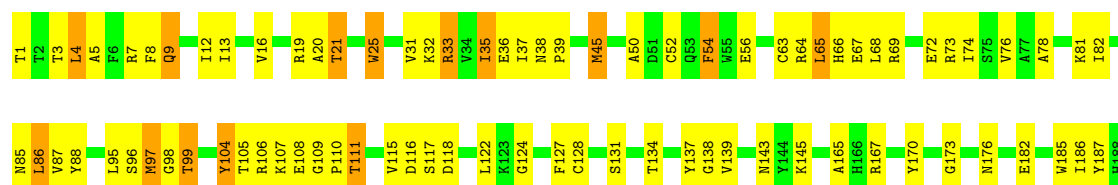
• Molecule 12: Proteasome component PRE2

Chain L:  57% 35% 8%



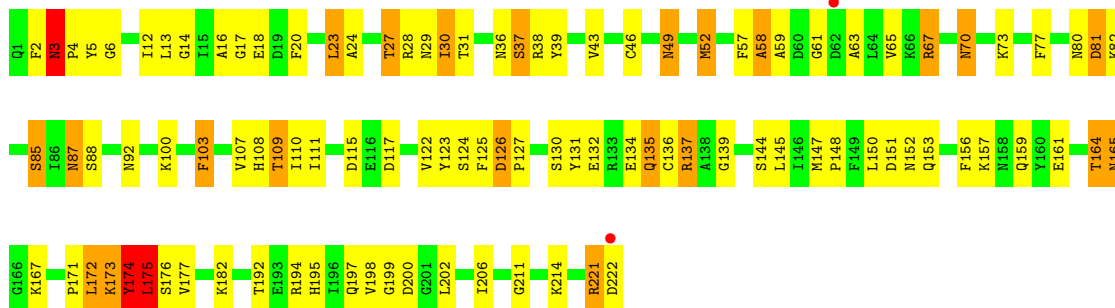
• Molecule 12: Proteasome component PRE2

Chain Z:  57% 35% 8%

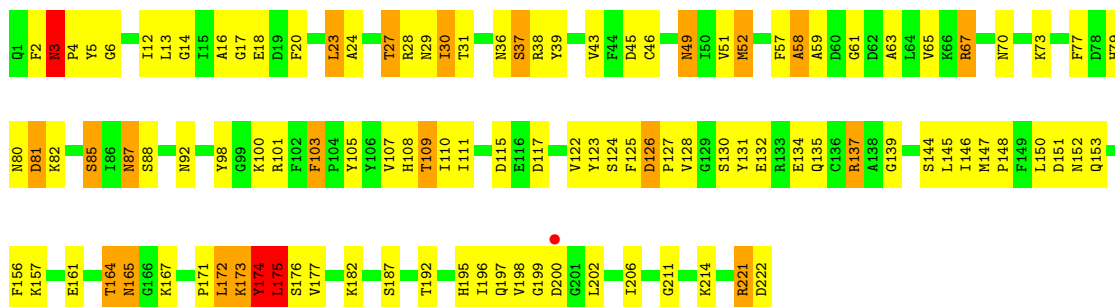




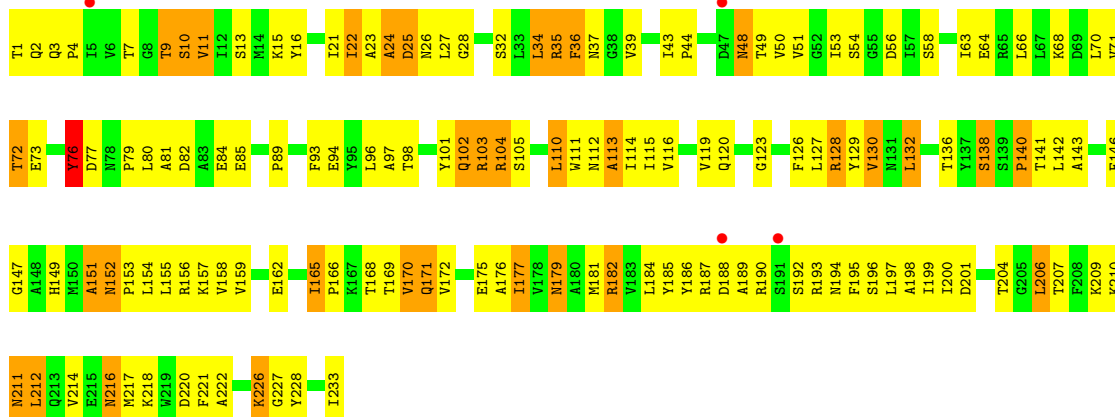
• Molecule 13: Potential proteasome component C5



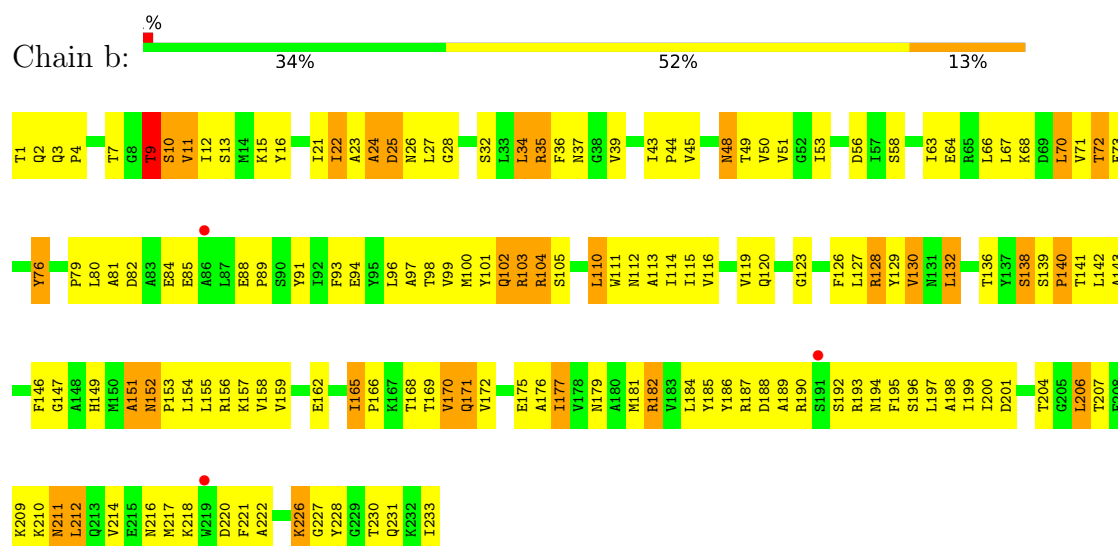
• Molecule 13: Potential proteasome component C5



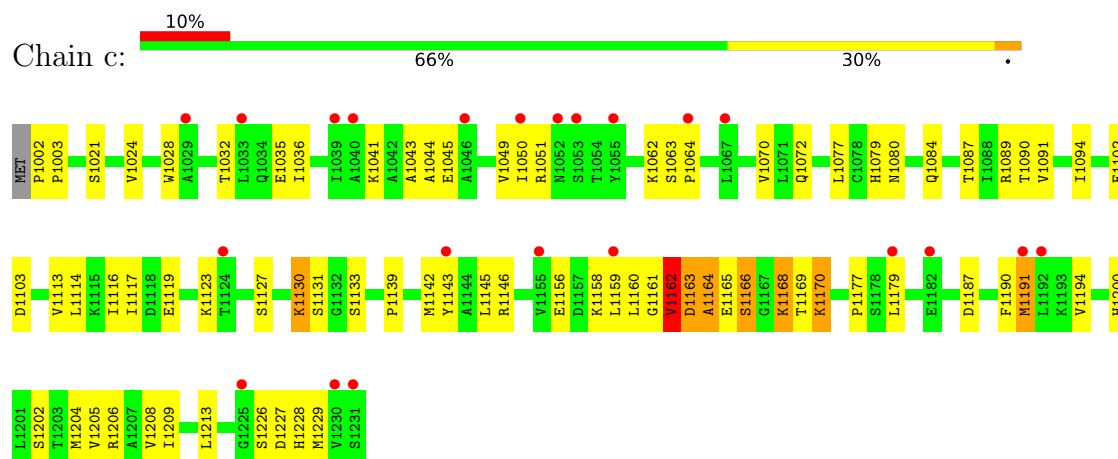
• Molecule 14: Proteasome component PRE4



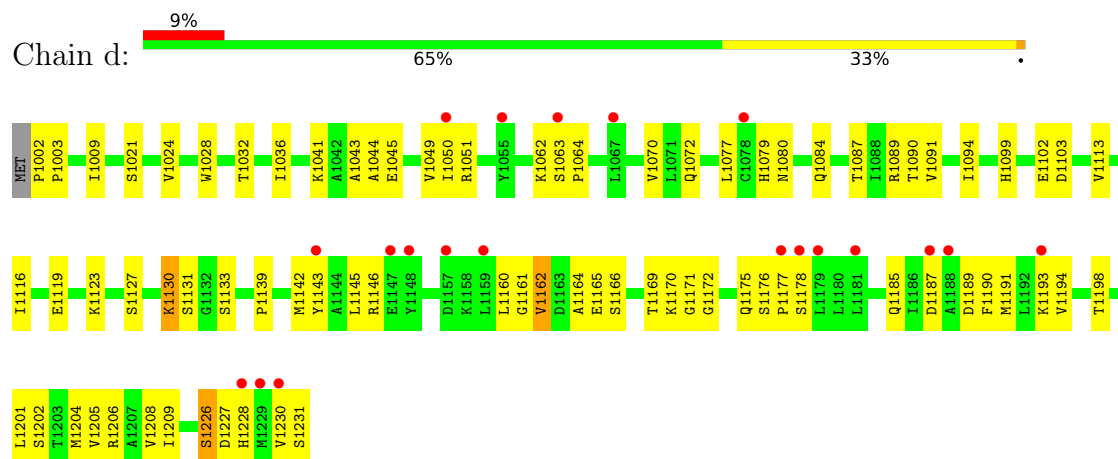
• Molecule 14: Proteasome component PRE4



• Molecule 15: proteasome activator protein PA26

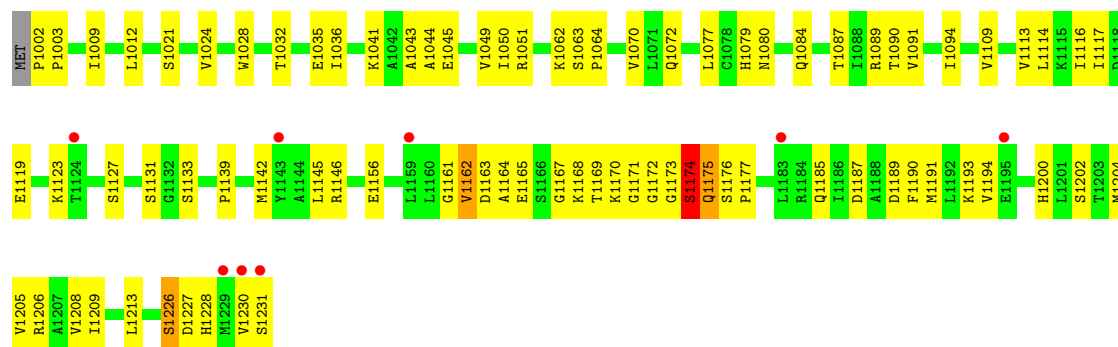


• Molecule 15: proteasome activator protein PA26

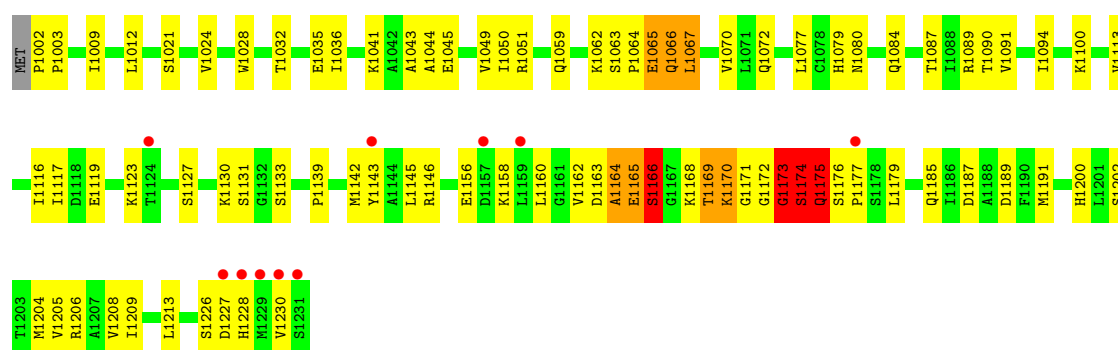


• Molecule 15: proteasome activator protein PA26

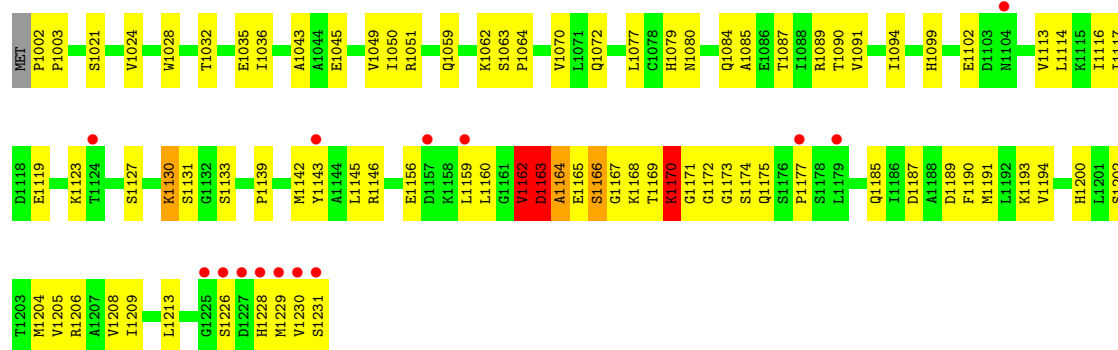




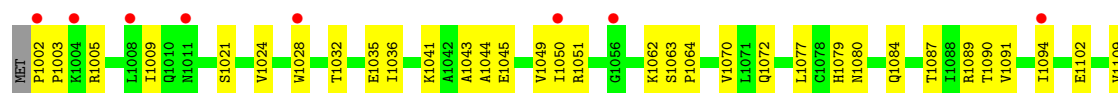
- Molecule 15: proteasome activator protein PA26

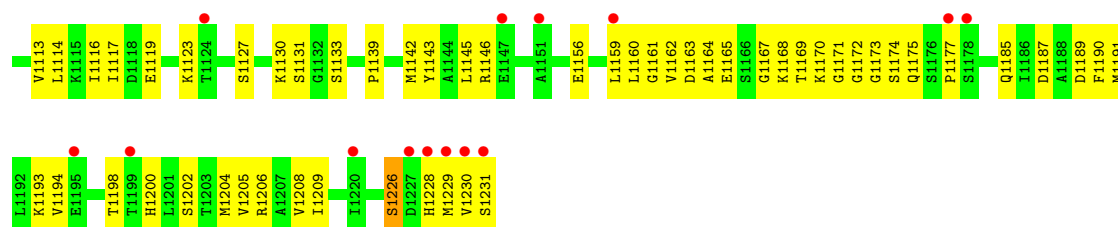


- Molecule 15: proteasome activator protein PA26

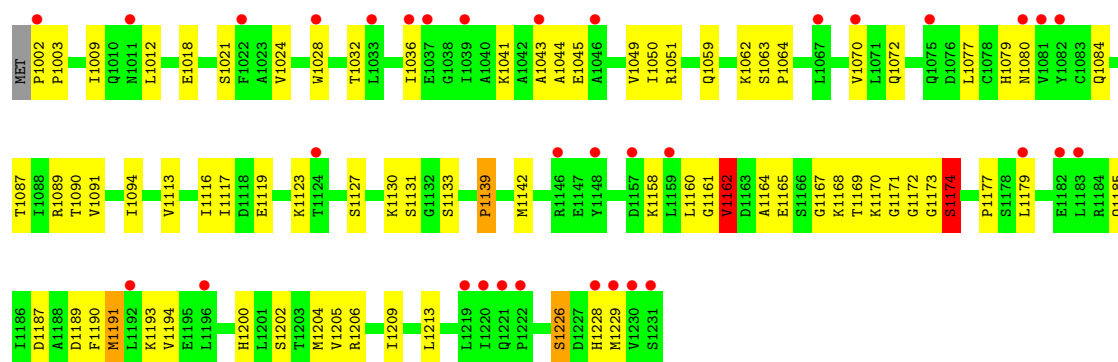


- Molecule 15: proteasome activator protein PA26

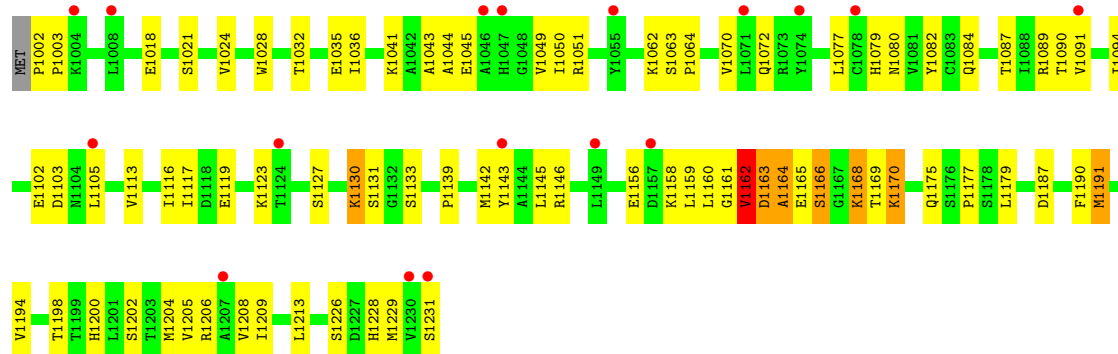




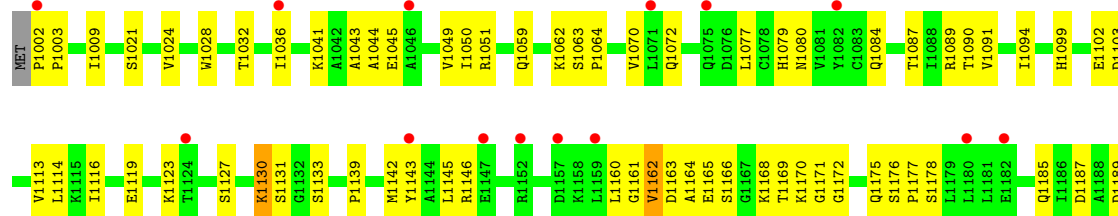
• Molecule 15: proteasome activator protein PA26



• Molecule 15: proteasome activator protein PA26

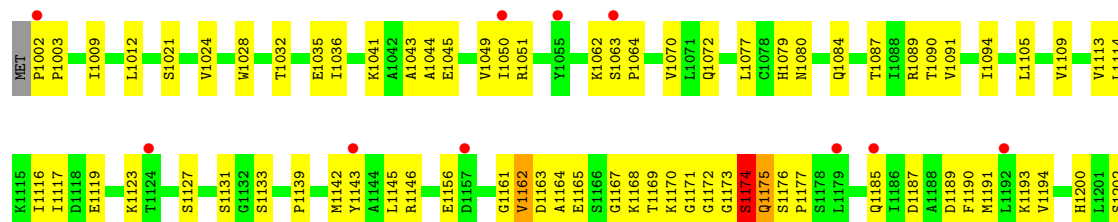


• Molecule 15: proteasome activator protein PA26

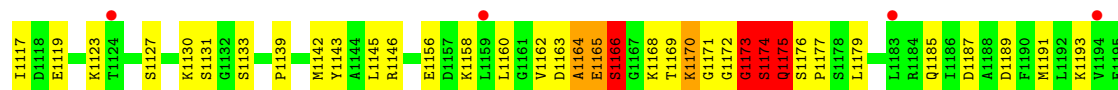
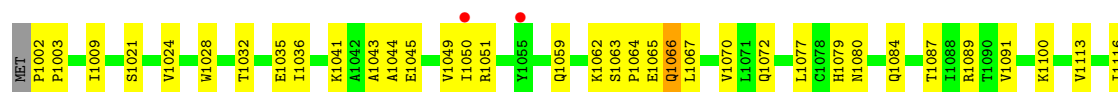




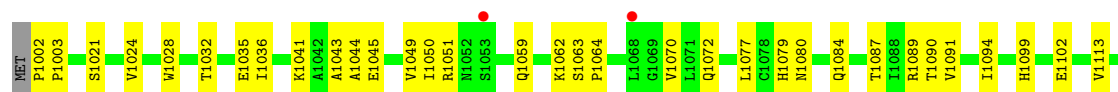
- Molecule 15: proteasome activator protein PA26



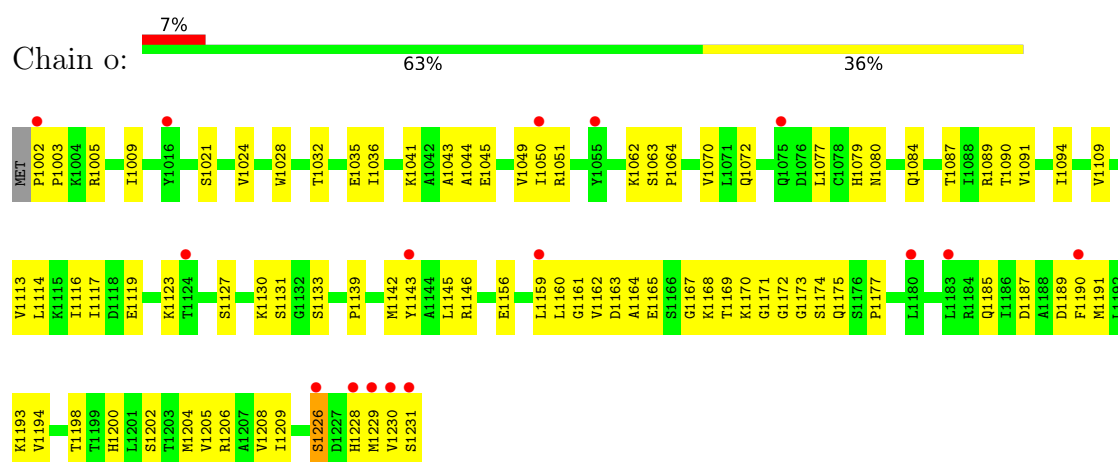
- Molecule 15: proteasome activator protein PA26



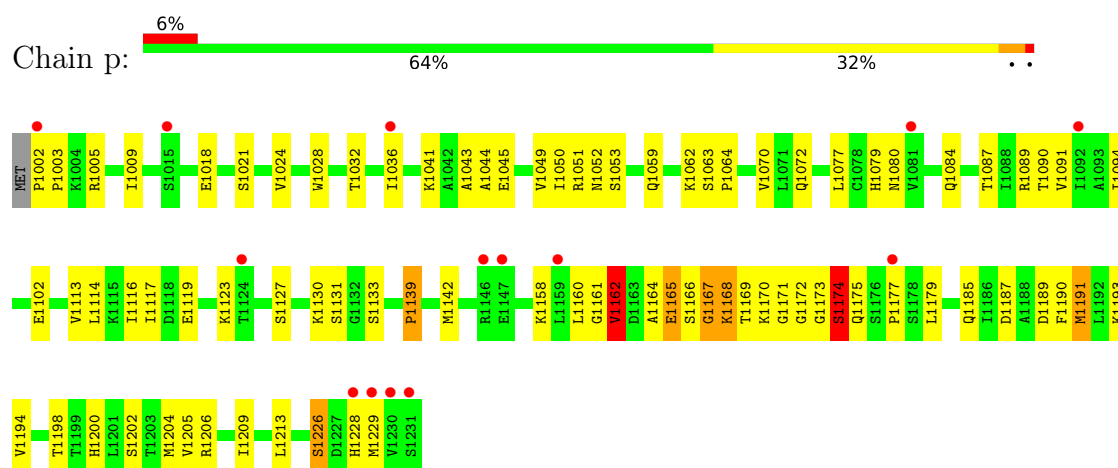
- Molecule 15: proteasome activator protein PA26



- Molecule 15: proteasome activator protein PA26



● Molecule 15: proteasome activator protein PA26



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	192.96Å 232.13Å 296.77Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	39.80 – 3.22 39.80 – 3.22	Depositor EDS
% Data completeness (in resolution range)	89.1 (39.80-3.22) 88.2 (39.80-3.22)	Depositor EDS
R_{merge}	0.11	Depositor
R_{sym}	0.11	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.19 (at 3.25Å)	Xtriage
Refinement program	CNS 1.0	Depositor
R, R_{free}	0.263 , 0.308 0.275 , 0.312	Depositor DCC
R_{free} test set	1264 reflections (0.67%)	wwPDB-VP
Wilson B-factor (Å ²)	71.3	Xtriage
Anisotropy	0.529	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.31 , 60.3	EDS
L-test for twinning ²	$\langle L \rangle = 0.45$, $\langle L^2 \rangle = 0.28$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.89	EDS
Total number of atoms	74222	wwPDB-VP
Average B, all atoms (Å ²)	72.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.14% 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	0.57	0/1959	1.11	16/2652 (0.6%)
1	O	0.54	0/1959	1.10	18/2652 (0.7%)
2	B	0.59	0/1944	1.18	27/2632 (1.0%)
2	P	0.54	0/1944	1.16	27/2632 (1.0%)
3	C	0.59	0/1930	1.04	11/2613 (0.4%)
3	Q	0.57	0/1930	1.03	12/2613 (0.5%)
4	D	0.59	0/1919	1.08	15/2598 (0.6%)
4	R	0.54	0/1919	1.08	15/2598 (0.6%)
5	E	0.63	0/1914	1.09	12/2579 (0.5%)
5	S	0.57	0/1914	1.10	13/2579 (0.5%)
6	F	0.61	0/1831	1.08	12/2473 (0.5%)
6	T	0.55	0/1831	1.07	13/2473 (0.5%)
7	G	0.56	0/1932	1.10	19/2609 (0.7%)
7	U	0.53	0/1932	1.08	17/2609 (0.7%)
8	H	0.60	0/1541	1.13	11/2087 (0.5%)
8	V	0.58	0/1541	1.13	11/2087 (0.5%)
9	I	0.60	0/1716	1.10	10/2326 (0.4%)
9	W	0.58	0/1716	1.08	11/2326 (0.5%)
10	J	0.61	0/1611	1.15	20/2174 (0.9%)
10	X	0.63	0/1611	1.14	20/2174 (0.9%)
11	K	0.72	0/1613	1.14	12/2173 (0.6%)
11	Y	0.68	0/1613	1.15	13/2173 (0.6%)
12	L	0.70	0/1683	1.09	11/2277 (0.5%)
12	Z	0.69	0/1683	1.09	12/2277 (0.5%)
13	M	0.63	0/1795	1.21	22/2420 (0.9%)
13	a	0.59	0/1795	1.19	22/2420 (0.9%)
14	N	0.61	0/1855	1.10	16/2514 (0.6%)
14	b	0.60	0/1855	1.10	15/2514 (0.6%)
15	c	0.87	12/1786 (0.7%)	1.33	20/2415 (0.8%)
15	d	1.06	13/1786 (0.7%)	1.36	28/2415 (1.2%)
15	e	1.30	19/1786 (1.1%)	1.45	31/2415 (1.3%)
15	f	1.04	16/1786 (0.9%)	1.59	31/2415 (1.3%)
15	g	1.48	14/1786 (0.8%)	1.56	37/2415 (1.5%)
15	h	1.10	20/1786 (1.1%)	1.34	28/2415 (1.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
15	i	1.72	25/1786 (1.4%)	1.91	39/2415 (1.6%)
15	j	0.85	11/1786 (0.6%)	1.33	21/2415 (0.9%)
15	k	1.05	14/1786 (0.8%)	1.35	30/2415 (1.2%)
15	l	1.29	18/1786 (1.0%)	1.45	32/2415 (1.3%)
15	m	1.02	16/1786 (0.9%)	1.58	30/2415 (1.2%)
15	n	1.47	14/1786 (0.8%)	1.56	37/2415 (1.5%)
15	o	1.10	20/1786 (1.1%)	1.34	28/2415 (1.2%)
15	p	1.73	26/1786 (1.5%)	1.91	42/2415 (1.7%)
All	All	0.87	238/75490 (0.3%)	1.26	867/102064 (0.8%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1
1	O	0	1
3	C	0	1
3	Q	0	1
14	N	0	1
15	e	0	1
15	f	0	4
15	g	0	1
15	i	0	4
15	l	0	1
15	m	0	4
15	n	0	1
15	p	0	4
All	All	0	25

All (238) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	p	1172	GLY	C-N	39.47	1.91	1.33
15	i	1172	GLY	C-N	39.47	1.91	1.33
15	n	1168	LYS	CA-C	31.34	1.88	1.52
15	g	1168	LYS	CA-C	31.29	1.88	1.52
15	g	1168	LYS	N-CA	22.90	1.73	1.46
15	n	1168	LYS	N-CA	22.86	1.73	1.46
15	g	1163	ASP	C-O	21.09	1.50	1.24
15	n	1163	ASP	C-O	21.07	1.50	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	e	1175	GLN	C-O	-20.90	0.99	1.24
15	e	1170	LYS	CA-C	20.89	1.70	1.52
15	l	1170	LYS	CA-C	20.87	1.69	1.52
15	p	1170	LYS	CA-C	20.86	1.69	1.52
15	l	1175	GLN	C-O	-20.86	0.99	1.24
15	i	1170	LYS	CA-C	20.73	1.69	1.52
15	n	1169	THR	N-CA	20.34	1.72	1.46
15	g	1169	THR	N-CA	20.33	1.72	1.46
15	p	1162	VAL	C-N	18.31	1.59	1.33
15	i	1162	VAL	C-N	18.14	1.59	1.33
15	p	1170	LYS	N-CA	16.45	1.62	1.46
15	i	1170	LYS	N-CA	16.33	1.62	1.46
15	l	1170	LYS	N-CA	16.30	1.62	1.46
15	n	1168	LYS	C-N	16.30	1.55	1.33
15	e	1170	LYS	N-CA	16.30	1.62	1.46
15	g	1168	LYS	C-N	16.27	1.55	1.33
15	o	1170	LYS	C-N	-15.51	1.10	1.32
15	h	1170	LYS	C-N	-15.51	1.10	1.32
15	m	1066	GLN	CA-CB	15.06	1.78	1.53
15	f	1066	GLN	CA-CB	15.05	1.78	1.53
15	h	1169	THR	CA-C	14.87	1.70	1.52
15	i	1173	GLY	N-CA	14.81	1.66	1.45
15	p	1173	GLY	N-CA	14.80	1.66	1.45
15	o	1169	THR	CA-C	14.79	1.70	1.52
15	d	1165	GLU	CA-C	13.78	1.71	1.52
15	k	1165	GLU	CA-C	13.69	1.71	1.52
15	k	1165	GLU	N-CA	13.56	1.63	1.46
15	d	1165	GLU	N-CA	13.37	1.63	1.46
15	p	1172	GLY	C-O	13.30	1.42	1.24
15	i	1172	GLY	C-O	13.23	1.42	1.24
15	f	1175	GLN	C-O	-13.06	1.07	1.24
15	m	1175	GLN	C-O	-12.95	1.07	1.24
15	p	1168	LYS	CA-C	12.79	1.67	1.52
15	l	1168	LYS	CA-C	12.71	1.67	1.52
15	i	1168	LYS	CA-C	12.67	1.67	1.52
15	e	1168	LYS	CA-C	12.56	1.66	1.52
15	d	1171	GLY	CA-C	12.53	1.62	1.52
15	k	1171	GLY	CA-C	12.48	1.62	1.52
15	e	1169	THR	CA-C	12.27	1.69	1.52
15	l	1169	THR	CA-C	12.27	1.69	1.52
15	i	1169	THR	CA-C	12.21	1.69	1.52
15	p	1169	THR	CA-C	12.21	1.69	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	i	1173	GLY	C-N	-12.13	1.16	1.33
15	i	1169	THR	N-CA	12.09	1.61	1.46
15	p	1173	GLY	C-N	-12.03	1.16	1.33
15	e	1169	THR	N-CA	12.02	1.61	1.46
15	p	1169	THR	N-CA	12.00	1.61	1.46
15	l	1169	THR	N-CA	11.99	1.61	1.46
15	p	1167	GLY	CA-C	11.68	1.68	1.51
15	j	1162	VAL	CA-C	11.65	1.67	1.52
15	d	1164	ALA	CA-C	11.65	1.67	1.52
15	c	1162	VAL	CA-C	11.61	1.67	1.52
15	g	1167	GLY	C-N	11.58	1.49	1.33
15	k	1164	ALA	CA-C	11.56	1.67	1.52
15	n	1167	GLY	C-N	11.54	1.49	1.33
15	o	1170	LYS	N-CA	11.25	1.60	1.46
15	h	1170	LYS	N-CA	11.16	1.60	1.46
15	o	1169	THR	N-CA	10.88	1.60	1.46
15	d	1171	GLY	N-CA	10.87	1.55	1.44
15	h	1169	THR	N-CA	10.85	1.59	1.46
15	i	1162	VAL	CA-C	10.75	1.66	1.52
15	k	1171	GLY	N-CA	10.71	1.55	1.44
15	p	1172	GLY	N-CA	-10.67	1.34	1.45
15	i	1172	GLY	N-CA	-10.65	1.34	1.45
15	p	1162	VAL	CA-C	10.60	1.66	1.52
15	i	1172	GLY	CA-C	-10.27	1.40	1.51
15	p	1172	GLY	CA-C	-10.18	1.40	1.51
15	n	1167	GLY	CA-C	10.11	1.66	1.51
15	g	1167	GLY	CA-C	10.02	1.66	1.51
15	d	1164	ALA	C-N	10.01	1.47	1.33
15	j	1159	LEU	CA-C	-10.00	1.39	1.52
15	c	1159	LEU	CA-C	-9.99	1.39	1.52
15	k	1164	ALA	C-N	9.96	1.47	1.33
15	i	1167	GLY	CA-C	9.68	1.65	1.51
15	l	1167	GLY	CA-C	9.65	1.65	1.51
15	e	1167	GLY	CA-C	9.64	1.65	1.51
15	h	1168	LYS	CA-C	9.54	1.65	1.52
15	i	1173	GLY	CA-C	-9.38	1.38	1.51
15	p	1173	GLY	CA-C	-9.38	1.38	1.51
15	o	1168	LYS	CA-C	9.38	1.65	1.52
15	o	1171	GLY	C-O	-9.16	1.17	1.23
15	l	1175	GLN	C-N	-9.11	1.14	1.33
15	e	1175	GLN	C-N	-9.10	1.14	1.33
15	h	1171	GLY	C-O	-8.85	1.17	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	f	1175	GLN	C-N	-8.73	1.15	1.33
15	f	1066	GLN	N-CA	8.69	1.57	1.46
15	m	1175	GLN	C-N	-8.66	1.15	1.33
15	p	1168	LYS	N-CA	8.50	1.55	1.46
15	l	1169	THR	C-N	8.39	1.44	1.33
15	i	1169	THR	C-N	8.33	1.44	1.33
15	p	1169	THR	C-N	8.31	1.44	1.33
15	e	1169	THR	C-N	8.29	1.44	1.33
15	i	1174	SER	C-N	-8.12	1.22	1.33
15	m	1067	LEU	N-CA	8.12	1.56	1.46
15	d	1165	GLU	C-N	8.11	1.45	1.33
15	k	1165	GLU	C-N	8.09	1.45	1.33
15	p	1174	SER	C-N	-8.06	1.22	1.33
15	d	1164	ALA	N-CA	8.06	1.55	1.45
15	k	1164	ALA	N-CA	8.05	1.55	1.45
15	f	1174	SER	C-N	7.99	1.44	1.33
15	m	1174	SER	C-N	7.98	1.44	1.33
15	i	1168	LYS	N-CA	7.96	1.54	1.46
15	l	1175	GLN	N-CA	-7.93	1.36	1.46
15	l	1168	LYS	N-CA	7.92	1.54	1.46
15	e	1175	GLN	N-CA	-7.89	1.36	1.46
15	l	1174	SER	N-CA	-7.87	1.36	1.46
15	c	1169	THR	N-CA	-7.87	1.37	1.46
15	h	1160	LEU	CA-C	-7.85	1.43	1.52
15	o	1160	LEU	CA-C	-7.84	1.43	1.52
15	e	1168	LYS	N-CA	7.84	1.54	1.46
15	n	1175	GLN	N-CA	-7.80	1.36	1.46
15	e	1174	SER	N-CA	-7.78	1.36	1.46
15	j	1169	THR	N-CA	-7.76	1.37	1.46
15	g	1175	GLN	N-CA	-7.70	1.36	1.46
15	f	1165	GLU	N-CA	7.67	1.55	1.46
15	g	1163	ASP	C-N	7.65	1.44	1.33
15	h	1168	LYS	C-N	7.64	1.42	1.33
15	m	1165	GLU	N-CA	7.63	1.55	1.46
15	o	1168	LYS	C-N	7.58	1.42	1.33
15	n	1163	ASP	C-N	7.55	1.44	1.33
15	h	1170	LYS	C-O	-7.54	1.14	1.24
15	o	1170	LYS	C-O	-7.53	1.14	1.24
15	n	1165	GLU	CA-C	7.34	1.61	1.52
15	g	1165	GLU	CA-C	7.32	1.61	1.52
15	i	1168	LYS	C-N	7.15	1.43	1.33
15	l	1168	LYS	C-N	7.13	1.43	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	m	1164	ALA	CA-C	7.12	1.62	1.52
15	e	1168	LYS	C-N	7.11	1.43	1.33
15	i	1162	VAL	C-O	-7.08	1.15	1.24
15	h	1161	GLY	N-CA	-7.07	1.35	1.45
15	p	1162	VAL	C-O	-7.04	1.15	1.24
15	f	1164	ALA	CA-C	6.99	1.62	1.52
15	o	1161	GLY	N-CA	-6.98	1.35	1.45
15	m	1173	GLY	C-O	-6.96	1.14	1.23
15	p	1170	LYS	C-N	6.95	1.43	1.33
15	e	1170	LYS	C-N	6.94	1.43	1.33
15	i	1170	LYS	C-N	6.94	1.43	1.33
15	f	1173	GLY	C-O	-6.92	1.14	1.23
15	l	1170	LYS	C-N	6.89	1.43	1.33
15	e	1172	GLY	N-CA	-6.83	1.35	1.45
15	f	1066	GLN	C-N	6.82	1.43	1.33
15	p	1168	LYS	C-N	6.82	1.43	1.33
15	l	1172	GLY	N-CA	-6.76	1.35	1.45
15	k	1162	VAL	N-CA	6.75	1.54	1.46
15	k	1166	SER	N-CA	6.73	1.59	1.46
15	d	1170	LYS	CA-C	6.73	1.60	1.52
15	k	1170	LYS	CA-C	6.72	1.60	1.52
15	f	1067	LEU	N-CA	6.71	1.54	1.46
15	o	1174	SER	N-CA	6.71	1.54	1.46
15	m	1066	GLN	N-CA	6.69	1.54	1.46
15	d	1162	VAL	N-CA	6.68	1.54	1.46
15	d	1166	SER	N-CA	6.67	1.59	1.46
15	f	1164	ALA	N-CA	6.66	1.54	1.46
15	h	1174	SER	N-CA	6.64	1.54	1.46
15	p	1160	LEU	CA-C	-6.61	1.43	1.52
15	i	1160	LEU	CA-C	-6.60	1.43	1.52
15	h	1167	GLY	CA-C	6.58	1.61	1.51
15	m	1164	ALA	N-CA	6.55	1.54	1.46
15	o	1167	GLY	CA-C	6.49	1.61	1.51
15	f	1169	THR	CA-C	-6.43	1.43	1.52
15	m	1169	THR	CA-C	-6.36	1.43	1.52
15	k	1161	GLY	N-CA	6.35	1.54	1.45
15	d	1161	GLY	N-CA	6.33	1.54	1.45
15	p	1171	GLY	C-N	-6.25	1.26	1.33
15	i	1171	GLY	C-N	-6.19	1.26	1.33
15	g	1174	SER	CA-CB	-6.17	1.44	1.53
15	m	1066	GLN	C-N	6.15	1.42	1.33
15	n	1174	SER	CA-CB	-6.14	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	o	1161	GLY	CA-C	-6.14	1.43	1.51
15	c	1164	ALA	N-CA	-6.13	1.38	1.46
15	h	1161	GLY	CA-C	-6.10	1.43	1.51
15	j	1164	ALA	N-CA	-6.05	1.38	1.46
15	f	1165	GLU	CA-C	6.05	1.59	1.52
15	d	1161	GLY	CA-C	6.03	1.60	1.51
15	o	1168	LYS	N-CA	6.02	1.53	1.46
15	e	1174	SER	CA-C	-6.02	1.44	1.52
15	o	1169	THR	C-N	6.02	1.42	1.33
15	h	1169	THR	C-N	6.02	1.42	1.33
15	o	1163	ASP	N-CA	-6.01	1.39	1.46
15	m	1165	GLU	CA-C	5.98	1.59	1.52
15	m	1065	GLU	CA-CB	5.96	1.63	1.53
15	k	1161	GLY	CA-C	5.95	1.60	1.51
15	l	1174	SER	CA-C	-5.93	1.44	1.52
15	o	1173	GLY	C-N	5.88	1.42	1.33
15	h	1168	LYS	N-CA	5.87	1.53	1.46
15	h	1173	GLY	C-N	5.86	1.41	1.33
15	h	1163	ASP	N-CA	-5.82	1.39	1.46
15	n	1170	LYS	CA-C	5.72	1.60	1.52
15	g	1170	LYS	CA-C	5.69	1.60	1.52
15	f	1065	GLU	CA-CB	5.67	1.62	1.53
15	l	1163	ASP	N-CA	-5.59	1.40	1.46
15	c	1160	LEU	CA-C	-5.57	1.47	1.53
15	p	1161	GLY	N-CA	-5.57	1.37	1.45
15	o	1171	GLY	C-N	-5.55	1.25	1.33
15	c	1166	SER	N-CA	5.54	1.53	1.46
15	i	1161	GLY	N-CA	-5.52	1.37	1.45
15	j	1166	SER	N-CA	5.52	1.53	1.46
15	o	1172	GLY	C-N	5.50	1.41	1.33
15	n	1164	ALA	CA-C	5.50	1.60	1.52
15	h	1172	GLY	C-N	5.49	1.41	1.33
15	g	1164	ALA	CA-C	5.48	1.60	1.52
15	l	1175	GLN	CA-C	5.46	1.59	1.52
15	n	1164	ALA	N-CA	5.44	1.53	1.46
15	j	1160	LEU	CA-C	-5.41	1.47	1.53
15	e	1175	GLN	CA-C	5.41	1.59	1.52
15	p	1167	GLY	N-CA	5.40	1.53	1.45
15	c	1162	VAL	N-CA	5.39	1.53	1.46
15	e	1163	ASP	N-CA	-5.39	1.40	1.46
15	h	1171	GLY	C-N	-5.39	1.25	1.33
15	g	1164	ALA	N-CA	5.36	1.53	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	c	1170	LYS	N-CA	-5.35	1.39	1.46
15	j	1170	LYS	N-CA	-5.34	1.39	1.46
15	j	1159	LEU	C-N	-5.31	1.27	1.33
15	m	1175	GLN	N-CA	-5.30	1.39	1.46
15	i	1174	SER	N-CA	-5.29	1.39	1.46
15	c	1159	LEU	C-N	-5.28	1.27	1.33
15	f	1175	GLN	N-CA	-5.28	1.39	1.46
15	j	1162	VAL	N-CA	5.26	1.52	1.46
15	m	1166	SER	N-CA	5.25	1.52	1.46
15	f	1166	SER	N-CA	5.18	1.52	1.46
15	j	1163	ASP	CA-C	-5.13	1.45	1.52
15	c	1169	THR	CA-C	-5.08	1.46	1.52
15	p	1174	SER	N-CA	-5.08	1.39	1.46
15	c	1163	ASP	CA-C	-5.07	1.46	1.52
15	e	1171	GLY	C-N	-5.07	1.26	1.33
15	k	1163	ASP	CA-C	5.06	1.58	1.52
15	c	1162	VAL	C-N	5.03	1.40	1.33
15	h	1173	GLY	CA-C	5.02	1.58	1.51
15	o	1173	GLY	CA-C	5.02	1.58	1.51
15	j	1162	VAL	C-N	5.00	1.40	1.33

All (867) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	i	1172	GLY	O-C-N	42.33	166.14	123.81
15	p	1172	GLY	O-C-N	42.27	166.08	123.81
15	p	1162	VAL	O-C-N	-34.88	78.97	122.57
15	i	1162	VAL	O-C-N	-34.78	79.09	122.57
15	f	1173	GLY	O-C-N	-33.50	79.15	122.70
15	m	1173	GLY	O-C-N	-33.50	79.15	122.70
15	n	1174	SER	N-CA-CB	-31.60	63.65	111.05
15	g	1174	SER	N-CA-CB	-31.58	63.68	111.05
15	m	1175	GLN	O-C-N	-28.02	85.33	122.59
15	f	1175	GLN	O-C-N	-27.99	85.37	122.59
15	l	1175	GLN	O-C-N	-25.75	91.01	122.17
15	e	1175	GLN	O-C-N	-25.72	91.05	122.17
15	j	1159	LEU	CA-C-N	-23.16	91.76	122.79
15	j	1159	LEU	C-N-CA	-23.16	91.76	122.79
15	c	1159	LEU	CA-C-N	-23.09	91.85	122.79
15	c	1159	LEU	C-N-CA	-23.09	91.85	122.79
15	p	1172	GLY	CA-C-N	18.53	157.73	121.41
15	p	1172	GLY	C-N-CA	18.53	157.73	121.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	i	1172	GLY	CA-C-N	18.50	157.68	121.41
15	i	1172	GLY	C-N-CA	18.50	157.68	121.41
15	h	1171	GLY	O-C-N	-16.88	103.91	124.00
15	o	1171	GLY	O-C-N	-16.87	103.92	124.00
15	k	1131	SER	N-CA-C	16.75	131.85	108.74
15	d	1131	SER	N-CA-C	16.69	131.78	108.74
15	f	1173	GLY	N-CA-C	15.94	150.96	113.18
15	m	1173	GLY	N-CA-C	15.90	150.86	113.18
15	m	1172	GLY	CA-C-N	-15.01	91.99	121.41
15	m	1172	GLY	C-N-CA	-15.01	91.99	121.41
15	f	1172	GLY	CA-C-N	-14.97	92.06	121.41
15	f	1172	GLY	C-N-CA	-14.97	92.06	121.41
15	h	1131	SER	N-CA-C	14.43	132.89	109.95
15	o	1131	SER	N-CA-C	14.38	132.82	109.95
15	i	1131	SER	N-CA-C	14.16	131.87	109.50
15	p	1131	SER	N-CA-C	14.14	131.85	109.50
15	i	1170	LYS	N-CA-C	14.05	132.28	111.34
15	l	1170	LYS	N-CA-C	14.04	132.26	111.34
15	e	1170	LYS	N-CA-C	14.02	132.24	111.34
15	p	1170	LYS	N-CA-C	14.01	132.22	111.34
15	g	1168	LYS	N-CA-C	13.92	131.88	107.80
15	n	1168	LYS	N-CA-C	13.88	131.82	107.80
15	o	1170	LYS	O-C-N	-13.88	104.13	122.59
15	h	1170	LYS	O-C-N	-13.85	104.17	122.59
15	n	1131	SER	N-CA-C	13.18	130.89	109.40
15	g	1131	SER	N-CA-C	13.18	130.88	109.40
15	l	1131	SER	N-CA-C	13.07	130.74	109.95
15	e	1131	SER	N-CA-C	13.07	130.73	109.95
15	j	1131	SER	N-CA-C	12.96	130.53	109.40
15	c	1131	SER	N-CA-C	12.93	130.48	109.40
15	h	1169	THR	O-C-N	-12.89	110.69	123.46
15	e	1175	GLN	CA-C-O	12.88	134.33	120.55
15	o	1169	THR	O-C-N	-12.88	110.71	123.46
15	l	1175	GLN	CA-C-O	12.85	134.30	120.55
15	p	1173	GLY	CA-C-N	-12.73	97.22	121.54
15	p	1173	GLY	C-N-CA	-12.73	97.22	121.54
15	i	1173	GLY	CA-C-N	-12.68	97.31	121.54
15	i	1173	GLY	C-N-CA	-12.68	97.31	121.54
15	i	1173	GLY	O-C-N	12.38	138.80	122.70
15	p	1173	GLY	O-C-N	12.37	138.78	122.70
15	d	1161	GLY	CA-C-N	12.35	144.21	121.97
15	d	1161	GLY	C-N-CA	12.35	144.21	121.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	k	1161	GLY	CA-C-N	12.33	144.17	121.97
15	k	1161	GLY	C-N-CA	12.33	144.17	121.97
15	d	1162	VAL	N-CA-C	12.03	134.35	109.34
15	k	1162	VAL	N-CA-C	12.01	134.33	109.34
15	m	1131	SER	N-CA-C	11.84	129.02	109.24
15	f	1131	SER	N-CA-C	11.82	128.98	109.24
15	g	1167	GLY	CA-C-N	11.56	139.20	122.44
15	g	1167	GLY	C-N-CA	11.56	139.20	122.44
15	n	1167	GLY	CA-C-N	11.53	139.16	122.44
15	n	1167	GLY	C-N-CA	11.53	139.16	122.44
15	i	1161	GLY	CA-C-N	11.48	142.63	121.97
15	i	1161	GLY	C-N-CA	11.48	142.63	121.97
15	p	1161	GLY	CA-C-N	11.47	142.62	121.97
15	p	1161	GLY	C-N-CA	11.47	142.62	121.97
15	n	1171	GLY	N-CA-C	-11.41	86.12	113.18
15	g	1171	GLY	N-CA-C	-11.41	86.13	113.18
15	d	1160	LEU	CB-CA-C	-11.40	92.21	110.79
15	k	1160	LEU	CB-CA-C	-11.36	92.27	110.79
15	n	1168	LYS	CA-C-O	-11.24	106.09	120.25
15	g	1168	LYS	CA-C-O	-11.20	106.14	120.25
15	p	1170	LYS	CB-CA-C	-10.94	95.57	112.31
15	i	1170	LYS	CB-CA-C	-10.94	95.58	112.31
15	e	1170	LYS	CB-CA-C	-10.91	95.62	112.31
15	l	1170	LYS	CB-CA-C	-10.90	95.62	112.31
15	n	1160	LEU	CB-CA-C	10.85	129.13	110.68
15	g	1160	LEU	CB-CA-C	10.85	129.12	110.68
15	n	1163	ASP	N-CA-C	10.85	133.90	110.80
15	g	1163	ASP	N-CA-C	10.84	133.88	110.80
15	d	1130	LYS	CA-C-N	-10.83	104.89	122.11
15	d	1130	LYS	C-N-CA	-10.83	104.89	122.11
15	k	1130	LYS	CA-C-N	-10.78	104.98	122.11
15	k	1130	LYS	C-N-CA	-10.78	104.98	122.11
11	Y	195	PHE	N-CA-C	-10.54	100.53	113.50
13	M	126	ASP	CA-C-N	-10.52	110.10	120.83
13	M	126	ASP	C-N-CA	-10.52	110.10	120.83
9	I	136	ALA	N-CA-C	-10.49	100.78	114.31
11	K	195	PHE	N-CA-C	-10.32	100.80	113.50
15	e	1175	GLN	N-CA-C	10.28	123.94	111.40
15	g	1168	LYS	CB-CA-C	-10.24	95.67	110.62
15	n	1168	LYS	CB-CA-C	-10.24	95.68	110.62
15	l	1175	GLN	N-CA-C	10.23	123.88	111.40
15	d	1160	LEU	N-CA-C	10.17	125.99	107.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	k	1160	LEU	N-CA-C	10.17	125.99	107.99
15	e	1165	GLU	N-CA-C	10.14	125.88	109.85
15	p	1165	GLU	N-CA-C	10.14	125.87	109.85
15	i	1165	GLU	N-CA-C	10.14	125.87	109.85
15	l	1165	GLU	N-CA-C	10.11	125.83	109.85
9	W	136	ALA	N-CA-C	-10.08	101.30	114.31
15	h	1170	LYS	N-CA-C	10.07	132.25	110.80
15	o	1165	GLU	N-CA-C	10.07	125.13	109.52
15	o	1170	LYS	N-CA-C	10.06	132.24	110.80
15	h	1165	GLU	N-CA-C	10.00	125.01	109.52
2	P	160	LYS	N-CA-C	-9.92	100.72	113.12
15	c	1160	LEU	N-CA-C	9.84	123.08	109.11
15	j	1160	LEU	N-CA-C	9.83	123.07	109.11
5	S	135	SER	N-CA-C	9.71	121.56	110.97
2	B	160	LYS	N-CA-C	-9.70	100.99	113.12
5	E	135	SER	N-CA-C	9.63	121.46	110.97
15	d	1166	SER	N-CA-C	9.62	132.94	113.31
4	R	54	LEU	N-CA-C	-9.62	99.75	113.21
15	k	1166	SER	N-CA-C	9.61	132.91	113.31
8	V	189	TYR	CA-C-N	9.53	131.76	119.84
8	V	189	TYR	C-N-CA	9.53	131.76	119.84
13	M	103	PHE	CA-C-N	9.51	129.59	119.89
13	M	103	PHE	C-N-CA	9.51	129.59	119.89
8	H	189	TYR	CA-C-N	9.44	131.63	119.84
8	H	189	TYR	C-N-CA	9.44	131.63	119.84
4	D	54	LEU	N-CA-C	-9.42	100.02	113.21
15	p	1162	VAL	N-CA-CB	-9.36	95.78	111.23
15	i	1162	VAL	N-CA-CB	-9.36	95.79	111.23
15	i	1161	GLY	CA-C-O	9.31	133.20	121.56
6	T	55	GLU	N-CA-C	-9.27	101.67	113.16
15	p	1161	GLY	CA-C-O	9.25	133.12	121.56
13	a	126	ASP	CA-C-N	-9.22	110.22	120.45
13	a	126	ASP	C-N-CA	-9.22	110.22	120.45
13	a	103	PHE	CA-C-N	9.18	129.25	119.89
13	a	103	PHE	C-N-CA	9.18	129.25	119.89
15	f	1165	GLU	N-CA-C	9.18	124.66	109.06
15	m	1165	GLU	N-CA-C	9.14	124.59	109.06
15	i	1165	GLU	CA-C-N	9.06	138.84	121.54
15	i	1165	GLU	C-N-CA	9.06	138.84	121.54
15	l	1165	GLU	CA-C-N	9.04	138.82	121.54
15	l	1165	GLU	C-N-CA	9.04	138.82	121.54
15	e	1165	GLU	CA-C-N	9.04	138.80	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	e	1165	GLU	C-N-CA	9.04	138.80	121.54
5	E	70	ILE	N-CA-C	-9.02	104.06	111.81
15	p	1165	GLU	CA-C-N	9.00	138.73	121.54
15	p	1165	GLU	C-N-CA	9.00	138.73	121.54
6	F	55	GLU	N-CA-C	-8.95	102.37	113.20
5	S	70	ILE	N-CA-C	-8.92	104.14	111.81
15	g	1168	LYS	O-C-N	-8.88	111.60	123.14
15	n	1168	LYS	O-C-N	-8.80	111.70	123.14
15	p	1174	SER	O-C-N	-8.78	110.91	122.59
15	i	1174	SER	O-C-N	-8.73	110.98	122.59
15	i	1171	GLY	CA-C-N	-8.72	107.81	120.97
15	i	1171	GLY	C-N-CA	-8.72	107.81	120.97
15	h	1171	GLY	N-CA-C	-8.72	98.69	110.20
15	p	1171	GLY	CA-C-N	-8.71	107.82	120.97
15	p	1171	GLY	C-N-CA	-8.71	107.82	120.97
10	J	102	TYR	N-CA-C	-8.67	96.50	110.20
15	o	1171	GLY	N-CA-C	-8.67	98.76	110.20
8	H	135	TYR	N-CA-C	-8.59	102.93	113.50
15	g	1170	LYS	CB-CA-C	8.56	127.47	110.42
8	V	135	TYR	N-CA-C	-8.55	102.99	113.50
15	n	1170	LYS	CB-CA-C	8.52	127.38	110.42
2	P	196	LEU	N-CA-C	-8.51	102.61	113.16
15	k	1175	GLN	N-CA-C	8.47	124.52	111.56
2	B	196	LEU	N-CA-C	-8.46	102.67	113.16
15	c	1163	ASP	CA-C-N	-8.43	105.43	121.54
15	c	1163	ASP	C-N-CA	-8.43	105.43	121.54
2	P	11	THR	N-CA-C	8.42	122.96	109.24
15	d	1175	GLN	N-CA-C	8.42	124.44	111.56
14	N	7	THR	N-CA-C	8.41	123.58	108.69
15	j	1163	ASP	CA-C-N	-8.40	105.49	121.54
15	j	1163	ASP	C-N-CA	-8.40	105.49	121.54
15	p	1161	GLY	O-C-N	8.31	132.39	122.67
11	Y	154	THR	N-CA-C	-8.28	102.25	111.28
13	M	30	ILE	N-CA-C	8.28	120.71	108.96
3	Q	12	ILE	N-CA-C	8.27	120.10	107.78
14	b	7	THR	N-CA-C	8.25	123.29	108.69
15	i	1161	GLY	O-C-N	8.24	132.31	122.67
3	C	12	ILE	N-CA-C	8.23	120.05	107.78
15	g	1175	GLN	N-CA-C	-8.12	103.89	113.88
15	l	1167	GLY	CA-C-N	8.09	133.88	120.70
15	l	1167	GLY	C-N-CA	8.09	133.88	120.70
15	i	1167	GLY	CA-C-N	8.08	133.88	120.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	i	1167	GLY	C-N-CA	8.08	133.88	120.70
15	n	1175	GLN	N-CA-C	-8.07	103.95	113.88
15	e	1167	GLY	CA-C-N	8.06	133.84	120.70
15	e	1167	GLY	C-N-CA	8.06	133.84	120.70
15	g	1162	VAL	CA-C-N	-8.04	106.19	121.54
15	g	1162	VAL	C-N-CA	-8.04	106.19	121.54
13	a	30	ILE	N-CA-C	8.03	120.36	108.96
15	n	1162	VAL	CA-C-N	-8.03	106.21	121.54
15	n	1162	VAL	C-N-CA	-8.03	106.21	121.54
5	E	168	ASN	N-CA-C	-8.00	103.65	113.41
2	B	105	PRO	N-CA-C	7.98	120.44	110.70
15	g	1168	LYS	CA-C-N	7.96	133.45	120.63
15	g	1168	LYS	C-N-CA	7.96	133.45	120.63
2	P	105	PRO	N-CA-C	7.96	120.41	110.70
15	n	1168	LYS	CA-C-N	7.96	133.44	120.63
15	n	1168	LYS	C-N-CA	7.96	133.44	120.63
15	i	1162	VAL	CA-C-N	7.95	136.72	121.54
15	i	1162	VAL	C-N-CA	7.95	136.72	121.54
2	B	11	THR	N-CA-C	7.90	122.12	109.24
9	W	137	VAL	N-CA-C	-7.90	104.87	112.29
10	X	102	TYR	N-CA-C	-7.88	97.75	110.20
15	p	1162	VAL	CA-C-N	7.87	136.57	121.54
15	p	1162	VAL	C-N-CA	7.87	136.57	121.54
15	j	1159	LEU	N-CA-C	-7.86	102.68	111.71
15	c	1159	LEU	N-CA-C	-7.84	102.69	111.71
15	e	1173	GLY	N-CA-C	-7.83	94.61	113.18
13	M	107	VAL	N-CA-C	7.83	119.61	108.42
6	T	157	TYR	N-CA-C	-7.82	104.62	114.56
15	m	1169	THR	CA-C-N	-7.78	106.68	121.54
15	m	1169	THR	C-N-CA	-7.78	106.68	121.54
15	l	1173	GLY	N-CA-C	-7.77	94.76	113.18
5	S	168	ASN	N-CA-C	-7.74	103.97	113.41
15	l	1131	SER	CA-C-N	7.73	128.63	120.43
15	l	1131	SER	C-N-CA	7.73	128.63	120.43
15	h	1172	GLY	O-C-N	7.72	132.74	122.70
11	K	154	THR	N-CA-C	-7.71	102.87	111.28
6	F	157	TYR	N-CA-C	-7.71	104.77	114.56
15	f	1174	SER	N-CA-C	7.71	127.23	110.80
15	o	1172	GLY	O-C-N	7.71	132.72	122.70
15	e	1131	SER	CA-C-N	7.70	128.59	120.43
15	e	1131	SER	C-N-CA	7.70	128.59	120.43
15	m	1174	SER	N-CA-C	7.70	127.19	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	f	1169	THR	CA-C-N	-7.69	106.85	121.54
15	f	1169	THR	C-N-CA	-7.69	106.85	121.54
9	I	137	VAL	N-CA-C	-7.67	105.08	112.29
14	N	165	ILE	CB-CA-C	-7.63	106.45	113.70
8	H	154	PHE	N-CA-C	-7.60	101.93	112.12
15	g	1169	THR	N-CA-CB	7.58	123.81	110.18
15	n	1169	THR	N-CA-CB	7.57	123.81	110.18
15	o	1160	LEU	N-CA-C	-7.57	103.90	113.43
7	U	160	LYS	N-CA-C	-7.55	103.87	113.23
15	h	1160	LEU	N-CA-C	-7.53	103.94	113.43
11	K	102	VAL	N-CA-C	7.51	119.55	108.65
1	O	32	PHE	N-CA-C	7.50	119.09	111.07
1	A	127	ILE	N-CA-C	-7.49	102.98	110.62
14	b	165	ILE	CB-CA-C	-7.48	106.59	113.70
15	p	1167	GLY	CA-C-N	7.48	132.90	120.70
15	p	1167	GLY	C-N-CA	7.48	132.90	120.70
1	A	32	PHE	N-CA-C	7.46	119.06	111.07
10	J	31	GLN	CB-CA-C	-7.45	107.97	116.54
15	k	1171	GLY	N-CA-C	7.44	122.63	111.18
15	d	1171	GLY	N-CA-C	7.39	122.56	111.18
9	W	164	TRP	N-CA-C	7.35	118.94	111.07
8	V	154	PHE	N-CA-C	-7.30	102.34	112.12
1	O	127	ILE	N-CA-C	-7.29	103.19	110.62
10	X	31	GLN	CB-CA-C	-7.28	108.17	116.54
15	e	1174	SER	CA-C-N	-7.27	108.57	120.71
15	e	1174	SER	C-N-CA	-7.27	108.57	120.71
15	g	1174	SER	N-CA-C	7.26	120.92	109.81
15	n	1174	SER	N-CA-C	7.26	120.92	109.81
4	R	151	GLU	CA-C-N	7.25	126.96	119.56
4	R	151	GLU	C-N-CA	7.25	126.96	119.56
15	m	1174	SER	O-C-N	7.25	132.23	122.59
15	g	1169	THR	CB-CA-C	-7.25	93.95	110.18
3	Q	225	VAL	N-CA-C	7.24	119.01	108.58
15	n	1169	THR	CB-CA-C	-7.24	93.96	110.18
7	U	13	VAL	N-CA-C	7.24	119.86	109.51
15	o	1165	GLU	CA-C-N	7.24	135.36	121.54
15	o	1165	GLU	C-N-CA	7.24	135.36	121.54
15	h	1165	GLU	CA-C-N	7.23	135.35	121.54
15	h	1165	GLU	C-N-CA	7.23	135.35	121.54
15	f	1174	SER	O-C-N	7.23	132.21	122.59
15	g	1172	GLY	CA-C-N	-7.22	107.26	121.41
15	g	1172	GLY	C-N-CA	-7.22	107.26	121.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	n	1172	GLY	CA-C-N	-7.21	107.27	121.41
15	n	1172	GLY	C-N-CA	-7.21	107.27	121.41
5	S	233	ASN	N-CA-C	7.21	119.14	111.28
15	l	1174	SER	CA-C-N	-7.21	108.67	120.71
15	l	1174	SER	C-N-CA	-7.21	108.67	120.71
13	a	107	VAL	N-CA-C	7.20	118.72	108.42
2	P	4	ARG	N-CA-C	-7.20	101.67	112.54
2	B	75	TYR	N-CA-C	7.19	118.09	108.38
15	c	1168	LYS	N-CA-C	-7.19	95.54	108.48
15	j	1168	LYS	N-CA-C	-7.19	95.54	108.48
15	h	1160	LEU	CA-C-N	-7.18	107.33	121.41
15	h	1160	LEU	C-N-CA	-7.18	107.33	121.41
15	o	1160	LEU	CA-C-N	-7.18	107.33	121.41
15	o	1160	LEU	C-N-CA	-7.18	107.33	121.41
11	Y	102	VAL	N-CA-C	7.18	119.06	108.65
5	E	233	ASN	N-CA-C	7.17	119.10	111.28
1	O	129	THR	N-CA-C	7.16	122.02	113.28
15	f	1170	LYS	CB-CA-C	7.16	124.66	110.42
15	g	1165	GLU	CA-C-N	7.15	135.20	121.54
15	g	1165	GLU	C-N-CA	7.15	135.20	121.54
15	l	1171	GLY	CA-C-N	-7.15	107.39	121.41
15	l	1171	GLY	C-N-CA	-7.15	107.39	121.41
15	e	1172	GLY	O-C-N	7.14	131.99	122.70
15	e	1171	GLY	CA-C-N	-7.14	107.42	121.41
15	e	1171	GLY	C-N-CA	-7.14	107.42	121.41
15	m	1170	LYS	CB-CA-C	7.13	124.61	110.42
15	n	1165	GLU	CA-C-N	7.13	135.16	121.54
15	n	1165	GLU	C-N-CA	7.13	135.16	121.54
7	G	13	VAL	N-CA-C	7.13	119.70	109.51
15	l	1172	GLY	O-C-N	7.13	131.96	122.70
15	e	1161	GLY	N-CA-C	7.11	130.03	113.18
3	C	225	VAL	N-CA-C	7.11	118.81	108.58
1	A	129	THR	N-CA-C	7.10	122.11	113.38
15	c	1159	LEU	CB-CA-C	-7.09	97.52	110.63
13	M	182	LYS	N-CA-C	-7.08	102.98	111.69
15	j	1159	LEU	CB-CA-C	-7.08	97.53	110.63
15	h	1159	LEU	CB-CA-C	-7.08	97.27	110.01
15	l	1161	GLY	N-CA-C	7.08	129.96	113.18
15	o	1159	LEU	CB-CA-C	-7.08	97.27	110.01
9	I	164	TRP	N-CA-C	7.08	118.64	111.07
2	B	4	ARG	N-CA-C	-7.05	101.90	112.54
7	U	151	GLU	CA-C-N	7.04	128.63	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	U	151	GLU	C-N-CA	7.04	128.63	119.84
15	n	1173	GLY	N-CA-C	-7.02	96.55	113.18
15	h	1169	THR	CA-C-N	7.02	134.94	121.54
15	h	1169	THR	C-N-CA	7.02	134.94	121.54
5	E	133	LEU	N-CA-C	7.01	119.25	109.15
15	g	1173	GLY	N-CA-C	-7.01	96.56	113.18
15	o	1169	THR	CA-C-N	7.00	134.91	121.54
15	o	1169	THR	C-N-CA	7.00	134.91	121.54
15	m	1164	ALA	CA-C-N	-6.99	110.34	122.37
15	m	1164	ALA	C-N-CA	-6.99	110.34	122.37
5	S	133	LEU	N-CA-C	6.98	119.20	109.15
15	f	1164	ALA	CA-C-N	-6.97	110.39	122.37
15	f	1164	ALA	C-N-CA	-6.97	110.39	122.37
8	H	158	SER	N-CA-C	-6.97	103.30	111.03
15	d	1170	LYS	CA-C-N	6.96	127.56	121.58
15	d	1170	LYS	C-N-CA	6.96	127.56	121.58
15	k	1170	LYS	CA-C-N	6.94	127.55	121.58
15	k	1170	LYS	C-N-CA	6.94	127.55	121.58
4	D	75	PHE	N-CA-C	6.93	117.63	108.07
11	K	55	GLN	N-CA-C	-6.92	103.81	111.36
14	N	123	GLY	N-CA-C	6.89	124.17	115.21
1	O	14	ARG	N-CA-C	-6.88	104.88	113.55
1	A	14	ARG	N-CA-C	-6.88	104.88	113.55
15	k	1164	ALA	CA-C-N	6.87	134.66	121.54
15	k	1164	ALA	C-N-CA	6.87	134.66	121.54
14	b	113	ALA	N-CA-C	-6.87	98.21	109.40
15	d	1164	ALA	CA-C-N	6.87	134.65	121.54
15	d	1164	ALA	C-N-CA	6.87	134.65	121.54
13	a	182	LYS	N-CA-C	-6.86	103.26	111.69
14	b	123	GLY	N-CA-C	6.85	124.12	115.21
14	N	113	ALA	N-CA-C	-6.84	98.24	109.40
7	G	160	LYS	N-CA-C	-6.84	104.75	113.23
15	i	1130	LYS	CA-C-N	-6.81	112.00	122.62
15	i	1130	LYS	C-N-CA	-6.81	112.00	122.62
15	p	1130	LYS	CA-C-N	-6.79	112.03	122.62
15	p	1130	LYS	C-N-CA	-6.79	112.03	122.62
2	B	184	GLU	N-CA-C	-6.79	101.78	110.53
2	P	75	TYR	N-CA-C	6.77	117.52	108.38
2	B	79	GLY	CA-C-N	6.77	128.30	119.84
2	B	79	GLY	C-N-CA	6.77	128.30	119.84
15	m	1175	GLN	CB-CA-C	6.77	123.89	110.42
15	f	1175	GLN	CB-CA-C	6.76	123.88	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	F	98	VAL	N-CA-C	6.76	116.91	110.42
7	G	151	GLU	CA-C-N	6.76	128.29	119.84
7	G	151	GLU	C-N-CA	6.76	128.29	119.84
8	V	158	SER	N-CA-C	-6.75	103.53	111.03
6	T	98	VAL	N-CA-C	6.74	116.89	110.42
4	D	53	LYS	N-CA-C	6.74	119.88	108.90
11	Y	55	GLN	N-CA-C	-6.73	104.03	111.36
8	V	97	ILE	N-CA-C	6.71	123.29	109.34
15	i	1174	SER	N-CA-CB	6.70	121.81	110.49
4	D	151	GLU	CA-C-N	6.70	126.39	119.56
4	D	151	GLU	C-N-CA	6.70	126.39	119.56
10	J	172	ASN	N-CA-C	6.68	120.65	112.23
1	O	24	ARG	N-CA-C	6.67	121.55	112.68
9	I	73	GLU	CA-C-N	6.67	127.71	119.98
9	I	73	GLU	C-N-CA	6.67	127.71	119.98
15	p	1174	SER	N-CA-CB	6.66	121.75	110.49
4	R	133	THR	N-CA-C	6.65	119.53	109.23
2	P	184	GLU	N-CA-C	-6.64	101.97	110.53
4	D	133	THR	N-CA-C	6.63	119.26	109.24
4	R	53	LYS	N-CA-C	6.62	119.69	108.90
3	C	161	LYS	N-CA-C	-6.62	105.36	113.50
15	k	1164	ALA	N-CA-C	6.61	120.82	110.17
15	d	1165	GLU	N-CA-C	6.58	124.82	110.80
3	Q	161	LYS	N-CA-C	-6.58	105.41	113.50
15	d	1164	ALA	N-CA-C	6.58	120.76	110.17
15	k	1165	GLU	N-CA-C	6.57	124.80	110.80
15	m	1175	GLN	CA-C-O	6.57	129.91	120.51
7	G	52	LEU	N-CA-C	6.57	119.43	108.20
15	h	1173	GLY	CA-C-N	6.55	134.05	121.54
15	h	1173	GLY	C-N-CA	6.55	134.05	121.54
7	U	52	LEU	N-CA-C	6.54	119.39	108.20
15	o	1173	GLY	CA-C-N	6.54	134.04	121.54
15	o	1173	GLY	C-N-CA	6.54	134.04	121.54
1	A	158	ASP	CA-C-N	6.54	126.48	119.28
1	A	158	ASP	C-N-CA	6.54	126.48	119.28
2	B	18	LEU	N-CA-C	-6.53	100.62	110.28
15	f	1175	GLN	CA-C-O	6.49	129.79	120.51
1	A	24	ARG	N-CA-C	6.49	121.31	112.68
7	G	106	ILE	CA-C-N	6.49	127.51	119.98
7	G	106	ILE	C-N-CA	6.49	127.51	119.98
13	M	127	PRO	N-CA-C	-6.46	107.96	114.68
13	a	173	LYS	N-CA-C	-6.46	99.92	109.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	f	1164	ALA	O-C-N	-6.44	114.03	122.59
15	c	1161	GLY	N-CA-C	6.44	122.86	111.73
2	P	79	GLY	CA-C-N	6.43	127.88	119.84
2	P	79	GLY	C-N-CA	6.43	127.88	119.84
15	c	1170	LYS	N-CA-C	-6.42	104.36	111.36
15	j	1161	GLY	N-CA-C	6.42	122.83	111.73
15	m	1164	ALA	O-C-N	-6.42	114.06	122.59
14	b	70	LEU	N-CA-C	-6.41	104.38	111.36
2	P	125	GLY	N-CA-C	-6.38	104.01	112.82
15	j	1170	LYS	N-CA-C	-6.38	104.40	111.36
6	F	148	GLN	CA-C-N	6.37	127.81	119.84
6	F	148	GLN	C-N-CA	6.37	127.81	119.84
10	J	6	ILE	N-CA-C	-6.36	104.65	110.82
12	Z	99	THR	N-CA-C	6.36	118.81	108.76
8	V	164	LYS	N-CA-C	6.33	118.99	111.71
15	h	1164	ALA	CA-C-N	-6.32	112.67	122.59
15	h	1164	ALA	C-N-CA	-6.32	112.67	122.59
15	o	1164	ALA	CA-C-N	-6.32	112.67	122.59
15	o	1164	ALA	C-N-CA	-6.32	112.67	122.59
8	H	97	ILE	N-CA-C	6.32	122.47	109.34
13	M	173	LYS	N-CA-C	-6.32	100.15	109.81
4	R	75	PHE	N-CA-C	6.31	116.77	108.07
12	L	107	LYS	N-CA-C	6.28	117.93	111.14
4	R	207	ALA	N-CA-C	-6.28	105.19	112.92
2	P	18	LEU	N-CA-C	-6.28	100.99	110.28
7	U	106	ILE	CA-C-N	6.27	127.26	119.98
7	U	106	ILE	C-N-CA	6.27	127.26	119.98
14	b	10	SER	N-CA-C	6.27	118.42	110.33
12	Z	107	LYS	N-CA-C	6.27	117.91	111.14
15	n	1142	MET	N-CA-C	-6.27	105.21	112.92
9	I	116	HIS	N-CA-C	6.26	120.64	113.19
4	D	207	ALA	N-CA-C	-6.26	105.23	112.92
3	C	222	ASP	N-CA-C	-6.25	100.16	109.15
15	m	1165	GLU	CA-C-N	6.24	133.46	121.54
15	m	1165	GLU	C-N-CA	6.24	133.46	121.54
14	N	70	LEU	N-CA-C	-6.24	104.56	111.36
15	f	1165	GLU	CA-C-N	6.24	133.45	121.54
15	f	1165	GLU	C-N-CA	6.24	133.45	121.54
3	C	106	ILE	CA-C-N	6.23	126.18	119.76
3	C	106	ILE	C-N-CA	6.23	126.18	119.76
2	B	125	GLY	N-CA-C	-6.23	104.22	112.82
3	Q	106	ILE	N-CA-C	6.22	115.05	108.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	n	1163	ASP	CA-C-N	6.21	133.41	121.54
15	n	1163	ASP	C-N-CA	6.21	133.41	121.54
11	K	172	MET	CA-C-N	6.21	125.95	119.05
11	K	172	MET	C-N-CA	6.21	125.95	119.05
11	Y	172	MET	CA-C-N	6.21	125.94	119.05
11	Y	172	MET	C-N-CA	6.21	125.94	119.05
15	g	1160	LEU	N-CA-C	-6.21	103.82	111.33
15	k	1160	LEU	CA-C-O	-6.19	113.83	120.46
8	H	164	LYS	N-CA-C	6.18	118.82	111.71
8	V	180	ALA	N-CA-C	-6.18	104.60	111.71
10	J	82	GLU	CA-C-N	6.18	126.36	119.32
10	J	82	GLU	C-N-CA	6.18	126.36	119.32
3	Q	222	ASP	N-CA-C	-6.18	100.26	109.15
15	g	1163	ASP	CA-C-N	6.18	133.34	121.54
15	g	1163	ASP	C-N-CA	6.18	133.34	121.54
15	n	1160	LEU	N-CA-C	-6.18	103.86	111.33
15	p	1161	GLY	N-CA-C	-6.18	101.04	111.73
12	Z	54	PHE	N-CA-C	6.17	117.69	110.97
15	g	1142	MET	N-CA-C	-6.16	105.34	112.92
10	X	82	GLU	CA-C-N	6.16	126.34	119.32
10	X	82	GLU	C-N-CA	6.16	126.34	119.32
15	i	1161	GLY	N-CA-C	-6.15	101.09	111.73
1	O	158	ASP	CA-C-N	6.14	126.04	119.28
1	O	158	ASP	C-N-CA	6.14	126.04	119.28
15	f	1066	GLN	N-CA-C	-6.14	104.69	111.82
9	W	73	GLU	CA-C-N	6.12	127.08	119.98
9	W	73	GLU	C-N-CA	6.12	127.08	119.98
15	d	1160	LEU	CA-C-O	-6.12	113.91	120.46
10	X	172	ASN	N-CA-C	6.11	119.92	112.23
3	C	108	VAL	N-CA-C	6.11	116.58	110.23
10	J	156	ASN	N-CA-C	6.10	119.81	111.39
14	N	10	SER	N-CA-C	6.10	118.20	110.33
1	O	18	ILE	N-CA-C	6.10	117.08	108.36
15	h	1162	VAL	CA-C-O	6.10	126.43	120.27
12	L	54	PHE	N-CA-C	6.09	117.61	110.97
15	p	1142	MET	N-CA-C	-6.09	105.42	112.92
14	N	157	LYS	N-CA-C	-6.09	105.70	113.01
10	X	104	VAL	N-CA-C	6.08	116.24	108.82
15	m	1066	GLN	N-CA-C	-6.08	104.76	111.82
2	B	135	LEU	N-CA-C	-6.08	98.61	108.52
10	X	189	ILE	N-CA-C	6.08	116.86	107.99
3	Q	186	VAL	N-CA-C	6.07	116.19	110.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	o	1162	VAL	CA-C-O	6.06	126.39	120.27
9	W	97	TYR	N-CA-C	-6.06	100.42	110.17
15	i	1142	MET	N-CA-C	-6.04	105.49	112.92
15	j	1142	MET	N-CA-C	-6.04	105.49	112.92
3	C	106	ILE	N-CA-C	6.04	114.86	108.95
10	J	104	VAL	N-CA-C	6.04	116.18	108.82
15	o	1169	THR	CA-C-O	-6.04	114.46	121.10
10	X	27	ARG	N-CA-C	6.03	118.98	110.23
15	l	1172	GLY	CA-C-N	6.03	133.23	121.41
15	l	1172	GLY	C-N-CA	6.03	133.23	121.41
2	P	65	SER	N-CA-C	6.03	119.54	109.95
9	I	97	TYR	N-CA-C	-6.03	100.46	110.17
1	O	85	GLY	CA-C-N	6.03	127.37	119.84
1	O	85	GLY	C-N-CA	6.03	127.37	119.84
10	J	117	LYS	CA-C-N	6.03	125.94	119.85
10	J	117	LYS	C-N-CA	6.03	125.94	119.85
10	X	156	ASN	N-CA-C	6.02	119.70	111.39
15	f	1174	SER	CA-C-N	-6.02	110.04	121.54
15	f	1174	SER	C-N-CA	-6.02	110.04	121.54
15	e	1172	GLY	CA-C-N	6.02	133.20	121.41
15	e	1172	GLY	C-N-CA	6.02	133.20	121.41
14	N	110	LEU	N-CA-C	-6.01	98.72	108.52
15	m	1174	SER	CA-C-N	-6.01	110.06	121.54
15	m	1174	SER	C-N-CA	-6.01	110.06	121.54
13	M	137	ARG	N-CA-C	6.00	118.22	108.26
15	c	1142	MET	N-CA-C	-5.99	105.55	112.92
2	P	85	LEU	N-CA-C	-5.98	104.09	111.75
15	m	1171	GLY	CA-C-N	-5.98	109.69	121.41
15	m	1171	GLY	C-N-CA	-5.98	109.69	121.41
10	X	191	LYS	N-CA-C	-5.97	104.68	111.07
15	h	1169	THR	CA-C-O	-5.97	114.53	121.10
7	U	21	PHE	N-CA-C	5.97	117.79	111.28
15	f	1171	GLY	CA-C-N	-5.96	109.72	121.41
15	f	1171	GLY	C-N-CA	-5.96	109.72	121.41
11	K	147	HIS	N-CA-C	5.96	120.71	112.90
3	C	98	TYR	N-CA-C	-5.96	104.71	111.14
1	O	12	TYR	CB-CA-C	-5.95	101.49	110.90
13	a	137	ARG	N-CA-C	5.95	118.13	108.26
3	C	186	VAL	N-CA-C	5.94	116.06	110.30
11	K	76	SER	N-CA-C	5.94	117.55	110.07
13	a	174	TYR	N-CA-C	5.93	118.62	109.07
4	D	192	VAL	N-CA-C	-5.93	105.34	110.74

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	Q	106	ILE	CA-C-N	5.93	125.87	119.76
3	Q	106	ILE	C-N-CA	5.93	125.87	119.76
9	W	158	ALA	N-CA-C	-5.92	103.51	112.04
6	T	148	GLN	CA-C-N	5.92	127.23	119.84
6	T	148	GLN	C-N-CA	5.92	127.23	119.84
15	d	1172	GLY	N-CA-C	5.91	127.18	113.18
2	B	65	SER	N-CA-C	5.90	119.34	109.95
1	A	12	TYR	CB-CA-C	-5.90	101.58	110.90
15	m	1142	MET	N-CA-C	-5.90	105.66	112.92
7	U	129	ARG	CA-C-N	5.89	125.90	119.89
7	U	129	ARG	C-N-CA	5.89	125.90	119.89
5	S	36	THR	N-CA-C	5.89	118.77	110.23
15	o	1160	LEU	CA-C-O	5.89	126.64	119.64
10	X	6	ILE	N-CA-C	-5.88	105.11	110.82
15	k	1172	GLY	N-CA-C	5.88	127.12	113.18
2	B	67	LEU	N-CA-C	-5.88	104.86	112.68
7	U	74	GLY	N-CA-C	-5.88	104.71	112.82
13	M	174	TYR	N-CA-C	5.87	118.52	109.07
2	B	85	LEU	N-CA-C	-5.87	104.24	111.75
3	Q	108	VAL	N-CA-C	5.87	116.33	110.23
10	X	108	VAL	CB-CA-C	-5.87	105.14	111.59
7	G	93	GLU	N-CA-C	-5.86	103.68	111.24
15	f	1142	MET	N-CA-C	-5.86	105.71	112.92
5	E	36	THR	N-CA-C	5.86	118.72	110.23
10	J	100	GLY	N-CA-C	-5.86	100.39	112.34
12	L	99	THR	N-CA-C	5.85	118.00	108.76
10	J	27	ARG	N-CA-C	5.84	118.70	110.23
10	J	191	LYS	N-CA-C	-5.84	104.82	111.07
10	X	117	LYS	CA-C-N	5.84	125.75	119.85
10	X	117	LYS	C-N-CA	5.84	125.75	119.85
14	b	35	ARG	N-CA-C	5.84	121.43	113.37
15	h	1160	LEU	CA-C-O	5.83	126.58	119.64
15	p	1173	GLY	CA-C-O	5.83	130.71	120.57
15	n	1159	LEU	CA-C-N	-5.82	112.40	120.38
15	n	1159	LEU	C-N-CA	-5.82	112.40	120.38
2	P	52	SER	N-CA-C	-5.82	104.94	111.28
8	H	180	ALA	N-CA-C	-5.82	105.02	111.71
13	M	153	GLN	N-CA-C	5.81	118.73	111.24
15	f	1163	ASP	CA-C-N	5.81	132.64	121.54
15	f	1163	ASP	C-N-CA	5.81	132.64	121.54
10	J	189	ILE	N-CA-C	5.80	116.46	107.99
15	g	1159	LEU	CA-C-N	-5.80	112.43	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	g	1159	LEU	C-N-CA	-5.80	112.43	120.38
7	U	106	ILE	N-CA-C	5.79	121.40	108.88
1	A	18	ILE	N-CA-C	5.79	116.64	108.36
13	a	153	GLN	N-CA-C	5.78	118.70	111.24
15	m	1163	ASP	CA-C-N	5.78	132.57	121.54
15	m	1163	ASP	C-N-CA	5.78	132.57	121.54
15	i	1173	GLY	CA-C-O	5.77	130.62	120.57
5	E	112	LEU	N-CA-C	-5.77	103.79	111.24
10	X	100	GLY	N-CA-C	-5.77	100.56	112.34
14	b	110	LEU	N-CA-C	-5.77	99.12	108.52
1	A	83	VAL	N-CA-C	5.76	116.42	108.12
14	b	157	LYS	N-CA-C	-5.76	106.09	113.01
15	d	1160	LEU	O-C-N	-5.76	115.87	123.13
12	L	189	GLY	N-CA-C	5.75	122.93	112.58
15	d	1131	SER	CA-C-N	5.75	126.52	120.43
15	d	1131	SER	C-N-CA	5.75	126.52	120.43
15	k	1160	LEU	O-C-N	-5.75	115.89	123.13
9	W	78	SER	N-CA-C	-5.74	104.71	110.97
5	E	156	PHE	N-CA-C	5.74	118.91	109.85
12	Z	45	MET	N-CA-C	5.73	118.50	107.44
2	P	227	ILE	CA-C-N	5.72	126.99	119.84
2	P	227	ILE	C-N-CA	5.72	126.99	119.84
1	A	85	GLY	CA-C-N	5.72	126.99	119.84
1	A	85	GLY	C-N-CA	5.72	126.99	119.84
7	G	106	ILE	N-CA-C	5.72	121.23	108.88
11	K	22	THR	N-CA-C	5.71	118.22	108.90
9	I	158	ALA	N-CA-C	-5.70	103.83	112.04
15	l	1142	MET	N-CA-C	-5.70	105.91	112.92
15	m	1171	GLY	N-CA-C	-5.70	99.67	113.18
15	h	1142	MET	N-CA-C	-5.69	105.92	112.92
11	Y	76	SER	N-CA-C	5.69	117.24	110.07
3	Q	98	TYR	N-CA-C	-5.69	105.00	111.14
2	B	109	LEU	N-CA-C	5.68	118.41	111.82
7	G	21	PHE	N-CA-C	5.68	117.47	111.28
11	K	146	HIS	N-CA-C	5.68	117.28	111.14
15	l	1164	ALA	CA-C-N	-5.68	113.26	122.81
15	l	1164	ALA	C-N-CA	-5.68	113.26	122.81
15	e	1142	MET	N-CA-C	-5.68	105.94	112.92
15	l	1168	LYS	CA-C-N	5.68	132.38	121.54
15	l	1168	LYS	C-N-CA	5.68	132.38	121.54
15	k	1142	MET	N-CA-C	-5.67	105.94	112.92
13	a	59	ALA	N-CA-C	5.67	117.92	111.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	f	1171	GLY	N-CA-C	-5.67	99.73	113.18
15	c	1131	SER	CA-C-N	5.67	126.44	120.43
15	c	1131	SER	C-N-CA	5.67	126.44	120.43
15	p	1168	LYS	CA-C-N	5.67	132.37	121.54
15	p	1168	LYS	C-N-CA	5.67	132.37	121.54
15	l	1175	GLN	CB-CA-C	-5.67	101.26	110.79
8	H	188	PHE	N-CA-C	5.67	118.48	107.71
10	X	28	LEU	N-CA-C	-5.67	98.85	108.26
4	R	132	SER	N-CA-C	-5.66	99.43	109.06
15	e	1168	LYS	CA-C-N	5.66	132.35	121.54
15	e	1168	LYS	C-N-CA	5.66	132.35	121.54
15	e	1164	ALA	CA-C-N	-5.66	113.30	122.81
15	e	1164	ALA	C-N-CA	-5.66	113.30	122.81
15	i	1164	ALA	CA-C-N	-5.66	113.30	122.81
15	i	1164	ALA	C-N-CA	-5.66	113.30	122.81
15	g	1130	LYS	CA-C-N	-5.66	114.46	122.94
15	g	1130	LYS	C-N-CA	-5.66	114.46	122.94
9	W	116	HIS	N-CA-C	5.65	119.92	113.19
13	M	175	LEU	N-CA-C	5.65	118.43	110.23
15	k	1131	SER	CA-C-N	5.65	126.42	120.43
15	k	1131	SER	C-N-CA	5.65	126.42	120.43
15	o	1142	MET	N-CA-C	-5.65	105.97	112.92
15	p	1164	ALA	CA-C-N	-5.65	113.32	122.81
15	p	1164	ALA	C-N-CA	-5.65	113.32	122.81
12	Z	189	GLY	N-CA-C	5.65	122.74	112.58
14	b	128	ARG	N-CA-C	5.64	117.63	108.26
15	i	1168	LYS	CA-C-N	5.64	132.32	121.54
15	i	1168	LYS	C-N-CA	5.64	132.32	121.54
15	n	1130	LYS	CA-C-N	-5.64	114.48	122.94
15	n	1130	LYS	C-N-CA	-5.64	114.48	122.94
15	p	1167	GLY	N-CA-C	5.64	126.56	113.18
7	G	123	THR	N-CA-C	-5.64	106.21	114.39
15	j	1131	SER	CA-C-N	5.64	126.41	120.43
15	j	1131	SER	C-N-CA	5.64	126.41	120.43
5	S	156	PHE	N-CA-C	5.63	118.75	109.85
4	R	192	VAL	N-CA-C	-5.63	105.62	110.74
13	a	127	PRO	N-CA-C	-5.62	107.33	114.35
15	e	1175	GLN	CB-CA-C	-5.62	101.35	110.79
2	B	78	MET	N-CA-C	5.61	117.60	108.63
4	R	67	ILE	N-CA-C	-5.61	106.99	111.81
15	d	1164	ALA	CA-C-O	-5.61	114.67	121.28
14	N	36	PHE	N-CA-C	5.60	117.36	108.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	k	1164	ALA	CA-C-O	-5.60	114.67	121.28
1	A	112	MET	CA-C-N	5.59	125.50	119.85
1	A	112	MET	C-N-CA	5.59	125.50	119.85
15	d	1142	MET	N-CA-C	-5.59	106.04	112.92
14	N	182	ARG	N-CA-C	-5.59	104.82	111.69
5	E	60	GLU	N-CA-C	5.59	118.88	112.57
14	b	36	PHE	N-CA-C	5.58	117.56	109.07
9	I	78	SER	N-CA-C	-5.58	104.89	110.97
2	P	135	LEU	N-CA-C	-5.58	99.42	108.52
5	S	112	LEU	N-CA-C	-5.58	104.05	111.24
8	V	188	PHE	N-CA-C	5.57	118.30	107.71
2	B	227	ILE	CA-C-N	5.57	126.81	119.84
2	B	227	ILE	C-N-CA	5.57	126.81	119.84
13	M	194	ARG	N-CA-C	5.57	120.18	113.17
7	G	129	ARG	CA-C-N	5.56	125.56	119.89
7	G	129	ARG	C-N-CA	5.56	125.56	119.89
1	O	112	MET	CA-C-N	5.56	125.47	119.85
1	O	112	MET	C-N-CA	5.56	125.47	119.85
8	V	6	VAL	N-CA-C	5.56	115.89	108.11
14	b	182	ARG	N-CA-C	-5.56	104.62	111.40
7	U	93	GLU	N-CA-C	-5.55	104.08	111.24
9	W	37	ILE	N-CA-C	-5.55	105.70	111.58
15	o	1169	THR	N-CA-C	5.54	116.96	108.42
2	P	78	MET	N-CA-C	5.54	117.50	108.63
15	k	1171	GLY	CA-C-O	-5.54	116.06	121.76
10	J	28	LEU	N-CA-C	-5.54	99.07	108.26
13	M	59	ALA	N-CA-C	5.52	117.73	111.11
2	B	201	GLU	N-CA-C	-5.51	106.39	114.39
5	S	225	GLN	N-CA-C	5.51	116.97	111.07
10	X	134	ASP	N-CA-C	5.51	119.68	112.13
6	T	20	PHE	N-CA-C	5.50	117.99	111.33
14	N	35	ARG	N-CA-C	5.49	120.95	113.37
11	Y	147	HIS	N-CA-C	5.48	120.10	113.41
15	h	1169	THR	N-CA-C	5.48	116.86	108.42
1	A	126	GLN	N-CA-C	-5.48	105.64	112.93
4	D	132	SER	N-CA-C	-5.48	99.75	109.06
6	F	116	ALA	N-CA-C	-5.48	105.47	111.82
5	S	22	PHE	N-CA-C	5.47	117.95	111.33
13	M	3	ASN	CA-C-N	5.47	126.19	120.12
13	M	3	ASN	C-N-CA	5.47	126.19	120.12
15	d	1171	GLY	CA-C-O	-5.47	116.12	121.76
12	L	167	ARG	N-CA-C	5.46	118.40	111.69

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	L	45	MET	N-CA-C	5.45	119.10	107.70
13	M	173	LYS	CA-C-N	-5.45	115.48	123.00
13	M	173	LYS	C-N-CA	-5.45	115.48	123.00
1	O	83	VAL	N-CA-C	5.45	115.96	108.12
4	R	233	VAL	N-CA-C	-5.44	104.25	111.05
2	B	52	SER	N-CA-C	-5.44	105.35	111.28
7	G	174	GLU	N-CA-C	-5.44	106.67	113.15
2	P	40	THR	N-CA-C	-5.44	107.19	113.88
6	T	105	VAL	N-CA-C	5.44	115.64	110.42
13	M	70	ASN	N-CA-C	-5.43	105.91	112.54
13	M	87	ASN	N-CA-C	-5.43	105.27	111.14
15	c	1163	ASP	CA-CB-CG	-5.43	107.17	112.60
8	H	6	VAL	N-CA-C	5.43	115.71	108.11
10	J	158	GLU	N-CA-C	-5.42	103.20	109.93
12	L	131	SER	N-CA-C	-5.42	106.66	113.28
6	F	20	PHE	N-CA-C	5.42	117.89	111.33
4	D	237	GLU	N-CA-C	-5.42	106.67	113.28
14	N	179	ASN	N-CA-C	-5.42	105.48	111.71
4	R	237	GLU	N-CA-C	-5.41	106.69	113.28
15	d	1169	THR	N-CA-C	5.40	118.29	109.59
11	Y	146	HIS	N-CA-C	5.40	116.97	111.14
2	P	24	ALA	N-CA-C	-5.39	105.49	111.36
6	T	116	ALA	N-CA-C	-5.38	105.58	111.82
5	S	82	THR	N-CA-C	5.38	117.22	111.36
6	T	45	VAL	N-CA-C	5.38	116.41	108.45
9	I	56	THR	N-CA-C	-5.37	105.33	111.07
11	K	68	SER	N-CA-C	5.36	117.13	111.28
15	c	1130	LYS	CA-C-N	-5.36	114.91	122.94
15	c	1130	LYS	C-N-CA	-5.36	114.91	122.94
10	X	95	TYR	N-CA-C	5.35	117.20	111.36
15	j	1163	ASP	CA-CB-CG	-5.35	107.25	112.60
4	D	233	VAL	N-CA-C	-5.34	104.37	111.05
4	R	183	GLU	CA-C-N	5.34	125.88	120.38
4	R	183	GLU	C-N-CA	5.34	125.88	120.38
2	B	110	LEU	N-CA-C	-5.34	105.38	111.14
1	O	126	GLN	N-CA-C	-5.33	105.84	112.93
15	j	1130	LYS	CA-C-N	-5.33	114.94	122.94
15	j	1130	LYS	C-N-CA	-5.33	114.94	122.94
5	E	225	GLN	N-CA-C	5.33	116.77	111.07
13	a	3	ASN	CA-C-N	5.33	126.03	120.12
13	a	3	ASN	C-N-CA	5.33	126.03	120.12
7	G	134	SER	N-CA-C	-5.33	101.02	109.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	l	1176	SER	N-CA-CB	-5.32	100.89	110.37
12	Z	98	GLY	N-CA-C	-5.32	101.73	111.25
15	e	1176	SER	N-CA-CB	-5.32	100.91	110.37
10	J	95	TYR	N-CA-C	5.31	117.15	111.36
2	B	40	THR	N-CA-C	-5.31	107.17	113.97
2	P	231	LYS	N-CA-C	5.31	119.85	112.90
15	k	1169	THR	N-CA-C	5.31	118.13	109.59
15	l	1167	GLY	N-CA-C	5.30	125.74	113.18
2	B	35	LEU	N-CA-C	5.30	117.03	109.14
6	F	45	VAL	N-CA-C	5.30	116.29	108.45
15	e	1167	GLY	N-CA-C	5.29	125.72	113.18
2	B	142	PHE	N-CA-C	5.29	119.48	113.19
4	D	201	GLU	N-CA-C	-5.28	106.34	114.16
15	i	1167	GLY	N-CA-C	5.28	125.69	113.18
13	a	164	THR	N-CA-C	-5.28	105.91	114.09
2	P	142	PHE	N-CA-C	5.26	119.45	113.19
2	P	201	GLU	N-CA-C	-5.26	106.81	114.12
7	U	123	THR	N-CA-C	-5.26	106.77	114.39
2	P	229	THR	N-CA-C	5.25	117.00	111.28
10	J	130	ASP	N-CA-C	5.25	116.12	107.20
3	Q	75	VAL	N-CA-C	5.25	117.31	108.81
13	a	87	ASN	N-CA-C	-5.25	105.48	111.14
3	C	121	GLY	N-CA-C	5.24	119.23	112.83
12	L	98	GLY	N-CA-C	-5.24	101.87	111.25
10	J	134	ASP	N-CA-C	5.24	119.31	112.13
15	d	1162	VAL	CB-CA-C	-5.24	102.70	111.29
6	T	233	TYR	N-CA-C	-5.24	108.65	114.62
11	Y	22	THR	N-CA-C	5.23	117.42	108.90
6	F	14	SER	N-CA-C	-5.22	102.55	110.39
14	N	112	ASN	N-CA-C	5.22	117.12	109.24
7	G	176	GLU	N-CA-C	-5.22	105.59	111.28
6	F	105	VAL	N-CA-C	5.22	115.43	110.42
15	k	1162	VAL	CB-CA-C	-5.22	102.73	111.29
7	G	74	GLY	N-CA-C	-5.21	104.46	112.85
15	j	1162	VAL	CA-C-O	-5.21	114.27	120.78
9	W	56	THR	N-CA-C	-5.20	105.50	111.07
8	H	155	ILE	N-CA-C	-5.20	104.69	110.62
15	f	1169	THR	CB-CA-C	-5.20	100.38	110.46
8	V	75	THR	N-CA-C	-5.20	107.00	113.55
2	P	67	LEU	N-CA-C	-5.19	105.78	112.68
2	B	24	ALA	N-CA-C	-5.18	105.71	111.36
2	B	231	LYS	N-CA-C	5.18	119.69	112.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	D	183	GLU	CA-C-N	5.18	125.72	120.38
4	D	183	GLU	C-N-CA	5.18	125.72	120.38
15	m	1169	THR	CB-CA-C	-5.18	100.41	110.46
1	A	20	SER	N-CA-C	-5.18	102.62	110.39
6	F	179	PHE	N-CA-C	5.18	117.00	111.36
15	d	1175	GLN	OE1-CD-NE2	-5.18	117.42	122.60
12	Z	131	SER	N-CA-C	-5.17	106.97	113.28
13	a	175	LEU	N-CA-C	5.17	117.73	110.23
15	n	1162	VAL	CA-C-O	-5.17	114.31	120.78
4	R	201	GLU	N-CA-C	-5.17	106.51	114.16
14	b	53	ILE	N-CA-C	5.16	116.02	108.53
15	c	1162	VAL	CA-C-O	-5.16	114.33	120.78
15	f	1160	LEU	CB-CA-C	5.16	119.47	110.79
15	g	1162	VAL	CA-C-O	-5.16	114.33	120.78
12	Z	109	GLY	CA-C-N	5.16	126.29	119.84
12	Z	109	GLY	C-N-CA	5.16	126.29	119.84
15	l	1162	VAL	O-C-N	5.16	129.02	122.57
15	p	1174	SER	N-CA-C	5.16	121.79	110.80
13	a	45	ASP	N-CA-C	-5.16	100.90	109.46
15	m	1160	LEU	CB-CA-C	5.16	119.45	110.79
1	O	112	MET	N-CA-C	5.15	117.07	109.50
13	M	164	THR	N-CA-C	-5.15	106.11	114.09
14	N	53	ILE	N-CA-C	5.14	115.99	108.53
15	c	1191	MET	N-CA-C	-5.14	107.14	113.41
11	Y	37	GLN	N-CA-C	5.13	117.14	109.59
15	k	1175	GLN	OE1-CD-NE2	-5.13	117.47	122.60
15	i	1174	SER	N-CA-C	5.13	121.72	110.80
12	Z	167	ARG	N-CA-C	5.13	118.00	111.69
15	j	1191	MET	N-CA-C	-5.12	107.16	113.41
6	T	224	ILE	N-CA-C	5.12	115.22	107.75
5	S	60	GLU	N-CA-C	5.12	118.35	112.57
12	L	109	GLY	CA-C-N	5.11	126.23	119.84
12	L	109	GLY	C-N-CA	5.11	126.23	119.84
15	i	1160	LEU	O-C-N	5.11	129.18	122.33
1	O	123	ASN	N-CA-C	-5.11	105.17	111.40
13	a	70	ASN	N-CA-C	-5.11	106.31	112.54
6	F	224	ILE	N-CA-C	5.10	115.20	107.75
13	a	173	LYS	CA-C-N	-5.10	115.96	123.00
13	a	173	LYS	C-N-CA	-5.10	115.96	123.00
10	J	42	ILE	N-CA-C	5.10	115.20	107.80
7	U	211	PHE	N-CA-C	5.10	116.42	109.18
14	b	103	ARG	N-CA-C	5.09	116.68	111.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	Z	143	ASN	N-CA-C	5.09	119.76	113.50
15	j	1131	SER	CB-CA-C	-5.09	99.65	109.37
6	T	14	SER	N-CA-C	-5.09	102.76	110.39
4	D	210	ILE	N-CA-C	5.08	115.59	108.17
5	E	16	SER	N-CA-C	-5.08	102.78	110.39
15	e	1162	VAL	O-C-N	5.08	128.91	122.57
15	g	1175	GLN	OE1-CD-NE2	-5.07	117.53	122.60
11	Y	185	ASP	N-CA-C	5.07	114.93	108.24
15	l	1175	GLN	OE1-CD-NE2	-5.07	117.53	122.60
3	Q	14	SER	N-CA-C	-5.07	102.79	110.39
11	Y	196	GLN	N-CA-C	-5.07	106.79	113.12
15	c	1131	SER	CB-CA-C	-5.07	99.70	109.37
15	p	1166	SER	CA-C-N	-5.06	111.49	121.41
15	p	1166	SER	C-N-CA	-5.06	111.49	121.41
10	X	141	ALA	N-CA-C	-5.06	107.61	112.97
15	p	1160	LEU	O-C-N	5.06	129.11	122.33
5	E	22	PHE	N-CA-C	5.06	117.45	111.33
6	T	179	PHE	N-CA-C	5.06	116.87	111.36
7	G	141	ASP	CA-C-O	5.06	121.52	118.33
15	p	1175	GLN	OE1-CD-NE2	-5.05	117.55	122.60
14	N	103	ARG	N-CA-C	5.05	116.64	111.03
1	O	20	SER	N-CA-C	-5.05	102.82	110.39
15	p	1191	MET	N-CA-C	-5.05	107.25	113.41
2	P	35	LEU	N-CA-C	5.04	116.66	109.14
7	U	134	SER	N-CA-C	-5.04	101.47	109.59
12	Z	111	THR	N-CA-C	5.04	117.28	108.76
15	i	1191	MET	N-CA-C	-5.04	107.26	113.41
15	o	1175	GLN	OE1-CD-NE2	-5.04	117.56	122.60
15	n	1169	THR	CA-C-N	-5.04	111.92	121.54
15	n	1169	THR	C-N-CA	-5.04	111.92	121.54
14	b	112	ASN	N-CA-C	5.03	116.84	109.24
15	f	1175	GLN	OE1-CD-NE2	-5.03	117.57	122.60
15	j	1175	GLN	OE1-CD-NE2	-5.02	117.58	122.60
14	N	128	ARG	N-CA-C	5.02	117.58	108.69
7	U	174	GLU	N-CA-C	-5.02	107.18	113.15
15	g	1169	THR	CA-C-N	-5.02	111.95	121.54
15	g	1169	THR	C-N-CA	-5.02	111.95	121.54
15	o	1168	LYS	CA-C-N	5.02	132.10	121.91
15	o	1168	LYS	C-N-CA	5.02	132.10	121.91
10	X	42	ILE	N-CA-C	5.02	115.07	107.80
15	k	1168	LYS	CA-C-N	-5.01	115.66	122.93
15	k	1168	LYS	C-N-CA	-5.01	115.66	122.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	n	1175	GLN	OE1-CD-NE2	-5.01	117.59	122.60
11	K	119	ILE	N-CA-C	5.01	115.34	108.12
15	h	1175	GLN	OE1-CD-NE2	-5.01	117.59	122.60
12	L	143	ASN	N-CA-C	5.01	119.66	113.50
5	S	16	SER	N-CA-C	-5.01	102.88	110.39
7	G	211	PHE	N-CA-C	5.00	116.29	109.18
2	P	13	SER	N-CA-C	-5.00	102.88	110.39
15	h	1168	LYS	CA-C-N	5.00	132.07	121.91
15	h	1168	LYS	C-N-CA	5.00	132.07	121.91

There are no chirality outliers.

All (25) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	12	TYR	Mainchain
3	C	20	TYR	Sidechain
14	N	76	TYR	Sidechain
1	O	12	TYR	Mainchain
3	Q	20	TYR	Sidechain
15	e	1175	GLN	Mainchain
15	f	1173	GLY	Mainchain,Peptide
15	f	1174	SER	Mainchain
15	f	1175	GLN	Mainchain
15	g	1163	ASP	Mainchain
15	i	1139	PRO	Mainchain
15	i	1162	VAL	Mainchain,Peptide
15	i	1174	SER	Mainchain
15	l	1175	GLN	Mainchain
15	m	1173	GLY	Mainchain,Peptide
15	m	1174	SER	Mainchain
15	m	1175	GLN	Mainchain
15	n	1163	ASP	Mainchain
15	p	1139	PRO	Mainchain
15	p	1162	VAL	Mainchain,Peptide
15	p	1174	SER	Mainchain

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	1921	0	1910	263	0
1	O	1921	0	1910	261	0
2	B	1907	0	1917	175	0
2	P	1907	0	1917	184	0
3	C	1900	0	1898	158	0
3	Q	1900	0	1898	164	0
4	D	1890	0	1900	105	0
4	R	1890	0	1900	114	0
5	E	1888	0	1856	121	0
5	S	1888	0	1856	122	0
6	F	1803	0	1809	120	0
6	T	1803	0	1809	123	0
7	G	1892	0	1883	170	0
7	U	1892	0	1883	168	0
8	H	1512	0	1481	182	0
8	V	1512	0	1481	163	0
9	I	1685	0	1688	116	0
9	W	1685	0	1688	124	0
10	J	1581	0	1574	81	0
10	X	1581	0	1574	82	0
11	K	1585	0	1590	84	0
11	Y	1585	0	1590	93	0
12	L	1646	0	1595	83	0
12	Z	1646	0	1595	84	0
13	M	1757	0	1711	102	0
13	a	1757	0	1711	98	0
14	N	1824	0	1832	167	0
14	b	1824	0	1832	173	0
15	c	1760	0	1784	55	0
15	d	1760	0	1784	67	0
15	e	1760	0	1784	60	0
15	f	1760	0	1783	61	37
15	g	1760	0	1784	62	0
15	h	1760	0	1783	71	0
15	i	1760	0	1783	46	0
15	j	1760	0	1784	65	0
15	k	1760	0	1784	79	0
15	l	1760	0	1784	58	0
15	m	1760	0	1783	60	0
15	n	1760	0	1784	62	0
15	o	1760	0	1783	67	0
15	p	1760	0	1783	53	37

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
All	All	74222	0	74258	4224	37

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 30.

All (4224) 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)
15:f:1066:GLN:CA	15:f:1066:GLN:CB	1.78	1.57
15:m:1066:GLN:CA	15:m:1066:GLN:CB	1.78	1.56
3:Q:5:ARG:NH2	15:k:1103:ASP:H	1.45	1.14
2:P:3:ASP:OD1	15:j:1102:GLU:HA	1.45	1.13
8:V:8:PHE:HE2	8:V:148:LYS:HA	1.13	1.12
3:Q:175:LEU:HD11	3:Q:199:LYS:HD2	1.33	1.11
3:Q:5:ARG:CZ	15:k:1103:ASP:H	1.62	1.11
1:A:86:PRO:HG3	15:h:1230:VAL:HA	1.34	1.10
3:C:175:LEU:HD11	3:C:199:LYS:HD2	1.33	1.10
8:H:8:PHE:HE2	8:H:148:LYS:HA	1.14	1.10
2:B:222:LEU:HD11	2:B:232:GLY:HA2	1.35	1.08
9:I:59:ILE:HG12	9:I:83:LEU:HD23	1.36	1.08
7:G:71:ARG:NH2	14:N:72:THR:HG22	1.68	1.08
2:P:222:LEU:HD11	2:P:232:GLY:HA2	1.35	1.08
1:A:204:GLU:HB3	1:A:248:ILE:HG21	1.30	1.07
4:R:79:ASN:HB2	15:k:1231:SER:OG	1.55	1.05
7:G:71:ARG:HH21	14:N:72:THR:HG22	1.16	1.05
1:O:204:GLU:HB3	1:O:248:ILE:HG21	1.32	1.05
7:G:187:SER:HB3	7:G:190:GLU:HB2	1.40	1.04
4:R:163:THR:HG21	4:R:171:VAL:HG23	1.41	1.03
9:W:59:ILE:HG12	9:W:83:LEU:HD23	1.37	1.02
7:U:71:ARG:HH21	14:b:72:THR:HG22	1.22	1.00
3:C:68:LYS:HG2	3:C:227:GLN:HE22	1.27	0.99
3:Q:68:LYS:HG2	3:Q:227:GLN:HE22	1.25	0.99
13:M:175:LEU:HD12	13:M:175:LEU:H	1.25	0.99
4:D:59:ILE:H	4:D:59:ILE:HD13	1.27	0.98
6:F:206:LEU:HD23	6:F:206:LEU:H	1.29	0.98
7:U:187:SER:HB3	7:U:190:GLU:HB2	1.43	0.98
13:M:173:LYS:HD3	13:M:174:TYR:H	1.27	0.98
13:a:173:LYS:HD3	13:a:174:TYR:H	1.28	0.98
4:D:163:THR:HG21	4:D:171:VAL:HG23	1.41	0.98
4:R:59:ILE:HD13	4:R:59:ILE:H	1.28	0.97
7:U:71:ARG:NH2	14:b:72:THR:HG22	1.81	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:68:THR:HG23	2:P:71:ILE:HB	1.46	0.94
3:C:9:ARG:HE	3:C:12:ILE:HG13	1.33	0.94
1:O:114:CYS:HG	1:O:155:TYR:HD1	1.00	0.94
3:Q:201:THR:HG22	3:Q:202:ASP:H	1.32	0.94
2:B:68:THR:HG23	2:B:71:ILE:HB	1.46	0.93
3:Q:9:ARG:HE	3:Q:12:ILE:HG13	1.32	0.93
9:I:53:GLU:O	9:I:57:GLN:HG2	1.67	0.93
7:G:136:ILE:HG12	7:G:149:MET:HG3	1.50	0.93
1:O:230:LYS:HE3	1:O:230:LYS:HA	1.51	0.93
5:S:109:VAL:HB	5:S:154:GLN:HE21	1.34	0.93
3:C:217:ARG:HB3	3:C:217:ARG:HH11	1.33	0.93
7:U:136:ILE:HG12	7:U:149:MET:HG3	1.49	0.93
13:a:175:LEU:H	13:a:175:LEU:HD12	1.31	0.93
6:T:206:LEU:HD23	6:T:206:LEU:H	1.30	0.92
9:W:53:GLU:O	9:W:57:GLN:HG2	1.69	0.92
1:A:114:CYS:HG	1:A:155:TYR:HD1	0.99	0.92
2:P:90:ARG:HD3	9:W:68:LEU:HD13	1.50	0.91
2:P:21:ILE:HD12	15:j:1229:MET:HE1	1.51	0.91
3:C:201:THR:HG22	3:C:202:ASP:H	1.33	0.91
2:B:161:ALA:HB3	3:C:56:LEU:HD23	1.52	0.90
7:G:171:ALA:O	7:G:175:LEU:HB2	1.71	0.90
10:J:14:MET:HE3	10:J:166:ILE:HG13	1.52	0.90
3:Q:217:ARG:HB3	3:Q:217:ARG:HH11	1.34	0.90
7:U:171:ALA:O	7:U:175:LEU:HB2	1.70	0.90
8:V:13:ILE:HG12	8:V:177:VAL:HG22	1.50	0.90
2:P:161:ALA:HB3	3:Q:56:LEU:HD23	1.53	0.90
7:U:72:HIS:CD2	7:U:73:ILE:HG13	2.07	0.90
8:H:8:PHE:CE2	8:H:148:LYS:HA	2.06	0.90
3:Q:68:LYS:HG2	3:Q:227:GLN:NE2	1.85	0.90
1:A:230:LYS:HA	1:A:230:LYS:HE3	1.50	0.89
7:U:94:GLU:HG3	7:U:114:ARG:HH11	1.36	0.89
8:H:13:ILE:HG12	8:H:177:VAL:HG22	1.54	0.89
8:V:8:PHE:CE2	8:V:148:LYS:HA	2.05	0.89
5:E:109:VAL:HB	5:E:154:GLN:HE21	1.37	0.89
1:O:28:VAL:HG11	15:p:1229:MET:HE3	1.56	0.88
3:C:5:ARG:NH2	15:d:1103:ASP:H	1.72	0.88
8:H:114:PRO:HD2	8:H:118:SER:O	1.73	0.88
3:C:68:LYS:HG2	3:C:227:GLN:NE2	1.88	0.88
4:R:203:VAL:HG21	4:R:210:ILE:HD11	1.56	0.88
2:P:57:MET:HB3	2:P:59:GLU:OE2	1.73	0.88
3:C:185:LYS:HD2	3:C:186:VAL:H	1.40	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:U:92:ARG:CZ	14:b:76:TYR:HD1	1.87	0.87
2:B:218:ASN:HD21	2:B:236:ARG:HD2	1.39	0.87
4:D:203:VAL:HG21	4:D:210:ILE:HD11	1.56	0.87
7:G:72:HIS:CD2	7:G:73:ILE:HG13	2.08	0.87
4:D:29:ARG:HB3	15:d:1230:VAL:HG11	1.56	0.87
2:P:218:ASN:HD21	2:P:236:ARG:HD2	1.40	0.87
7:G:94:GLU:HG3	7:G:114:ARG:HH11	1.40	0.87
3:Q:156:ASN:HD21	4:R:79:ASN:HB3	1.38	0.87
3:C:156:ASN:HD21	4:D:79:ASN:HB3	1.38	0.87
4:R:99:THR:O	4:R:100:LEU:HD12	1.75	0.86
3:Q:5:ARG:NH2	15:k:1103:ASP:N	2.22	0.86
3:Q:185:LYS:HD2	3:Q:186:VAL:H	1.38	0.86
2:B:57:MET:HB3	2:B:59:GLU:OE2	1.75	0.86
4:R:162:GLN:HE21	4:R:162:GLN:HA	1.41	0.85
4:D:99:THR:O	4:D:100:LEU:HD12	1.75	0.85
15:c:1146:ARG:HB2	15:d:1189:ASP:OD2	1.77	0.85
15:j:1146:ARG:HB2	15:k:1189:ASP:OD2	1.77	0.85
1:A:178:ILE:O	1:A:182:LEU:HG	1.75	0.85
8:H:107:LYS:HD2	8:H:108:GLY:H	1.42	0.85
10:X:14:MET:HE3	10:X:166:ILE:HG13	1.57	0.85
14:b:32:SER:HA	14:b:190:ARG:NH1	1.91	0.85
8:V:114:PRO:HD2	8:V:118:SER:O	1.76	0.85
1:O:178:ILE:O	1:O:182:LEU:HG	1.76	0.85
2:P:74:VAL:HG22	2:P:75:TYR:H	1.41	0.85
9:W:37:ILE:HD11	9:W:43:CYS:SG	2.16	0.85
4:D:162:GLN:HE21	4:D:162:GLN:HA	1.41	0.84
4:R:239:GLU:HA	4:R:242:GLU:HB3	1.58	0.84
4:D:239:GLU:HA	4:D:242:GLU:HB3	1.58	0.84
4:R:79:ASN:CB	15:k:1231:SER:OG	2.24	0.84
4:D:207:ALA:HB2	4:D:233:VAL:HG21	1.58	0.84
4:R:207:ALA:HB2	4:R:233:VAL:HG21	1.59	0.84
8:V:107:LYS:HD2	8:V:108:GLY:H	1.40	0.84
2:P:94:HIS:HD2	9:W:61:SER:HB2	1.42	0.84
2:B:211:LEU:HD12	2:B:212:ALA:N	1.93	0.83
9:I:113:ILE:HG23	9:I:119:THR:HG22	1.61	0.83
12:Z:1:THR:HA	12:Z:33:ARG:NH2	1.92	0.83
3:Q:70:ASN:ND2	3:Q:71:ASP:H	1.76	0.83
14:N:32:SER:HA	14:N:190:ARG:NH1	1.92	0.83
2:P:3:ASP:OD1	15:j:1102:GLU:CA	2.26	0.83
7:U:5:THR:HG22	7:U:7:TYR:H	1.43	0.83
14:N:43:ILE:HD13	14:N:64:GLU:HG3	1.59	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:U:72:HIS:HD2	7:U:73:ILE:HG13	1.43	0.83
7:G:92:ARG:CZ	14:N:76:TYR:HD1	1.91	0.82
1:O:22:GLU:HA	2:P:26:THR:HG21	1.61	0.82
9:W:163:ILE:HG23	9:W:170:GLY:HA2	1.59	0.82
2:B:148:TYR:CE2	2:B:158:PRO:HB3	2.14	0.82
15:f:1156:GLU:OE1	15:g:1177:PRO:HD2	1.79	0.82
4:R:188:VAL:O	4:R:192:VAL:HG23	1.78	0.82
6:T:100:ASN:HB2	14:b:94:GLU:HG2	1.61	0.82
13:M:126:ASP:HB2	13:M:130:SER:HB3	1.62	0.82
2:B:74:VAL:HG22	2:B:75:TYR:H	1.42	0.82
12:Z:25:TRP:CZ3	13:a:144:SER:HA	2.14	0.82
3:C:217:ARG:HB3	3:C:217:ARG:NH1	1.93	0.82
2:P:21:ILE:HG21	15:j:1229:MET:HE3	1.60	0.82
13:a:126:ASP:HB2	13:a:130:SER:HB3	1.61	0.82
2:B:90:ARG:HD3	9:I:68:LEU:HD13	1.62	0.81
9:I:163:ILE:HG23	9:I:170:GLY:HA2	1.60	0.81
1:O:44:ALA:HB2	1:O:53:VAL:HG12	1.60	0.81
15:m:1156:GLU:OE1	15:n:1177:PRO:HD2	1.79	0.81
6:F:176:LEU:HD22	7:G:57:LEU:HD23	1.63	0.81
3:Q:39:MET:HE1	3:Q:146:TYR:HB2	1.61	0.81
1:A:22:GLU:HA	2:B:26:THR:HG21	1.62	0.81
1:A:44:ALA:HB2	1:A:53:VAL:HG12	1.63	0.81
12:L:1:THR:HA	12:L:33:ARG:NH2	1.96	0.81
3:C:243:GLY:C	3:C:244:ILE:HD12	2.06	0.81
8:H:163:ILE:HG23	8:H:170:GLY:HA2	1.63	0.81
9:W:113:ILE:HG23	9:W:119:THR:HG22	1.63	0.81
8:H:67:THR:HG22	8:H:73:PRO:HD3	1.61	0.81
8:V:14:LEU:HD23	8:V:100:ALA:HB3	1.62	0.81
14:b:43:ILE:HD13	14:b:64:GLU:HG3	1.63	0.81
8:H:26:ILE:HD12	14:b:187:ARG:HA	1.63	0.81
3:Q:217:ARG:HB3	3:Q:217:ARG:NH1	1.94	0.81
14:b:152:ASN:HD22	14:b:156:ARG:NH2	1.79	0.81
2:B:94:HIS:HB3	2:B:99:ARG:HH21	1.46	0.81
4:D:188:VAL:O	4:D:192:VAL:HG23	1.80	0.81
7:G:5:THR:HG22	7:G:7:TYR:H	1.46	0.81
9:W:126:SER:HB3	9:W:135:MET:HE2	1.62	0.80
12:Z:1:THR:HA	12:Z:33:ARG:HH21	1.47	0.80
6:T:179:PHE:HA	6:T:182:ILE:HG13	1.62	0.80
8:V:163:ILE:HG23	8:V:170:GLY:HA2	1.62	0.80
1:A:131:ARG:HA	2:B:127:VAL:HG12	1.64	0.80
11:K:43:LEU:HD13	11:K:189:ILE:HD13	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:131:ARG:HA	2:P:127:VAL:HG12	1.64	0.80
3:C:5:ARG:CZ	15:d:1103:ASP:H	1.93	0.80
9:I:126:SER:HB3	9:I:135:MET:HE2	1.63	0.80
6:F:100:ASN:HB2	14:N:94:GLU:HG2	1.63	0.80
14:N:32:SER:HA	14:N:190:ARG:HH12	1.47	0.80
7:G:88:VAL:O	7:G:92:ARG:HG3	1.82	0.79
4:D:199:LEU:O	4:D:203:VAL:HG23	1.82	0.79
5:E:78:MET:HE1	5:E:82:THR:HG22	1.64	0.79
13:M:173:LYS:HD3	13:M:174:TYR:N	1.96	0.79
2:B:3:ASP:OD1	15:c:1102:GLU:HA	1.82	0.79
8:H:14:LEU:HD13	8:H:34:LEU:HD22	1.64	0.79
9:I:37:ILE:HD11	9:I:43:CYS:SG	2.22	0.79
2:P:211:LEU:HD12	2:P:212:ALA:N	1.96	0.79
3:Q:5:ARG:CZ	15:k:1103:ASP:N	2.45	0.79
5:E:233:ASN:HD22	5:E:233:ASN:N	1.81	0.79
14:N:152:ASN:HD22	14:N:156:ARG:NH2	1.79	0.79
1:O:82:VAL:CG1	1:O:142:THR:HB	2.13	0.79
7:G:72:HIS:HD2	7:G:73:ILE:HG13	1.45	0.79
13:M:172:LEU:H	13:M:172:LEU:HD12	1.47	0.79
2:P:148:TYR:CE2	2:P:158:PRO:HB3	2.17	0.79
7:U:88:VAL:O	7:U:92:ARG:HG3	1.83	0.79
13:a:173:LYS:HD3	13:a:174:TYR:N	1.98	0.79
7:G:40:LYS:HA	7:G:45:VAL:HG12	1.63	0.79
13:M:28:ARG:NE	13:M:200:ASP:OD2	2.16	0.79
6:F:179:PHE:HA	6:F:182:ILE:HG13	1.63	0.79
11:K:23:ARG:HB2	11:K:28:LEU:HD11	1.63	0.79
1:O:82:VAL:HG13	1:O:142:THR:HB	1.64	0.79
14:b:27:LEU:HB2	14:b:192:SER:HB2	1.63	0.79
6:F:206:LEU:H	6:F:206:LEU:CD2	1.97	0.78
2:P:21:ILE:HG21	15:j:1229:MET:CE	2.12	0.78
8:V:67:THR:HG22	8:V:73:PRO:HD3	1.66	0.78
14:b:93:PHE:CZ	14:b:128:ARG:HG2	2.19	0.78
3:C:39:MET:HE1	3:C:146:TYR:HB2	1.64	0.78
3:C:70:ASN:ND2	3:C:71:ASP:H	1.80	0.78
11:Y:43:LEU:HD13	11:Y:189:ILE:HD13	1.63	0.78
5:E:233:ASN:HD22	5:E:233:ASN:H	1.32	0.78
3:Q:243:GLY:C	3:Q:244:ILE:HD12	2.08	0.78
14:b:32:SER:HA	14:b:190:ARG:HH12	1.46	0.78
14:b:165:ILE:N	14:b:166:PRO:HD2	1.97	0.78
4:R:199:LEU:O	4:R:203:VAL:HG23	1.84	0.78
1:A:82:VAL:CG1	1:A:142:THR:HB	2.14	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S:233:ASN:HD22	5:S:233:ASN:N	1.80	0.77
9:W:112:SER:HB3	9:W:125:LEU:HD13	1.66	0.77
14:N:165:ILE:N	14:N:166:PRO:HD2	2.00	0.77
5:S:233:ASN:HD22	5:S:233:ASN:H	1.30	0.77
5:E:24:VAL:O	5:E:27:SER:HB3	1.85	0.77
14:N:27:LEU:HB2	14:N:192:SER:HB2	1.66	0.77
2:P:49:LYS:HE2	2:P:58:SER:HB2	1.67	0.77
2:P:94:HIS:HB3	2:P:99:ARG:HH21	1.49	0.77
5:S:204:LEU:O	5:S:208:MET:HB2	1.84	0.77
8:V:17:ASP:HB2	8:V:170:GLY:O	1.85	0.77
5:E:204:LEU:O	5:E:208:MET:HB2	1.83	0.77
8:H:107:LYS:HD2	8:H:108:GLY:N	1.99	0.77
15:l:1156:GLU:OE1	15:m:1177:PRO:HD2	1.85	0.77
8:H:14:LEU:HD23	8:H:100:ALA:HB3	1.64	0.77
8:V:14:LEU:HD13	8:V:34:LEU:HD22	1.65	0.77
1:A:82:VAL:HG13	1:A:142:THR:HB	1.67	0.77
7:U:40:LYS:HA	7:U:45:VAL:HG12	1.66	0.77
2:B:15:SER:O	3:C:27:GLU:HG3	1.84	0.77
2:B:49:LYS:HE2	2:B:58:SER:HB2	1.67	0.77
2:P:15:SER:O	3:Q:27:GLU:HG3	1.85	0.77
15:c:1072:GLN:NE2	15:d:1051:ARG:HH22	1.83	0.77
3:C:9:ARG:HE	3:C:12:ILE:CG1	1.98	0.77
1:O:204:GLU:HB3	1:O:248:ILE:CG2	2.13	0.77
11:Y:23:ARG:HB2	11:Y:28:LEU:HD11	1.65	0.77
5:S:78:MET:HE1	5:S:82:THR:HG22	1.66	0.77
6:T:206:LEU:H	6:T:206:LEU:CD2	1.98	0.77
6:T:176:LEU:HD22	7:U:57:LEU:HD23	1.64	0.76
8:V:107:LYS:HD2	8:V:108:GLY:N	1.99	0.76
15:j:1072:GLN:NE2	15:k:1051:ARG:HH22	1.83	0.76
6:F:201:LEU:HD11	6:F:206:LEU:HD22	1.67	0.76
2:P:21:ILE:CD1	15:j:1229:MET:HE1	2.16	0.76
5:S:24:VAL:O	5:S:27:SER:HB3	1.85	0.76
15:e:1156:GLU:OE1	15:f:1177:PRO:HD2	1.85	0.76
10:X:159:PRO:HG2	10:X:160:GLU:OE2	1.86	0.76
3:Q:20:TYR:OH	15:k:1102:GLU:OE1	2.04	0.76
1:A:204:GLU:HB3	1:A:248:ILE:CG2	2.12	0.76
12:L:1:THR:HA	12:L:33:ARG:HH21	1.49	0.76
2:P:44:VAL:HG23	2:P:211:LEU:HD11	1.66	0.76
3:Q:9:ARG:HE	3:Q:12:ILE:CG1	1.98	0.76
1:O:101:ALA:HA	1:O:112:MET:HE3	1.67	0.76
4:R:42:VAL:HG11	4:R:136:ALA:HB1	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:T:46:LEU:HG	6:T:135:ILE:HD13	1.68	0.76
11:Y:39:SER:HB2	11:Y:40:PRO:HD2	1.68	0.76
2:P:44:VAL:HA	2:P:213:ILE:HG22	1.68	0.75
1:A:185:HIS:HA	1:A:188:LYS:NZ	2.01	0.75
10:J:129:ILE:HG22	10:J:130:ASP:N	2.01	0.75
6:T:69:HIS:HE1	6:T:70:MET:HE3	1.51	0.75
10:J:88:GLN:HA	10:J:88:GLN:NE2	2.02	0.75
1:O:28:VAL:HG11	15:p:1229:MET:CE	2.16	0.75
10:J:159:PRO:HG2	10:J:160:GLU:OE2	1.87	0.75
1:O:92:ASN:HD22	1:O:137:LEU:HD11	1.51	0.75
7:G:94:GLU:HG2	7:G:114:ARG:HB3	1.69	0.75
7:U:34:THR:HB	15:n:1231:SER:O	1.87	0.75
13:a:28:ARG:NE	13:a:200:ASP:OD2	2.18	0.75
8:H:17:ASP:HB2	8:H:170:GLY:O	1.86	0.74
10:X:191:LYS:H	10:X:191:LYS:HD2	1.51	0.74
12:Z:211:ILE:H	12:Z:211:ILE:HD12	1.52	0.74
7:G:90:ARG:HG2	7:G:118:TYR:CD1	2.22	0.74
14:N:93:PHE:CZ	14:N:128:ARG:HG2	2.22	0.74
1:O:37:GLN:HB2	15:o:1230:VAL:HG11	1.68	0.74
13:a:172:LEU:H	13:a:172:LEU:HD12	1.50	0.74
1:A:85:GLY:HA3	1:A:139:VAL:HG12	1.69	0.74
1:A:237:SER:O	1:A:241:ILE:HG13	1.87	0.74
2:B:44:VAL:HG23	2:B:211:LEU:HD11	1.67	0.74
2:B:187:ASP:O	2:B:191:ILE:HG12	1.87	0.74
1:O:85:GLY:HA3	1:O:139:VAL:HG12	1.69	0.74
6:T:78:ALA:HB3	6:T:79:PRO:HD3	1.69	0.74
10:J:191:LYS:H	10:J:191:LYS:HD2	1.53	0.74
3:C:80:LEU:H	3:C:80:LEU:HD22	1.52	0.74
1:A:101:ALA:HA	1:A:112:MET:HE3	1.66	0.74
2:P:244:ASN:HA	2:P:247:LEU:HD12	1.70	0.74
12:L:211:ILE:H	12:L:211:ILE:HD12	1.53	0.74
4:D:163:THR:HG21	4:D:171:VAL:CG2	2.16	0.74
3:Q:80:LEU:H	3:Q:80:LEU:HD22	1.53	0.74
2:B:21:ILE:HD12	15:c:1229:MET:HE1	1.69	0.74
7:G:134:SER:HB2	7:G:164:THR:HG21	1.70	0.74
5:S:182:GLU:HG2	5:S:203:ILE:HG12	1.70	0.74
4:D:162:GLN:NE2	4:D:163:THR:H	1.86	0.73
5:E:182:GLU:HG2	5:E:203:ILE:HG12	1.68	0.73
6:F:78:ALA:HB3	6:F:79:PRO:HD3	1.70	0.73
11:K:39:SER:HB2	11:K:40:PRO:HD2	1.70	0.73
13:M:147:MET:HE3	10:X:176:ARG:NH2	2.03	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:52:VAL:HG22	1:A:227:VAL:HG13	1.68	0.73
9:I:112:SER:HB3	9:I:125:LEU:HD13	1.69	0.73
1:O:86:PRO:HG3	15:o:1230:VAL:HA	1.70	0.73
4:R:176:GLU:OE2	5:S:57:PRO:HD2	1.88	0.73
9:W:83:LEU:O	9:W:87:LEU:HD23	1.88	0.73
9:I:6:VAL:HG12	9:I:124:TYR:HB3	1.71	0.73
6:F:46:LEU:HG	6:F:135:ILE:HD13	1.70	0.73
1:O:237:SER:O	1:O:241:ILE:HG13	1.89	0.73
4:R:187:THR:HG22	4:R:189:GLU:H	1.52	0.73
10:X:129:ILE:HG22	10:X:130:ASP:N	2.01	0.73
15:d:1146:ARG:HB2	15:e:1189:ASP:OD2	1.89	0.73
8:H:32:ASP:CG	14:b:227:GLY:H	1.97	0.73
9:I:83:LEU:O	9:I:87:LEU:HD23	1.87	0.73
4:R:216:LYS:HE3	4:R:220:ASP:OD2	1.89	0.73
6:T:201:LEU:HD11	6:T:206:LEU:HD22	1.68	0.73
8:V:163:ILE:HD12	8:V:170:GLY:HA2	1.71	0.73
2:B:68:THR:CG2	2:B:71:ILE:HB	2.19	0.73
4:D:42:VAL:HG11	4:D:136:ALA:HB1	1.68	0.73
7:U:94:GLU:HG2	7:U:114:ARG:HB3	1.70	0.73
2:B:44:VAL:HA	2:B:213:ILE:HG22	1.71	0.73
4:D:187:THR:HG22	4:D:189:GLU:H	1.53	0.73
1:A:37:GLN:HB2	15:h:1230:VAL:HG11	1.69	0.73
14:N:210:LYS:O	14:N:212:LEU:HD13	1.89	0.73
2:P:74:VAL:HG22	2:P:75:TYR:N	2.03	0.73
15:k:1146:ARG:HB2	15:l:1189:ASP:OD2	1.89	0.73
4:R:162:GLN:NE2	4:R:163:THR:H	1.87	0.72
7:U:77:TYR:HE1	7:U:81:ILE:HD13	1.53	0.72
4:D:176:GLU:OE2	5:E:57:PRO:HD2	1.89	0.72
15:g:1146:ARG:HB2	15:h:1189:ASP:OD2	1.89	0.72
2:B:244:ASN:HA	2:B:247:LEU:HD12	1.71	0.72
7:G:121:ALA:HA	7:G:124:LEU:HD12	1.71	0.72
2:B:222:LEU:HD11	2:B:232:GLY:CA	2.18	0.72
14:N:197:LEU:HD23	14:N:197:LEU:C	2.14	0.72
6:T:36:VAL:HG22	6:T:160:ALA:HB2	1.71	0.72
7:U:134:SER:HB2	7:U:164:THR:HG21	1.70	0.72
2:B:74:VAL:HG22	2:B:75:TYR:N	2.03	0.72
2:B:157:PHE:N	2:B:157:PHE:CD2	2.58	0.72
3:C:175:LEU:HD11	3:C:199:LYS:CD	2.16	0.72
13:M:175:LEU:H	13:M:175:LEU:CD1	1.99	0.72
1:O:185:HIS:HA	1:O:188:LYS:NZ	2.03	0.72
3:Q:175:LEU:HD11	3:Q:199:LYS:CD	2.17	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:R:163:THR:HG21	4:R:171:VAL:CG2	2.16	0.72
10:X:88:GLN:HA	10:X:88:GLN:NE2	2.04	0.72
15:n:1146:ARG:HB2	15:o:1189:ASP:OD2	1.89	0.72
1:A:177:GLU:OE1	1:A:177:GLU:N	2.21	0.72
7:G:77:TYR:HE1	7:G:81:ILE:HD13	1.52	0.72
7:U:194:GLN:O	7:U:198:ILE:HG13	1.89	0.72
15:i:1113:VAL:O	15:i:1116:ILE:HG22	1.90	0.72
7:G:194:GLN:O	7:G:198:ILE:HG13	1.90	0.72
9:I:38:SER:OG	9:I:39:PRO:HD2	1.90	0.72
6:T:34:VAL:HG23	6:T:197:ILE:HD11	1.71	0.72
7:U:23:VAL:O	7:U:26:ALA:HB3	1.89	0.72
3:Q:222:ASP:C	3:Q:224:GLU:H	1.97	0.72
6:T:69:HIS:CE1	6:T:70:MET:HE3	2.24	0.72
7:U:52:LEU:HD11	7:U:206:ASN:ND2	2.05	0.72
7:U:136:ILE:CG1	7:U:149:MET:HG3	2.19	0.72
2:P:187:ASP:O	2:P:191:ILE:HG12	1.89	0.71
9:W:6:VAL:HG12	9:W:124:TYR:HB3	1.71	0.71
15:f:1113:VAL:O	15:f:1116:ILE:HG22	1.90	0.71
15:m:1113:VAL:O	15:m:1116:ILE:HG22	1.89	0.71
11:K:67:TYR:CE1	11:K:75:LEU:HD23	2.25	0.71
1:O:36:ASN:C	1:O:38:THR:H	1.98	0.71
15:c:1072:GLN:CD	15:d:1051:ARG:HH12	1.98	0.71
3:C:44:ILE:HD11	3:C:146:TYR:HB3	1.73	0.71
5:E:192:THR:HG23	5:E:195:GLU:OE2	1.90	0.71
13:M:38:ARG:NH1	13:M:221:ARG:HB3	2.04	0.71
5:S:79:SER:O	5:S:140:VAL:HG23	1.91	0.71
6:T:194:VAL:O	6:T:197:ILE:HG22	1.90	0.71
1:A:185:HIS:HA	1:A:188:LYS:HZ1	1.55	0.71
2:B:94:HIS:HD2	9:I:61:SER:HB2	1.54	0.71
7:G:23:VAL:O	7:G:26:ALA:HB3	1.91	0.71
1:O:44:ALA:CB	1:O:53:VAL:HG12	2.20	0.71
3:C:222:ASP:C	3:C:224:GLU:H	1.99	0.71
4:D:29:ARG:CZ	15:d:1230:VAL:HG21	2.21	0.71
2:P:222:LEU:HD11	2:P:232:GLY:CA	2.19	0.71
11:Y:67:TYR:CE1	11:Y:75:LEU:HD23	2.25	0.71
1:A:92:ASN:HD22	1:A:137:LEU:HD11	1.55	0.71
12:L:63:CYS:O	12:L:67:GLU:HG3	1.91	0.71
5:S:192:THR:HG23	5:S:195:GLU:OE2	1.91	0.71
15:p:1113:VAL:O	15:p:1116:ILE:HG22	1.90	0.71
2:B:48:GLU:HG2	2:B:49:LYS:N	2.05	0.71
4:D:216:LYS:HE3	4:D:220:ASP:OD2	1.91	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:243:GLN:O	7:G:246:ILE:HG22	1.89	0.71
9:I:188:ARG:O	9:I:189:ASN:HB2	1.90	0.71
2:P:157:PHE:CD2	2:P:157:PHE:N	2.58	0.71
15:c:1113:VAL:O	15:c:1116:ILE:HG22	1.91	0.71
6:F:69:HIS:HE1	6:F:70:MET:HE3	1.56	0.71
7:U:121:ALA:HA	7:U:124:LEU:HD12	1.72	0.71
14:b:197:LEU:C	14:b:197:LEU:HD23	2.15	0.71
15:j:1113:VAL:O	15:j:1116:ILE:HG22	1.91	0.71
6:F:36:VAL:HG22	6:F:160:ALA:HB2	1.72	0.70
9:I:79:ALA:O	9:I:83:LEU:HG	1.90	0.70
15:j:1072:GLN:CD	15:k:1051:ARG:HH12	1.98	0.70
3:C:217:ARG:HH11	3:C:217:ARG:CB	2.03	0.70
11:K:192:VAL:O	11:K:194:ASP:N	2.23	0.70
6:T:91:GLN:HG3	6:T:111:LEU:HD13	1.73	0.70
7:U:90:ARG:HG2	7:U:118:TYR:CD1	2.25	0.70
8:V:36:ARG:HB2	8:V:42:TRP:CE2	2.26	0.70
8:V:82:PHE:HB3	8:V:113:ILE:CD1	2.20	0.70
13:a:126:ASP:CB	13:a:130:SER:HB3	2.21	0.70
14:b:210:LYS:O	14:b:212:LEU:HD13	1.90	0.70
14:N:143:ALA:HB1	14:N:147:GLY:HA3	1.73	0.70
1:O:52:VAL:HG22	1:O:227:VAL:HG13	1.71	0.70
6:T:16:THR:HG23	15:n:1102:GLU:OE2	1.91	0.70
11:Y:53:THR:HG23	11:Y:54:VAL:HG13	1.72	0.70
2:B:121:ALA:HB1	2:B:129:PRO:HA	1.74	0.70
6:F:34:VAL:HG23	6:F:197:ILE:HD11	1.74	0.70
10:J:124:ASP:OD1	10:J:128:CYS:HB3	1.91	0.70
12:L:185:TRP:C	12:L:186:ILE:HD12	2.17	0.70
5:E:79:SER:O	5:E:140:VAL:HG23	1.91	0.70
7:G:240:ASP:C	7:G:242:ALA:H	1.99	0.70
8:H:147:SER:OG	8:H:150:GLU:HB2	1.91	0.70
2:P:48:GLU:HG2	2:P:49:LYS:N	2.06	0.70
3:Q:80:LEU:H	3:Q:80:LEU:CD2	2.05	0.70
1:O:15:HIS:HB2	1:O:18:ILE:HD13	1.74	0.70
13:a:38:ARG:NH1	13:a:221:ARG:HB3	2.07	0.70
15:d:1113:VAL:O	15:d:1116:ILE:HG22	1.91	0.70
1:A:244:ARG:O	1:A:248:ILE:HG12	1.91	0.70
8:H:1:THR:H2	8:H:129:SER:N	1.90	0.70
15:h:1113:VAL:O	15:h:1116:ILE:HG22	1.92	0.70
6:F:194:VAL:O	6:F:197:ILE:HG22	1.91	0.70
3:Q:156:ASN:ND2	4:R:79:ASN:HB3	2.07	0.70
15:k:1113:VAL:O	15:k:1116:ILE:HG22	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:168:ARG:HG3	7:G:172:LYS:HE3	1.74	0.69
7:G:182:HIS:H	7:G:183:PRO:CD	2.04	0.69
1:O:244:ARG:O	1:O:248:ILE:HG12	1.92	0.69
1:A:44:ALA:CB	1:A:53:VAL:HG12	2.22	0.69
7:G:52:LEU:HD11	7:G:206:ASN:ND2	2.06	0.69
3:Q:81:THR:OG1	15:j:1231:SER:OG	2.10	0.69
11:Y:192:VAL:O	11:Y:194:ASP:N	2.22	0.69
1:A:46:ARG:HB2	1:A:152:PRO:HB3	1.73	0.69
2:P:121:ALA:HB1	2:P:129:PRO:HA	1.74	0.69
2:B:122:THR:HG22	2:B:123:GLN:N	2.07	0.69
2:B:176:GLU:HG2	3:C:56:LEU:HD13	1.74	0.69
8:H:82:PHE:HB3	8:H:113:ILE:CD1	2.22	0.69
11:Y:35:THR:HG22	11:Y:36:ARG:N	2.07	0.69
13:a:13:LEU:O	13:a:23:LEU:HD23	1.92	0.69
15:e:1113:VAL:O	15:e:1116:ILE:HG22	1.92	0.69
1:A:36:ASN:C	1:A:38:THR:H	2.00	0.69
2:B:48:GLU:OE1	2:B:200:VAL:HG22	1.92	0.69
7:G:136:ILE:CG1	7:G:149:MET:HG3	2.22	0.69
7:G:187:SER:CB	7:G:190:GLU:HB2	2.21	0.69
7:G:194:GLN:HE21	7:G:194:GLN:HA	1.57	0.69
2:P:218:ASN:ND2	2:P:236:ARG:HD2	2.08	0.69
7:U:92:ARG:CZ	14:b:76:TYR:CD1	2.75	0.69
7:U:243:GLN:O	7:U:246:ILE:HG22	1.91	0.69
11:Y:5:LEU:HB2	11:Y:16:ALA:HB3	1.74	0.69
1:A:43:LEU:HD12	1:A:43:LEU:O	1.92	0.69
2:B:218:ASN:ND2	2:B:236:ARG:HD2	2.06	0.69
7:U:102:TYR:O	7:U:103:LYS:HB3	1.93	0.69
9:W:188:ARG:O	9:W:189:ASN:HB2	1.92	0.69
7:G:34:THR:HB	15:g:1231:SER:O	1.93	0.69
8:H:36:ARG:HB2	8:H:42:TRP:CE2	2.28	0.69
11:K:53:THR:HG23	11:K:54:VAL:HG13	1.73	0.69
2:P:68:THR:CG2	2:P:71:ILE:HB	2.21	0.69
3:Q:217:ARG:HH11	3:Q:217:ARG:CB	2.04	0.69
5:S:51:GLU:OE2	5:S:53:ARG:HB2	1.93	0.69
15:o:1113:VAL:O	15:o:1116:ILE:HG22	1.92	0.69
8:H:163:ILE:HD12	8:H:170:GLY:HA2	1.75	0.69
5:S:59:LEU:HD13	5:S:60:GLU:N	2.08	0.69
9:W:79:ALA:O	9:W:83:LEU:HG	1.93	0.69
11:Y:140:THR:CG2	11:Y:164:CYS:HB3	2.22	0.69
15:l:1113:VAL:O	15:l:1116:ILE:HG22	1.92	0.69
14:N:73:GLU:HA	14:N:76:TYR:HD2	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:44:ILE:HD11	3:Q:146:TYR:HB3	1.75	0.69
7:U:24:GLU:O	7:U:27:VAL:HG23	1.93	0.69
2:B:75:TYR:HB3	2:B:134:LEU:HD22	1.74	0.69
7:U:182:HIS:H	7:U:183:PRO:CD	2.05	0.69
1:A:15:HIS:HB2	1:A:18:ILE:HD13	1.75	0.68
3:C:80:LEU:H	3:C:80:LEU:CD2	2.06	0.68
3:C:228:LYS:NZ	3:C:231:LYS:HE3	2.08	0.68
7:G:197:LYS:O	7:G:201:LEU:HD13	1.93	0.68
7:G:71:ARG:HH21	14:N:72:THR:CG2	2.00	0.68
11:K:5:LEU:HB2	11:K:16:ALA:HB3	1.75	0.68
5:S:192:THR:OG1	5:S:195:GLU:HG3	1.92	0.68
7:U:194:GLN:HA	7:U:194:GLN:HE21	1.59	0.68
8:V:67:THR:HG22	8:V:72:THR:HA	1.74	0.68
14:b:73:GLU:HA	14:b:76:TYR:HD2	1.56	0.68
1:A:174:LYS:HD2	1:A:177:GLU:OE2	1.93	0.68
1:O:26:TYR:OH	15:p:1102:GLU:OE1	2.10	0.68
1:O:64:LEU:O	1:O:66:PRO:HD3	1.93	0.68
6:F:94:TYR:CE2	6:F:98:VAL:HG21	2.29	0.68
8:H:67:THR:HG22	8:H:72:THR:HA	1.74	0.68
8:H:143:ARG:NH1	8:H:143:ARG:HB2	2.08	0.68
1:O:123:ASN:ND2	2:P:83:ARG:HE	1.92	0.68
4:R:58:ARG:HB2	4:R:59:ILE:HD13	1.76	0.68
4:R:192:VAL:O	4:R:196:VAL:HG23	1.94	0.68
14:b:143:ALA:HB1	14:b:147:GLY:HA3	1.76	0.68
15:o:1146:ARG:HB2	15:p:1189:ASP:OD2	1.94	0.68
1:A:195:ASN:HD22	1:A:196:GLU:N	1.91	0.68
2:B:133:SER:C	2:B:134:LEU:HD23	2.17	0.68
14:N:104:ARG:HG3	14:N:105:SER:N	2.09	0.68
1:O:46:ARG:HB2	1:O:152:PRO:HB3	1.74	0.68
8:V:147:SER:H	8:V:150:GLU:HB3	1.59	0.68
12:Z:185:TRP:C	12:Z:186:ILE:HD12	2.19	0.68
15:g:1113:VAL:O	15:g:1116:ILE:HG22	1.93	0.68
7:G:102:TYR:O	7:G:103:LYS:HB3	1.92	0.68
13:M:126:ASP:CB	13:M:130:SER:HB3	2.23	0.68
1:O:14:ARG:NH2	7:U:6:GLY:HA3	2.09	0.68
1:A:123:ASN:ND2	2:B:83:ARG:HE	1.92	0.68
6:F:227:GLY:O	6:F:230:VAL:HG22	1.94	0.68
7:G:24:GLU:O	7:G:27:VAL:HG23	1.94	0.68
4:R:78:LEU:CD2	15:k:1230:VAL:HG22	2.22	0.68
4:D:79:ASN:HB2	15:d:1231:SER:OG	1.94	0.68
4:D:192:VAL:O	4:D:196:VAL:HG23	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:174:LYS:HD2	1:O:177:GLU:OE2	1.94	0.68
1:O:195:ASN:HD22	1:O:196:GLU:N	1.92	0.68
2:P:200:VAL:HG12	2:P:202:GLY:H	1.59	0.68
2:P:226:GLY:HA3	9:W:186:TYR:HB3	1.74	0.68
7:U:33:GLY:HA2	15:n:1230:VAL:HG12	1.76	0.68
15:n:1113:VAL:O	15:n:1116:ILE:HG22	1.93	0.68
3:C:156:ASN:ND2	4:D:79:ASN:HB3	2.07	0.68
5:E:37:ALA:HA	5:E:50:VAL:HG12	1.75	0.68
10:J:17:LYS:HG3	10:J:156:ASN:HB3	1.74	0.68
6:T:227:GLY:O	6:T:230:VAL:HG22	1.93	0.68
7:U:168:ARG:HG3	7:U:172:LYS:HE3	1.76	0.68
9:W:98:LEU:HD12	9:W:98:LEU:N	2.08	0.68
11:K:53:THR:HG23	11:K:54:VAL:H	1.59	0.68
5:S:37:ALA:HA	5:S:50:VAL:HG12	1.76	0.68
5:E:192:THR:OG1	5:E:195:GLU:HG3	1.94	0.67
4:R:162:GLN:HE21	4:R:162:GLN:CA	2.07	0.67
1:A:87:ILE:HG13	1:A:91:ARG:HD2	1.76	0.67
2:B:200:VAL:HG12	2:B:202:GLY:H	1.57	0.67
2:P:75:TYR:HB3	2:P:134:LEU:HD22	1.75	0.67
8:V:143:ARG:NH1	8:V:143:ARG:HB2	2.10	0.67
1:A:104:PHE:CB	1:A:112:MET:HE2	2.24	0.67
1:A:200:GLU:O	1:A:204:GLU:HG3	1.94	0.67
4:D:58:ARG:HB2	4:D:59:ILE:HD13	1.77	0.67
2:P:122:THR:HG22	2:P:123:GLN:N	2.09	0.67
11:Y:53:THR:HG23	11:Y:54:VAL:H	1.59	0.67
12:Z:63:CYS:O	12:Z:67:GLU:HG3	1.94	0.67
13:a:156:PHE:CE2	13:a:172:LEU:HA	2.29	0.67
14:b:1:THR:HG22	14:b:2:GLN:N	2.08	0.67
1:A:14:ARG:NH2	7:G:6:GLY:HA3	2.09	0.67
6:T:34:VAL:CG2	6:T:197:ILE:HD11	2.25	0.67
8:V:147:SER:OG	8:V:150:GLU:HB2	1.94	0.67
13:a:126:ASP:CG	13:a:130:SER:HB3	2.20	0.67
15:h:1146:ARG:HB2	15:i:1189:ASP:OD2	1.94	0.67
1:A:64:LEU:O	1:A:66:PRO:HD3	1.94	0.67
2:P:176:GLU:HG2	3:Q:56:LEU:HD13	1.76	0.67
4:R:49:ARG:NH1	15:k:1231:SER:HB3	2.09	0.67
6:T:94:TYR:CE2	6:T:98:VAL:HG21	2.30	0.67
14:b:114:ILE:HB	14:b:130:VAL:HG13	1.77	0.67
15:h:1028:TRP:HA	15:h:1032:THR:HB	1.76	0.67
3:C:142:ASP:OD2	3:C:142:ASP:N	2.27	0.67
4:D:49:ARG:CZ	15:d:1231:SER:HB3	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:91:GLN:HG3	6:F:111:LEU:HD13	1.77	0.67
10:J:65:MET:HE1	10:J:102:TYR:OH	1.95	0.67
1:O:200:GLU:O	1:O:204:GLU:HG3	1.94	0.67
14:N:153:PRO:HA	9:W:165:ASN:ND2	2.10	0.67
2:B:86:VAL:HG12	2:B:87:ASP:N	2.09	0.67
7:U:197:LYS:O	7:U:201:LEU:HD13	1.93	0.67
5:E:51:GLU:OE2	5:E:53:ARG:HB2	1.95	0.67
5:E:67:ILE:HD12	5:E:218:GLN:HG2	1.77	0.67
7:G:182:HIS:N	7:G:183:PRO:CD	2.58	0.67
5:S:59:LEU:HD13	5:S:60:GLU:H	1.58	0.67
8:V:133:PHE:CE2	8:V:166:ASP:HB2	2.29	0.67
9:W:38:SER:OG	9:W:39:PRO:HD2	1.95	0.67
3:C:228:LYS:HZ2	3:C:231:LYS:HE3	1.60	0.67
1:O:177:GLU:OE1	1:O:177:GLU:N	2.22	0.67
3:Q:48:ALA:HB1	3:Q:65:LYS:HD3	1.77	0.67
3:Q:228:LYS:NZ	3:Q:231:LYS:HE3	2.09	0.67
1:O:87:ILE:HG13	1:O:91:ARG:HD2	1.77	0.66
3:Q:152:ASN:HB2	3:Q:153:PRO:CD	2.25	0.66
7:U:187:SER:CB	7:U:190:GLU:HB2	2.23	0.66
10:X:124:ASP:OD1	10:X:128:CYS:HB3	1.95	0.66
15:m:1146:ARG:HB2	15:n:1189:ASP:OD2	1.95	0.66
11:K:18:SER:HB2	11:K:176:PHE:HB2	1.77	0.66
14:N:114:ILE:HB	14:N:130:VAL:HG13	1.77	0.66
3:Q:142:ASP:OD2	3:Q:142:ASP:N	2.26	0.66
5:S:67:ILE:HD12	5:S:218:GLN:HG2	1.76	0.66
15:f:1146:ARG:HB2	15:g:1189:ASP:OD2	1.95	0.66
15:o:1028:TRP:HA	15:o:1032:THR:HB	1.76	0.66
1:A:104:PHE:HB2	1:A:112:MET:HE2	1.76	0.66
1:A:104:PHE:CD2	1:A:112:MET:HG3	2.30	0.66
2:B:91:LYS:C	2:B:93:ALA:H	2.02	0.66
6:F:69:HIS:CE1	6:F:70:MET:HE3	2.30	0.66
11:K:35:THR:HG22	11:K:36:ARG:N	2.10	0.66
1:O:104:PHE:CB	1:O:112:MET:HE2	2.25	0.66
7:U:240:ASP:C	7:U:242:ALA:H	2.01	0.66
1:A:220:LYS:HB2	1:A:220:LYS:NZ	2.09	0.66
8:H:190:PRO:C	8:H:192:GLU:H	2.03	0.66
4:R:78:LEU:HD21	15:k:1230:VAL:HG22	1.75	0.66
3:C:152:ASN:HB2	3:C:153:PRO:CD	2.26	0.66
10:X:17:LYS:HG3	10:X:156:ASN:HB3	1.76	0.66
11:Y:161:LEU:O	11:Y:161:LEU:HD23	1.95	0.66
5:E:59:LEU:HD13	5:E:60:GLU:N	2.11	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:220:LYS:HB2	1:O:220:LYS:NZ	2.10	0.66
5:S:130:GLU:HG2	5:S:131:GLU:H	1.61	0.66
15:i:1202:SER:HB3	15:i:1206:ARG:HH12	1.60	0.66
5:E:130:GLU:HG2	5:E:131:GLU:H	1.60	0.66
4:R:56:ASP:OD1	4:R:58:ARG:HG3	1.96	0.66
9:W:71:SER:C	9:W:72:ARG:HG3	2.20	0.66
3:C:120:GLN:O	3:C:123:THR:HB	1.96	0.66
11:K:140:THR:CG2	11:K:164:CYS:HB3	2.26	0.66
12:L:191:HIS:CD2	12:L:191:HIS:N	2.63	0.66
3:Q:218:LYS:HG2	3:Q:219:GLY:N	2.11	0.66
4:D:162:GLN:HE21	4:D:162:GLN:CA	2.07	0.66
14:N:1:THR:HG22	14:N:2:GLN:N	2.10	0.66
8:H:133:PHE:CE2	8:H:166:ASP:HB2	2.30	0.65
14:N:152:ASN:ND2	14:N:156:ARG:NH2	2.43	0.65
3:Q:70:ASN:HD22	3:Q:71:ASP:H	1.41	0.65
11:Y:53:THR:HG23	11:Y:54:VAL:N	2.11	0.65
14:b:206:LEU:HD23	14:b:207:THR:N	2.11	0.65
15:n:1028:TRP:HA	15:n:1032:THR:HB	1.79	0.65
15:p:1202:SER:HB3	15:p:1206:ARG:HH12	1.60	0.65
7:U:182:HIS:N	7:U:183:PRO:CD	2.59	0.65
11:Y:140:THR:HG22	11:Y:164:CYS:HB3	1.79	0.65
5:E:59:LEU:HD11	5:E:64:ILE:HD13	1.77	0.65
8:H:59:VAL:HG11	8:H:82:PHE:CD2	2.32	0.65
4:R:79:ASN:CG	15:k:1231:SER:OG	2.39	0.65
8:V:8:PHE:HE2	8:V:148:LYS:CA	2.00	0.65
3:C:44:ILE:HG21	3:C:138:ALA:HB1	1.79	0.65
8:H:8:PHE:HE2	8:H:148:LYS:CA	2.02	0.65
8:H:67:THR:HG22	8:H:73:PRO:CD	2.27	0.65
13:M:151:ASP:O	13:M:157:LYS:HG3	1.96	0.65
1:O:211:ILE:HG23	1:O:216:THR:O	1.96	0.65
4:R:187:THR:HG22	4:R:189:GLU:N	2.10	0.65
8:V:1:THR:H2	8:V:129:SER:N	1.93	0.65
1:A:43:LEU:HD12	1:A:43:LEU:C	2.21	0.65
1:A:211:ILE:HG23	1:A:216:THR:O	1.96	0.65
6:F:227:GLY:O	6:F:229:ALA:N	2.30	0.65
15:g:1028:TRP:HA	15:g:1032:THR:HB	1.79	0.65
1:A:117:LEU:O	1:A:121:MET:HG2	1.96	0.65
4:D:59:ILE:HD13	4:D:59:ILE:N	2.08	0.65
3:C:218:LYS:HG2	3:C:219:GLY:N	2.12	0.65
5:E:18:GLU:OE1	15:f:1100:LYS:NZ	2.25	0.65
6:F:117:GLN:HE22	6:F:121:GLN:NE2	1.94	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:108:LYS:HD3	2:P:143:ASN:ND2	2.11	0.65
14:b:152:ASN:ND2	14:b:156:ARG:NH2	2.43	0.65
5:E:108:ASN:HD21	13:M:82:LYS:NZ	1.95	0.65
8:H:147:SER:H	8:H:150:GLU:HB3	1.59	0.65
10:J:88:GLN:HA	10:J:88:GLN:HE21	1.62	0.65
4:R:59:ILE:HD13	4:R:59:ILE:N	2.09	0.65
5:S:109:VAL:HB	5:S:154:GLN:NE2	2.08	0.65
8:V:34:LEU:HD23	8:V:44:CYS:HB3	1.79	0.65
14:b:104:ARG:HG3	14:b:105:SER:N	2.11	0.65
6:F:185:ASN:C	6:F:185:ASN:HD22	2.05	0.65
9:W:132:LEU:N	9:W:132:LEU:HD23	2.12	0.65
11:Y:162:LYS:HB2	11:Y:162:LYS:NZ	2.12	0.65
9:I:21:THR:O	9:I:22:GLN:HB2	1.96	0.64
1:O:164:VAL:HG22	1:O:165:GLY:H	1.61	0.64
11:Y:3:ILE:HB	11:Y:18:SER:HB3	1.80	0.64
12:Z:1:THR:HG23	12:Z:33:ARG:HH21	1.61	0.64
9:I:41:ILE:HG23	9:I:76:VAL:HG22	1.80	0.64
4:D:56:ASP:OD1	4:D:58:ARG:HG3	1.97	0.64
14:N:27:LEU:HD12	14:N:28:GLY:N	2.12	0.64
1:O:117:LEU:O	1:O:121:MET:HG2	1.97	0.64
3:Q:120:GLN:O	3:Q:123:THR:HB	1.97	0.64
9:I:6:VAL:HG12	9:I:124:TYR:CB	2.28	0.64
11:K:162:LYS:HA	11:K:195:PHE:HZ	1.62	0.64
13:M:156:PHE:CE2	13:M:172:LEU:HA	2.33	0.64
8:H:18:SER:HB2	8:H:30:VAL:HA	1.79	0.64
9:I:71:SER:C	9:I:72:ARG:HG3	2.21	0.64
1:O:86:PRO:C	1:O:88:PRO:HD2	2.23	0.64
2:P:28:VAL:HG22	2:P:76:SER:O	1.98	0.64
2:P:48:GLU:OE1	2:P:200:VAL:HG22	1.97	0.64
2:P:64:VAL:HG11	2:P:212:ALA:HB3	1.79	0.64
15:f:1202:SER:HB3	15:f:1206:ARG:HH12	1.63	0.64
3:C:149:TYR:OH	4:D:59:ILE:HG13	1.98	0.64
4:D:29:ARG:HG2	4:D:29:ARG:HH11	1.63	0.64
4:D:50:SER:HA	4:D:53:LYS:HD2	1.79	0.64
4:D:187:THR:HG22	4:D:189:GLU:N	2.12	0.64
11:K:53:THR:HG23	11:K:54:VAL:N	2.13	0.64
14:N:27:LEU:HD12	14:N:28:GLY:H	1.61	0.64
2:P:91:LYS:C	2:P:93:ALA:H	2.04	0.64
8:V:18:SER:HB2	8:V:30:VAL:HA	1.79	0.64
15:f:1066:GLN:CA	15:f:1066:GLN:CG	2.75	0.64
1:A:164:VAL:HG22	1:A:165:GLY:H	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:29:ARG:CB	15:d:1230:VAL:HG11	2.28	0.64
2:P:133:SER:C	2:P:134:LEU:HD23	2.23	0.64
2:P:218:ASN:HB3	2:P:220:ASP:OD1	1.98	0.64
6:T:128:TYR:O	6:T:149:PRO:HB3	1.97	0.64
8:V:59:VAL:HG11	8:V:82:PHE:CD2	2.33	0.64
8:V:107:LYS:CD	8:V:108:GLY:H	2.09	0.64
9:W:41:ILE:HG23	9:W:76:VAL:HG22	1.79	0.64
14:b:165:ILE:H	14:b:165:ILE:HD12	1.63	0.64
9:I:113:ILE:HG23	9:I:119:THR:CG2	2.28	0.64
14:N:80:LEU:H	14:N:80:LEU:HD12	1.63	0.64
1:O:204:GLU:HG2	1:O:244:ARG:HB3	1.78	0.64
4:R:29:ARG:HG2	4:R:29:ARG:HH11	1.62	0.64
5:S:59:LEU:HD11	5:S:64:ILE:HD13	1.78	0.64
14:b:80:LEU:HD23	14:b:84:GLU:HB2	1.78	0.64
15:e:1080:ASN:O	15:e:1084:GLN:HG3	1.98	0.64
6:F:34:VAL:CG2	6:F:197:ILE:HD11	2.28	0.64
9:I:132:LEU:HD23	9:I:132:LEU:N	2.13	0.64
6:T:213:ILE:HG22	6:T:214:ALA:N	2.11	0.64
7:U:192:VAL:O	7:U:195:ALA:HB3	1.98	0.64
1:A:53:VAL:CG1	1:A:144:VAL:HG11	2.27	0.64
3:C:48:ALA:HB1	3:C:65:LYS:HD3	1.81	0.64
14:N:44:PRO:HA	14:N:50:VAL:HA	1.79	0.64
1:O:43:LEU:HD23	1:O:178:ILE:CG2	2.27	0.64
2:P:90:ARG:NH1	9:W:68:LEU:HB3	2.13	0.64
3:Q:70:ASN:ND2	3:Q:71:ASP:N	2.45	0.64
7:U:60:PRO:O	7:U:61:GLN:HB2	1.97	0.64
14:b:129:TYR:CD1	14:b:130:VAL:N	2.66	0.64
5:E:59:LEU:HD13	5:E:60:GLU:H	1.63	0.63
8:H:185:ARG:HG3	8:H:185:ARG:HH11	1.62	0.63
11:K:161:LEU:HD23	11:K:161:LEU:O	1.98	0.63
14:N:80:LEU:HD23	14:N:84:GLU:HB2	1.79	0.63
1:O:188:LYS:O	1:O:190:LYS:HG2	1.98	0.63
2:P:197:LYS:HA	2:P:204:PHE:CZ	2.33	0.63
4:R:29:ARG:HB3	15:k:1230:VAL:HG11	1.78	0.63
12:Z:87:VAL:HG11	12:Z:117:SER:HA	1.79	0.63
15:m:1202:SER:HB3	15:m:1206:ARG:HH12	1.63	0.63
1:A:43:LEU:HD23	1:A:178:ILE:CG2	2.27	0.63
1:A:77:ARG:O	1:A:77:ARG:HG2	1.98	0.63
1:A:156:LYS:HE2	1:A:166:TYR:CE2	2.33	0.63
2:B:28:VAL:C	2:B:30:GLN:H	2.05	0.63
1:O:94:ALA:O	1:O:98:LYS:HB2	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:71:ILE:HG12	2:P:138:GLY:HA3	1.81	0.63
8:V:10:ASP:OD1	8:V:179:THR:HG22	1.98	0.63
11:Y:162:LYS:HA	11:Y:195:PHE:HZ	1.63	0.63
1:A:164:VAL:HG22	1:A:165:GLY:N	2.14	0.63
5:E:108:ASN:HD21	13:M:82:LYS:HZ2	1.46	0.63
11:K:162:LYS:HB2	11:K:162:LYS:NZ	2.13	0.63
1:O:104:PHE:HB2	1:O:112:MET:HE2	1.79	0.63
3:Q:22:VAL:HG11	15:k:1229:MET:HE3	1.79	0.63
8:V:36:ARG:HB2	8:V:42:TRP:CD2	2.33	0.63
12:Z:191:HIS:CD2	12:Z:191:HIS:N	2.65	0.63
15:j:1028:TRP:HA	15:j:1032:THR:HB	1.80	0.63
5:E:109:VAL:HB	5:E:154:GLN:NE2	2.12	0.63
7:G:71:ARG:CZ	14:N:72:THR:HG22	2.27	0.63
14:N:129:TYR:CD1	14:N:130:VAL:N	2.67	0.63
14:N:206:LEU:HD23	14:N:207:THR:N	2.12	0.63
3:Q:218:LYS:HG3	3:Q:224:GLU:O	1.98	0.63
10:X:141:ALA:HB2	10:X:177:ASP:HB2	1.80	0.63
14:b:80:LEU:H	14:b:80:LEU:HD12	1.63	0.63
1:A:204:GLU:HG2	1:A:244:ARG:HB3	1.80	0.63
6:F:213:ILE:HG22	6:F:214:ALA:N	2.14	0.63
7:G:140:VAL:HG22	7:G:145:ALA:HB2	1.81	0.63
8:H:1:THR:CB	8:H:33:LYS:HZ1	2.12	0.63
9:I:98:LEU:HD12	9:I:98:LEU:N	2.13	0.63
1:O:92:ASN:ND2	1:O:137:LEU:HD11	2.13	0.63
5:S:10:ARG:HG2	5:S:10:ARG:HH11	1.62	0.63
11:Y:18:SER:HB2	11:Y:176:PHE:HB2	1.79	0.63
3:C:218:LYS:HG3	3:C:224:GLU:O	1.99	0.63
2:P:85:LEU:O	2:P:85:LEU:HD23	1.98	0.63
4:R:208:LYS:HB2	4:R:208:LYS:NZ	2.13	0.63
5:S:82:THR:HG23	15:l:1231:SER:OG	1.99	0.63
6:T:185:ASN:HD22	6:T:185:ASN:C	2.04	0.63
7:U:31:GLU:HB2	7:U:168:ARG:NH2	2.14	0.63
7:U:36:SER:O	7:U:163:ALA:HB1	1.99	0.63
15:c:1028:TRP:HA	15:c:1032:THR:HB	1.80	0.63
15:g:1080:ASN:O	15:g:1084:GLN:HG3	1.99	0.63
7:G:60:PRO:O	7:G:61:GLN:HB2	1.98	0.63
8:H:34:LEU:HD23	8:H:44:CYS:HB3	1.80	0.63
12:L:87:VAL:HG11	12:L:117:SER:HA	1.81	0.63
12:L:106:ARG:HH11	12:L:106:ARG:HG3	1.63	0.63
12:L:128:CYS:HB2	12:L:137:TYR:CE2	2.34	0.63
4:R:50:SER:HA	4:R:53:LYS:HD2	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:T:117:GLN:HE22	6:T:121:GLN:NE2	1.96	0.63
15:i:1028:TRP:HA	15:i:1032:THR:HB	1.81	0.63
15:l:1028:TRP:HA	15:l:1032:THR:HB	1.81	0.63
15:l:1080:ASN:O	15:l:1084:GLN:HG3	1.98	0.63
1:A:86:PRO:C	1:A:88:PRO:HD2	2.23	0.63
4:D:208:LYS:HB2	4:D:208:LYS:NZ	2.14	0.63
7:G:30:VAL:HG11	7:G:134:SER:OG	1.99	0.63
8:H:36:ARG:HB2	8:H:42:TRP:CD2	2.33	0.63
8:V:185:ARG:HH11	8:V:185:ARG:HG3	1.64	0.63
8:V:190:PRO:C	8:V:192:GLU:H	2.06	0.63
10:X:88:GLN:HA	10:X:88:GLN:HE21	1.63	0.63
13:a:3:ASN:ND2	13:a:5:TYR:H	1.96	0.63
15:g:1156:GLU:OE1	15:h:1177:PRO:HD2	1.99	0.63
2:B:218:ASN:HB3	2:B:220:ASP:OD1	1.99	0.63
1:O:104:PHE:CD2	1:O:112:MET:HG3	2.33	0.63
1:O:164:VAL:HG22	1:O:165:GLY:N	2.13	0.63
2:P:86:VAL:HG12	2:P:87:ASP:N	2.12	0.63
3:Q:39:MET:CE	3:Q:146:TYR:HB2	2.29	0.63
11:Y:192:VAL:C	11:Y:194:ASP:H	2.07	0.63
15:d:1205:VAL:O	15:d:1209:ILE:HG13	1.99	0.63
2:B:110:LEU:O	2:B:114:VAL:HG23	1.98	0.62
2:B:134:LEU:HD23	2:B:134:LEU:N	2.14	0.62
3:C:4:ARG:HH12	4:D:3:GLY:HA3	1.63	0.62
8:H:97:ILE:HD12	8:H:98:ILE:N	2.13	0.62
12:L:1:THR:HG23	12:L:33:ARG:HH21	1.63	0.62
13:M:126:ASP:CG	13:M:130:SER:HB3	2.24	0.62
13:M:159:GLN:HG2	9:W:209:THR:HG21	1.81	0.62
14:N:182:ARG:HA	14:N:214:VAL:HG11	1.80	0.62
9:W:113:ILE:HG23	9:W:119:THR:CG2	2.29	0.62
10:X:84:GLU:H	10:X:84:GLU:CD	2.07	0.62
11:Y:40:PRO:HG2	11:Y:74:GLU:OE1	1.98	0.62
12:Z:128:CYS:HB2	12:Z:137:TYR:CE2	2.34	0.62
2:B:28:VAL:HG22	2:B:76:SER:O	2.00	0.62
7:G:92:ARG:CZ	14:N:76:TYR:CD1	2.79	0.62
8:H:3:ILE:HG22	8:H:16:ALA:HB1	1.81	0.62
14:N:185:TYR:CE1	14:N:193:ARG:HB2	2.34	0.62
1:O:128:TYR:HA	1:O:133:TYR:CE1	2.34	0.62
2:P:123:GLN:O	2:P:124:SER:HB2	1.99	0.62
2:P:244:ASN:HA	2:P:247:LEU:CD1	2.28	0.62
5:S:205:LYS:HB2	5:S:212:LEU:HD22	1.79	0.62
15:p:1028:TRP:HA	15:p:1032:THR:HB	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:64:VAL:HG11	2:B:212:ALA:HB3	1.81	0.62
5:E:205:LYS:HB2	5:E:212:LEU:HD22	1.80	0.62
6:F:185:ASN:C	6:F:185:ASN:ND2	2.57	0.62
11:K:192:VAL:C	11:K:194:ASP:H	2.07	0.62
7:U:37:ILE:HA	7:U:163:ALA:HB2	1.81	0.62
7:U:182:HIS:O	7:U:184:GLU:N	2.32	0.62
15:k:1028:TRP:HA	15:k:1032:THR:HB	1.80	0.62
15:l:1072:GLN:CD	15:m:1051:ARG:HH12	2.08	0.62
15:l:1202:SER:HB3	15:l:1206:ARG:HH12	1.64	0.62
15:n:1080:ASN:O	15:n:1084:GLN:HG3	1.99	0.62
1:A:63:LEU:HD21	7:G:175:LEU:HD12	1.80	0.62
14:N:43:ILE:O	14:N:51:VAL:HG22	1.99	0.62
1:O:144:VAL:HG12	1:O:154:ILE:HG12	1.81	0.62
3:Q:201:THR:HG22	3:Q:202:ASP:N	2.11	0.62
12:Z:106:ARG:HH11	12:Z:106:ARG:HG3	1.63	0.62
15:n:1156:GLU:OE1	15:o:1177:PRO:HD2	1.99	0.62
2:B:94:HIS:CB	2:B:99:ARG:HH21	2.13	0.62
2:B:244:ASN:HA	2:B:247:LEU:CD1	2.29	0.62
4:D:49:ARG:NH1	15:d:1231:SER:HB3	2.14	0.62
6:F:206:LEU:HD23	6:F:206:LEU:N	2.10	0.62
11:K:175:ASP:HB2	11:Y:175:ASP:HB2	1.82	0.62
1:O:156:LYS:HE2	1:O:166:TYR:CE2	2.35	0.62
7:U:94:GLU:HG3	7:U:114:ARG:NH1	2.12	0.62
14:b:9:THR:OG1	14:b:10:SER:N	2.30	0.62
14:b:44:PRO:HA	14:b:50:VAL:HA	1.80	0.62
7:G:31:GLU:HB2	7:G:168:ARG:NH2	2.14	0.62
1:O:128:TYR:HD1	1:O:133:TYR:HH	1.46	0.62
14:b:48:ASN:HD22	14:b:48:ASN:H	1.47	0.62
15:k:1205:VAL:O	15:k:1209:ILE:HG13	1.99	0.62
7:G:192:VAL:O	7:G:195:ALA:HB3	1.99	0.62
2:P:145:PHE:HE1	2:P:214:ILE:HG22	1.65	0.62
4:R:29:ARG:CZ	15:k:1230:VAL:HG21	2.30	0.62
15:c:1062:LYS:N	15:d:1177:PRO:HG3	2.15	0.62
15:e:1028:TRP:HA	15:e:1032:THR:HB	1.81	0.62
2:B:197:LYS:HA	2:B:204:PHE:CZ	2.34	0.62
7:G:182:HIS:N	7:G:183:PRO:HD2	2.15	0.62
9:I:147:THR:HG23	9:I:150:GLU:OE1	1.99	0.62
13:M:3:ASN:ND2	13:M:5:TYR:H	1.97	0.62
14:N:48:ASN:HD22	14:N:48:ASN:H	1.48	0.62
1:O:242:GLU:OE1	1:O:245:LEU:HD23	1.99	0.62
5:S:76:CYS:HB2	5:S:143:LEU:O	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:V:67:THR:HG22	8:V:73:PRO:CD	2.28	0.62
7:G:36:SER:O	7:G:163:ALA:HB1	1.99	0.62
10:J:84:GLU:H	10:J:84:GLU:CD	2.07	0.62
13:M:13:LEU:O	13:M:23:LEU:HD23	1.99	0.62
14:b:27:LEU:HD12	14:b:28:GLY:N	2.15	0.62
15:d:1028:TRP:HA	15:d:1032:THR:HB	1.80	0.62
15:f:1028:TRP:HA	15:f:1032:THR:HB	1.81	0.62
1:A:92:ASN:ND2	1:A:137:LEU:HD11	2.14	0.62
1:A:188:LYS:O	1:A:190:LYS:HG2	1.98	0.62
13:a:151:ASP:O	13:a:157:LYS:HG3	1.99	0.62
14:b:182:ARG:HA	14:b:214:VAL:HG11	1.81	0.62
15:o:1202:SER:HB3	15:o:1206:ARG:HH12	1.65	0.62
2:B:108:LYS:HD3	2:B:143:ASN:ND2	2.15	0.61
5:E:10:ARG:HG2	5:E:10:ARG:HH11	1.64	0.61
5:E:31:ILE:HD13	5:E:141:ALA:HB2	1.81	0.61
10:J:141:ALA:HB2	10:J:177:ASP:HB2	1.81	0.61
1:O:53:VAL:CG1	1:O:144:VAL:HG11	2.30	0.61
1:O:185:HIS:HA	1:O:188:LYS:HZ1	1.64	0.61
1:O:201:LYS:HD3	1:O:204:GLU:OE1	1.99	0.61
1:O:202:VAL:O	1:O:205:PHE:HB3	2.00	0.61
6:T:185:ASN:C	6:T:185:ASN:ND2	2.56	0.61
1:A:75:ILE:HD11	1:A:81:MET:HB3	1.81	0.61
2:B:123:GLN:O	2:B:124:SER:HB2	2.00	0.61
5:E:184:LEU:HD22	6:F:56:LEU:CD2	2.30	0.61
2:P:28:VAL:C	2:P:30:GLN:H	2.07	0.61
5:S:136:ARG:HB2	5:S:137:PRO:CD	2.30	0.61
6:T:42:THR:HG22	6:T:218:LYS:NZ	2.15	0.61
15:j:1062:LYS:N	15:k:1177:PRO:HG3	2.15	0.61
15:l:1146:ARG:HB2	15:m:1189:ASP:OD2	2.00	0.61
15:m:1028:TRP:HA	15:m:1032:THR:HB	1.81	0.61
2:B:176:GLU:HA	3:C:56:LEU:HD11	1.82	0.61
5:E:33:LEU:HD22	15:e:1227:ASP:OD2	1.99	0.61
10:J:177:ASP:OD2	10:J:180:SER:HB2	2.00	0.61
5:S:184:LEU:HD22	6:T:56:LEU:CD2	2.31	0.61
5:S:194:LYS:O	5:S:198:LEU:HD13	2.00	0.61
6:T:26:LEU:HA	6:T:29:ILE:HD13	1.82	0.61
6:T:227:GLY:O	6:T:229:ALA:N	2.33	0.61
10:X:65:MET:HE1	10:X:102:TYR:OH	2.00	0.61
14:b:185:TYR:CE1	14:b:193:ARG:HB2	2.35	0.61
15:e:1072:GLN:CD	15:f:1051:ARG:HH12	2.07	0.61
1:A:201:LYS:HD3	1:A:204:GLU:OE1	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:182:HIS:O	7:G:184:GLU:N	2.33	0.61
12:L:176:ASN:HD21	12:L:190:ASN:HB2	1.65	0.61
13:M:195:HIS:HD2	13:M:197:GLN:H	1.47	0.61
14:N:226:LYS:NZ	14:N:226:LYS:HB3	2.15	0.61
1:O:43:LEU:HD12	1:O:43:LEU:O	2.00	0.61
1:O:63:LEU:HD21	7:U:175:LEU:HD12	1.80	0.61
7:U:182:HIS:N	7:U:183:PRO:HD2	2.15	0.61
3:C:4:ARG:HH21	4:D:6:ARG:HG2	1.64	0.61
5:E:76:CYS:HB2	5:E:143:LEU:O	2.01	0.61
5:E:136:ARG:HB2	5:E:137:PRO:CD	2.31	0.61
11:K:140:THR:HG22	11:K:164:CYS:HB3	1.83	0.61
13:M:159:GLN:HG2	9:W:209:THR:CG2	2.31	0.61
3:Q:4:ARG:HH21	4:R:6:ARG:HG2	1.65	0.61
4:R:51:THR:HB	4:R:52:LEU:HD22	1.82	0.61
8:V:3:ILE:HG22	8:V:16:ALA:HB1	1.82	0.61
14:b:27:LEU:HD12	14:b:28:GLY:H	1.66	0.61
15:l:1205:VAL:O	15:l:1209:ILE:HG13	2.00	0.61
1:A:38:THR:HB	15:h:1231:SER:C	2.26	0.61
5:E:33:LEU:HB2	15:e:1230:VAL:HG11	1.81	0.61
8:H:111:TYR:HE2	8:H:121:LYS:HD2	1.65	0.61
1:O:77:ARG:O	1:O:77:ARG:HG2	2.01	0.61
8:V:6:VAL:O	8:V:12:VAL:HG23	2.00	0.61
8:V:97:ILE:HD12	8:V:98:ILE:N	2.15	0.61
15:g:1072:GLN:CD	15:h:1051:ARG:HH12	2.08	0.61
15:h:1202:SER:HB3	15:h:1206:ARG:HH12	1.65	0.61
1:A:28:VAL:HG11	15:i:1229:MET:HE3	1.81	0.61
8:H:1:THR:H2	8:H:129:SER:H	1.49	0.61
12:L:208:ASN:O	12:L:210:VAL:N	2.34	0.61
12:L:25:TRP:CZ3	13:M:144:SER:HA	2.36	0.61
1:O:75:ILE:HD11	1:O:81:MET:HB3	1.83	0.61
11:Y:28:LEU:HD12	11:Y:28:LEU:N	2.15	0.61
4:D:51:THR:HB	4:D:52:LEU:HD22	1.81	0.61
8:H:67:THR:CG2	8:H:73:PRO:HD3	2.31	0.61
9:I:66:HIS:O	9:I:70:THR:HG23	2.01	0.61
11:K:40:PRO:HG2	11:K:74:GLU:OE1	2.01	0.61
3:Q:4:ARG:HH12	4:R:3:GLY:HA3	1.65	0.61
12:Z:176:ASN:HD21	12:Z:190:ASN:HB2	1.66	0.61
15:k:1080:ASN:O	15:k:1084:GLN:HG3	2.01	0.61
7:G:33:GLY:HA2	15:g:1230:VAL:HG12	1.83	0.61
11:K:28:LEU:HD12	11:K:28:LEU:N	2.15	0.61
12:L:1:THR:CA	12:L:33:ARG:HH21	2.14	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S:31:ILE:HD13	5:S:141:ALA:HB2	1.81	0.61
14:b:43:ILE:O	14:b:51:VAL:HG22	2.00	0.61
15:h:1080:ASN:O	15:h:1084:GLN:HG3	2.01	0.61
2:P:246:ARG:HH11	2:P:246:ARG:HG3	1.65	0.60
6:T:156:LEU:HD13	6:T:159:THR:HB	1.83	0.60
14:b:226:LYS:HB3	14:b:226:LYS:NZ	2.16	0.60
15:e:1202:SER:HB3	15:e:1206:ARG:HH12	1.64	0.60
15:e:1205:VAL:O	15:e:1209:ILE:HG13	2.00	0.60
15:m:1066:GLN:CA	15:m:1066:GLN:CG	2.76	0.60
15:n:1072:GLN:CD	15:o:1051:ARG:HH12	2.08	0.60
6:F:128:TYR:O	6:F:149:PRO:HB3	2.00	0.60
5:S:18:GLU:OE1	15:m:1100:LYS:NZ	2.31	0.60
15:e:1146:ARG:HB2	15:f:1189:ASP:OD2	2.00	0.60
15:n:1202:SER:HB3	15:n:1206:ARG:HH12	1.66	0.60
6:F:26:LEU:HA	6:F:29:ILE:HD13	1.83	0.60
13:M:13:LEU:HD12	13:M:14:GLY:N	2.16	0.60
1:O:234:PHE:HD1	1:O:234:PHE:H	1.47	0.60
3:Q:11:THR:O	3:Q:11:THR:HG22	2.00	0.60
4:R:131:VAL:O	4:R:152:PRO:HG3	2.00	0.60
7:U:140:VAL:HG22	7:U:145:ALA:HB2	1.83	0.60
13:a:27:THR:HG21	13:a:39:TYR:CD1	2.37	0.60
15:m:1080:ASN:O	15:m:1084:GLN:HG3	2.01	0.60
4:D:131:VAL:O	4:D:152:PRO:HG3	2.01	0.60
8:H:32:ASP:CB	14:b:227:GLY:H	2.15	0.60
11:K:161:LEU:HD23	11:K:161:LEU:C	2.27	0.60
8:V:159:LEU:O	8:V:163:ILE:HG12	2.00	0.60
12:Z:1:THR:CA	12:Z:33:ARG:HH21	2.12	0.60
1:A:94:ALA:O	1:A:98:LYS:HB2	2.01	0.60
2:B:246:ARG:HH11	2:B:246:ARG:HG3	1.66	0.60
5:E:121:LEU:O	5:E:121:LEU:HD23	2.02	0.60
7:G:37:ILE:HA	7:G:163:ALA:HB2	1.83	0.60
7:G:58:LEU:O	7:G:59:VAL:C	2.43	0.60
8:H:31:THR:HG22	8:H:33:LYS:HG2	1.82	0.60
8:H:32:ASP:OD1	14:b:227:GLY:N	2.34	0.60
8:H:107:LYS:CD	8:H:108:GLY:H	2.10	0.60
1:O:18:ILE:HD12	1:O:18:ILE:N	2.16	0.60
2:P:153:SER:HB3	15:j:1229:MET:HG2	1.84	0.60
3:Q:149:TYR:OH	4:R:59:ILE:HG13	2.00	0.60
7:U:240:ASP:C	7:U:242:ALA:N	2.59	0.60
9:W:21:THR:O	9:W:22:GLN:HB2	2.01	0.60
12:Z:78:ALA:O	12:Z:82:ILE:HG13	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:b:1:THR:HG22	14:b:2:GLN:H	1.66	0.60
15:o:1205:VAL:O	15:o:1209:ILE:HG13	2.01	0.60
11:Y:161:LEU:HD23	11:Y:161:LEU:C	2.26	0.60
11:Y:172:MET:HE3	11:Y:174:MET:HB2	1.82	0.60
15:h:1205:VAL:O	15:h:1209:ILE:HG13	2.01	0.60
1:A:146:VAL:HA	1:A:151:GLY:O	2.02	0.60
2:B:211:LEU:HD12	2:B:212:ALA:H	1.63	0.60
6:F:171:TYR:CD2	6:F:171:TYR:C	2.80	0.60
11:K:3:ILE:HB	11:K:18:SER:HB3	1.82	0.60
1:O:37:GLN:C	15:o:1230:VAL:CG1	2.75	0.60
3:Q:44:ILE:HG21	3:Q:138:ALA:HB1	1.84	0.60
8:V:111:TYR:HE2	8:V:121:LYS:HD2	1.67	0.60
9:W:6:VAL:HG12	9:W:124:TYR:CB	2.31	0.60
15:f:1080:ASN:O	15:f:1084:GLN:HG3	2.01	0.60
15:j:1226:SER:HB2	15:j:1228:HIS:NE2	2.17	0.60
1:A:38:THR:HA	15:h:1231:SER:CA	2.32	0.60
6:F:37:GLY:HA2	6:F:45:VAL:O	2.02	0.60
6:T:171:TYR:C	6:T:171:TYR:CD2	2.79	0.60
7:U:90:ARG:HD3	7:U:118:TYR:HE1	1.66	0.60
9:W:131:SER:O	9:W:135:MET:HB2	2.02	0.60
1:A:234:PHE:HD1	1:A:234:PHE:H	1.48	0.60
1:O:146:VAL:HA	1:O:151:GLY:O	2.01	0.60
6:T:150:SER:O	7:U:82:PRO:HG2	2.02	0.60
13:a:3:ASN:ND2	13:a:3:ASN:C	2.59	0.60
14:b:194:ASN:HB2	14:b:212:LEU:O	2.01	0.60
15:c:1226:SER:HB2	15:c:1228:HIS:NE2	2.17	0.60
15:d:1080:ASN:O	15:d:1084:GLN:HG3	2.01	0.60
1:A:128:TYR:HA	1:A:133:TYR:CE1	2.37	0.60
1:A:220:LYS:HB3	1:A:242:GLU:HB2	1.84	0.60
9:I:3:ILE:HG12	9:I:127:LEU:O	2.02	0.60
10:J:120:ILE:HG13	10:J:120:ILE:O	2.00	0.60
1:O:98:LYS:HD3	8:V:68:SER:O	2.01	0.60
7:U:30:VAL:HG11	7:U:134:SER:OG	2.01	0.60
3:C:70:ASN:HD22	3:C:71:ASP:H	1.47	0.59
3:C:238:ILE:O	3:C:242:THR:HG23	2.02	0.59
10:J:14:MET:HE1	10:J:166:ILE:HA	1.82	0.59
1:O:71:TYR:CE2	15:o:1231:SER:O	2.55	0.59
7:U:85:ARG:HG2	7:U:85:ARG:HH11	1.66	0.59
12:Z:208:ASN:O	12:Z:210:VAL:N	2.34	0.59
15:o:1080:ASN:O	15:o:1084:GLN:HG3	2.01	0.59
1:A:52:VAL:HG13	1:A:227:VAL:HG22	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:71:ILE:HG12	2:B:138:GLY:HA3	1.84	0.59
3:C:40:ALA:HB3	3:C:43:GLY:O	2.02	0.59
5:E:78:MET:CE	5:E:82:THR:HG22	2.31	0.59
7:G:70:ASP:OD1	7:G:71:ARG:HG2	2.02	0.59
5:S:78:MET:CE	5:S:82:THR:HG22	2.32	0.59
9:W:3:ILE:HG12	9:W:127:LEU:O	2.02	0.59
8:H:6:VAL:O	8:H:12:VAL:HG23	2.03	0.59
1:O:220:LYS:HB2	1:O:220:LYS:HZ3	1.67	0.59
7:U:58:LEU:O	7:U:59:VAL:C	2.44	0.59
9:W:41:ILE:HD11	9:W:74:PRO:HB2	1.84	0.59
12:Z:35:ILE:HD11	12:Z:45:MET:HE3	1.83	0.59
14:b:11:VAL:HG22	14:b:24:ALA:HB2	1.84	0.59
1:A:53:VAL:O	1:A:225:VAL:HG13	2.02	0.59
8:H:190:PRO:C	8:H:192:GLU:N	2.58	0.59
6:T:152:ASN:HD21	15:n:1229:MET:HA	1.67	0.59
14:b:130:VAL:HG13	14:b:130:VAL:O	2.01	0.59
15:g:1202:SER:HB3	15:g:1206:ARG:HH12	1.66	0.59
2:B:91:LYS:C	2:B:93:ALA:N	2.60	0.59
6:F:156:LEU:HD13	6:F:159:THR:HB	1.83	0.59
10:J:17:LYS:HG2	10:J:156:ASN:HD22	1.67	0.59
4:R:28:LYS:O	4:R:166:ARG:HB3	2.02	0.59
7:U:70:ASP:OD1	7:U:71:ARG:HG2	2.03	0.59
10:X:191:LYS:H	10:X:191:LYS:CD	2.12	0.59
4:D:103:PRO:HG2	4:D:140:PRO:CG	2.32	0.59
5:E:98:THR:CG2	5:E:102:TYR:HE1	2.15	0.59
10:J:107:VAL:HG22	10:J:136:ILE:HG21	1.84	0.59
1:O:43:LEU:HD12	1:O:43:LEU:C	2.28	0.59
6:T:158:GLY:O	6:T:159:THR:HB	2.03	0.59
9:W:7:LYS:HB3	9:W:12:VAL:HG23	1.85	0.59
2:B:145:PHE:HE1	2:B:214:ILE:HG22	1.68	0.59
6:F:16:THR:HG23	15:g:1102:GLU:OE2	2.02	0.59
10:J:23:ALA:CB	10:J:186:VAL:HG22	2.33	0.59
10:X:14:MET:HE1	10:X:166:ILE:HA	1.85	0.59
2:B:157:PHE:N	2:B:157:PHE:HD2	2.00	0.59
2:B:203:GLU:N	2:B:203:GLU:CD	2.61	0.59
13:M:3:ASN:ND2	13:M:3:ASN:C	2.58	0.59
14:N:130:VAL:HG13	14:N:130:VAL:O	2.02	0.59
1:O:128:TYR:HD1	1:O:133:TYR:OH	1.85	0.59
1:O:220:LYS:HB3	1:O:242:GLU:HB2	1.85	0.59
2:P:110:LEU:O	2:P:114:VAL:HG23	2.03	0.59
2:P:203:GLU:CD	2:P:203:GLU:N	2.61	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:211:LEU:HD12	2:P:212:ALA:H	1.67	0.59
15:i:1226:SER:HB2	15:i:1228:HIS:NE2	2.18	0.59
3:C:64:GLU:HG3	3:C:65:LYS:HG3	1.85	0.59
5:E:233:ASN:N	5:E:233:ASN:ND2	2.51	0.59
11:K:14:ILE:O	11:K:15:LEU:HD23	2.02	0.59
2:P:176:GLU:HA	3:Q:56:LEU:HD11	1.85	0.59
13:a:195:HIS:HD2	13:a:197:GLN:H	1.50	0.59
15:c:1202:SER:HB3	15:c:1206:ARG:HH12	1.68	0.59
3:C:11:THR:O	3:C:11:THR:HG22	2.03	0.59
6:F:42:THR:HG22	6:F:218:LYS:NZ	2.17	0.59
8:H:3:ILE:HG22	8:H:16:ALA:CB	2.33	0.59
9:I:103:VAL:HG12	9:I:108:SER:HA	1.85	0.59
15:d:1202:SER:HB3	15:d:1206:ARG:HH12	1.68	0.59
15:j:1202:SER:HB3	15:j:1206:ARG:HH12	1.68	0.59
1:A:81:MET:HE1	1:A:94:ALA:HA	1.85	0.58
1:A:86:PRO:HB3	15:h:1229:MET:O	2.03	0.58
3:C:39:MET:CE	3:C:146:TYR:HB2	2.31	0.58
8:H:149:GLU:HG3	8:H:150:GLU:N	2.17	0.58
8:H:165:TRP:O	14:b:34:LEU:HD22	2.03	0.58
11:K:172:MET:HE3	11:K:174:MET:HB2	1.85	0.58
13:M:30:ILE:C	13:M:30:ILE:HD12	2.28	0.58
5:S:121:LEU:O	5:S:121:LEU:HD23	2.03	0.58
10:X:129:ILE:CG2	10:X:130:ASP:N	2.65	0.58
13:a:27:THR:HB	13:a:39:TYR:HA	1.85	0.58
13:a:124:SER:CB	13:a:137:ARG:HD2	2.33	0.58
14:b:152:ASN:HD22	14:b:156:ARG:CZ	2.16	0.58
1:A:202:VAL:O	1:A:205:PHE:HB3	2.03	0.58
2:B:241:GLN:NE2	2:B:245:ASP:OD1	2.36	0.58
7:G:223:THR:HB	7:G:226:LEU:O	2.03	0.58
8:H:59:VAL:HG11	8:H:82:PHE:CE2	2.38	0.58
8:H:159:LEU:O	8:H:163:ILE:HG12	2.02	0.58
1:O:45:VAL:HG12	1:O:168:ALA:HB1	1.84	0.58
3:Q:169:THR:O	3:Q:173:GLN:HB2	2.03	0.58
13:a:13:LEU:HD12	13:a:14:GLY:N	2.18	0.58
15:g:1205:VAL:O	15:g:1209:ILE:HG13	2.03	0.58
15:i:1202:SER:HB3	15:i:1206:ARG:NH1	2.18	0.58
15:p:1205:VAL:O	15:p:1209:ILE:HG13	2.03	0.58
1:A:201:LYS:HA	1:A:204:GLU:OE1	2.03	0.58
10:J:129:ILE:CG2	10:J:130:ASP:N	2.65	0.58
1:O:251:GLN:O	1:O:251:GLN:HG2	2.03	0.58
3:Q:64:GLU:HG3	3:Q:65:LYS:HG3	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:238:ILE:O	3:Q:242:THR:HG23	2.03	0.58
10:X:129:ILE:HG22	10:X:130:ASP:H	1.67	0.58
13:a:206:ILE:HD12	13:a:206:ILE:N	2.18	0.58
3:C:210:ARG:HH11	3:C:210:ARG:HG3	1.68	0.58
7:G:197:LYS:HZ2	7:G:201:LEU:HD21	1.67	0.58
1:O:117:LEU:O	1:O:117:LEU:HD12	2.03	0.58
2:P:157:PHE:N	2:P:157:PHE:HD2	2.01	0.58
3:Q:40:ALA:HB3	3:Q:43:GLY:O	2.03	0.58
3:Q:154:SER:HB2	15:k:1229:MET:HG2	1.85	0.58
10:X:191:LYS:HD2	10:X:191:LYS:N	2.18	0.58
11:Y:21:VAL:HG11	12:Z:122:LEU:HD11	1.84	0.58
14:b:16:TYR:HB2	14:b:168:THR:O	2.04	0.58
15:m:1145:LEU:HD23	15:n:1185:GLN:CD	2.28	0.58
1:A:128:TYR:HD1	1:A:133:TYR:OH	1.86	0.58
1:A:242:GLU:OE1	1:A:245:LEU:HD23	2.03	0.58
7:G:94:GLU:HG3	7:G:114:ARG:NH1	2.16	0.58
14:N:165:ILE:H	14:N:165:ILE:HD12	1.67	0.58
1:O:81:MET:HE1	1:O:94:ALA:HA	1.84	0.58
3:Q:186:VAL:O	3:Q:190:ILE:HG13	2.03	0.58
5:S:10:ARG:HG2	5:S:10:ARG:NH1	2.19	0.58
8:V:4:MET:HB2	8:V:126:ILE:HG22	1.84	0.58
8:V:31:THR:HG22	8:V:33:LYS:HG2	1.86	0.58
9:W:147:THR:HG23	9:W:150:GLU:OE1	2.04	0.58
10:X:177:ASP:OD2	10:X:180:SER:HB2	2.03	0.58
13:a:49:ASN:HD21	13:a:211:GLY:HA2	1.69	0.58
5:E:194:LYS:O	5:E:198:LEU:HD13	2.03	0.58
9:I:131:SER:O	9:I:135:MET:HB2	2.02	0.58
12:L:78:ALA:O	12:L:82:ILE:HG13	2.03	0.58
13:M:206:ILE:N	13:M:206:ILE:HD12	2.18	0.58
14:N:51:VAL:HG23	14:N:51:VAL:O	2.03	0.58
5:S:170:LYS:HD2	5:S:180:GLN:OE1	2.03	0.58
9:W:59:ILE:CG1	9:W:83:LEU:HD23	2.25	0.58
15:f:1205:VAL:O	15:f:1209:ILE:HG13	2.04	0.58
2:B:85:LEU:HD23	2:B:85:LEU:O	2.04	0.58
5:E:167:TYR:CD1	5:E:170:LYS:HB2	2.37	0.58
10:J:143:ASP:HB3	13:a:145:LEU:HD11	1.84	0.58
3:Q:194:LEU:C	3:Q:196:THR:H	2.12	0.58
5:S:98:THR:CG2	5:S:102:TYR:HE1	2.16	0.58
5:S:130:GLU:HG2	5:S:131:GLU:N	2.18	0.58
5:S:199:LEU:HD12	5:S:199:LEU:O	2.03	0.58
7:U:223:THR:HB	7:U:226:LEU:O	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:a:30:ILE:C	13:a:30:ILE:HD12	2.29	0.58
1:A:199:TRP:O	1:A:202:VAL:N	2.37	0.58
5:E:130:GLU:HG2	5:E:131:GLU:N	2.18	0.58
13:M:27:THR:HB	13:M:39:TYR:HA	1.86	0.58
14:N:152:ASN:HD22	14:N:156:ARG:CZ	2.16	0.58
1:O:178:ILE:HD13	1:O:210:MET:HE2	1.86	0.58
2:P:218:ASN:C	2:P:220:ASP:H	2.11	0.58
3:Q:133:VAL:HG12	3:Q:134:SER:N	2.19	0.58
6:T:181:LYS:HG2	6:T:181:LYS:O	2.03	0.58
3:C:194:LEU:C	3:C:196:THR:H	2.12	0.58
3:C:208:TYR:C	3:C:210:ARG:H	2.11	0.58
12:L:1:THR:HG23	12:L:33:ARG:HE	1.69	0.58
5:S:167:TYR:CD1	5:S:170:LYS:HB2	2.39	0.58
6:T:37:GLY:HA2	6:T:45:VAL:O	2.03	0.58
7:U:116:GLY:O	7:U:120:GLN:HB2	2.04	0.58
7:U:194:GLN:NE2	7:U:197:LYS:HD3	2.19	0.58
8:V:190:PRO:C	8:V:192:GLU:N	2.62	0.58
15:f:1145:LEU:HD23	15:g:1185:GLN:CD	2.28	0.58
15:g:1072:GLN:NE2	15:h:1051:ARG:HH22	2.02	0.58
15:i:1205:VAL:O	15:i:1209:ILE:HG13	2.03	0.58
15:m:1066:GLN:CB	15:m:1066:GLN:C	2.70	0.58
15:n:1205:VAL:O	15:n:1209:ILE:HG13	2.03	0.58
1:A:144:VAL:HG12	1:A:154:ILE:HG12	1.85	0.58
9:I:81:GLN:OE1	9:I:81:GLN:HA	2.03	0.58
13:M:27:THR:HG21	13:M:39:TYR:CD1	2.39	0.58
1:O:199:TRP:O	1:O:200:GLU:C	2.47	0.58
2:P:182:GLU:O	2:P:183:LEU:C	2.47	0.58
8:V:67:THR:CG2	8:V:73:PRO:HD3	2.33	0.58
14:b:43:ILE:HB	14:b:51:VAL:CG2	2.34	0.58
15:k:1202:SER:HB3	15:k:1206:ARG:HH12	1.68	0.58
2:B:182:GLU:O	2:B:183:LEU:C	2.45	0.57
12:L:35:ILE:HD11	12:L:45:MET:HE3	1.84	0.57
12:L:208:ASN:C	12:L:210:VAL:H	2.12	0.57
13:M:49:ASN:HD21	13:M:211:GLY:HA2	1.69	0.57
6:F:147:PHE:HB2	6:F:153:VAL:HG22	1.85	0.57
8:H:112:THR:O	8:H:114:PRO:HD3	2.04	0.57
9:I:165:ASN:ND2	14:b:153:PRO:HA	2.18	0.57
13:M:124:SER:CB	13:M:137:ARG:HD2	2.34	0.57
2:P:212:ALA:CB	2:P:237:LYS:HA	2.34	0.57
6:T:147:PHE:HB2	6:T:153:VAL:HG22	1.85	0.57
10:X:192:ASP:O	10:X:193:GLU:O	2.22	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:j:1080:ASN:O	15:j:1084:GLN:HG3	2.04	0.57
15:n:1072:GLN:NE2	15:o:1051:ARG:HH22	2.02	0.57
15:p:1202:SER:HB3	15:p:1206:ARG:NH1	2.18	0.57
1:A:37:GLN:HB2	15:h:1230:VAL:HG21	1.85	0.57
5:E:10:ARG:HG2	5:E:10:ARG:NH1	2.20	0.57
5:E:170:LYS:HD2	5:E:180:GLN:OE1	2.04	0.57
9:I:41:ILE:HD11	9:I:74:PRO:HB2	1.86	0.57
10:J:129:ILE:HG22	10:J:130:ASP:H	1.68	0.57
8:V:112:THR:O	8:V:114:PRO:HD3	2.04	0.57
9:W:103:VAL:HG12	9:W:108:SER:HA	1.87	0.57
15:m:1205:VAL:O	15:m:1209:ILE:HG13	2.04	0.57
15:p:1226:SER:HB2	15:p:1228:HIS:NE2	2.18	0.57
1:A:50:CYS:HA	1:A:228:ALA:O	2.04	0.57
6:F:137:TYR:CE1	6:F:141:GLY:HA2	2.40	0.57
6:F:152:ASN:HD21	15:g:1229:MET:HA	1.69	0.57
7:G:194:GLN:HA	7:G:194:GLN:NE2	2.19	0.57
12:L:211:ILE:H	12:L:211:ILE:CD1	2.12	0.57
7:U:69:VAL:HG11	7:U:111:PHE:HE1	1.69	0.57
10:X:23:ALA:CB	10:X:186:VAL:HG22	2.34	0.57
1:A:234:PHE:N	1:A:234:PHE:CD1	2.73	0.57
4:D:240:LYS:HB3	4:D:241:GLN:NE2	2.20	0.57
6:F:150:SER:O	7:G:82:PRO:HG2	2.04	0.57
2:P:38:LYS:HG3	2:P:43:VAL:HG22	1.86	0.57
4:R:224:LEU:HD23	4:R:229:ILE:HG12	1.87	0.57
6:T:137:TYR:CE1	6:T:141:GLY:HA2	2.38	0.57
10:X:1:SER:O	10:X:2:ASP:C	2.48	0.57
12:Z:208:ASN:C	12:Z:210:VAL:H	2.11	0.57
1:A:52:VAL:HG22	1:A:227:VAL:HG22	1.85	0.57
1:A:125:SER:HA	1:A:128:TYR:HB2	1.86	0.57
2:B:212:ALA:CB	2:B:237:LYS:HA	2.35	0.57
3:C:201:THR:HG22	3:C:202:ASP:N	2.12	0.57
8:H:4:MET:HB2	8:H:126:ILE:HG22	1.84	0.57
14:N:1:THR:HG22	14:N:2:GLN:H	1.67	0.57
8:V:112:THR:O	8:V:112:THR:HG23	2.05	0.57
10:X:17:LYS:HG2	10:X:156:ASN:HD22	1.69	0.57
10:X:108:VAL:HG12	10:X:109:ALA:N	2.18	0.57
10:X:120:ILE:HG13	10:X:120:ILE:O	2.05	0.57
11:Y:35:THR:HG22	11:Y:36:ARG:H	1.67	0.57
15:c:1080:ASN:O	15:c:1084:GLN:HG3	2.04	0.57
15:j:1156:GLU:OE2	15:k:1178:SER:OG	2.20	0.57
1:A:244:ARG:N	1:A:244:ARG:HD2	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:48:GLU:CG	2:B:49:LYS:N	2.67	0.57
2:B:218:ASN:CB	2:B:221:LEU:HD12	2.35	0.57
4:D:28:LYS:O	4:D:166:ARG:HB3	2.04	0.57
5:E:34:GLY:HA2	15:e:1230:VAL:HG12	1.85	0.57
6:F:75:ALA:O	6:F:130:VAL:HG23	2.03	0.57
7:G:69:VAL:HG11	7:G:111:PHE:HE1	1.69	0.57
9:I:153:LYS:HD2	9:I:153:LYS:O	2.05	0.57
1:O:201:LYS:HA	1:O:204:GLU:OE1	2.04	0.57
5:S:233:ASN:N	5:S:233:ASN:ND2	2.51	0.57
12:Z:211:ILE:H	12:Z:211:ILE:CD1	2.11	0.57
3:C:169:THR:O	3:C:173:GLN:HB2	2.04	0.57
1:O:87:ILE:N	1:O:88:PRO:HD2	2.20	0.57
1:O:225:VAL:HB	1:O:236:LEU:HD12	1.86	0.57
1:O:234:PHE:HD1	1:O:234:PHE:N	2.02	0.57
3:Q:198:SER:HA	3:Q:206:LEU:HD22	1.86	0.57
5:S:97:VAL:HG11	12:Z:65:LEU:CD2	2.35	0.57
15:g:1226:SER:HB2	15:g:1228:HIS:NE2	2.20	0.57
2:B:38:LYS:HG3	2:B:43:VAL:HG22	1.87	0.57
5:E:42:THR:C	5:E:44:GLU:H	2.12	0.57
5:E:245:GLU:N	5:E:245:GLU:OE2	2.38	0.57
9:I:87:LEU:HA	9:I:94:ILE:HD11	1.87	0.57
1:A:38:THR:HA	15:h:1231:SER:HA	1.87	0.57
1:A:116:VAL:O	1:A:119:LYS:N	2.37	0.57
1:A:199:TRP:O	1:A:200:GLU:C	2.47	0.57
1:A:225:VAL:HB	1:A:236:LEU:HD12	1.86	0.57
1:A:234:PHE:HD1	1:A:234:PHE:N	2.02	0.57
3:C:133:VAL:HG12	3:C:134:SER:N	2.20	0.57
7:G:85:ARG:HG2	7:G:85:ARG:HH11	1.70	0.57
7:G:90:ARG:HD3	7:G:118:TYR:HE1	1.69	0.57
7:G:194:GLN:NE2	7:G:197:LYS:HD3	2.20	0.57
14:N:16:TYR:CE2	14:N:170:VAL:HG22	2.40	0.57
2:P:94:HIS:CD2	9:W:61:SER:HB2	2.31	0.57
3:C:70:ASN:ND2	3:C:71:ASP:N	2.49	0.56
4:D:73:LEU:HD12	4:D:135:ILE:HG13	1.86	0.56
6:F:62:LYS:O	6:F:73:SER:HA	2.05	0.56
7:G:240:ASP:C	7:G:242:ALA:N	2.59	0.56
14:N:43:ILE:HB	14:N:51:VAL:CG2	2.35	0.56
1:O:52:VAL:HG13	1:O:227:VAL:HG22	1.86	0.56
5:S:126:GLY:O	5:S:127:ALA:HB3	2.05	0.56
7:U:178:LEU:O	7:U:182:HIS:HB2	2.05	0.56
8:V:3:ILE:HG12	8:V:127:ALA:O	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:Y:35:THR:CG2	11:Y:43:LEU:HD11	2.34	0.56
15:e:1072:GLN:NE2	15:f:1051:ARG:HH22	2.03	0.56
1:A:115:ASP:HB3	1:A:155:TYR:CE1	2.40	0.56
1:A:117:LEU:O	1:A:117:LEU:HD12	2.06	0.56
1:A:178:ILE:HD13	1:A:210:MET:HE2	1.87	0.56
9:I:165:ASN:HD21	14:b:156:ARG:HD2	1.70	0.56
10:J:1:SER:O	10:J:2:ASP:C	2.48	0.56
11:K:128:LEU:HB3	11:K:129:PRO:HD2	1.86	0.56
2:P:134:LEU:HD23	2:P:134:LEU:N	2.20	0.56
4:R:103:PRO:HG2	4:R:140:PRO:CG	2.34	0.56
6:T:62:LYS:O	6:T:73:SER:HA	2.05	0.56
8:V:21:THR:HG21	8:V:168:SER:HA	1.87	0.56
10:X:119:PHE:CD2	10:X:120:ILE:N	2.73	0.56
11:Y:128:LEU:HB3	11:Y:129:PRO:HD2	1.87	0.56
2:B:214:ILE:HD13	2:B:235:PHE:HA	1.87	0.56
7:G:77:TYR:HB3	7:G:135:THR:HG23	1.87	0.56
7:G:203:HIS:CE1	7:G:206:ASN:HB2	2.40	0.56
8:H:84:GLU:OE1	8:H:84:GLU:HA	2.03	0.56
9:I:63:ILE:HG13	9:I:82:MET:CE	2.35	0.56
10:J:14:MET:CE	10:J:166:ILE:HA	2.34	0.56
14:N:89:PRO:HD2	14:N:120:GLN:OE1	2.05	0.56
2:P:90:ARG:HH11	9:W:68:LEU:HB3	1.70	0.56
7:U:31:GLU:HB2	7:U:168:ARG:HH22	1.71	0.56
8:V:1:THR:H2	8:V:129:SER:H	1.52	0.56
8:V:1:THR:HG21	8:V:33:LYS:NZ	2.20	0.56
8:V:14:LEU:HD12	8:V:14:LEU:O	2.06	0.56
8:V:59:VAL:HG11	8:V:82:PHE:CE2	2.41	0.56
9:W:63:ILE:HG13	9:W:82:MET:CE	2.35	0.56
9:W:81:GLN:OE1	9:W:81:GLN:HA	2.05	0.56
12:Z:32:LYS:HE2	13:a:132:GLU:OE2	2.06	0.56
15:n:1226:SER:HB2	15:n:1228:HIS:NE2	2.20	0.56
1:A:98:LYS:HD3	8:H:68:SER:O	2.06	0.56
6:F:185:ASN:HD22	6:F:186:PRO:N	2.04	0.56
8:H:32:ASP:OD1	14:b:226:LYS:HA	2.04	0.56
10:J:192:ASP:O	10:J:193:GLU:O	2.24	0.56
11:K:35:THR:CG2	11:K:43:LEU:HD11	2.35	0.56
10:X:107:VAL:HG22	10:X:136:ILE:HG21	1.86	0.56
15:g:1123:LYS:HE3	15:g:1204:MET:CE	2.36	0.56
1:A:14:ARG:HG3	1:A:14:ARG:HH11	1.69	0.56
1:A:45:VAL:HG12	1:A:168:ALA:HB1	1.87	0.56
6:F:163:ALA:O	6:F:164:ARG:HB2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:178:LEU:O	7:G:182:HIS:HB2	2.06	0.56
8:H:1:THR:N	8:H:129:SER:H	2.03	0.56
11:K:75:LEU:HD13	11:K:79:ALA:HB3	1.88	0.56
14:N:16:TYR:HB2	14:N:168:THR:O	2.06	0.56
1:O:125:SER:HA	1:O:128:TYR:HB2	1.87	0.56
5:S:220:SER:HA	5:S:231:TYR:HD1	1.71	0.56
6:T:144:LEU:C	6:T:145:LEU:HD12	2.31	0.56
10:X:14:MET:CE	10:X:166:ILE:HA	2.35	0.56
13:a:195:HIS:CD2	13:a:197:GLN:H	2.24	0.56
8:H:1:THR:HG21	8:H:33:LYS:NZ	2.21	0.56
9:W:87:LEU:HA	9:W:94:ILE:HD11	1.87	0.56
12:Z:1:THR:HG23	12:Z:33:ARG:HE	1.71	0.56
15:c:1156:GLU:OE2	15:d:1178:SER:OG	2.20	0.56
15:e:1226:SER:HB2	15:e:1228:HIS:NE2	2.21	0.56
3:C:120:GLN:NE2	3:C:120:GLN:C	2.64	0.56
9:I:8:PHE:HD2	9:I:9:ASN:H	1.54	0.56
13:M:195:HIS:CD2	13:M:197:GLN:H	2.23	0.56
2:P:241:GLN:NE2	2:P:245:ASP:OD1	2.38	0.56
2:P:243:ILE:O	2:P:245:ASP:N	2.38	0.56
3:Q:100:LYS:HG2	3:Q:100:LYS:O	2.06	0.56
3:Q:242:THR:OG1	3:Q:243:GLY:N	2.39	0.56
10:X:37:ASN:C	10:X:37:ASN:HD22	2.14	0.56
11:Y:71:GLU:O	11:Y:72:ASP:HB3	2.06	0.56
1:A:87:ILE:N	1:A:88:PRO:HD2	2.21	0.56
11:K:28:LEU:HD12	11:K:28:LEU:H	1.69	0.56
14:N:153:PRO:HA	9:W:165:ASN:HD21	1.70	0.56
14:N:187:ARG:HA	8:V:26:ILE:HD12	1.87	0.56
14:N:201:ASP:OD2	14:N:204:THR:HG23	2.05	0.56
1:O:199:TRP:O	1:O:202:VAL:N	2.38	0.56
3:Q:208:TYR:C	3:Q:210:ARG:H	2.13	0.56
3:Q:210:ARG:HG3	3:Q:210:ARG:HH11	1.71	0.56
14:b:128:ARG:HH11	14:b:138:SER:HB2	1.71	0.56
15:l:1226:SER:HB2	15:l:1228:HIS:NE2	2.21	0.56
2:B:218:ASN:C	2:B:220:ASP:H	2.13	0.56
3:C:16:GLU:HB2	15:d:1102:GLU:OE2	2.06	0.56
3:C:198:SER:HA	3:C:206:LEU:HD22	1.88	0.56
14:N:68:LYS:O	14:N:72:THR:HG23	2.06	0.56
15:f:1202:SER:HB3	15:f:1206:ARG:NH1	2.20	0.56
15:i:1080:ASN:O	15:i:1084:GLN:HG3	2.06	0.56
15:n:1123:LYS:HE3	15:n:1204:MET:CE	2.36	0.56
4:D:224:LEU:HD23	4:D:229:ILE:HG12	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:126:GLY:O	5:E:127:ALA:HB3	2.05	0.56
6:F:181:LYS:HG2	6:F:181:LYS:O	2.05	0.56
8:H:21:THR:HG21	8:H:168:SER:HA	1.86	0.56
14:N:27:LEU:CB	14:N:192:SER:HB2	2.36	0.56
14:N:156:ARG:HD2	9:W:165:ASN:HD21	1.70	0.56
1:O:134:MET:CE	7:U:124:LEU:HD22	2.35	0.56
2:P:35:LEU:H	2:P:35:LEU:HD22	1.71	0.56
3:Q:228:LYS:HZ1	3:Q:231:LYS:HE3	1.70	0.56
6:T:11:VAL:HG22	6:T:11:VAL:O	2.06	0.56
14:b:51:VAL:O	14:b:51:VAL:HG23	2.05	0.56
15:m:1089:ARG:HH22	15:n:1200:HIS:HE1	1.53	0.56
2:B:241:GLN:O	2:B:243:ILE:N	2.39	0.55
2:P:74:VAL:CG2	2:P:75:TYR:H	2.18	0.55
2:P:91:LYS:C	2:P:93:ALA:N	2.63	0.55
3:Q:208:TYR:CG	3:Q:209:ASP:N	2.75	0.55
10:X:23:ALA:HB2	10:X:186:VAL:HG22	1.87	0.55
15:l:1072:GLN:NE2	15:m:1051:ARG:HH22	2.03	0.55
1:A:52:VAL:HG22	1:A:227:VAL:CG1	2.35	0.55
1:A:120:ARG:O	1:A:124:LEU:HB2	2.07	0.55
1:O:244:ARG:HD2	1:O:244:ARG:N	2.21	0.55
2:P:241:GLN:O	2:P:243:ILE:N	2.39	0.55
2:P:244:ASN:HA	2:P:247:LEU:CG	2.36	0.55
6:T:185:ASN:HD22	6:T:186:PRO:N	2.05	0.55
7:U:203:HIS:CE1	7:U:206:ASN:HB2	2.41	0.55
15:m:1202:SER:HB3	15:m:1206:ARG:NH1	2.20	0.55
15:m:1226:SER:HB2	15:m:1228:HIS:NE2	2.21	0.55
3:C:77:VAL:HG22	3:C:135:PHE:HE1	1.70	0.55
8:H:115:LEU:H	8:H:115:LEU:HD22	1.72	0.55
10:J:23:ALA:HB2	10:J:186:VAL:HG22	1.87	0.55
10:J:191:LYS:HD2	10:J:191:LYS:N	2.19	0.55
13:M:122:VAL:HG12	13:M:123:TYR:N	2.21	0.55
14:N:23:ALA:HB1	14:N:181:MET:HE2	1.88	0.55
14:b:16:TYR:CE2	14:b:170:VAL:HG22	2.41	0.55
15:p:1080:ASN:O	15:p:1084:GLN:HG3	2.06	0.55
1:A:227:VAL:HG12	1:A:228:ALA:N	2.22	0.55
3:C:24:TYR:O	3:C:27:GLU:HB3	2.06	0.55
8:H:1:THR:OG1	8:H:2:SER:N	2.39	0.55
8:H:187:ILE:C	8:H:188:PHE:CD2	2.85	0.55
1:O:53:VAL:O	1:O:225:VAL:HG13	2.05	0.55
2:P:19:GLY:O	2:P:21:ILE:N	2.39	0.55
5:S:176:SER:O	5:S:180:GLN:HB2	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:W:7:LYS:CA	9:W:12:VAL:HG23	2.36	0.55
14:b:158:VAL:HG12	14:b:159:VAL:HG13	1.89	0.55
15:e:1123:LYS:HE3	15:e:1204:MET:CE	2.37	0.55
1:A:18:ILE:N	1:A:18:ILE:HD12	2.21	0.55
1:A:114:CYS:SG	1:A:155:TYR:HD1	2.16	0.55
7:G:150:LEU:HD12	7:G:151:GLU:H	1.72	0.55
8:H:10:ASP:OD1	8:H:179:THR:HG22	2.06	0.55
14:N:194:ASN:HB2	14:N:212:LEU:O	2.06	0.55
5:S:64:ILE:HG22	5:S:64:ILE:O	2.06	0.55
11:Y:28:LEU:HD12	11:Y:28:LEU:H	1.72	0.55
13:a:122:VAL:HG12	13:a:123:TYR:N	2.22	0.55
15:f:1089:ARG:HH22	15:g:1200:HIS:HE1	1.53	0.55
15:f:1226:SER:HB2	15:f:1228:HIS:NE2	2.21	0.55
15:h:1156:GLU:OE1	15:i:1177:PRO:HD2	2.07	0.55
15:m:1143:TYR:OH	15:n:1193:LYS:HG2	2.07	0.55
2:B:244:ASN:HA	2:B:247:LEU:CG	2.36	0.55
8:H:14:LEU:CD1	8:H:34:LEU:HD22	2.36	0.55
8:H:143:ARG:HB2	8:H:143:ARG:HH11	1.70	0.55
13:M:2:PHE:H	14:N:1:THR:CG2	2.19	0.55
1:O:126:GLN:HE21	1:O:126:GLN:C	2.15	0.55
4:R:29:ARG:NH1	15:k:1227:ASP:OD2	2.40	0.55
9:W:66:HIS:O	9:W:70:THR:HG23	2.06	0.55
11:Y:75:LEU:HD13	11:Y:79:ALA:HB3	1.88	0.55
14:b:51:VAL:HG12	14:b:116:VAL:HG22	1.89	0.55
15:d:1226:SER:HB2	15:d:1228:HIS:NE2	2.22	0.55
15:f:1143:TYR:OH	15:g:1193:LYS:HG2	2.07	0.55
15:k:1226:SER:HB2	15:k:1228:HIS:NE2	2.22	0.55
2:B:75:TYR:CB	2:B:134:LEU:HD22	2.36	0.55
6:F:22:VAL:HG11	15:g:1229:MET:HE3	1.88	0.55
6:F:158:GLY:O	6:F:159:THR:HB	2.06	0.55
7:G:197:LYS:NZ	7:G:201:LEU:HD21	2.22	0.55
1:O:71:TYR:OH	15:o:1231:SER:HB2	2.07	0.55
2:P:214:ILE:HD13	2:P:235:PHE:HA	1.88	0.55
5:S:82:THR:CG2	15:l:1231:SER:OG	2.55	0.55
6:T:206:LEU:HD23	6:T:206:LEU:N	2.11	0.55
7:U:194:GLN:HA	7:U:194:GLN:NE2	2.20	0.55
14:b:21:ILE:HG22	14:b:22:ILE:N	2.21	0.55
15:l:1123:LYS:HE3	15:l:1204:MET:CE	2.37	0.55
1:A:14:ARG:HG3	1:A:14:ARG:NH1	2.22	0.55
8:H:3:ILE:HG12	8:H:127:ALA:O	2.07	0.55
9:I:52:THR:HG22	9:I:96:ALA:HB1	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:119:PHE:CD2	10:J:120:ILE:N	2.74	0.55
13:M:61:GLY:O	13:M:65:VAL:HG23	2.07	0.55
3:Q:140:TYR:C	3:Q:140:TYR:CD1	2.84	0.55
4:R:240:LYS:HB3	4:R:241:GLN:NE2	2.22	0.55
11:Y:140:THR:HG21	11:Y:164:CYS:HB3	1.89	0.55
13:a:124:SER:HB2	13:a:137:ARG:HD2	1.88	0.55
14:b:220:ASP:C	14:b:222:ALA:H	2.15	0.55
15:e:1202:SER:HB3	15:e:1206:ARG:NH1	2.22	0.55
3:C:242:THR:OG1	3:C:243:GLY:N	2.38	0.55
11:K:35:THR:HG22	11:K:36:ARG:H	1.71	0.55
13:M:3:ASN:C	13:M:3:ASN:HD22	2.12	0.55
14:N:220:ASP:C	14:N:222:ALA:H	2.14	0.55
1:O:14:ARG:HH11	1:O:14:ARG:HG3	1.71	0.55
1:O:52:VAL:HG22	1:O:227:VAL:HG22	1.89	0.55
7:U:77:TYR:HB3	7:U:135:THR:HG23	1.88	0.55
7:U:203:HIS:C	7:U:205:ASP:H	2.14	0.55
11:K:196:GLN:HA	11:K:196:GLN:HE21	1.72	0.55
2:P:156:TYR:C	2:P:157:PHE:HD2	2.14	0.55
2:P:218:ASN:CB	2:P:221:LEU:HD12	2.36	0.55
6:T:179:PHE:C	6:T:181:LYS:N	2.65	0.55
7:U:150:LEU:HD12	7:U:151:GLU:H	1.72	0.55
10:X:20:VAL:CG2	10:X:189:ILE:HB	2.37	0.55
15:g:1202:SER:HB3	15:g:1206:ARG:NH1	2.22	0.55
1:A:134:MET:CE	7:G:124:LEU:HD22	2.37	0.54
1:A:155:TYR:CD2	1:A:165:GLY:HA2	2.42	0.54
3:C:140:TYR:CD1	3:C:140:TYR:C	2.84	0.54
3:C:198:SER:OG	3:C:199:LYS:N	2.39	0.54
6:F:11:VAL:HG22	6:F:11:VAL:O	2.07	0.54
1:O:120:ARG:O	1:O:124:LEU:HB2	2.07	0.54
2:P:21:ILE:CD1	15:j:1229:MET:CE	2.85	0.54
4:R:73:LEU:HD12	4:R:135:ILE:HG13	1.89	0.54
5:S:208:MET:HE1	5:S:216:ASN:OD1	2.07	0.54
5:S:243:LEU:C	5:S:243:LEU:HD13	2.33	0.54
12:Z:35:ILE:HD11	12:Z:45:MET:CE	2.37	0.54
13:a:3:ASN:C	13:a:3:ASN:HD22	2.13	0.54
14:b:210:LYS:HE3	14:b:211:ASN:OD1	2.07	0.54
1:A:71:TYR:OH	15:h:1231:SER:HB2	2.07	0.54
1:A:129:THR:O	1:A:129:THR:CG2	2.55	0.54
2:B:28:VAL:HG21	2:B:133:SER:HB2	1.87	0.54
5:E:199:LEU:HD12	5:E:199:LEU:O	2.07	0.54
14:N:128:ARG:HH11	14:N:138:SER:HB2	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:130:VAL:HB	14:N:136:THR:HG22	1.89	0.54
1:O:115:ASP:HB3	1:O:155:TYR:CE1	2.41	0.54
1:O:116:VAL:O	1:O:119:LYS:N	2.38	0.54
2:P:94:HIS:CB	2:P:99:ARG:HH21	2.17	0.54
8:V:18:SER:OG	8:V:171:GLY:HA3	2.08	0.54
8:V:149:GLU:HG3	8:V:150:GLU:N	2.22	0.54
9:W:153:LYS:O	9:W:153:LYS:HD2	2.07	0.54
1:A:154:ILE:HG22	1:A:166:TYR:HB2	1.88	0.54
8:H:112:THR:O	8:H:112:THR:HG23	2.06	0.54
10:J:176:ARG:NH2	13:a:147:MET:HE3	2.22	0.54
11:K:28:LEU:H	11:K:28:LEU:CD1	2.20	0.54
1:O:72:ILE:HA	1:O:81:MET:O	2.07	0.54
6:T:156:LEU:HD12	6:T:159:THR:HG21	1.89	0.54
7:U:197:LYS:NZ	7:U:201:LEU:HD21	2.22	0.54
11:Y:14:ILE:O	11:Y:15:LEU:HD23	2.08	0.54
15:f:1066:GLN:CB	15:f:1066:GLN:C	2.72	0.54
1:A:177:GLU:H	1:A:177:GLU:CD	2.14	0.54
2:B:68:THR:C	2:B:70:ASP:H	2.16	0.54
2:B:156:TYR:C	2:B:157:PHE:HD2	2.15	0.54
2:B:185:LEU:O	2:B:189:ILE:HG13	2.06	0.54
8:H:18:SER:OG	8:H:171:GLY:HA3	2.08	0.54
7:U:80:LEU:N	7:U:80:LEU:HD23	2.21	0.54
8:V:84:GLU:HA	8:V:84:GLU:OE1	2.06	0.54
8:V:104:ASP:N	8:V:104:ASP:OD2	2.39	0.54
14:b:11:VAL:HG22	14:b:24:ALA:CB	2.37	0.54
14:b:68:LYS:O	14:b:72:THR:HG23	2.07	0.54
15:h:1123:LYS:HE3	15:h:1204:MET:CE	2.38	0.54
15:h:1226:SER:HB2	15:h:1228:HIS:NE2	2.23	0.54
15:j:1123:LYS:HE3	15:j:1204:MET:CE	2.38	0.54
15:n:1202:SER:HB3	15:n:1206:ARG:NH1	2.22	0.54
2:B:35:LEU:HD22	2:B:35:LEU:H	1.72	0.54
5:E:34:GLY:CA	15:e:1230:VAL:HG12	2.37	0.54
5:E:220:SER:HA	5:E:231:TYR:HD1	1.72	0.54
9:I:7:LYS:HB3	9:I:12:VAL:HG23	1.90	0.54
10:J:20:VAL:CG2	10:J:189:ILE:HB	2.38	0.54
1:O:33:LYS:H	1:O:33:LYS:HD2	1.72	0.54
14:b:165:ILE:N	14:b:166:PRO:CD	2.70	0.54
15:o:1156:GLU:OE1	15:p:1177:PRO:HD2	2.07	0.54
6:F:176:LEU:C	6:F:176:LEU:HD12	2.33	0.54
8:H:104:ASP:OD2	8:H:104:ASP:N	2.39	0.54
13:M:109:THR:HG23	13:M:125:PHE:HB2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:129:THR:O	1:O:129:THR:CG2	2.55	0.54
1:O:160:ALA:CB	15:p:1229:MET:HG2	2.37	0.54
1:O:217:GLU:HA	1:O:217:GLU:OE2	2.08	0.54
2:P:48:GLU:CG	2:P:49:LYS:N	2.68	0.54
8:V:3:ILE:HG22	8:V:16:ALA:CB	2.36	0.54
9:W:100:VAL:HG13	9:W:111:PHE:HB2	1.90	0.54
11:Y:192:VAL:O	11:Y:192:VAL:HG12	2.08	0.54
13:a:109:THR:HG23	13:a:125:PHE:HB2	1.90	0.54
14:b:201:ASP:OD2	14:b:204:THR:HG23	2.07	0.54
1:A:44:ALA:O	1:A:168:ALA:HA	2.08	0.54
1:A:124:LEU:O	1:A:128:TYR:HB2	2.07	0.54
1:A:183:GLU:HG3	2:B:55:LEU:HD12	1.89	0.54
7:G:72:HIS:CD2	7:G:72:HIS:C	2.85	0.54
7:G:116:GLY:O	7:G:120:GLN:HB2	2.06	0.54
1:O:50:CYS:HA	1:O:228:ALA:O	2.07	0.54
1:O:227:VAL:HG12	1:O:228:ALA:N	2.22	0.54
2:P:45:ILE:O	2:P:45:ILE:HG13	2.06	0.54
2:P:185:LEU:O	2:P:189:ILE:HG13	2.07	0.54
3:Q:120:GLN:NE2	3:Q:120:GLN:C	2.66	0.54
8:V:155:ILE:HG22	8:V:159:LEU:HD22	1.90	0.54
1:A:206:ALA:O	1:A:207:ILE:C	2.50	0.54
2:B:203:GLU:N	2:B:203:GLU:OE2	2.40	0.54
2:B:243:ILE:O	2:B:245:ASP:N	2.40	0.54
4:D:62:SER:C	4:D:64:VAL:H	2.16	0.54
6:F:22:VAL:O	6:F:26:LEU:HD22	2.08	0.54
8:H:147:SER:OG	8:H:150:GLU:CB	2.56	0.54
13:M:100:LYS:HE2	13:M:103:PHE:O	2.08	0.54
1:O:37:GLN:C	15:o:1230:VAL:HG11	2.33	0.54
2:P:187:ASP:O	2:P:190:HIS:HB3	2.07	0.54
5:S:170:LYS:HD2	5:S:171:ALA:H	1.72	0.54
6:T:29:ILE:N	6:T:29:ILE:HD12	2.22	0.54
8:V:115:LEU:HD22	8:V:115:LEU:H	1.72	0.54
10:X:125:LEU:N	10:X:125:LEU:HD23	2.23	0.54
13:a:61:GLY:O	13:a:65:VAL:HG23	2.08	0.54
13:M:199:GLY:O	13:M:200:ASP:HB2	2.08	0.54
1:O:26:TYR:OH	15:p:1102:GLU:HB2	2.08	0.54
1:O:234:PHE:N	1:O:234:PHE:CD1	2.72	0.54
3:Q:24:TYR:O	3:Q:27:GLU:HB3	2.07	0.54
3:Q:198:SER:OG	3:Q:199:LYS:N	2.40	0.54
6:T:22:VAL:O	6:T:26:LEU:HD22	2.08	0.54
10:X:120:ILE:HD12	10:X:136:ILE:HG12	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:a:152:ASN:O	13:a:156:PHE:HA	2.07	0.54
15:c:1123:LYS:HE3	15:c:1204:MET:CE	2.38	0.54
2:B:19:GLY:O	2:B:21:ILE:N	2.40	0.54
3:C:76:ALA:HB3	3:C:136:ILE:HB	1.90	0.54
3:C:210:ARG:HG3	3:C:210:ARG:NH1	2.23	0.54
2:P:98:LYS:HA	2:P:103:GLU:O	2.08	0.54
6:T:75:ALA:O	6:T:130:VAL:HG23	2.07	0.54
11:Y:196:GLN:HA	11:Y:196:GLN:HE21	1.72	0.54
1:A:87:ILE:HG13	1:A:91:ARG:CD	2.38	0.53
2:B:45:ILE:HG13	2:B:45:ILE:O	2.07	0.53
3:C:186:VAL:O	3:C:190:ILE:HG13	2.07	0.53
3:C:208:TYR:CG	3:C:209:ASP:N	2.75	0.53
7:G:111:PHE:C	7:G:111:PHE:CD2	2.86	0.53
7:G:216:SER:HA	7:G:230:VAL:HG23	1.90	0.53
8:H:7:THR:HB	8:H:107:LYS:NZ	2.23	0.53
9:I:100:VAL:HG13	9:I:111:PHE:HB2	1.90	0.53
13:M:13:LEU:HD12	13:M:14:GLY:H	1.73	0.53
1:O:68:THR:O	7:U:157:TRP:HE3	1.91	0.53
7:U:118:TYR:CE2	7:U:122:HIS:CE1	2.96	0.53
9:W:98:LEU:HD12	9:W:98:LEU:H	1.73	0.53
9:W:146:LEU:N	9:W:146:LEU:HD12	2.22	0.53
10:X:129:ILE:CG2	10:X:130:ASP:H	2.21	0.53
14:b:27:LEU:CB	14:b:192:SER:HB2	2.35	0.53
15:l:1202:SER:HB3	15:l:1206:ARG:NH1	2.22	0.53
15:o:1226:SER:HB2	15:o:1228:HIS:NE2	2.23	0.53
1:A:80:GLY:HA3	1:A:233:PHE:CZ	2.43	0.53
2:B:226:GLY:HA3	9:I:186:TYR:HB3	1.90	0.53
5:E:197:GLU:O	5:E:201:LEU:HB2	2.08	0.53
8:H:151:THR:O	8:H:154:PHE:HB3	2.08	0.53
10:J:38:LYS:HE3	12:Z:209:ASN:OD1	2.08	0.53
1:O:154:ILE:HG22	1:O:166:TYR:HB2	1.89	0.53
1:O:168:ALA:O	2:P:55:LEU:HD22	2.08	0.53
3:Q:222:ASP:O	3:Q:224:GLU:N	2.40	0.53
6:T:187:ASP:O	6:T:191:LYS:HG3	2.08	0.53
7:U:194:GLN:CD	7:U:197:LYS:HD3	2.33	0.53
14:b:23:ALA:HB1	14:b:181:MET:HE2	1.88	0.53
1:A:251:GLN:O	1:A:251:GLN:HG2	2.07	0.53
2:B:123:GLN:O	2:B:124:SER:CB	2.57	0.53
3:C:5:ARG:NH2	15:d:1103:ASP:N	2.51	0.53
3:C:29:ILE:C	3:C:31:HIS:H	2.17	0.53
12:L:35:ILE:HD11	12:L:45:MET:CE	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:124:SER:HB2	13:M:137:ARG:HD2	1.89	0.53
14:N:165:ILE:N	14:N:166:PRO:CD	2.71	0.53
2:P:203:GLU:N	2:P:203:GLU:OE2	2.42	0.53
3:Q:29:ILE:C	3:Q:31:HIS:H	2.15	0.53
6:T:163:ALA:O	6:T:164:ARG:HB2	2.08	0.53
13:a:100:LYS:HE2	13:a:103:PHE:O	2.08	0.53
1:A:163:TYR:C	1:A:163:TYR:CD1	2.84	0.53
2:B:244:ASN:O	2:B:248:GLU:HG3	2.09	0.53
6:F:69:HIS:CD2	6:F:102:LYS:HB3	2.43	0.53
7:G:203:HIS:C	7:G:205:ASP:H	2.17	0.53
11:K:165:VAL:O	11:K:169:GLU:HG3	2.08	0.53
1:O:155:TYR:CD2	1:O:165:GLY:HA2	2.43	0.53
7:U:153:SER:HB2	15:o:1229:MET:HE3	1.90	0.53
8:V:82:PHE:HB3	8:V:113:ILE:HD12	1.88	0.53
8:V:185:ARG:O	8:V:186:LEU:HD23	2.07	0.53
12:Z:99:THR:HG22	12:Z:115:VAL:O	2.09	0.53
15:c:1145:LEU:HD23	15:d:1185:GLN:NE2	2.23	0.53
15:c:1205:VAL:O	15:c:1209:ILE:HG13	2.08	0.53
15:j:1051:ARG:HH22	15:p:1072:GLN:NE2	2.06	0.53
15:k:1089:ARG:HH22	15:l:1200:HIS:HE1	1.56	0.53
1:A:83:VAL:HG11	1:A:90:ALA:HB2	1.90	0.53
3:C:17:GLY:O	4:D:29:ARG:NH2	2.33	0.53
7:G:80:LEU:N	7:G:80:LEU:HD23	2.24	0.53
7:G:213:LEU:HD21	7:G:215:ILE:HD11	1.90	0.53
9:I:63:ILE:HG13	9:I:82:MET:HE2	1.91	0.53
10:J:120:ILE:HD12	10:J:136:ILE:HG12	1.89	0.53
11:K:71:GLU:O	11:K:72:ASP:HB3	2.08	0.53
1:O:80:GLY:HA3	1:O:233:PHE:CZ	2.42	0.53
5:S:42:THR:C	5:S:44:GLU:H	2.16	0.53
10:X:119:PHE:HD2	10:X:120:ILE:N	2.06	0.53
15:o:1123:LYS:HE3	15:o:1204:MET:CE	2.38	0.53
1:A:123:ASN:HD21	2:B:83:ARG:HE	1.55	0.53
7:G:180:ASP:O	7:G:183:PRO:HD3	2.07	0.53
8:H:14:LEU:HD12	8:H:14:LEU:O	2.09	0.53
8:H:25:TYR:CE1	9:I:132:LEU:HD22	2.44	0.53
10:J:129:ILE:CG2	10:J:130:ASP:H	2.22	0.53
14:N:11:VAL:HG22	14:N:24:ALA:HB2	1.89	0.53
2:P:28:VAL:HG21	2:P:133:SER:HB2	1.90	0.53
7:U:213:LEU:HD21	7:U:215:ILE:HD11	1.91	0.53
8:V:1:THR:N	8:V:129:SER:H	2.07	0.53
8:V:22:THR:CG2	8:V:27:ALA:HB2	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:b:130:VAL:HB	14:b:136:THR:HG22	1.90	0.53
15:c:1051:ARG:HH22	15:i:1072:GLN:NE2	2.06	0.53
1:A:104:PHE:CD1	1:A:104:PHE:C	2.87	0.53
1:A:225:VAL:HG12	1:A:226:GLY:N	2.23	0.53
2:B:187:ASP:O	2:B:190:HIS:HB3	2.08	0.53
5:E:243:LEU:C	5:E:243:LEU:HD13	2.34	0.53
7:G:194:GLN:CD	7:G:197:LYS:HD3	2.34	0.53
8:H:185:ARG:O	8:H:186:LEU:HD23	2.09	0.53
10:J:81:ILE:HD11	10:J:86:PHE:HA	1.90	0.53
14:N:158:VAL:HG12	14:N:159:VAL:HG13	1.91	0.53
1:O:14:ARG:HG3	1:O:14:ARG:NH1	2.24	0.53
6:T:22:VAL:HG11	15:n:1229:MET:HE3	1.90	0.53
14:b:103:ARG:CZ	14:b:110:LEU:HD11	2.38	0.53
2:B:190:HIS:CE1	2:B:194:LEU:HD11	2.44	0.53
6:F:29:ILE:N	6:F:29:ILE:HD12	2.22	0.53
7:G:98:PHE:C	7:G:98:PHE:CD1	2.86	0.53
8:H:22:THR:HG23	8:H:27:ALA:HB2	1.90	0.53
1:O:167:LYS:HG2	2:P:55:LEU:O	2.09	0.53
2:P:153:SER:CB	15:j:1229:MET:HG2	2.39	0.53
3:Q:76:ALA:HB3	3:Q:136:ILE:HB	1.89	0.53
4:R:62:SER:C	4:R:64:VAL:H	2.16	0.53
6:T:96:SER:O	6:T:100:ASN:HA	2.07	0.53
7:U:216:SER:HA	7:U:230:VAL:HG23	1.90	0.53
11:Y:22:THR:CG2	11:Y:27:VAL:HG22	2.38	0.53
15:d:1089:ARG:HH22	15:e:1200:HIS:HE1	1.56	0.53
5:E:233:ASN:H	5:E:233:ASN:ND2	2.05	0.53
8:H:8:PHE:HE1	8:H:11:GLY:H	1.56	0.53
1:O:21:PRO:HB3	15:j:1105:LEU:HD11	1.90	0.53
2:P:25:LEU:O	2:P:25:LEU:HD23	2.09	0.53
3:Q:77:VAL:HG22	3:Q:135:PHE:HE1	1.73	0.53
6:T:69:HIS:CD2	6:T:102:LYS:HB3	2.44	0.53
6:T:176:LEU:C	6:T:176:LEU:HD12	2.33	0.53
8:V:187:ILE:C	8:V:188:PHE:CD2	2.87	0.53
9:W:8:PHE:HD2	9:W:9:ASN:H	1.55	0.53
12:Z:1:THR:CB	12:Z:33:ARG:HH21	2.22	0.53
14:b:211:ASN:C	14:b:212:LEU:HD13	2.34	0.53
15:j:1145:LEU:HD23	15:k:1185:GLN:NE2	2.23	0.53
1:A:33:LYS:H	1:A:33:LYS:HD2	1.74	0.53
1:A:126:GLN:HE21	1:A:126:GLN:C	2.16	0.53
3:C:65:LYS:C	3:C:66:LEU:HD12	2.34	0.53
5:E:213:ASP:OD1	5:E:215:ASN:HB2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:113:CYS:SG	6:F:151:GLY:O	2.67	0.53
8:H:132:THR:O	8:V:132:THR:O	2.26	0.53
9:I:146:LEU:HD12	9:I:146:LEU:N	2.24	0.53
14:N:21:ILE:HG22	14:N:22:ILE:N	2.23	0.53
14:N:51:VAL:HG12	14:N:116:VAL:HG22	1.91	0.53
1:O:97:ALA:HB2	1:O:121:MET:HE2	1.91	0.53
1:O:124:LEU:O	1:O:128:TYR:HB2	2.08	0.53
3:Q:49:GLU:O	3:Q:50:ARG:C	2.52	0.53
3:Q:185:LYS:NZ	3:Q:186:VAL:HB	2.24	0.53
4:R:78:LEU:HD23	15:k:1230:VAL:HA	1.90	0.53
4:R:203:VAL:HG13	4:R:209:ASN:HB2	1.90	0.53
5:S:33:LEU:HB2	15:l:1230:VAL:HG11	1.91	0.53
5:S:245:GLU:N	5:S:245:GLU:OE2	2.42	0.53
7:U:180:ASP:O	7:U:183:PRO:HD3	2.08	0.53
13:a:126:ASP:HB2	13:a:130:SER:CB	2.36	0.53
14:b:233:ILE:O	14:b:233:ILE:HG13	2.07	0.53
15:c:1202:SER:HB3	15:c:1206:ARG:NH1	2.24	0.53
15:i:1123:LYS:HE3	15:i:1204:MET:CE	2.39	0.53
15:j:1205:VAL:O	15:j:1209:ILE:HG13	2.08	0.53
15:m:1062:LYS:N	15:n:1177:PRO:HG3	2.24	0.53
2:B:200:VAL:HG12	2:B:202:GLY:N	2.24	0.52
4:D:54:LEU:HD12	4:D:54:LEU:O	2.09	0.52
5:E:32:LYS:O	5:E:174:SER:HB3	2.09	0.52
7:G:30:VAL:HG21	7:G:152:PRO:HG2	1.91	0.52
7:G:118:TYR:CE2	7:G:122:HIS:CE1	2.97	0.52
8:H:155:ILE:HG22	8:H:159:LEU:HD22	1.91	0.52
8:H:157:HIS:CE1	8:H:196:LEU:HD13	2.44	0.52
3:Q:42:ASP:OD1	3:Q:186:VAL:HG23	2.09	0.52
15:i:1021:SER:HB3	15:i:1091:VAL:HG21	1.91	0.52
15:p:1021:SER:HB3	15:p:1091:VAL:HG21	1.91	0.52
1:A:217:GLU:HA	1:A:217:GLU:OE2	2.09	0.52
2:B:197:LYS:HA	2:B:204:PHE:CE1	2.45	0.52
3:C:77:VAL:HG12	3:C:78:ALA:N	2.24	0.52
4:D:48:ARG:HH21	4:D:211:GLU:HG2	1.73	0.52
7:G:31:GLU:HB2	7:G:168:ARG:HH22	1.72	0.52
7:G:47:PHE:CE2	7:G:74:GLY:HA3	2.44	0.52
8:H:22:THR:CG2	8:H:27:ALA:HB2	2.38	0.52
10:J:108:VAL:HG12	10:J:109:ALA:N	2.23	0.52
1:O:114:CYS:SG	1:O:155:TYR:HD1	2.18	0.52
2:P:190:HIS:NE2	2:P:194:LEU:HD11	2.24	0.52
3:Q:65:LYS:C	3:Q:66:LEU:HD12	2.35	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:R:73:LEU:HD23	4:R:73:LEU:C	2.34	0.52
5:S:197:GLU:O	5:S:201:LEU:HB2	2.09	0.52
9:W:38:SER:HB3	9:W:41:ILE:HG13	1.91	0.52
14:b:101:TYR:O	14:b:102:GLN:C	2.52	0.52
15:f:1021:SER:HB3	15:f:1091:VAL:HG21	1.91	0.52
15:j:1202:SER:HB3	15:j:1206:ARG:NH1	2.24	0.52
15:p:1123:LYS:HE3	15:p:1204:MET:CE	2.39	0.52
4:D:49:ARG:CZ	15:d:1231:SER:CB	2.87	0.52
5:E:231:TYR:HD1	5:E:231:TYR:H	1.57	0.52
9:I:59:ILE:CG1	9:I:83:LEU:HD23	2.24	0.52
10:J:17:LYS:NZ	10:J:17:LYS:HB3	2.24	0.52
10:J:191:LYS:H	10:J:191:LYS:CD	2.14	0.52
11:K:23:ARG:HB2	11:K:28:LEU:CD1	2.39	0.52
13:M:46:CYS:SG	13:M:52:MET:HB3	2.49	0.52
2:P:197:LYS:HA	2:P:204:PHE:CE1	2.44	0.52
5:S:39:GLY:O	5:S:169:ALA:HA	2.09	0.52
7:U:111:PHE:C	7:U:111:PHE:CD2	2.87	0.52
8:V:133:PHE:HE2	8:V:166:ASP:HB2	1.73	0.52
8:V:156:LYS:NZ	8:V:188:PHE:CD1	2.75	0.52
10:X:17:LYS:NZ	10:X:17:LYS:HB3	2.25	0.52
12:Z:87:VAL:CG1	12:Z:117:SER:HA	2.39	0.52
13:a:2:PHE:H	14:b:1:THR:CG2	2.22	0.52
15:d:1202:SER:HB3	15:d:1206:ARG:NH1	2.24	0.52
15:m:1021:SER:HB3	15:m:1091:VAL:HG21	1.91	0.52
1:A:91:ARG:NH1	7:G:156:TYR:CE2	2.77	0.52
2:B:174:PHE:HD1	2:B:195:THR:HG1	1.58	0.52
3:C:72:LYS:HG2	3:C:225:VAL:HG21	1.90	0.52
3:C:81:THR:HG22	3:C:82:ALA:N	2.25	0.52
12:L:99:THR:HG22	12:L:115:VAL:O	2.10	0.52
14:N:154:LEU:HD11	9:W:136:ALA:HB1	1.91	0.52
1:O:83:VAL:HG11	1:O:90:ALA:HB2	1.91	0.52
9:W:104:ASP:O	9:W:106:THR:N	2.39	0.52
14:b:1:THR:CG2	14:b:2:GLN:N	2.72	0.52
15:k:1202:SER:HB3	15:k:1206:ARG:NH1	2.24	0.52
3:C:120:GLN:HE21	3:C:121:GLY:N	2.07	0.52
11:K:22:THR:CG2	11:K:27:VAL:HG22	2.39	0.52
1:O:17:THR:HG23	2:P:128:ARG:HB3	1.91	0.52
1:O:59:VAL:HG11	1:O:66:PRO:HG3	1.90	0.52
4:R:54:LEU:HD12	4:R:54:LEU:O	2.10	0.52
5:S:201:LEU:HD13	5:S:219:LEU:HD22	1.90	0.52
13:a:13:LEU:HD12	13:a:14:GLY:H	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:b:80:LEU:CD2	14:b:84:GLU:HB2	2.39	0.52
14:b:162:GLU:HA	14:b:165:ILE:HD11	1.90	0.52
15:c:1043:ALA:HB2	15:c:1070:VAL:HG11	1.92	0.52
15:d:1123:LYS:HE3	15:d:1204:MET:CE	2.40	0.52
15:h:1202:SER:HB3	15:h:1206:ARG:NH1	2.24	0.52
15:o:1202:SER:HB3	15:o:1206:ARG:NH1	2.24	0.52
1:A:28:VAL:O	1:A:31:ALA:HB3	2.10	0.52
1:A:250:GLU:C	1:A:252:ASP:H	2.17	0.52
5:E:167:TYR:CE1	5:E:170:LYS:HD3	2.45	0.52
6:F:187:ASP:O	6:F:191:LYS:HG3	2.08	0.52
7:G:38:GLY:O	7:G:161:GLY:HA2	2.09	0.52
10:J:119:PHE:HD2	10:J:120:ILE:N	2.08	0.52
13:M:145:LEU:HD11	10:X:143:ASP:HB3	1.90	0.52
14:N:1:THR:CG2	14:N:2:GLN:N	2.73	0.52
1:O:202:VAL:O	1:O:205:PHE:N	2.43	0.52
2:P:19:GLY:C	2:P:21:ILE:N	2.67	0.52
3:Q:72:LYS:HG2	3:Q:225:VAL:HG21	1.92	0.52
3:Q:187:ASP:HA	3:Q:190:ILE:CD1	2.39	0.52
4:R:48:ARG:HH21	4:R:211:GLU:HG2	1.74	0.52
4:R:79:ASN:CG	15:k:1231:SER:HG	2.16	0.52
7:U:72:HIS:CD2	7:U:72:HIS:C	2.87	0.52
11:Y:40:PRO:HG2	11:Y:74:GLU:CD	2.35	0.52
1:A:168:ALA:O	2:B:55:LEU:HD22	2.10	0.52
2:B:46:ALA:HB2	2:B:211:LEU:HD13	1.90	0.52
4:D:203:VAL:HG13	4:D:209:ASN:HB2	1.91	0.52
6:F:147:PHE:CD1	6:F:147:PHE:C	2.88	0.52
7:G:126:ASN:HD22	7:G:127:SER:N	2.08	0.52
8:H:69:GLN:HG3	8:H:70:TYR:CD1	2.45	0.52
11:K:21:VAL:HG11	12:L:122:LEU:HD11	1.92	0.52
11:K:67:TYR:CZ	11:K:75:LEU:HD23	2.43	0.52
11:K:78:GLN:C	11:K:78:GLN:CD	2.77	0.52
1:O:44:ALA:O	1:O:168:ALA:HA	2.09	0.52
1:O:185:HIS:HA	1:O:188:LYS:HZ3	1.74	0.52
2:P:68:THR:C	2:P:70:ASP:H	2.17	0.52
3:Q:39:MET:HE1	3:Q:146:TYR:CB	2.37	0.52
3:Q:131:PHE:O	3:Q:153:PRO:HB3	2.09	0.52
5:S:220:SER:HA	5:S:231:TYR:CD1	2.45	0.52
7:U:194:GLN:HE21	7:U:194:GLN:CA	2.23	0.52
15:d:1072:GLN:NE2	15:e:1051:ARG:HH22	2.08	0.52
15:j:1043:ALA:HB2	15:j:1070:VAL:HG11	1.92	0.52
15:k:1123:LYS:HE3	15:k:1204:MET:CE	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:214:GLU:HG2	5:E:214:GLU:O	2.09	0.52
6:F:156:LEU:HD12	6:F:159:THR:HG21	1.91	0.52
6:F:179:PHE:C	6:F:181:LYS:N	2.65	0.52
8:H:5:ALA:HA	8:H:14:LEU:HA	1.92	0.52
10:J:20:VAL:HG22	10:J:189:ILE:HB	1.91	0.52
10:J:125:LEU:HD23	10:J:125:LEU:N	2.25	0.52
14:N:71:VAL:C	14:N:73:GLU:H	2.18	0.52
14:N:210:LYS:HE3	14:N:211:ASN:OD1	2.08	0.52
1:O:52:VAL:HG22	1:O:227:VAL:CG1	2.39	0.52
1:O:123:ASN:HD21	2:P:83:ARG:HE	1.56	0.52
1:O:196:GLU:HG2	1:O:201:LYS:HB2	1.92	0.52
1:O:225:VAL:HG12	1:O:226:GLY:N	2.25	0.52
2:P:107:THR:HG21	2:P:146:SER:HB2	1.91	0.52
2:P:174:PHE:HD1	2:P:195:THR:HG1	1.57	0.52
8:V:151:THR:O	8:V:154:PHE:HB3	2.10	0.52
10:X:17:LYS:CG	10:X:156:ASN:HD22	2.23	0.52
13:a:6:GLY:O	13:a:57:PHE:HD1	1.92	0.52
14:b:1:THR:CG2	14:b:2:GLN:H	2.22	0.52
14:b:220:ASP:O	14:b:222:ALA:N	2.43	0.52
2:B:25:LEU:O	2:B:25:LEU:HD23	2.10	0.52
3:C:99:LEU:HA	3:C:104:GLU:O	2.10	0.52
7:G:168:ARG:HG2	7:G:169:GLN:N	2.24	0.52
11:K:50:ALA:O	11:K:53:THR:HG22	2.10	0.52
14:N:162:GLU:HA	14:N:165:ILE:HD11	1.91	0.52
1:O:43:LEU:HA	1:O:169:THR:O	2.10	0.52
12:Z:96:SER:O	12:Z:97:MET:HB3	2.10	0.52
14:b:141:THR:HG21	14:b:155:LEU:O	2.10	0.52
15:f:1123:LYS:HE3	15:f:1204:MET:CE	2.40	0.52
15:k:1045:GLU:O	15:k:1049:VAL:HG23	2.10	0.52
2:B:71:ILE:HD11	2:B:107:THR:HA	1.93	0.52
2:B:107:THR:HG21	2:B:146:SER:HB2	1.92	0.52
2:B:190:HIS:NE2	2:B:194:LEU:HD11	2.24	0.52
3:C:72:LYS:HG2	3:C:225:VAL:CG2	2.40	0.52
8:H:195:GLN:O	8:H:196:LEU:O	2.28	0.52
9:I:136:ALA:O	14:b:154:LEU:HD21	2.10	0.52
9:I:189:ASN:C	9:I:191:LEU:H	2.18	0.52
13:M:134:GLU:CD	13:M:137:ARG:HE	2.18	0.52
14:N:9:THR:OG1	14:N:10:SER:N	2.32	0.52
14:N:146:PHE:O	14:N:149:HIS:N	2.38	0.52
3:Q:17:GLY:O	4:R:29:ARG:NH2	2.33	0.52
6:T:208:VAL:O	6:T:227:GLY:HA2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:Y:35:THR:CG2	11:Y:36:ARG:N	2.73	0.52
1:A:149:GLU:O	1:A:150:LEU:HG	2.10	0.51
1:A:196:GLU:HG2	1:A:201:LYS:HB2	1.91	0.51
6:F:215:ILE:HG12	6:F:216:VAL:N	2.25	0.51
10:J:37:ASN:HD22	10:J:37:ASN:C	2.18	0.51
1:O:250:GLU:C	1:O:252:ASP:H	2.18	0.51
7:U:98:PHE:C	7:U:98:PHE:CD1	2.87	0.51
8:V:44:CYS:SG	8:V:98:ILE:HB	2.50	0.51
12:Z:1:THR:CG2	12:Z:33:ARG:HH21	2.23	0.51
15:m:1123:LYS:HE3	15:m:1204:MET:CE	2.40	0.51
1:A:72:ILE:HA	1:A:81:MET:O	2.10	0.51
3:C:4:ARG:HH21	4:D:6:ARG:CG	2.22	0.51
5:E:201:LEU:HD13	5:E:219:LEU:HD22	1.91	0.51
8:H:163:ILE:HG23	8:H:170:GLY:CA	2.38	0.51
13:M:12:ILE:HD13	13:M:110:ILE:HD12	1.92	0.51
13:M:16:ALA:HB2	13:M:122:VAL:HG23	1.92	0.51
14:N:151:ALA:O	14:N:152:ASN:C	2.53	0.51
1:O:101:ALA:HA	1:O:112:MET:CE	2.40	0.51
3:Q:4:ARG:HH21	4:R:6:ARG:CG	2.23	0.51
5:S:91:HIS:CG	5:S:119:LEU:HD12	2.46	0.51
7:U:60:PRO:HB3	7:U:212:GLU:OE2	2.10	0.51
7:U:150:LEU:HD12	7:U:155:SER:O	2.10	0.51
8:V:147:SER:OG	8:V:150:GLU:CB	2.58	0.51
15:f:1062:LYS:N	15:g:1177:PRO:HG3	2.24	0.51
15:n:1146:ARG:HH11	15:n:1146:ARG:HG2	1.76	0.51
1:A:202:VAL:O	1:A:205:PHE:N	2.43	0.51
2:B:74:VAL:CG2	2:B:75:TYR:H	2.18	0.51
3:C:243:GLY:O	3:C:244:ILE:HD12	2.10	0.51
5:E:33:LEU:CB	15:e:1230:VAL:HG11	2.40	0.51
6:F:144:LEU:HD12	6:F:145:LEU:H	1.74	0.51
8:H:185:ARG:C	8:H:186:LEU:HD23	2.35	0.51
1:O:185:HIS:C	1:O:185:HIS:ND1	2.68	0.51
2:P:46:ALA:HB2	2:P:211:LEU:HD13	1.92	0.51
2:P:75:TYR:CB	2:P:134:LEU:HD22	2.38	0.51
8:V:185:ARG:C	8:V:186:LEU:HD23	2.36	0.51
15:d:1045:GLU:O	15:d:1049:VAL:HG23	2.10	0.51
15:k:1002:PRO:N	15:k:1003:PRO:CD	2.74	0.51
1:A:167:LYS:O	1:A:168:ALA:HB2	2.09	0.51
6:F:144:LEU:C	6:F:145:LEU:HD12	2.35	0.51
6:F:176:LEU:O	6:F:180:ILE:HG22	2.10	0.51
6:F:201:LEU:HD13	6:F:205:SER:HA	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:192:VAL:O	11:K:192:VAL:HG12	2.10	0.51
14:N:1:THR:CG2	14:N:2:GLN:H	2.22	0.51
14:N:177:ILE:O	14:N:181:MET:HG2	2.10	0.51
14:N:186:TYR:CD1	9:W:139:GLU:HB3	2.45	0.51
2:P:123:GLN:O	2:P:124:SER:CB	2.58	0.51
6:T:201:LEU:HD13	6:T:205:SER:HA	1.93	0.51
10:X:148:MET:HE3	10:X:152:LEU:HD11	1.93	0.51
11:Y:67:TYR:CZ	11:Y:75:LEU:HD23	2.45	0.51
13:a:16:ALA:HB2	13:a:122:VAL:HG23	1.92	0.51
15:k:1072:GLN:NE2	15:l:1051:ARG:HH22	2.08	0.51
1:A:43:LEU:HA	1:A:169:THR:O	2.10	0.51
1:A:167:LYS:HG2	2:B:55:LEU:O	2.10	0.51
2:B:19:GLY:C	2:B:21:ILE:N	2.69	0.51
1:O:183:GLU:HG3	2:P:55:LEU:HD12	1.93	0.51
2:P:44:VAL:CA	2:P:213:ILE:HG22	2.40	0.51
6:T:113:CYS:SG	6:T:151:GLY:O	2.68	0.51
7:U:90:ARG:HD3	7:U:118:TYR:CE1	2.45	0.51
7:U:240:ASP:HA	7:U:243:GLN:HB2	1.92	0.51
8:V:1:THR:HG21	8:V:33:LYS:HZ1	1.76	0.51
8:V:143:ARG:HB2	8:V:143:ARG:HH11	1.73	0.51
10:X:119:PHE:HD2	10:X:120:ILE:H	1.57	0.51
11:Y:78:GLN:C	11:Y:78:GLN:CD	2.78	0.51
12:Z:182:GLU:O	12:Z:182:GLU:HG2	2.11	0.51
13:a:199:GLY:O	13:a:200:ASP:HB2	2.09	0.51
1:A:77:ARG:O	1:A:77:ARG:CG	2.56	0.51
7:G:74:GLY:HA2	7:G:227:HIS:CD2	2.46	0.51
9:I:104:ASP:O	9:I:106:THR:N	2.40	0.51
9:I:217:ILE:HD12	9:I:217:ILE:N	2.25	0.51
11:K:20:ALA:HB2	11:K:177:LYS:CG	2.40	0.51
14:N:11:VAL:HG22	14:N:24:ALA:CB	2.40	0.51
14:N:56:ASP:OD2	14:N:58:SER:N	2.44	0.51
14:N:233:ILE:HG13	14:N:233:ILE:O	2.10	0.51
3:Q:243:GLY:O	3:Q:244:ILE:HD12	2.11	0.51
8:V:22:THR:HG23	8:V:27:ALA:HB2	1.91	0.51
9:W:81:GLN:O	9:W:85:GLN:HB2	2.09	0.51
15:h:1072:GLN:NE2	15:i:1051:ARG:HH22	2.09	0.51
15:p:1045:GLU:O	15:p:1049:VAL:HG23	2.11	0.51
1:A:17:THR:HG23	2:B:128:ARG:HB3	1.93	0.51
1:A:86:PRO:CG	15:h:1230:VAL:HA	2.23	0.51
2:B:218:ASN:HD21	2:B:236:ARG:CD	2.18	0.51
3:C:80:LEU:HD22	3:C:80:LEU:N	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:132:SER:HB3	4:D:164:ILE:HD12	1.93	0.51
6:F:96:SER:O	6:F:100:ASN:HA	2.11	0.51
6:F:144:LEU:HD12	6:F:145:LEU:N	2.26	0.51
13:M:126:ASP:HB2	13:M:130:SER:CB	2.38	0.51
1:O:104:PHE:CD1	1:O:104:PHE:C	2.88	0.51
1:O:157:THR:HA	1:O:162:TYR:O	2.11	0.51
11:Y:28:LEU:H	11:Y:28:LEU:CD1	2.22	0.51
14:b:199:ILE:HG22	14:b:200:ILE:N	2.25	0.51
15:c:1200:HIS:HE1	15:i:1089:ARG:HH22	1.58	0.51
15:d:1002:PRO:N	15:d:1003:PRO:CD	2.73	0.51
15:f:1072:GLN:NE2	15:g:1051:ARG:HH22	2.08	0.51
15:f:1158:LYS:HB2	15:f:1179:LEU:HD21	1.93	0.51
15:m:1002:PRO:N	15:m:1003:PRO:CD	2.74	0.51
3:C:143:ARG:HG2	11:K:73:TYR:CE1	2.46	0.51
3:C:185:LYS:NZ	3:C:186:VAL:HB	2.25	0.51
3:C:187:ASP:HA	3:C:190:ILE:CD1	2.40	0.51
3:C:222:ASP:O	3:C:224:GLU:N	2.43	0.51
9:I:8:PHE:CD2	9:I:9:ASN:N	2.79	0.51
14:N:199:ILE:HG22	14:N:200:ILE:N	2.25	0.51
1:O:167:LYS:O	1:O:168:ALA:HB2	2.11	0.51
3:Q:120:GLN:HE21	3:Q:121:GLY:N	2.08	0.51
3:Q:235:ILE:O	3:Q:237:ASP:N	2.43	0.51
5:S:51:GLU:HG3	5:S:208:MET:SD	2.51	0.51
14:b:26:ASN:O	14:b:39:VAL:HB	2.10	0.51
14:b:73:GLU:HA	14:b:76:TYR:CD2	2.42	0.51
14:b:177:ILE:O	14:b:181:MET:HG2	2.09	0.51
15:g:1146:ARG:HG2	15:g:1146:ARG:HH11	1.75	0.51
1:A:37:GLN:C	15:h:1230:VAL:CG1	2.84	0.51
3:C:49:GLU:O	3:C:50:ARG:C	2.53	0.51
3:C:100:LYS:O	3:C:100:LYS:HG2	2.09	0.51
3:C:120:GLN:NE2	3:C:121:GLY:N	2.59	0.51
10:J:83:PRO:HB2	10:J:119:PHE:HD1	1.76	0.51
10:J:107:VAL:O	10:J:107:VAL:HG12	2.10	0.51
11:K:140:THR:HG21	11:K:164:CYS:HB3	1.93	0.51
14:N:71:VAL:C	14:N:73:GLU:N	2.68	0.51
14:N:226:LYS:HB3	14:N:226:LYS:HZ2	1.76	0.51
5:S:214:GLU:O	5:S:214:GLU:HG2	2.11	0.51
7:U:30:VAL:HG21	7:U:152:PRO:HG2	1.91	0.51
8:V:14:LEU:CD1	8:V:34:LEU:HD22	2.36	0.51
10:X:37:ASN:HB3	10:X:182:TRP:CE3	2.45	0.51
15:c:1213:LEU:CB	15:i:1009:ILE:HD11	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:e:1002:PRO:N	15:e:1003:PRO:CD	2.74	0.51
15:g:1021:SER:HB3	15:g:1091:VAL:HG21	1.93	0.51
9:I:7:LYS:CA	9:I:12:VAL:HG23	2.40	0.51
10:J:17:LYS:CG	10:J:156:ASN:HB3	2.41	0.51
5:S:61:SER:C	5:S:63:SER:H	2.18	0.51
6:T:215:ILE:HG12	6:T:216:VAL:N	2.26	0.51
8:V:5:ALA:HA	8:V:14:LEU:HA	1.93	0.51
15:i:1024:VAL:HG13	15:i:1084:GLN:HB3	1.93	0.51
15:i:1045:GLU:O	15:i:1049:VAL:HG23	2.10	0.51
15:l:1002:PRO:N	15:l:1003:PRO:CD	2.74	0.51
15:m:1072:GLN:NE2	15:n:1051:ARG:HH22	2.09	0.51
3:C:235:ILE:O	3:C:237:ASP:N	2.44	0.50
3:C:235:ILE:C	3:C:237:ASP:N	2.69	0.50
10:J:125:LEU:HD23	10:J:125:LEU:H	1.76	0.50
11:K:40:PRO:HG2	11:K:74:GLU:CD	2.36	0.50
5:S:204:LEU:O	5:S:205:LYS:C	2.54	0.50
8:V:163:ILE:CD1	8:V:170:GLY:HA2	2.40	0.50
11:Y:165:VAL:O	11:Y:169:GLU:HG3	2.10	0.50
15:j:1213:LEU:CB	15:p:1009:ILE:HD11	2.41	0.50
1:A:97:ALA:HB2	1:A:121:MET:HE2	1.93	0.50
1:A:220:LYS:HB2	1:A:220:LYS:HZ3	1.75	0.50
8:H:102:TYR:CD1	8:H:107:LYS:O	2.64	0.50
9:I:81:GLN:O	9:I:85:GLN:HB2	2.11	0.50
14:N:220:ASP:O	14:N:222:ALA:N	2.43	0.50
2:P:239:THR:O	2:P:243:ILE:HG13	2.11	0.50
3:Q:210:ARG:HG3	3:Q:210:ARG:NH1	2.25	0.50
7:U:168:ARG:HG2	7:U:169:GLN:N	2.24	0.50
8:V:7:THR:HB	8:V:107:LYS:NZ	2.26	0.50
15:c:1145:LEU:HD23	15:d:1185:GLN:CD	2.36	0.50
15:o:1050:ILE:HD13	15:o:1187:ASP:HB3	1.94	0.50
15:p:1024:VAL:HG13	15:p:1084:GLN:HB3	1.93	0.50
15:p:1050:ILE:HD13	15:p:1187:ASP:HB3	1.93	0.50
7:G:235:LEU:O	7:G:239:ILE:HG13	2.12	0.50
8:H:156:LYS:NZ	8:H:188:PHE:CD1	2.74	0.50
8:H:185:ARG:HG3	8:H:185:ARG:NH1	2.25	0.50
12:L:1:THR:CB	12:L:33:ARG:HH21	2.25	0.50
12:L:1:THR:CG2	12:L:33:ARG:HH21	2.25	0.50
14:N:80:LEU:CD2	14:N:84:GLU:HB2	2.41	0.50
2:P:246:ARG:HG3	2:P:246:ARG:NH1	2.27	0.50
5:S:99:HIS:CE1	13:a:79:HIS:NE2	2.79	0.50
6:T:82:ARG:O	6:T:86:ASN:HB2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:U:47:PHE:CE2	7:U:74:GLY:HA3	2.45	0.50
7:U:74:GLY:HA2	7:U:227:HIS:CD2	2.46	0.50
8:V:1:THR:OG1	8:V:2:SER:N	2.42	0.50
9:W:52:THR:HG22	9:W:96:ALA:HB1	1.92	0.50
14:b:43:ILE:HB	14:b:51:VAL:HG23	1.93	0.50
15:i:1050:ILE:HD13	15:i:1187:ASP:HB3	1.93	0.50
5:E:170:LYS:HD2	5:E:171:ALA:H	1.75	0.50
5:E:176:SER:O	5:E:180:GLN:HB2	2.11	0.50
14:N:13:SER:HB2	14:N:21:ILE:O	2.10	0.50
14:N:27:LEU:HD21	14:N:34:LEU:HD12	1.92	0.50
14:N:48:ASN:HD22	14:N:48:ASN:N	2.07	0.50
2:P:190:HIS:CE1	2:P:194:LEU:HD11	2.46	0.50
3:Q:72:LYS:HG2	3:Q:225:VAL:CG2	2.41	0.50
3:Q:112:VAL:HG22	3:Q:137:TYR:CG	2.46	0.50
4:R:132:SER:HB3	4:R:164:ILE:HD12	1.92	0.50
5:S:97:VAL:HG11	12:Z:65:LEU:HD22	1.93	0.50
5:S:231:TYR:HD1	5:S:231:TYR:H	1.59	0.50
8:V:66:TYR:O	8:V:67:THR:C	2.52	0.50
11:Y:18:SER:O	11:Y:34:LYS:NZ	2.41	0.50
15:j:1145:LEU:HD23	15:k:1185:GLN:CD	2.36	0.50
15:k:1062:LYS:N	15:l:1177:PRO:HG3	2.26	0.50
15:m:1146:ARG:HG2	15:m:1146:ARG:HH11	1.76	0.50
15:o:1146:ARG:HG2	15:o:1146:ARG:HH11	1.77	0.50
1:A:68:THR:O	7:G:157:TRP:HE3	1.94	0.50
2:B:241:GLN:O	2:B:244:ASN:ND2	2.45	0.50
4:D:49:ARG:NH2	15:d:1230:VAL:O	2.44	0.50
5:E:56:SER:OG	5:E:57:PRO:HD2	2.11	0.50
9:I:105:PRO:O	9:I:106:THR:HG23	2.12	0.50
14:N:154:LEU:C	14:N:156:ARG:H	2.19	0.50
14:N:211:ASN:C	14:N:212:LEU:HD13	2.36	0.50
1:O:37:GLN:HB2	15:o:1230:VAL:HG21	1.93	0.50
2:P:244:ASN:O	2:P:248:GLU:HG3	2.11	0.50
3:Q:80:LEU:HD22	3:Q:80:LEU:N	2.24	0.50
7:U:38:GLY:O	7:U:161:GLY:HA2	2.11	0.50
8:V:58:ILE:O	8:V:61:TYR:HB3	2.11	0.50
9:W:217:ILE:N	9:W:217:ILE:HD12	2.27	0.50
11:Y:20:ALA:HB2	11:Y:177:LYS:CG	2.42	0.50
14:b:13:SER:HB2	14:b:21:ILE:O	2.11	0.50
14:b:154:LEU:C	14:b:156:ARG:H	2.20	0.50
15:d:1050:ILE:HD13	15:d:1187:ASP:HB3	1.93	0.50
15:m:1024:VAL:HG13	15:m:1084:GLN:HB3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:103:GLU:HG3	1:A:107:LYS:HD3	1.94	0.50
1:A:225:VAL:O	1:A:236:LEU:HB2	2.12	0.50
3:C:4:ARG:NH2	4:D:6:ARG:HG2	2.25	0.50
6:F:39:ARG:HD3	6:F:142:ALA:HB1	1.93	0.50
8:H:184:GLU:OE2	8:H:186:LEU:HD21	2.11	0.50
10:J:37:ASN:HB3	10:J:182:TRP:CE3	2.46	0.50
12:L:191:HIS:N	12:L:191:HIS:HD2	2.10	0.50
14:N:101:TYR:O	14:N:102:GLN:C	2.54	0.50
1:O:28:VAL:O	1:O:31:ALA:HB3	2.12	0.50
2:P:213:ILE:HD12	2:P:213:ILE:O	2.12	0.50
3:Q:4:ARG:HH21	4:R:6:ARG:HD3	1.76	0.50
3:Q:99:LEU:HA	3:Q:104:GLU:O	2.12	0.50
6:T:51:ARG:O	6:T:59:TYR:HA	2.12	0.50
6:T:147:PHE:CD1	6:T:147:PHE:C	2.89	0.50
8:V:6:VAL:C	8:V:12:VAL:HG23	2.37	0.50
9:W:63:ILE:HG13	9:W:82:MET:HE2	1.94	0.50
10:X:20:VAL:HG22	10:X:189:ILE:HB	1.93	0.50
14:b:37:ASN:C	14:b:39:VAL:H	2.18	0.50
15:d:1062:LYS:N	15:e:1177:PRO:HG3	2.26	0.50
15:f:1002:PRO:N	15:f:1003:PRO:CD	2.74	0.50
2:B:86:VAL:CG1	2:B:87:ASP:N	2.72	0.50
10:J:119:PHE:HD2	10:J:120:ILE:H	1.59	0.50
1:O:12:TYR:HE1	2:P:7:PHE:CE2	2.29	0.50
1:O:103:GLU:HG3	1:O:107:LYS:HD3	1.92	0.50
2:P:19:GLY:O	2:P:20:GLN:C	2.54	0.50
3:Q:185:LYS:CD	3:Q:186:VAL:H	2.18	0.50
5:S:167:TYR:CE1	5:S:170:LYS:HD3	2.46	0.50
5:S:213:ASP:C	5:S:215:ASN:H	2.19	0.50
7:U:235:LEU:O	7:U:239:ILE:HG13	2.12	0.50
10:X:166:ILE:HG23	10:X:167:SER:N	2.26	0.50
15:f:1146:ARG:HH11	15:f:1146:ARG:HG2	1.76	0.50
15:i:1002:PRO:N	15:i:1003:PRO:CD	2.75	0.50
15:k:1050:ILE:HD13	15:k:1187:ASP:HB3	1.93	0.50
15:o:1072:GLN:NE2	15:p:1051:ARG:HH22	2.09	0.50
1:A:53:VAL:C	1:A:54:ILE:HD12	2.36	0.50
1:A:83:VAL:HG13	1:A:141:LEU:HD23	1.94	0.50
1:A:97:ALA:HB2	1:A:121:MET:CE	2.41	0.50
8:H:82:PHE:HB3	8:H:113:ILE:HD12	1.92	0.50
8:H:190:PRO:O	8:H:192:GLU:N	2.44	0.50
13:M:152:ASN:O	13:M:156:PHE:HA	2.12	0.50
1:O:87:ILE:HG13	1:O:91:ARG:CD	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:163:TYR:CD1	1:O:163:TYR:C	2.87	0.50
3:Q:235:ILE:C	3:Q:237:ASP:N	2.69	0.50
4:R:27:VAL:HG11	4:R:132:SER:HB2	1.94	0.50
15:f:1043:ALA:HB2	15:f:1070:VAL:HG11	1.94	0.50
15:i:1043:ALA:HB2	15:i:1070:VAL:HG11	1.94	0.50
15:j:1002:PRO:N	15:j:1003:PRO:CD	2.75	0.50
15:j:1200:HIS:HE1	15:p:1089:ARG:HH22	1.58	0.50
15:l:1050:ILE:HD13	15:l:1187:ASP:HB3	1.94	0.50
15:n:1021:SER:HB3	15:n:1091:VAL:HG21	1.93	0.50
1:A:128:TYR:HD1	1:A:133:TYR:HH	1.56	0.50
2:B:213:ILE:HD12	2:B:213:ILE:O	2.11	0.50
2:B:239:THR:O	2:B:243:ILE:HG13	2.11	0.50
6:F:94:TYR:C	6:F:94:TYR:CD2	2.90	0.50
8:H:126:ILE:O	8:H:126:ILE:HG13	2.11	0.50
9:I:8:PHE:HD2	9:I:9:ASN:N	2.10	0.50
9:I:188:ARG:O	9:I:189:ASN:CB	2.59	0.50
11:K:39:SER:CB	11:K:40:PRO:HD2	2.40	0.50
1:O:17:THR:O	1:O:17:THR:HG22	2.12	0.50
1:O:71:TYR:OH	15:o:1231:SER:CB	2.60	0.50
6:T:59:TYR:CE1	6:T:209:ASP:HB3	2.47	0.50
8:V:13:ILE:CG1	8:V:177:VAL:HG22	2.34	0.50
11:Y:50:ALA:O	11:Y:53:THR:HG22	2.12	0.50
13:a:36:ASN:O	13:a:37:SER:HB2	2.12	0.50
13:a:85:SER:O	13:a:88:SER:N	2.45	0.50
14:b:146:PHE:O	14:b:147:GLY:C	2.55	0.50
15:c:1002:PRO:N	15:c:1003:PRO:CD	2.75	0.50
15:d:1087:THR:O	15:d:1091:VAL:HG23	2.12	0.50
15:d:1143:TYR:OH	15:e:1193:LYS:HG2	2.12	0.50
15:h:1146:ARG:HG2	15:h:1146:ARG:HH11	1.77	0.50
15:n:1002:PRO:N	15:n:1003:PRO:CD	2.75	0.50
3:C:80:LEU:HD23	3:C:132:GLY:O	2.12	0.49
5:E:39:GLY:O	5:E:169:ALA:HA	2.11	0.49
5:E:64:ILE:HG22	5:E:64:ILE:O	2.12	0.49
5:E:208:MET:HE1	5:E:216:ASN:OD1	2.12	0.49
7:G:90:ARG:HG2	7:G:118:TYR:CE1	2.47	0.49
7:G:169:GLN:N	7:G:169:GLN:OE1	2.41	0.49
8:H:97:ILE:HD11	8:H:99:VAL:HG23	1.94	0.49
9:I:21:THR:HG22	9:I:23:GLY:O	2.12	0.49
9:I:98:LEU:HD12	9:I:98:LEU:H	1.76	0.49
14:N:26:ASN:O	14:N:39:VAL:HB	2.12	0.49
1:O:92:ASN:O	1:O:95:LEU:N	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:4:ARG:NH2	4:R:6:ARG:HG2	2.26	0.49
3:Q:218:LYS:HG3	3:Q:224:GLU:C	2.36	0.49
4:R:199:LEU:C	4:R:201:GLU:H	2.20	0.49
7:U:197:LYS:HZ2	7:U:201:LEU:HD21	1.77	0.49
8:V:126:ILE:HG13	8:V:126:ILE:O	2.12	0.49
14:b:48:ASN:HD22	14:b:48:ASN:N	2.07	0.49
14:b:71:VAL:C	14:b:73:GLU:H	2.19	0.49
14:b:80:LEU:HD12	14:b:80:LEU:N	2.27	0.49
15:f:1024:VAL:HG13	15:f:1084:GLN:HB3	1.93	0.49
15:g:1002:PRO:N	15:g:1003:PRO:CD	2.75	0.49
15:m:1158:LYS:HB2	15:m:1179:LEU:HD21	1.93	0.49
1:A:185:HIS:ND1	1:A:185:HIS:C	2.70	0.49
2:B:44:VAL:CA	2:B:213:ILE:HG22	2.42	0.49
4:D:187:THR:HB	4:D:190:GLU:HG2	1.93	0.49
5:E:220:SER:HA	5:E:231:TYR:CD1	2.47	0.49
6:F:89:ARG:CZ	13:M:77:PHE:CD1	2.95	0.49
7:G:108:ILE:N	7:G:109:PRO:CD	2.74	0.49
7:G:240:ASP:HA	7:G:243:GLN:HB2	1.94	0.49
13:M:147:MET:N	13:M:148:PRO:CD	2.75	0.49
14:N:35:ARG:CG	14:N:35:ARG:O	2.61	0.49
14:N:48:ASN:H	14:N:48:ASN:ND2	2.10	0.49
2:P:71:ILE:HD11	2:P:107:THR:HA	1.94	0.49
6:T:179:PHE:CD1	6:T:180:ILE:N	2.80	0.49
9:W:189:ASN:C	9:W:191:LEU:H	2.20	0.49
15:l:1146:ARG:HG2	15:l:1146:ARG:HH11	1.77	0.49
15:m:1050:ILE:HD13	15:m:1187:ASP:HB3	1.93	0.49
2:B:19:GLY:O	2:B:20:GLN:C	2.55	0.49
5:E:61:SER:C	5:E:63:SER:N	2.70	0.49
6:F:227:GLY:C	6:F:229:ALA:H	2.20	0.49
7:G:92:ARG:NE	14:N:76:TYR:CD1	2.80	0.49
7:G:136:ILE:HD11	7:G:163:ALA:HA	1.95	0.49
11:K:51:GLY:HA3	12:L:118:ASP:O	2.11	0.49
11:K:152:MET:HA	11:K:156:GLU:OE2	2.11	0.49
1:O:83:VAL:HG13	1:O:141:LEU:HD23	1.93	0.49
2:P:200:VAL:HG12	2:P:202:GLY:N	2.25	0.49
5:S:32:LYS:O	5:S:174:SER:HB3	2.11	0.49
6:T:39:ARG:HD3	6:T:142:ALA:HB1	1.92	0.49
7:U:108:ILE:N	7:U:109:PRO:CD	2.75	0.49
7:U:169:GLN:N	7:U:169:GLN:OE1	2.38	0.49
8:V:25:TYR:CE1	9:W:132:LEU:HD22	2.47	0.49
9:W:8:PHE:CD2	9:W:9:ASN:N	2.79	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Z:4:LEU:C	12:Z:4:LEU:HD22	2.36	0.49
14:b:23:ALA:O	14:b:24:ALA:HB2	2.12	0.49
14:b:159:VAL:O	14:b:159:VAL:HG23	2.11	0.49
15:d:1146:ARG:HG2	15:d:1146:ARG:HH11	1.77	0.49
15:e:1050:ILE:HD13	15:e:1187:ASP:HB3	1.94	0.49
15:k:1021:SER:HB3	15:k:1091:VAL:HG21	1.94	0.49
15:k:1143:TYR:OH	15:l:1193:LYS:HG2	2.12	0.49
15:p:1002:PRO:N	15:p:1003:PRO:CD	2.75	0.49
1:A:230:LYS:HE3	1:A:230:LYS:CA	2.32	0.49
2:B:244:ASN:ND2	2:B:244:ASN:N	2.60	0.49
4:D:73:LEU:HD23	4:D:73:LEU:C	2.37	0.49
5:E:61:SER:C	5:E:63:SER:H	2.18	0.49
13:M:222:ASP:CG	9:W:19:ARG:HH22	2.20	0.49
14:N:172:VAL:HA	14:N:175:GLU:HG2	1.94	0.49
1:O:77:ARG:O	1:O:77:ARG:CG	2.59	0.49
1:O:188:LYS:C	1:O:190:LYS:H	2.21	0.49
1:O:206:ALA:O	1:O:207:ILE:C	2.54	0.49
3:Q:183:ASP:O	3:Q:184:MET:C	2.55	0.49
6:T:94:TYR:C	6:T:94:TYR:CD2	2.91	0.49
7:U:136:ILE:HD11	7:U:163:ALA:HA	1.94	0.49
12:Z:176:ASN:ND2	12:Z:187:TYR:OH	2.45	0.49
13:a:23:LEU:HD13	13:a:43:VAL:HG13	1.95	0.49
14:b:71:VAL:C	14:b:73:GLU:N	2.69	0.49
15:d:1021:SER:HB3	15:d:1091:VAL:HG21	1.94	0.49
15:k:1043:ALA:HB2	15:k:1070:VAL:HG11	1.94	0.49
15:m:1072:GLN:CD	15:n:1051:ARG:HH12	2.21	0.49
1:A:37:GLN:HB2	15:h:1230:VAL:CG1	2.39	0.49
1:A:66:PRO:HA	1:A:69:VAL:CG2	2.42	0.49
2:B:246:ARG:HG3	2:B:246:ARG:NH1	2.28	0.49
3:C:183:ASP:O	3:C:184:MET:C	2.56	0.49
7:G:113:ASP:O	7:G:114:ARG:C	2.55	0.49
7:G:168:ARG:O	7:G:171:ALA:HB3	2.12	0.49
8:H:58:ILE:O	8:H:61:TYR:HB3	2.13	0.49
8:H:137:TYR:O	8:H:139:ASP:N	2.46	0.49
10:J:88:GLN:HE21	10:J:88:GLN:CA	2.22	0.49
12:L:87:VAL:CG1	12:L:117:SER:HA	2.42	0.49
12:L:124:GLY:HA3	12:L:127:PHE:CE2	2.47	0.49
12:L:186:ILE:HD12	12:L:186:ILE:N	2.27	0.49
13:M:147:MET:HE3	10:X:176:ARG:HH22	1.76	0.49
1:O:45:VAL:HA	1:O:168:ALA:CB	2.42	0.49
5:S:184:LEU:HD22	6:T:56:LEU:HD23	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S:198:LEU:O	5:S:202:LYS:HB2	2.13	0.49
8:V:157:HIS:CE1	8:V:196:LEU:HD13	2.47	0.49
9:W:216:SER:C	9:W:217:ILE:HD12	2.38	0.49
12:Z:76:VAL:N	12:Z:108:GLU:OE1	2.44	0.49
15:f:1045:GLU:O	15:f:1049:VAL:HG23	2.12	0.49
15:f:1050:ILE:HD13	15:f:1187:ASP:HB3	1.93	0.49
15:h:1050:ILE:HD13	15:h:1187:ASP:HB3	1.94	0.49
1:A:83:VAL:HG11	1:A:90:ALA:CB	2.43	0.49
1:A:225:VAL:CG1	1:A:226:GLY:N	2.76	0.49
9:I:3:ILE:HG22	9:I:16:ALA:CB	2.42	0.49
11:K:161:LEU:HD22	11:K:195:PHE:HE2	1.77	0.49
13:M:92:ASN:OD1	13:M:92:ASN:C	2.56	0.49
14:N:23:ALA:O	14:N:24:ALA:HB2	2.13	0.49
1:O:227:VAL:HB	1:O:234:PHE:CE1	2.47	0.49
3:Q:80:LEU:HD23	3:Q:132:GLY:O	2.12	0.49
3:Q:81:THR:HG22	3:Q:82:ALA:N	2.27	0.49
4:R:34:VAL:HG12	4:R:199:LEU:HD21	1.95	0.49
7:U:90:ARG:CD	7:U:118:TYR:CE1	2.95	0.49
8:V:8:PHE:HE1	8:V:11:GLY:H	1.59	0.49
12:Z:72:GLU:HA	12:Z:72:GLU:OE2	2.12	0.49
13:a:12:ILE:HD13	13:a:110:ILE:HD12	1.95	0.49
13:a:134:GLU:CD	13:a:137:ARG:HE	2.20	0.49
15:c:1045:GLU:O	15:c:1049:VAL:HG23	2.12	0.49
15:g:1079:HIS:C	15:g:1079:HIS:CD2	2.90	0.49
15:n:1062:LYS:N	15:o:1177:PRO:HG3	2.28	0.49
1:A:36:ASN:C	1:A:38:THR:N	2.69	0.49
1:A:167:LYS:HB3	1:A:167:LYS:HZ3	1.77	0.49
5:E:126:GLY:O	5:E:127:ALA:CB	2.60	0.49
5:E:184:LEU:HD22	6:F:56:LEU:HD23	1.93	0.49
7:G:60:PRO:HB3	7:G:212:GLU:OE2	2.11	0.49
1:O:66:PRO:HA	1:O:69:VAL:CG2	2.43	0.49
2:P:241:GLN:O	2:P:244:ASN:ND2	2.46	0.49
3:Q:185:LYS:HD2	3:Q:186:VAL:N	2.19	0.49
5:S:33:LEU:HD22	15:l:1227:ASP:OD2	2.12	0.49
10:X:81:ILE:HD11	10:X:86:PHE:HA	1.94	0.49
13:a:12:ILE:HD12	13:a:12:ILE:O	2.13	0.49
14:b:172:VAL:HA	14:b:175:GLU:HG2	1.95	0.49
15:f:1072:GLN:CD	15:g:1051:ARG:HH12	2.21	0.49
15:l:1072:GLN:NE2	15:m:1051:ARG:HH12	2.10	0.49
15:n:1079:HIS:C	15:n:1079:HIS:CD2	2.90	0.49
6:F:82:ARG:O	6:F:86:ASN:HB2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:123:TYR:CG	6:F:124:GLY:N	2.80	0.49
7:G:121:ALA:HA	7:G:124:LEU:CD1	2.42	0.49
10:J:17:LYS:CG	10:J:156:ASN:HD22	2.26	0.49
12:L:4:LEU:C	12:L:4:LEU:HD22	2.38	0.49
12:L:8:PHE:CE1	12:L:13:ILE:HG12	2.48	0.49
13:M:115:ASP:OD1	13:M:117:ASP:N	2.46	0.49
5:S:126:GLY:O	5:S:127:ALA:CB	2.61	0.49
7:U:44:GLY:HA2	7:U:140:VAL:CG2	2.43	0.49
9:W:100:VAL:CG1	9:W:111:PHE:HB2	2.42	0.49
15:d:1043:ALA:HB2	15:d:1070:VAL:HG11	1.94	0.49
15:e:1021:SER:HB3	15:e:1091:VAL:HG21	1.95	0.49
15:e:1072:GLN:NE2	15:f:1051:ARG:HH12	2.10	0.49
15:g:1062:LYS:N	15:h:1177:PRO:HG3	2.28	0.49
15:n:1050:ILE:HD13	15:n:1187:ASP:HB3	1.95	0.49
2:B:36:GLY:O	2:B:161:ALA:HA	2.13	0.49
3:C:112:VAL:HG22	3:C:137:TYR:CG	2.48	0.49
4:D:62:SER:O	4:D:63:LYS:HB3	2.13	0.49
6:F:89:ARG:NE	13:M:77:PHE:CE1	2.81	0.49
8:H:66:TYR:O	8:H:67:THR:C	2.56	0.49
10:J:95:TYR:C	10:J:97:ARG:N	2.70	0.49
14:N:25:ASP:C	14:N:25:ASP:OD2	2.56	0.49
14:N:159:VAL:HG23	14:N:159:VAL:O	2.13	0.49
1:O:106:TYR:HB2	8:V:61:TYR:HD2	1.78	0.49
2:P:9:LEU:HD13	2:P:122:THR:O	2.13	0.49
2:P:170:ALA:HA	2:P:173:THR:HB	1.95	0.49
6:T:217:GLY:O	6:T:218:LYS:C	2.55	0.49
7:U:60:PRO:O	7:U:61:GLN:CB	2.61	0.49
7:U:113:ASP:O	7:U:114:ARG:C	2.54	0.49
8:V:82:PHE:CD1	8:V:97:ILE:HG12	2.48	0.49
14:b:146:PHE:O	14:b:149:HIS:N	2.38	0.49
15:m:1045:GLU:O	15:m:1049:VAL:HG23	2.12	0.49
1:A:157:THR:HA	1:A:162:TYR:O	2.13	0.49
3:C:208:TYR:C	3:C:210:ARG:N	2.71	0.49
7:G:60:PRO:O	7:G:61:GLN:CB	2.61	0.49
9:I:31:CYS:SG	9:I:32:ALA:N	2.85	0.49
9:I:189:ASN:C	9:I:191:LEU:N	2.71	0.49
13:M:36:ASN:O	13:M:37:SER:HB2	2.13	0.49
13:M:111:ILE:HG12	13:M:123:TYR:HB2	1.95	0.49
14:N:37:ASN:C	14:N:39:VAL:H	2.20	0.49
14:N:103:ARG:CZ	14:N:110:LEU:HD11	2.42	0.49
6:T:114:ASP:O	6:T:118:LYS:HD3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:V:38:HIS:HB3	8:V:41:ILE:HB	1.95	0.49
13:a:115:ASP:OD1	13:a:117:ASP:N	2.45	0.49
15:l:1021:SER:HB3	15:l:1091:VAL:HG21	1.95	0.49
1:A:104:PHE:CG	1:A:112:MET:HG3	2.48	0.48
1:A:227:VAL:HB	1:A:234:PHE:CE1	2.48	0.48
4:D:99:THR:C	4:D:100:LEU:HD12	2.38	0.48
5:E:213:ASP:C	5:E:215:ASN:H	2.21	0.48
6:F:179:PHE:C	6:F:181:LYS:H	2.21	0.48
11:K:22:THR:HG22	11:K:26:SER:O	2.13	0.48
12:L:72:GLU:OE2	12:L:72:GLU:HA	2.11	0.48
5:S:61:SER:C	5:S:63:SER:N	2.70	0.48
6:T:215:ILE:CG1	6:T:216:VAL:N	2.76	0.48
7:U:92:ARG:NE	14:b:76:TYR:CD1	2.81	0.48
8:V:97:ILE:HD11	8:V:99:VAL:HG23	1.95	0.48
8:V:185:ARG:HG3	8:V:185:ARG:NH1	2.27	0.48
10:X:14:MET:HE3	10:X:166:ILE:CG1	2.38	0.48
13:a:6:GLY:O	13:a:57:PHE:CD1	2.66	0.48
14:b:24:ALA:O	14:b:25:ASP:O	2.30	0.48
14:b:49:THR:HG22	14:b:50:VAL:N	2.28	0.48
15:f:1066:GLN:CB	15:f:1066:GLN:N	2.71	0.48
15:n:1145:LEU:HD23	15:o:1185:GLN:CD	2.38	0.48
15:o:1002:PRO:N	15:o:1003:PRO:CD	2.76	0.48
3:C:4:ARG:HH21	4:D:6:ARG:HD3	1.77	0.48
6:F:217:GLY:O	6:F:218:LYS:C	2.56	0.48
8:H:133:PHE:HE2	8:H:166:ASP:HB2	1.75	0.48
9:I:137:VAL:HG12	9:I:137:VAL:O	2.14	0.48
11:K:25:ILE:HG12	11:Y:139:TYR:OH	2.12	0.48
12:L:96:SER:O	12:L:97:MET:HB3	2.12	0.48
1:O:63:LEU:O	7:U:160:LYS:HG3	2.13	0.48
1:O:134:MET:HE2	7:U:124:LEU:HD22	1.94	0.48
2:P:145:PHE:CE1	2:P:214:ILE:HG22	2.47	0.48
3:Q:70:ASN:HD22	3:Q:71:ASP:N	2.07	0.48
8:V:69:GLN:HG3	8:V:70:TYR:CD1	2.48	0.48
11:Y:1:MET:HG2	11:Y:2:ASP:H	1.78	0.48
13:a:4:PRO:O	14:b:104:ARG:NH1	2.45	0.48
14:b:151:ALA:O	14:b:152:ASN:C	2.55	0.48
15:h:1079:HIS:C	15:h:1079:HIS:CD2	2.92	0.48
15:k:1087:THR:O	15:k:1091:VAL:HG23	2.12	0.48
15:l:1045:GLU:O	15:l:1049:VAL:HG23	2.13	0.48
1:A:92:ASN:O	1:A:95:LEU:N	2.42	0.48
1:A:188:LYS:C	1:A:190:LYS:H	2.19	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:20:TYR:O	3:C:21:GLN:C	2.55	0.48
6:F:114:ASP:O	6:F:118:LYS:HD3	2.13	0.48
7:G:31:GLU:O	7:G:31:GLU:HG3	2.12	0.48
7:G:194:GLN:HE21	7:G:194:GLN:CA	2.22	0.48
8:H:4:MET:HB2	8:H:125:ALA:O	2.14	0.48
8:H:4:MET:HE1	8:H:158:SER:CB	2.44	0.48
9:I:176:CYS:SG	9:I:178:MET:HE2	2.53	0.48
13:M:164:THR:O	13:M:167:LYS:HB2	2.13	0.48
14:N:80:LEU:HD12	14:N:80:LEU:N	2.27	0.48
14:N:141:THR:HG21	14:N:155:LEU:O	2.13	0.48
1:O:126:GLN:C	1:O:126:GLN:NE2	2.71	0.48
1:O:225:VAL:O	1:O:236:LEU:HB2	2.12	0.48
1:O:231:ASP:O	1:O:232:LYS:HB2	2.13	0.48
2:P:28:VAL:C	2:P:30:GLN:N	2.69	0.48
3:Q:152:ASN:HB2	3:Q:153:PRO:HD2	1.95	0.48
4:R:78:LEU:HA	15:k:1230:VAL:HA	1.95	0.48
5:S:213:ASP:OD1	5:S:215:ASN:HB2	2.12	0.48
6:T:94:TYR:C	6:T:94:TYR:HD2	2.22	0.48
7:U:85:ARG:HG2	7:U:85:ARG:NH1	2.28	0.48
10:X:125:LEU:HD23	10:X:125:LEU:H	1.77	0.48
10:X:166:ILE:CG2	10:X:167:SER:N	2.77	0.48
12:Z:38:ASN:HB2	12:Z:39:PRO:HD2	1.95	0.48
13:a:29:ASN:OD1	13:a:36:ASN:HB2	2.12	0.48
15:e:1024:VAL:HG13	15:e:1084:GLN:HB3	1.95	0.48
15:g:1050:ILE:HD13	15:g:1187:ASP:HB3	1.95	0.48
15:j:1024:VAL:HG13	15:j:1084:GLN:HB3	1.95	0.48
15:j:1050:ILE:HD13	15:j:1187:ASP:HB3	1.95	0.48
3:C:176:LEU:C	3:C:178:MET:N	2.70	0.48
4:D:160:SER:OG	4:D:181:ARG:NH1	2.46	0.48
5:E:91:HIS:CG	5:E:119:LEU:HD12	2.48	0.48
10:J:148:MET:HE3	10:J:152:LEU:HD11	1.96	0.48
14:N:49:THR:HG22	14:N:50:VAL:N	2.28	0.48
14:N:194:ASN:HD22	14:N:211:ASN:ND2	2.12	0.48
2:P:86:VAL:CG1	2:P:87:ASP:N	2.76	0.48
4:R:78:LEU:HD23	15:k:1230:VAL:HG22	1.94	0.48
5:S:56:SER:OG	5:S:57:PRO:HD2	2.13	0.48
5:S:98:THR:CG2	5:S:102:TYR:CE1	2.96	0.48
6:T:189:LEU:HD23	6:T:189:LEU:O	2.14	0.48
7:U:80:LEU:N	7:U:80:LEU:CD2	2.77	0.48
8:V:106:ASN:O	8:V:107:LYS:HB3	2.13	0.48
9:W:137:VAL:O	9:W:137:VAL:HG12	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:W:188:ARG:O	9:W:189:ASN:CB	2.61	0.48
10:X:10:ILE:HG21	10:X:141:ALA:HB3	1.95	0.48
11:Y:95:ARG:HH11	11:Y:95:ARG:HG2	1.78	0.48
14:b:56:ASP:OD2	14:b:58:SER:N	2.46	0.48
14:b:169:THR:O	14:b:171:GLN:N	2.47	0.48
15:j:1045:GLU:O	15:j:1049:VAL:HG23	2.12	0.48
15:k:1146:ARG:HG2	15:k:1146:ARG:HH11	1.77	0.48
15:m:1043:ALA:HB2	15:m:1070:VAL:HG11	1.94	0.48
2:B:37:ILE:HB	2:B:44:VAL:CG1	2.43	0.48
5:E:204:LEU:O	5:E:205:LYS:C	2.55	0.48
6:F:179:PHE:CD1	6:F:180:ILE:N	2.81	0.48
8:H:82:PHE:CD1	8:H:97:ILE:HG12	2.48	0.48
11:K:11:ASP:O	11:K:12:SER:HB3	2.13	0.48
12:L:45:MET:O	12:L:45:MET:HG2	2.13	0.48
12:L:116:ASP:C	12:L:116:ASP:OD1	2.56	0.48
2:P:218:ASN:HD21	2:P:236:ARG:CD	2.18	0.48
3:Q:15:PRO:HB3	15:l:1105:LEU:HD11	1.95	0.48
3:Q:176:LEU:C	3:Q:178:MET:N	2.70	0.48
4:R:62:SER:O	4:R:63:LYS:HB3	2.14	0.48
8:V:163:ILE:HG23	8:V:170:GLY:CA	2.36	0.48
8:V:195:GLN:O	8:V:196:LEU:O	2.31	0.48
13:a:175:LEU:H	13:a:175:LEU:CD1	2.01	0.48
14:b:89:PRO:HD2	14:b:120:GLN:OE1	2.13	0.48
15:g:1087:THR:O	15:g:1091:VAL:HG23	2.14	0.48
15:i:1191:MET:HE2	15:i:1191:MET:HA	1.96	0.48
15:j:1051:ARG:HH12	15:p:1072:GLN:CD	2.22	0.48
15:n:1087:THR:O	15:n:1091:VAL:HG23	2.14	0.48
15:o:1045:GLU:O	15:o:1049:VAL:HG23	2.14	0.48
15:p:1043:ALA:HB2	15:p:1070:VAL:HG11	1.94	0.48
4:D:31:THR:HB	4:D:47:GLU:CG	2.44	0.48
4:D:72:VAL:CG1	4:D:221:ILE:HD13	2.44	0.48
7:G:39:ILE:HD12	7:G:195:ALA:HB2	1.96	0.48
8:H:38:HIS:HB3	8:H:41:ILE:HB	1.96	0.48
9:I:165:ASN:HD21	14:b:153:PRO:HA	1.78	0.48
9:I:216:SER:C	9:I:217:ILE:HD12	2.39	0.48
14:N:43:ILE:HD13	14:N:64:GLU:CG	2.38	0.48
14:N:43:ILE:HB	14:N:51:VAL:HG23	1.95	0.48
1:O:73:PHE:N	1:O:73:PHE:CD1	2.81	0.48
6:T:176:LEU:O	6:T:180:ILE:HG22	2.13	0.48
8:V:102:TYR:CD1	8:V:107:LYS:O	2.66	0.48
11:Y:161:LEU:HD22	11:Y:195:PHE:HE2	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Z:104:TYR:CE2	12:Z:110:PRO:HG3	2.49	0.48
12:Z:186:ILE:HD12	12:Z:186:ILE:N	2.28	0.48
13:a:46:CYS:SG	13:a:52:MET:HB3	2.53	0.48
13:a:80:ASN:O	13:a:82:LYS:N	2.46	0.48
13:a:111:ILE:HG12	13:a:123:TYR:HB2	1.96	0.48
15:h:1021:SER:HB3	15:h:1091:VAL:HG21	1.96	0.48
1:A:63:LEU:O	7:G:160:LYS:HG3	2.13	0.48
3:C:92:ARG:NE	10:J:75:LEU:HD23	2.29	0.48
7:G:90:ARG:CD	7:G:118:TYR:CE1	2.96	0.48
9:I:21:THR:O	9:I:22:GLN:CB	2.61	0.48
10:J:171:LEU:HD21	10:J:199:LEU:HD13	1.95	0.48
2:P:37:ILE:HB	2:P:44:VAL:CG1	2.44	0.48
2:P:218:ASN:O	2:P:220:ASP:N	2.46	0.48
2:P:241:GLN:C	2:P:243:ILE:N	2.71	0.48
9:W:8:PHE:HD2	9:W:9:ASN:N	2.10	0.48
14:b:27:LEU:HD21	14:b:34:LEU:HD12	1.96	0.48
15:c:1050:ILE:HD13	15:c:1187:ASP:HB3	1.95	0.48
15:g:1145:LEU:HD23	15:h:1185:GLN:CD	2.38	0.48
15:h:1002:PRO:N	15:h:1003:PRO:CD	2.76	0.48
1:A:43:LEU:HD23	1:A:178:ILE:HG23	1.96	0.48
1:A:188:LYS:O	1:A:190:LYS:N	2.46	0.48
1:A:231:ASP:O	1:A:232:LYS:HB2	2.13	0.48
3:C:185:LYS:HD2	3:C:186:VAL:N	2.20	0.48
4:D:199:LEU:C	4:D:201:GLU:H	2.22	0.48
5:E:52:LYS:HB2	5:E:216:ASN:HA	1.95	0.48
6:F:208:VAL:O	6:F:227:GLY:HA2	2.14	0.48
8:H:97:ILE:HD11	8:H:99:VAL:CG2	2.43	0.48
13:M:12:ILE:HD12	13:M:12:ILE:O	2.14	0.48
1:O:15:HIS:CB	1:O:18:ILE:HD13	2.42	0.48
1:O:200:GLU:HG2	1:O:244:ARG:HH21	1.79	0.48
8:V:10:ASP:CG	8:V:179:THR:HG22	2.38	0.48
10:X:97:ARG:HG3	10:X:102:TYR:CE2	2.48	0.48
10:X:107:VAL:O	10:X:107:VAL:HG12	2.13	0.48
11:Y:85:ARG:O	11:Y:89:ALA:HB2	2.14	0.48
13:a:152:ASN:C	13:a:152:ASN:HD22	2.22	0.48
15:o:1043:ALA:HB2	15:o:1070:VAL:HG11	1.95	0.48
2:B:94:HIS:CD2	9:I:61:SER:HB2	2.43	0.48
4:D:31:THR:HB	4:D:47:GLU:HG2	1.95	0.48
5:E:60:GLU:O	5:E:62:ASP:N	2.46	0.48
5:E:103:TYR:O	13:M:88:SER:HA	2.14	0.48
8:H:1:THR:HG21	8:H:33:LYS:HZ2	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:3:ILE:HD12	8:H:44:CYS:SG	2.54	0.48
8:H:8:PHE:HD2	8:H:147:SER:O	1.97	0.48
8:H:106:ASN:O	8:H:107:LYS:HB3	2.14	0.48
13:M:85:SER:O	13:M:88:SER:N	2.46	0.48
14:N:146:PHE:O	14:N:147:GLY:C	2.55	0.48
1:O:91:ARG:NH1	7:U:156:TYR:CE2	2.82	0.48
1:O:97:ALA:HB2	1:O:121:MET:CE	2.43	0.48
1:O:218:PHE:O	1:O:245:LEU:HD21	2.13	0.48
3:Q:182:ASP:O	3:Q:183:ASP:HB3	2.13	0.48
3:Q:192:LEU:HA	3:Q:195:LYS:HB3	1.95	0.48
4:R:97:ARG:CZ	4:R:103:PRO:HB3	2.44	0.48
5:S:52:LYS:HB2	5:S:216:ASN:HA	1.95	0.48
7:U:150:LEU:HD11	7:U:154:GLY:HA2	1.96	0.48
8:V:147:SER:OG	8:V:150:GLU:N	2.36	0.48
9:W:76:VAL:N	9:W:104:ASP:OD2	2.46	0.48
10:X:171:LEU:HD21	10:X:199:LEU:HD13	1.94	0.48
13:a:73:LYS:HE3	13:a:77:PHE:HE2	1.78	0.48
13:a:156:PHE:HE2	13:a:172:LEU:HA	1.78	0.48
13:a:164:THR:O	13:a:167:LYS:HB2	2.13	0.48
14:b:130:VAL:CB	14:b:136:THR:HG22	2.44	0.48
14:b:188:ASP:O	14:b:190:ARG:N	2.46	0.48
15:c:1024:VAL:HG13	15:c:1084:GLN:HB3	1.95	0.48
15:c:1051:ARG:HH12	15:i:1072:GLN:CD	2.22	0.48
15:e:1045:GLU:O	15:e:1049:VAL:HG23	2.13	0.48
15:e:1146:ARG:HG2	15:e:1146:ARG:HH11	1.77	0.48
15:h:1045:GLU:O	15:h:1049:VAL:HG23	2.14	0.48
1:A:106:TYR:HB2	8:H:61:TYR:HD2	1.78	0.48
3:C:218:LYS:HG3	3:C:224:GLU:C	2.37	0.48
3:C:222:ASP:C	3:C:224:GLU:N	2.62	0.48
6:F:64:ILE:HB	6:F:72:LEU:HD22	1.96	0.48
7:G:240:ASP:O	7:G:242:ALA:N	2.46	0.48
9:I:100:VAL:CG1	9:I:111:PHE:HB2	2.44	0.48
11:K:162:LYS:O	11:K:166:GLN:HG3	2.14	0.48
13:M:173:LYS:CD	13:M:174:TYR:N	2.74	0.48
1:O:53:VAL:C	1:O:54:ILE:HD12	2.39	0.48
3:Q:79:GLY:O	3:Q:80:LEU:C	2.57	0.48
3:Q:120:GLN:NE2	3:Q:121:GLY:N	2.62	0.48
7:U:117:GLN:O	7:U:120:GLN:HB3	2.14	0.48
10:X:17:LYS:CG	10:X:156:ASN:HB3	2.44	0.48
10:X:141:ALA:HB2	10:X:177:ASP:CB	2.43	0.48
11:Y:152:MET:HA	11:Y:156:GLU:OE2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:b:48:ASN:H	14:b:48:ASN:ND2	2.10	0.48
15:h:1043:ALA:HB2	15:h:1070:VAL:HG11	1.95	0.48
15:n:1024:VAL:HG13	15:n:1084:GLN:HB3	1.95	0.48
15:n:1043:ALA:HB2	15:n:1070:VAL:HG11	1.95	0.48
15:o:1089:ARG:HH22	15:p:1200:HIS:HE1	1.62	0.48
1:A:97:ALA:HB1	1:A:117:LEU:HD11	1.96	0.47
1:A:188:LYS:C	1:A:190:LYS:N	2.72	0.47
3:C:86:ILE:O	3:C:90:THR:HG23	2.14	0.47
3:C:182:ASP:O	3:C:183:ASP:HB3	2.13	0.47
6:F:215:ILE:CG1	6:F:216:VAL:N	2.77	0.47
11:K:1:MET:HG2	11:K:2:ASP:H	1.79	0.47
1:O:115:ASP:OD2	9:W:72:ARG:NH1	2.46	0.47
9:W:21:THR:HB	9:W:22:GLN:H	1.57	0.47
9:W:76:VAL:HG12	9:W:111:PHE:HE2	1.79	0.47
10:X:83:PRO:HB2	10:X:119:PHE:HD1	1.79	0.47
10:X:88:GLN:HE21	10:X:88:GLN:CA	2.23	0.47
11:Y:35:THR:CG2	11:Y:36:ARG:H	2.27	0.47
15:c:1177:PRO:HG3	15:i:1062:LYS:N	2.29	0.47
15:d:1090:THR:O	15:d:1094:ILE:HG12	2.14	0.47
15:m:1066:GLN:CB	15:m:1066:GLN:N	2.72	0.47
1:A:38:THR:CG2	1:A:85:GLY:HA2	2.44	0.47
1:A:73:PHE:N	1:A:73:PHE:CD1	2.82	0.47
1:A:210:MET:O	1:A:211:ILE:C	2.57	0.47
1:A:244:ARG:HD2	1:A:244:ARG:H	1.80	0.47
2:B:28:VAL:C	2:B:30:GLN:N	2.67	0.47
2:B:98:LYS:HA	2:B:103:GLU:O	2.13	0.47
6:F:74:LEU:C	6:F:74:LEU:HD12	2.40	0.47
7:G:150:LEU:HD12	7:G:155:SER:O	2.14	0.47
10:J:166:ILE:HG23	10:J:167:SER:N	2.28	0.47
13:M:176:SER:O	13:M:177:VAL:C	2.56	0.47
14:N:169:THR:O	14:N:171:GLN:N	2.47	0.47
14:N:176:ALA:O	14:N:179:ASN:N	2.47	0.47
1:O:41:ASN:O	1:O:55:SER:HA	2.14	0.47
1:O:149:GLU:O	1:O:150:LEU:HG	2.14	0.47
1:O:185:HIS:ND1	1:O:185:HIS:O	2.47	0.47
6:T:179:PHE:C	6:T:181:LYS:H	2.20	0.47
8:V:8:PHE:CD1	8:V:8:PHE:C	2.91	0.47
8:V:148:LYS:O	8:V:152:VAL:HG23	2.14	0.47
9:W:104:ASP:C	9:W:106:THR:H	2.22	0.47
13:a:176:SER:O	13:a:177:VAL:C	2.57	0.47
15:c:1213:LEU:HB2	15:i:1009:ILE:HD11	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:d:1145:LEU:HD23	15:e:1185:GLN:CD	2.40	0.47
15:e:1043:ALA:HB2	15:e:1070:VAL:HG11	1.95	0.47
15:o:1062:LYS:N	15:p:1177:PRO:HG3	2.29	0.47
1:A:45:VAL:HA	1:A:168:ALA:CB	2.44	0.47
3:C:109:GLU:CD	3:C:113:ARG:HH21	2.23	0.47
5:E:143:LEU:HD11	5:E:172:ILE:HG12	1.97	0.47
6:F:94:TYR:C	6:F:94:TYR:HD2	2.21	0.47
7:G:39:ILE:CD1	7:G:195:ALA:HB2	2.44	0.47
8:H:6:VAL:C	8:H:12:VAL:HG23	2.39	0.47
1:O:30:TYR:O	1:O:31:ALA:C	2.56	0.47
1:O:167:LYS:NZ	1:O:167:LYS:HB3	2.29	0.47
3:Q:36:ILE:HG22	3:Q:37:GLY:N	2.30	0.47
5:S:130:GLU:O	5:S:131:GLU:HB2	2.14	0.47
5:S:209:GLU:HG3	5:S:210:GLU:N	2.29	0.47
6:T:82:ARG:HG3	6:T:82:ARG:HH11	1.79	0.47
6:T:144:LEU:HD12	6:T:145:LEU:N	2.29	0.47
6:T:213:ILE:CG2	6:T:214:ALA:N	2.76	0.47
9:W:175:VAL:HG12	9:W:176:CYS:N	2.29	0.47
10:X:87:THR:HG23	10:X:123:PHE:CZ	2.49	0.47
13:a:122:VAL:CG1	13:a:123:TYR:N	2.77	0.47
15:d:1024:VAL:HG13	15:d:1084:GLN:HB3	1.96	0.47
15:f:1089:ARG:HH22	15:g:1200:HIS:CE1	2.32	0.47
15:g:1045:GLU:O	15:g:1049:VAL:HG23	2.15	0.47
15:k:1145:LEU:HD23	15:l:1185:GLN:CD	2.40	0.47
15:o:1021:SER:HB3	15:o:1091:VAL:HG21	1.96	0.47
1:A:51:THR:O	1:A:227:VAL:HG13	2.14	0.47
1:A:126:GLN:C	1:A:126:GLN:NE2	2.73	0.47
7:G:126:ASN:HD22	7:G:126:ASN:C	2.22	0.47
9:I:76:VAL:HG12	9:I:111:PHE:HE2	1.79	0.47
11:K:19:LYS:HG2	11:K:180:ILE:HG13	1.95	0.47
11:K:35:THR:CG2	11:K:36:ARG:N	2.76	0.47
14:N:130:VAL:CB	14:N:136:THR:HG22	2.44	0.47
7:U:37:ILE:HA	7:U:163:ALA:CB	2.45	0.47
7:U:196:ALA:O	7:U:200:TYR:HD1	1.97	0.47
9:W:38:SER:O	9:W:39:PRO:C	2.57	0.47
15:g:1024:VAL:HG13	15:g:1084:GLN:HB3	1.95	0.47
15:k:1090:THR:O	15:k:1094:ILE:HG12	2.14	0.47
15:l:1024:VAL:HG13	15:l:1084:GLN:HB3	1.95	0.47
15:p:1079:HIS:CD2	15:p:1079:HIS:C	2.92	0.47
1:A:53:VAL:O	1:A:54:ILE:HD12	2.15	0.47
2:B:139:HIS:HB2	2:B:145:PHE:CD1	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:39:MET:HE1	3:C:146:TYR:CB	2.39	0.47
3:C:152:ASN:HB2	3:C:153:PRO:HD2	1.96	0.47
5:E:136:ARG:HB2	5:E:137:PRO:HD2	1.97	0.47
6:F:206:LEU:CD2	6:F:206:LEU:N	2.73	0.47
8:H:45:ARG:NH1	8:H:45:ARG:CB	2.77	0.47
9:I:5:GLY:HA3	9:I:14:ILE:HG22	1.97	0.47
11:K:95:ARG:HG2	11:K:95:ARG:HH11	1.78	0.47
1:O:53:VAL:HG13	1:O:144:VAL:HG11	1.95	0.47
1:O:167:LYS:HB3	1:O:167:LYS:HZ3	1.80	0.47
1:O:188:LYS:O	1:O:190:LYS:N	2.47	0.47
3:Q:222:ASP:C	3:Q:224:GLU:N	2.61	0.47
8:V:137:TYR:O	8:V:139:ASP:N	2.48	0.47
10:X:18:ASP:HB3	10:X:191:LYS:NZ	2.30	0.47
12:Z:124:GLY:HA3	12:Z:127:PHE:CE2	2.49	0.47
15:h:1089:ARG:HH22	15:i:1200:HIS:HE1	1.62	0.47
15:j:1177:PRO:HG3	15:p:1062:LYS:N	2.30	0.47
15:k:1079:HIS:CD2	15:k:1079:HIS:C	2.92	0.47
1:A:185:HIS:HA	1:A:188:LYS:HZ3	1.77	0.47
2:B:218:ASN:HB2	2:B:221:LEU:HD12	1.96	0.47
2:B:244:ASN:HA	2:B:247:LEU:HG	1.96	0.47
6:F:159:THR:OG1	6:F:160:ALA:N	2.48	0.47
6:F:171:TYR:C	6:F:171:TYR:HD2	2.23	0.47
7:G:34:THR:H	15:g:1231:SER:C	2.23	0.47
7:G:44:GLY:HA2	7:G:140:VAL:CG2	2.44	0.47
8:H:45:ARG:HB3	8:H:45:ARG:HH11	1.80	0.47
12:L:182:GLU:O	12:L:182:GLU:HG2	2.14	0.47
13:M:6:GLY:O	13:M:57:PHE:HD1	1.96	0.47
14:N:73:GLU:HA	14:N:76:TYR:CD2	2.44	0.47
1:O:158:ASP:HB2	1:O:159:PRO:HD2	1.96	0.47
4:R:202:VAL:O	4:R:202:VAL:HG12	2.13	0.47
5:S:98:THR:HG23	5:S:102:TYR:HE1	1.79	0.47
6:T:144:LEU:HD12	6:T:145:LEU:H	1.79	0.47
7:U:126:ASN:HD22	7:U:127:SER:N	2.11	0.47
9:W:3:ILE:HG22	9:W:16:ALA:CB	2.44	0.47
11:Y:19:LYS:HG2	11:Y:180:ILE:HG13	1.95	0.47
11:Y:23:ARG:HB2	11:Y:28:LEU:CD1	2.40	0.47
15:k:1024:VAL:HG13	15:k:1084:GLN:HB3	1.96	0.47
15:n:1146:ARG:HG2	15:n:1146:ARG:NH1	2.29	0.47
15:o:1072:GLN:CD	15:p:1051:ARG:HH12	2.23	0.47
1:A:12:TYR:HE1	2:B:7:PHE:CE2	2.33	0.47
1:A:17:THR:O	1:A:17:THR:HG22	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:101:ALA:HA	1:A:112:MET:CE	2.42	0.47
2:B:66:LEU:HD13	2:B:235:PHE:CD1	2.49	0.47
2:B:145:PHE:CE1	2:B:214:ILE:HG22	2.49	0.47
2:B:170:ALA:HA	2:B:173:THR:HB	1.95	0.47
2:B:174:PHE:HD1	2:B:195:THR:OG1	1.97	0.47
3:C:131:PHE:O	3:C:153:PRO:HB3	2.15	0.47
3:C:185:LYS:CD	3:C:186:VAL:H	2.20	0.47
3:C:245:THR:HG22	3:C:245:THR:O	2.14	0.47
5:E:38:ILE:HB	5:E:200:VAL:HG13	1.97	0.47
5:E:98:THR:CG2	5:E:102:TYR:CE1	2.96	0.47
8:H:19:ARG:HB3	8:H:170:GLY:H	1.78	0.47
8:H:111:TYR:CE2	8:H:121:LYS:HD2	2.47	0.47
8:H:131:SER:O	8:H:135:TYR:HD1	1.98	0.47
8:H:143:ARG:HH12	8:H:146:MET:HE2	1.79	0.47
9:I:3:ILE:HD12	9:I:44:ALA:HB3	1.97	0.47
9:I:144:GLN:HG3	9:I:145:ASP:N	2.30	0.47
10:J:84:GLU:CD	10:J:84:GLU:N	2.72	0.47
11:K:28:LEU:N	11:K:28:LEU:CD1	2.77	0.47
11:K:103:LEU:HD21	11:K:118:GLN:HG3	1.96	0.47
13:M:29:ASN:OD1	13:M:36:ASN:HB2	2.15	0.47
13:M:122:VAL:CG1	13:M:123:TYR:N	2.77	0.47
14:N:129:TYR:HD1	14:N:130:VAL:N	2.13	0.47
1:O:83:VAL:HG11	1:O:90:ALA:CB	2.44	0.47
1:O:225:VAL:CG1	1:O:226:GLY:N	2.78	0.47
2:P:36:GLY:O	2:P:161:ALA:HA	2.14	0.47
3:Q:20:TYR:O	3:Q:21:GLN:C	2.56	0.47
3:Q:86:ILE:O	3:Q:90:THR:HG23	2.15	0.47
3:Q:230:PHE:N	3:Q:230:PHE:CD1	2.83	0.47
4:R:72:VAL:CG1	4:R:221:ILE:HD13	2.45	0.47
6:T:171:TYR:C	6:T:171:TYR:HD2	2.23	0.47
7:U:69:VAL:O	7:U:70:ASP:HB3	2.14	0.47
8:V:8:PHE:HD2	8:V:147:SER:O	1.98	0.47
10:X:84:GLU:CD	10:X:84:GLU:N	2.73	0.47
13:a:161:GLU:OE1	13:a:171:PRO:HD2	2.14	0.47
15:e:1145:LEU:HD23	15:f:1185:GLN:CD	2.40	0.47
15:g:1043:ALA:HB2	15:g:1070:VAL:HG11	1.95	0.47
15:h:1062:LYS:N	15:i:1177:PRO:HG3	2.29	0.47
15:i:1079:HIS:C	15:i:1079:HIS:CD2	2.92	0.47
15:j:1021:SER:HB3	15:j:1091:VAL:HG21	1.96	0.47
15:j:1213:LEU:HB2	15:p:1009:ILE:HD11	1.96	0.47
15:k:1146:ARG:HG2	15:k:1146:ARG:NH1	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:l:1145:LEU:HD23	15:m:1185:GLN:CD	2.40	0.47
15:n:1045:GLU:O	15:n:1049:VAL:HG23	2.15	0.47
1:A:53:VAL:HG13	1:A:144:VAL:HG11	1.95	0.47
1:A:242:GLU:O	1:A:245:LEU:HB3	2.15	0.47
2:B:90:ARG:NH1	9:I:68:LEU:HB3	2.30	0.47
3:C:93:ILE:N	3:C:93:ILE:HD12	2.29	0.47
4:D:97:ARG:CZ	4:D:103:PRO:HB3	2.45	0.47
8:H:12:VAL:HG22	8:H:13:ILE:N	2.29	0.47
9:I:137:VAL:HG21	9:I:161:ALA:CB	2.45	0.47
10:J:10:ILE:HG21	10:J:141:ALA:HB3	1.95	0.47
3:Q:245:THR:O	3:Q:245:THR:HG22	2.15	0.47
5:S:27:SER:O	5:S:30:ALA:HB3	2.15	0.47
6:T:123:TYR:CG	6:T:124:GLY:N	2.82	0.47
9:W:144:GLN:HG3	9:W:145:ASP:N	2.30	0.47
14:b:11:VAL:O	14:b:143:ALA:HA	2.14	0.47
14:b:119:VAL:HG23	14:b:200:ILE:HG22	1.97	0.47
15:h:1024:VAL:HG13	15:h:1084:GLN:HB3	1.96	0.47
15:l:1043:ALA:HB2	15:l:1070:VAL:HG11	1.95	0.47
15:p:1191:MET:HE2	15:p:1191:MET:HA	1.96	0.47
1:A:218:PHE:O	1:A:245:LEU:HD21	2.14	0.47
2:B:243:ILE:O	2:B:246:ARG:N	2.46	0.47
5:E:130:GLU:O	5:E:131:GLU:HB2	2.14	0.47
8:H:5:ALA:HB2	8:H:14:LEU:HB3	1.96	0.47
12:L:104:TYR:CE2	12:L:110:PRO:HG3	2.50	0.47
1:O:37:GLN:CB	15:o:1230:VAL:HG11	2.41	0.47
1:O:76:SER:C	1:O:78:THR:H	2.23	0.47
1:O:218:PHE:CD2	1:O:223:LEU:HD11	2.50	0.47
1:O:242:GLU:O	1:O:245:LEU:HB3	2.15	0.47
2:P:48:GLU:OE1	2:P:200:VAL:HG13	2.15	0.47
3:Q:29:ILE:C	3:Q:31:HIS:N	2.73	0.47
4:R:99:THR:C	4:R:100:LEU:HD12	2.39	0.47
6:T:69:HIS:HE1	6:T:70:MET:CE	2.25	0.47
12:Z:52:CYS:O	12:Z:56:GLU:HB2	2.15	0.47
13:a:3:ASN:HD22	13:a:4:PRO:N	2.13	0.47
14:b:15:LYS:HG3	14:b:127:LEU:HD22	1.97	0.47
15:c:1021:SER:HB3	15:c:1091:VAL:HG21	1.96	0.47
15:e:1079:HIS:C	15:e:1079:HIS:CD2	2.93	0.47
1:A:37:GLN:CB	15:h:1230:VAL:HG11	2.43	0.47
1:A:41:ASN:O	1:A:55:SER:HA	2.15	0.47
1:A:146:VAL:HB	1:A:229:THR:O	2.15	0.47
1:A:167:LYS:HB3	1:A:167:LYS:NZ	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:64:VAL:HG11	2:B:212:ALA:CB	2.43	0.47
6:F:59:TYR:CE1	6:F:209:ASP:HB3	2.50	0.47
6:F:74:LEU:HD22	6:F:81:ALA:CB	2.45	0.47
10:J:166:ILE:CG2	10:J:167:SER:N	2.78	0.47
12:L:38:ASN:HB2	12:L:39:PRO:HD2	1.96	0.47
12:L:176:ASN:ND2	12:L:190:ASN:HB2	2.28	0.47
4:R:29:ARG:HG2	4:R:29:ARG:NH1	2.28	0.47
5:S:60:GLU:O	5:S:62:ASP:N	2.48	0.47
7:U:121:ALA:HA	7:U:124:LEU:CD1	2.43	0.47
7:U:136:ILE:CD1	7:U:163:ALA:HA	2.45	0.47
12:Z:32:LYS:NZ	13:a:132:GLU:HG3	2.29	0.47
12:Z:116:ASP:OD1	12:Z:116:ASP:C	2.58	0.47
14:b:97:ALA:O	14:b:98:THR:C	2.57	0.47
14:b:210:LYS:O	14:b:211:ASN:C	2.58	0.47
15:e:1009:ILE:HD11	15:f:1213:LEU:CB	2.45	0.47
15:g:1146:ARG:HG2	15:g:1146:ARG:NH1	2.29	0.47
15:o:1079:HIS:C	15:o:1079:HIS:CD2	2.92	0.47
1:A:88:PRO:HG2	1:A:89:ASP:H	1.79	0.46
1:A:91:ARG:NH1	7:G:156:TYR:CD2	2.83	0.46
2:B:218:ASN:O	2:B:220:ASP:N	2.49	0.46
4:D:50:SER:HA	4:D:53:LYS:CD	2.45	0.46
5:E:222:ILE:HG12	5:E:223:THR:N	2.28	0.46
12:L:176:ASN:ND2	12:L:190:ASN:HD22	2.12	0.46
13:M:73:LYS:HE3	13:M:77:PHE:HE2	1.80	0.46
1:O:146:VAL:HB	1:O:229:THR:O	2.15	0.46
2:P:174:PHE:HD1	2:P:195:THR:OG1	1.96	0.46
2:P:218:ASN:HB2	2:P:221:LEU:HD12	1.97	0.46
4:R:168:SER:HA	4:R:171:VAL:HG22	1.97	0.46
6:T:227:GLY:C	6:T:229:ALA:H	2.23	0.46
7:U:240:ASP:O	7:U:242:ALA:N	2.48	0.46
9:W:21:THR:HG22	9:W:23:GLY:O	2.15	0.46
9:W:137:VAL:HG21	9:W:161:ALA:CB	2.45	0.46
11:Y:28:LEU:N	11:Y:28:LEU:CD1	2.78	0.46
15:d:1146:ARG:HG2	15:d:1146:ARG:NH1	2.30	0.46
15:m:1079:HIS:CD2	15:m:1079:HIS:C	2.93	0.46
1:A:42:SER:O	1:A:170:ALA:HA	2.16	0.46
1:A:185:HIS:ND1	1:A:185:HIS:O	2.49	0.46
1:A:196:GLU:HG2	1:A:201:LYS:CB	2.44	0.46
2:B:241:GLN:C	2:B:243:ILE:N	2.71	0.46
3:C:230:PHE:N	3:C:230:PHE:CD1	2.83	0.46
4:D:50:SER:OG	4:D:53:LYS:HE2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:38:LEU:N	6:F:38:LEU:HD23	2.30	0.46
7:G:90:ARG:HD3	7:G:118:TYR:CE1	2.49	0.46
8:H:34:LEU:CD2	8:H:44:CYS:HB3	2.44	0.46
8:H:111:TYR:HA	8:H:120:HIS:O	2.15	0.46
9:I:50:ALA:HB3	10:J:126:ILE:CD1	2.46	0.46
9:I:134:ALA:HB1	9:I:158:ALA:HB1	1.97	0.46
10:J:71:ASN:O	10:J:75:LEU:CD1	2.63	0.46
11:K:138:PHE:HD1	11:K:138:PHE:H	1.59	0.46
13:M:80:ASN:O	13:M:82:LYS:N	2.47	0.46
14:N:188:ASP:O	14:N:190:ARG:N	2.48	0.46
1:O:162:TYR:CD1	1:O:163:TYR:N	2.83	0.46
2:P:147:LEU:HD23	2:P:159:TRP:HB2	1.96	0.46
7:U:126:ASN:ND2	7:U:126:ASN:C	2.73	0.46
8:V:97:ILE:HD11	8:V:99:VAL:CG2	2.45	0.46
8:V:111:TYR:CE2	8:V:121:LYS:HD2	2.49	0.46
9:W:5:GLY:HA3	9:W:14:ILE:HG22	1.98	0.46
11:Y:35:THR:HG21	11:Y:43:LEU:HD11	1.97	0.46
12:Z:8:PHE:CE1	12:Z:13:ILE:HG12	2.50	0.46
12:Z:35:ILE:CD1	12:Z:45:MET:HE3	2.44	0.46
14:b:176:ALA:O	14:b:179:ASN:N	2.49	0.46
14:b:194:ASN:HD22	14:b:211:ASN:ND2	2.12	0.46
15:e:1146:ARG:HG2	15:e:1146:ARG:NH1	2.30	0.46
15:h:1146:ARG:HG2	15:h:1146:ARG:NH1	2.30	0.46
15:o:1009:ILE:HD11	15:p:1213:LEU:CB	2.46	0.46
1:A:32:PHE:O	1:A:35:THR:N	2.40	0.46
3:C:51:LYS:NZ	15:c:1227:ASP:HB3	2.30	0.46
4:D:79:ASN:CB	15:d:1231:SER:OG	2.62	0.46
6:F:213:ILE:CG2	6:F:214:ALA:N	2.78	0.46
6:F:234:ILE:HG22	6:F:234:ILE:OXT	2.15	0.46
9:I:10:ASN:O	9:I:179:GLU:HG2	2.15	0.46
12:L:66:HIS:HD2	12:L:74:ILE:HB	1.80	0.46
14:N:227:GLY:H	8:V:32:ASP:CG	2.23	0.46
2:P:244:ASN:HA	2:P:247:LEU:HG	1.97	0.46
5:S:97:VAL:HG21	12:Z:65:LEU:HD13	1.96	0.46
7:U:10:SER:HB2	7:U:13:VAL:HG23	1.97	0.46
8:V:45:ARG:NH1	8:V:45:ARG:CB	2.78	0.46
8:V:131:SER:O	8:V:135:TYR:HD1	1.98	0.46
8:V:184:GLU:OE2	8:V:186:LEU:HD21	2.15	0.46
9:W:67:SER:HB2	9:W:72:ARG:O	2.15	0.46
14:b:129:TYR:HD1	14:b:130:VAL:N	2.10	0.46
15:d:1079:HIS:C	15:d:1079:HIS:CD2	2.92	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:e:1090:THR:O	15:e:1094:ILE:HG12	2.16	0.46
15:f:1079:HIS:C	15:f:1079:HIS:CD2	2.93	0.46
15:o:1024:VAL:HG13	15:o:1084:GLN:HB3	1.97	0.46
2:B:9:LEU:HD13	2:B:122:THR:O	2.16	0.46
6:F:198:SER:HA	6:F:201:LEU:HG	1.98	0.46
11:K:162:LYS:HB2	11:K:162:LYS:HZ2	1.80	0.46
1:O:43:LEU:HD23	1:O:178:ILE:HG23	1.96	0.46
1:O:196:GLU:HG2	1:O:201:LYS:CB	2.45	0.46
4:R:49:ARG:CZ	15:k:1231:SER:HB3	2.46	0.46
6:T:64:ILE:HB	6:T:72:LEU:HD22	1.96	0.46
7:U:39:ILE:CD1	7:U:195:ALA:HB2	2.45	0.46
8:V:4:MET:HE1	8:V:158:SER:CB	2.45	0.46
8:V:12:VAL:HG22	8:V:13:ILE:N	2.29	0.46
13:a:108:HIS:CD2	13:a:139:GLY:HA3	2.51	0.46
14:b:25:ASP:OD2	14:b:25:ASP:C	2.57	0.46
14:b:206:LEU:HD23	14:b:206:LEU:C	2.41	0.46
15:f:1146:ARG:HG2	15:f:1146:ARG:NH1	2.31	0.46
15:h:1072:GLN:CD	15:i:1051:ARG:HH12	2.23	0.46
15:m:1089:ARG:HH22	15:n:1200:HIS:CE1	2.32	0.46
4:D:202:VAL:O	4:D:202:VAL:HG12	2.14	0.46
5:E:59:LEU:HD11	5:E:64:ILE:CD1	2.42	0.46
5:E:97:VAL:HG11	12:L:65:LEU:HD22	1.97	0.46
6:F:31:GLN:NE2	15:f:1227:ASP:OD2	2.48	0.46
7:G:150:LEU:HD11	7:G:154:GLY:HA2	1.97	0.46
7:G:201:LEU:H	7:G:201:LEU:CD1	2.28	0.46
9:I:175:VAL:HG12	9:I:176:CYS:N	2.29	0.46
11:K:85:ARG:O	11:K:89:ALA:HB2	2.16	0.46
13:M:87:ASN:CG	13:M:88:SER:N	2.73	0.46
14:N:151:ALA:C	14:N:153:PRO:HD2	2.41	0.46
1:O:24:ARG:HG3	15:p:1102:GLU:OE1	2.15	0.46
1:O:87:ILE:N	1:O:88:PRO:CD	2.78	0.46
2:P:64:VAL:HG11	2:P:212:ALA:CB	2.44	0.46
7:U:39:ILE:HD12	7:U:195:ALA:HB2	1.97	0.46
7:U:83:ASP:CG	7:U:129:ARG:HH22	2.23	0.46
7:U:118:TYR:CE2	7:U:122:HIS:HE1	2.33	0.46
8:V:173:ILE:CG2	8:V:174:ARG:N	2.79	0.46
9:W:105:PRO:O	9:W:106:THR:HG23	2.16	0.46
11:Y:22:THR:HG22	11:Y:26:SER:O	2.16	0.46
15:l:1009:ILE:HD11	15:m:1213:LEU:CB	2.45	0.46
2:B:84:VAL:C	2:B:86:VAL:N	2.70	0.46
3:C:9:ARG:CZ	3:C:12:ILE:HD11	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:42:ASP:OD1	3:C:186:VAL:HG23	2.15	0.46
7:G:16:PRO:HD2	15:h:1102:GLU:OE2	2.15	0.46
8:H:44:CYS:SG	8:H:98:ILE:HB	2.55	0.46
8:H:163:ILE:CD1	8:H:170:GLY:HA2	2.43	0.46
1:O:38:THR:CG2	1:O:85:GLY:HA2	2.45	0.46
2:P:66:LEU:HD13	2:P:235:PHE:CD1	2.51	0.46
4:R:31:THR:HB	4:R:47:GLU:HG2	1.97	0.46
5:S:130:GLU:CG	5:S:131:GLU:H	2.24	0.46
5:S:165:TYR:HB2	5:S:167:TYR:HE2	1.81	0.46
5:S:209:GLU:CA	5:S:209:GLU:OE1	2.63	0.46
5:S:219:LEU:O	5:S:231:TYR:HB2	2.15	0.46
6:T:34:VAL:CG1	6:T:163:ALA:O	2.64	0.46
8:V:3:ILE:HD12	8:V:44:CYS:SG	2.56	0.46
8:V:4:MET:HB2	8:V:125:ALA:O	2.15	0.46
8:V:34:LEU:CD2	8:V:44:CYS:HB3	2.44	0.46
15:o:1146:ARG:HG2	15:o:1146:ARG:NH1	2.30	0.46
2:B:147:LEU:HD23	2:B:159:TRP:HB2	1.98	0.46
3:C:175:LEU:CD1	3:C:199:LYS:HD2	2.24	0.46
5:E:15:PHE:CD1	5:E:21:LEU:HD21	2.50	0.46
5:E:198:LEU:O	5:E:202:LYS:HB2	2.16	0.46
6:F:46:LEU:HD22	6:F:73:SER:OG	2.15	0.46
7:G:196:ALA:O	7:G:200:TYR:HD1	1.98	0.46
8:H:8:PHE:CD1	8:H:8:PHE:C	2.91	0.46
8:H:148:LYS:O	8:H:152:VAL:HG23	2.14	0.46
10:J:18:ASP:HB3	10:J:191:LYS:NZ	2.30	0.46
10:J:141:ALA:HB2	10:J:177:ASP:CB	2.44	0.46
1:O:42:SER:O	1:O:170:ALA:HA	2.15	0.46
1:O:97:ALA:HB1	1:O:117:LEU:HD11	1.98	0.46
1:O:210:MET:O	1:O:211:ILE:C	2.58	0.46
2:P:244:ASN:ND2	2:P:244:ASN:N	2.59	0.46
3:Q:208:TYR:C	3:Q:210:ARG:N	2.72	0.46
5:S:136:ARG:HB2	5:S:137:PRO:HD2	1.97	0.46
5:S:198:LEU:HB3	5:S:243:LEU:HD23	1.97	0.46
6:T:46:LEU:HD22	6:T:73:SER:OG	2.16	0.46
6:T:159:THR:OG1	6:T:160:ALA:N	2.48	0.46
7:U:106:ILE:HA	7:U:107:PRO:HD3	1.72	0.46
7:U:126:ASN:HD22	7:U:126:ASN:C	2.24	0.46
11:Y:198:GLN:HE21	11:Y:198:GLN:HB3	1.58	0.46
13:a:87:ASN:CG	13:a:88:SER:N	2.73	0.46
15:e:1009:ILE:HD11	15:f:1213:LEU:HB2	1.97	0.46
15:h:1119:GLU:O	15:h:1123:LYS:HG2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:k:1204:MET:O	15:k:1208:VAL:HG23	2.16	0.46
1:A:30:TYR:O	1:A:31:ALA:C	2.56	0.46
1:A:162:TYR:CD1	1:A:163:TYR:N	2.84	0.46
1:A:195:ASN:HD22	1:A:195:ASN:C	2.23	0.46
1:A:200:GLU:HG2	1:A:244:ARG:HH21	1.79	0.46
3:C:44:ILE:CG2	3:C:138:ALA:HB1	2.45	0.46
7:G:10:SER:HB2	7:G:13:VAL:HG23	1.97	0.46
9:I:76:VAL:N	9:I:104:ASP:OD2	2.46	0.46
13:M:3:ASN:HD22	13:M:4:PRO:N	2.13	0.46
13:M:4:PRO:O	14:N:104:ARG:NH1	2.46	0.46
1:O:158:ASP:HB2	1:O:159:PRO:CD	2.45	0.46
1:O:195:ASN:O	1:O:196:GLU:HB2	2.16	0.46
3:Q:186:VAL:HG12	3:Q:190:ILE:HD11	1.98	0.46
3:Q:194:LEU:C	3:Q:196:THR:N	2.74	0.46
8:V:16:ALA:O	8:V:17:ASP:O	2.34	0.46
8:V:122:LEU:HB3	8:V:123:PRO:HD2	1.97	0.46
8:V:156:LYS:HG3	8:V:175:MET:CE	2.46	0.46
9:W:90:TYR:O	9:W:91:GLN:C	2.58	0.46
15:h:1009:ILE:HD11	15:i:1213:LEU:CB	2.46	0.46
15:j:1146:ARG:HG2	15:j:1146:ARG:HH11	1.81	0.46
15:m:1089:ARG:NH2	15:n:1200:HIS:CE1	2.84	0.46
1:A:15:HIS:CB	1:A:18:ILE:HD13	2.44	0.46
2:B:28:VAL:HG12	2:B:29:LYS:N	2.30	0.46
5:E:143:LEU:HA	5:E:143:LEU:HD23	1.81	0.46
5:E:165:TYR:HB2	5:E:167:TYR:HE2	1.81	0.46
6:F:51:ARG:O	6:F:59:TYR:HA	2.15	0.46
7:G:51:LYS:HE3	7:G:63:ASN:O	2.16	0.46
7:G:209:LYS:O	7:G:210:ASP:C	2.59	0.46
8:H:5:ALA:CB	8:H:14:LEU:HB3	2.46	0.46
9:I:38:SER:HB3	9:I:41:ILE:HG13	1.98	0.46
9:I:38:SER:O	9:I:39:PRO:C	2.59	0.46
1:O:104:PHE:HB3	1:O:112:MET:HE2	1.98	0.46
1:O:176:GLN:HE21	1:O:180:THR:CG2	2.28	0.46
2:P:44:VAL:HG23	2:P:213:ILE:CG2	2.45	0.46
2:P:84:VAL:C	2:P:86:VAL:N	2.71	0.46
3:Q:233:GLN:O	3:Q:234:GLU:C	2.59	0.46
4:R:59:ILE:H	4:R:59:ILE:CD1	2.08	0.46
6:T:144:LEU:O	6:T:145:LEU:HD12	2.16	0.46
8:V:19:ARG:HB3	8:V:170:GLY:H	1.81	0.46
15:d:1191:MET:HE2	15:d:1191:MET:HA	1.98	0.46
15:e:1089:ARG:HH22	15:f:1200:HIS:HE1	1.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:f:1089:ARG:NH2	15:g:1200:HIS:CE1	2.84	0.46
15:l:1090:THR:O	15:l:1094:ILE:HG12	2.16	0.46
1:A:158:ASP:HB2	1:A:159:PRO:HD2	1.97	0.46
4:D:29:ARG:HG2	4:D:29:ARG:NH1	2.29	0.46
7:G:117:GLN:O	7:G:120:GLN:HB3	2.16	0.46
7:G:136:ILE:CD1	7:G:163:ALA:HA	2.46	0.46
8:H:156:LYS:HG3	8:H:175:MET:CE	2.46	0.46
9:I:90:TYR:O	9:I:91:GLN:C	2.58	0.46
10:J:71:ASN:O	10:J:75:LEU:HD12	2.16	0.46
12:L:5:ALA:HA	12:L:13:ILE:O	2.16	0.46
13:M:57:PHE:O	13:M:58:ALA:C	2.58	0.46
1:O:12:TYR:CE1	2:P:7:PHE:CE2	3.03	0.46
1:O:176:GLN:HE21	1:O:180:THR:HG23	1.81	0.46
4:R:50:SER:OG	4:R:53:LYS:HE2	2.16	0.46
5:S:142:LEU:HB2	5:S:158:ALA:HB3	1.97	0.46
7:U:201:LEU:CD1	7:U:201:LEU:H	2.29	0.46
12:Z:20:ALA:HB2	12:Z:31:VAL:HG21	1.98	0.46
15:f:1191:MET:HE2	15:f:1191:MET:HA	1.98	0.46
15:h:1191:MET:HE2	15:h:1191:MET:HA	1.97	0.46
15:l:1009:ILE:HD11	15:m:1213:LEU:HB2	1.97	0.46
15:m:1146:ARG:HG2	15:m:1146:ARG:NH1	2.31	0.46
15:o:1143:TYR:OH	15:p:1193:LYS:HG2	2.15	0.46
1:A:59:VAL:HG11	1:A:66:PRO:HG3	1.97	0.45
2:B:18:LEU:HD21	3:C:129:ARG:HD2	1.98	0.45
3:C:79:GLY:O	3:C:80:LEU:C	2.59	0.45
3:C:233:GLN:O	3:C:234:GLU:C	2.58	0.45
4:D:29:ARG:NH1	15:d:1230:VAL:HG21	2.32	0.45
6:F:82:ARG:HH11	6:F:82:ARG:HG3	1.80	0.45
12:L:76:VAL:N	12:L:108:GLU:OE1	2.47	0.45
2:P:3:ASP:OD1	15:j:1103:ASP:N	2.50	0.45
4:R:31:THR:HB	4:R:47:GLU:CG	2.45	0.45
4:R:48:ARG:C	4:R:50:SER:H	2.24	0.45
4:R:187:THR:HB	4:R:190:GLU:HG2	1.97	0.45
5:S:143:LEU:HD11	5:S:172:ILE:HG12	1.98	0.45
5:S:192:THR:HG1	5:S:195:GLU:HG3	1.81	0.45
7:U:92:ARG:NE	14:b:76:TYR:CE1	2.84	0.45
9:W:50:ALA:HB2	10:X:128:CYS:HB2	1.97	0.45
11:Y:120:ASP:C	11:Y:120:ASP:OD1	2.59	0.45
13:a:147:MET:N	13:a:148:PRO:CD	2.78	0.45
15:h:1143:TYR:OH	15:i:1193:LYS:HG2	2.15	0.45
15:k:1072:GLN:CD	15:l:1051:ARG:HH12	2.24	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:o:1191:MET:HE2	15:o:1191:MET:HA	1.97	0.45
2:B:176:GLU:HA	3:C:56:LEU:CD1	2.45	0.45
6:F:189:LEU:HD23	6:F:189:LEU:O	2.15	0.45
8:H:122:LEU:HB3	8:H:123:PRO:HD2	1.97	0.45
8:H:137:TYR:O	8:H:138:CYS:C	2.59	0.45
9:I:10:ASN:O	9:I:179:GLU:HA	2.16	0.45
9:I:67:SER:HB2	9:I:72:ARG:O	2.16	0.45
13:M:161:GLU:OE1	13:M:171:PRO:HD2	2.16	0.45
3:Q:230:PHE:N	3:Q:230:PHE:HD1	2.14	0.45
4:R:160:SER:OG	4:R:181:ARG:NH1	2.49	0.45
6:T:74:LEU:C	6:T:74:LEU:HD12	2.42	0.45
6:T:190:ILE:O	6:T:194:VAL:HG23	2.17	0.45
7:U:15:SER:OG	7:U:19:ARG:HB3	2.16	0.45
7:U:119:VAL:O	7:U:120:GLN:C	2.59	0.45
11:Y:75:LEU:HD12	11:Y:80:VAL:CG2	2.46	0.45
14:b:126:PHE:CD1	14:b:126:PHE:C	2.93	0.45
15:h:1036:ILE:HG12	15:h:1077:LEU:HD11	1.98	0.45
15:m:1191:MET:HE2	15:m:1191:MET:HA	1.98	0.45
15:p:1190:PHE:O	15:p:1194:VAL:HG23	2.16	0.45
1:A:86:PRO:HG3	15:h:1230:VAL:CA	2.25	0.45
2:B:200:VAL:HG12	2:B:201:GLU:N	2.31	0.45
2:B:207:ASP:C	2:B:209:ILE:H	2.24	0.45
4:D:27:VAL:HG11	4:D:132:SER:HB2	1.97	0.45
7:G:80:LEU:N	7:G:80:LEU:CD2	2.79	0.45
12:L:36:GLU:O	12:L:37:ILE:C	2.59	0.45
12:L:211:ILE:HD12	12:L:211:ILE:N	2.28	0.45
13:M:23:LEU:HD13	13:M:43:VAL:HG13	1.98	0.45
1:O:164:VAL:CG2	1:O:165:GLY:H	2.29	0.45
1:O:214:LEU:CD1	1:O:218:PHE:HZ	2.29	0.45
3:Q:202:ASP:O	3:Q:203:SER:C	2.59	0.45
3:Q:228:LYS:HZ2	3:Q:231:LYS:HE3	1.81	0.45
6:T:152:ASN:ND2	15:n:1229:MET:HA	2.29	0.45
6:T:158:GLY:O	6:T:159:THR:CB	2.64	0.45
13:a:29:ASN:OD1	13:a:29:ASN:C	2.59	0.45
14:b:80:LEU:O	14:b:82:ASP:N	2.50	0.45
15:c:1079:HIS:CD2	15:c:1079:HIS:C	2.94	0.45
15:j:1143:TYR:OH	15:k:1193:LYS:HG2	2.16	0.45
15:k:1191:MET:HE2	15:k:1191:MET:HA	1.98	0.45
1:A:43:LEU:C	1:A:43:LEU:CD1	2.89	0.45
1:A:134:MET:HE2	7:G:124:LEU:HD22	1.98	0.45
3:C:192:LEU:HA	3:C:195:LYS:HB3	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:34:VAL:HG12	4:D:199:LEU:HD21	1.98	0.45
4:D:151:GLU:OE1	4:D:155:ILE:HD11	2.17	0.45
14:N:126:PHE:CD1	14:N:126:PHE:C	2.94	0.45
14:N:154:LEU:HD21	9:W:136:ALA:O	2.15	0.45
1:O:36:ASN:O	1:O:38:THR:N	2.47	0.45
1:O:188:LYS:C	1:O:190:LYS:N	2.73	0.45
3:Q:5:ARG:NE	15:k:1102:GLU:HA	2.30	0.45
4:R:49:ARG:NH1	15:k:1231:SER:CB	2.79	0.45
8:V:111:TYR:HA	8:V:120:HIS:O	2.17	0.45
12:Z:66:HIS:HD2	12:Z:74:ILE:HB	1.81	0.45
15:l:1146:ARG:HG2	15:l:1146:ARG:NH1	2.30	0.45
15:o:1119:GLU:O	15:o:1123:LYS:HG2	2.16	0.45
1:A:166:TYR:CG	1:A:169:THR:HB	2.52	0.45
1:A:218:PHE:CD2	1:A:223:LEU:HD11	2.52	0.45
3:C:70:ASN:HD22	3:C:71:ASP:N	2.11	0.45
5:E:20:ARG:O	5:E:21:LEU:HD23	2.17	0.45
5:E:198:LEU:HB3	5:E:243:LEU:HD23	1.99	0.45
6:F:227:GLY:C	6:F:229:ALA:N	2.73	0.45
7:G:83:ASP:CG	7:G:129:ARG:HH22	2.24	0.45
8:H:154:PHE:O	8:H:155:ILE:C	2.57	0.45
10:J:62:LEU:HD23	10:J:62:LEU:HA	1.72	0.45
10:J:95:TYR:C	10:J:97:ARG:H	2.25	0.45
12:L:20:ALA:HB2	12:L:31:VAL:HG21	1.99	0.45
14:N:24:ALA:O	14:N:25:ASP:O	2.35	0.45
5:S:28:LEU:HD12	5:S:28:LEU:N	2.32	0.45
5:S:79:SER:HB3	5:S:172:ILE:HD12	1.99	0.45
5:S:97:VAL:HG11	12:Z:65:LEU:HD21	1.98	0.45
7:U:209:LYS:O	7:U:210:ASP:C	2.59	0.45
9:W:19:ARG:HD2	9:W:170:GLY:N	2.32	0.45
10:X:95:TYR:C	10:X:97:ARG:N	2.72	0.45
11:Y:83:PHE:O	11:Y:86:GLN:HB3	2.16	0.45
11:Y:162:LYS:HB2	11:Y:162:LYS:HZ2	1.81	0.45
13:a:57:PHE:O	13:a:58:ALA:C	2.59	0.45
15:c:1036:ILE:HG12	15:c:1077:LEU:HD11	1.98	0.45
15:f:1158:LYS:CB	15:f:1179:LEU:HD21	2.47	0.45
15:g:1204:MET:O	15:g:1208:VAL:HG23	2.17	0.45
15:i:1089:ARG:CG	15:i:1117:ILE:HG21	2.47	0.45
15:j:1041:LYS:HA	15:j:1044:ALA:HB3	1.98	0.45
15:o:1036:ILE:HG12	15:o:1077:LEU:HD11	1.99	0.45
1:A:176:GLN:HE21	1:A:180:THR:HG23	1.82	0.45
1:A:210:MET:C	1:A:212:ASP:N	2.73	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:21:ILE:HG21	15:c:1229:MET:HE3	1.98	0.45
3:C:9:ARG:NE	3:C:12:ILE:HD11	2.32	0.45
5:E:209:GLU:OE1	5:E:209:GLU:CA	2.65	0.45
8:H:35:THR:CG2	14:b:228:TYR:HE2	2.30	0.45
9:I:136:ALA:HB1	14:b:154:LEU:HD11	1.98	0.45
12:L:208:ASN:C	12:L:210:VAL:N	2.73	0.45
13:M:152:ASN:C	13:M:152:ASN:HD22	2.23	0.45
14:N:197:LEU:C	14:N:197:LEU:CD2	2.85	0.45
1:O:185:HIS:C	1:O:185:HIS:HD1	2.25	0.45
4:R:185:PRO:HB3	4:R:190:GLU:HG3	1.98	0.45
15:c:1041:LYS:HA	15:c:1044:ALA:HB3	1.98	0.45
15:c:1090:THR:O	15:c:1094:ILE:HG12	2.17	0.45
15:c:1146:ARG:HG2	15:c:1146:ARG:HH11	1.81	0.45
15:f:1145:LEU:HD23	15:g:1185:GLN:NE2	2.32	0.45
15:g:1190:PHE:O	15:g:1194:VAL:HG23	2.17	0.45
15:g:1191:MET:HA	15:g:1191:MET:HE2	1.99	0.45
15:i:1190:PHE:O	15:i:1194:VAL:HG23	2.16	0.45
15:j:1036:ILE:HG12	15:j:1077:LEU:HD11	1.99	0.45
15:l:1191:MET:HE2	15:l:1191:MET:HA	1.99	0.45
1:A:87:ILE:N	1:A:88:PRO:CD	2.79	0.45
3:C:202:ASP:O	3:C:203:SER:C	2.58	0.45
4:D:73:LEU:HD12	4:D:135:ILE:CG1	2.47	0.45
4:D:168:SER:HA	4:D:171:VAL:HG22	1.98	0.45
9:I:4:VAL:HA	9:I:125:LEU:O	2.17	0.45
9:I:55:VAL:HG13	9:I:56:THR:N	2.31	0.45
12:L:35:ILE:CD1	12:L:45:MET:HE3	2.46	0.45
1:O:68:THR:O	7:U:157:TRP:CE3	2.69	0.45
8:V:137:TYR:O	8:V:138:CYS:C	2.60	0.45
8:V:190:PRO:O	8:V:192:GLU:N	2.49	0.45
14:b:35:ARG:O	14:b:35:ARG:CG	2.65	0.45
14:b:80:LEU:C	14:b:82:ASP:H	2.24	0.45
15:c:1143:TYR:OH	15:d:1193:LYS:HG2	2.17	0.45
15:e:1087:THR:O	15:e:1091:VAL:HG23	2.17	0.45
2:B:48:GLU:OE1	2:B:200:VAL:HG13	2.16	0.45
3:C:141:ASP:OD2	3:C:147:GLN:NE2	2.50	0.45
6:F:42:THR:C	6:F:43:HIS:ND1	2.75	0.45
7:G:119:VAL:O	7:G:120:GLN:C	2.59	0.45
7:G:126:ASN:C	7:G:126:ASN:ND2	2.71	0.45
12:L:176:ASN:ND2	12:L:187:TYR:OH	2.49	0.45
14:N:48:ASN:N	14:N:48:ASN:ND2	2.64	0.45
14:N:186:TYR:HD1	9:W:139:GLU:HB3	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S:35:SER:OG	5:S:66:LYS:HE2	2.16	0.45
6:T:22:VAL:O	6:T:25:ALA:HB3	2.17	0.45
9:W:10:ASN:O	9:W:179:GLU:HA	2.15	0.45
9:W:21:THR:O	9:W:22:GLN:CB	2.65	0.45
11:Y:92:ILE:HD12	11:Y:92:ILE:HA	1.82	0.45
11:Y:103:LEU:HD21	11:Y:118:GLN:HG3	1.99	0.45
12:Z:7:ARG:O	12:Z:8:PHE:HB3	2.17	0.45
14:b:48:ASN:N	14:b:48:ASN:ND2	2.65	0.45
15:d:1204:MET:O	15:d:1208:VAL:HG23	2.16	0.45
15:g:1143:TYR:OH	15:h:1193:LYS:HG2	2.17	0.45
15:h:1009:ILE:HD11	15:i:1213:LEU:HB2	1.99	0.45
15:l:1079:HIS:C	15:l:1079:HIS:CD2	2.93	0.45
15:l:1087:THR:O	15:l:1091:VAL:HG23	2.17	0.45
15:n:1191:MET:HE2	15:n:1191:MET:HA	1.99	0.45
3:C:173:GLN:HE21	4:D:54:LEU:HD21	1.82	0.45
5:E:235:LYS:O	5:E:238:GLU:HG2	2.17	0.45
7:G:129:ARG:HA	7:G:130:PRO:HD3	1.83	0.45
11:K:35:THR:HG21	11:K:43:LEU:HD11	1.99	0.45
14:N:127:LEU:HG	14:N:142:LEU:HD12	1.98	0.45
1:O:88:PRO:HG2	1:O:89:ASP:H	1.81	0.45
3:Q:93:ILE:N	3:Q:93:ILE:HD12	2.32	0.45
7:U:90:ARG:HG2	7:U:118:TYR:CE1	2.51	0.45
7:U:168:ARG:O	7:U:171:ALA:HB3	2.16	0.45
11:Y:51:GLY:HA3	12:Z:118:ASP:O	2.16	0.45
13:a:92:ASN:C	13:a:92:ASN:OD1	2.59	0.45
15:c:1204:MET:O	15:c:1208:VAL:HG23	2.17	0.45
15:d:1119:GLU:O	15:d:1123:LYS:HG2	2.17	0.45
15:j:1089:ARG:CG	15:j:1117:ILE:HG21	2.47	0.45
15:j:1204:MET:O	15:j:1208:VAL:HG23	2.17	0.45
15:m:1158:LYS:CB	15:m:1179:LEU:HD21	2.47	0.45
1:A:50:CYS:SG	1:A:202:VAL:HG21	2.57	0.45
5:E:142:LEU:HB2	5:E:158:ALA:HB3	1.99	0.45
5:E:236:THR:O	5:E:240:ILE:HG13	2.17	0.45
6:F:64:ILE:HG21	6:F:85:SER:HB2	1.99	0.45
14:N:210:LYS:O	14:N:211:ASN:C	2.58	0.45
1:O:185:HIS:NE2	1:O:205:PHE:HE2	2.15	0.45
1:O:185:HIS:NE2	1:O:205:PHE:CE2	2.85	0.45
2:P:139:HIS:HB2	2:P:145:PHE:CD1	2.52	0.45
2:P:200:VAL:HG12	2:P:201:GLU:N	2.32	0.45
5:S:112:LEU:O	5:S:113:THR:C	2.59	0.45
5:S:233:ASN:H	5:S:233:ASN:ND2	2.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Z:45:MET:O	12:Z:45:MET:HG2	2.15	0.45
14:b:151:ALA:C	14:b:153:PRO:HD2	2.42	0.45
15:k:1119:GLU:O	15:k:1123:LYS:HG2	2.17	0.45
15:l:1089:ARG:HH22	15:m:1200:HIS:HE1	1.64	0.45
15:o:1009:ILE:HD11	15:p:1213:LEU:HB2	1.99	0.45
15:p:1158:LYS:HB2	15:p:1179:LEU:HD21	1.99	0.45
5:E:33:LEU:C	15:e:1230:VAL:HG11	2.41	0.44
5:E:51:GLU:HG3	5:E:208:MET:SD	2.57	0.44
9:I:153:LYS:HD2	9:I:153:LYS:C	2.42	0.44
10:J:13:ALA:HB2	10:J:22:ILE:HD12	1.98	0.44
3:Q:106:ILE:HA	3:Q:107:PRO:HD3	1.87	0.44
6:T:99:PHE:CE1	14:b:70:LEU:HD11	2.52	0.44
7:U:175:LEU:O	7:U:179:VAL:HG23	2.17	0.44
8:V:2:SER:OG	8:V:162:ALA:HB1	2.17	0.44
13:a:126:ASP:CB	13:a:130:SER:H	2.30	0.44
15:d:1072:GLN:CD	15:e:1051:ARG:HH12	2.24	0.44
15:e:1191:MET:HE2	15:e:1191:MET:HA	1.99	0.44
15:j:1090:THR:O	15:j:1094:ILE:HG12	2.17	0.44
15:m:1145:LEU:HD23	15:n:1185:GLN:NE2	2.32	0.44
15:n:1204:MET:O	15:n:1208:VAL:HG23	2.17	0.44
1:A:36:ASN:O	1:A:38:THR:N	2.49	0.44
1:A:52:VAL:HG22	1:A:227:VAL:CG2	2.48	0.44
1:A:176:GLN:HE21	1:A:180:THR:CG2	2.30	0.44
1:A:184:ASN:O	1:A:188:LYS:HG3	2.17	0.44
2:B:28:VAL:O	2:B:30:GLN:N	2.51	0.44
2:B:39:ALA:HB3	2:B:42:GLY:O	2.16	0.44
2:B:115:ALA:HA	2:B:118:MET:HB2	1.99	0.44
2:B:218:ASN:C	2:B:220:ASP:N	2.76	0.44
3:C:29:ILE:C	3:C:31:HIS:N	2.75	0.44
3:C:36:ILE:HG22	3:C:37:GLY:N	2.32	0.44
4:D:168:SER:O	4:D:172:ARG:HB2	2.17	0.44
5:E:35:SER:OG	5:E:66:LYS:HE2	2.17	0.44
5:E:140:VAL:HG22	5:E:141:ALA:N	2.32	0.44
8:H:123:PRO:HB2	8:H:124:TYR:HD1	1.83	0.44
8:H:137:TYR:CE2	8:H:157:HIS:HB3	2.52	0.44
8:H:173:ILE:CG2	8:H:174:ARG:N	2.79	0.44
11:K:196:GLN:HE21	11:K:196:GLN:CA	2.30	0.44
12:L:86:LEU:C	12:L:86:LEU:HD13	2.42	0.44
13:M:165:ASN:HD22	13:M:165:ASN:HA	1.58	0.44
2:P:28:VAL:HG12	2:P:29:LYS:N	2.32	0.44
2:P:241:GLN:O	2:P:242:GLU:C	2.60	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:191:GLU:HG2	3:Q:195:LYS:HE2	1.99	0.44
6:T:227:GLY:C	6:T:229:ALA:N	2.76	0.44
11:Y:138:PHE:H	11:Y:138:PHE:HD1	1.64	0.44
13:a:12:ILE:HD12	13:a:12:ILE:C	2.42	0.44
15:n:1089:ARG:HH22	15:o:1200:HIS:HE1	1.65	0.44
15:p:1089:ARG:CG	15:p:1117:ILE:HG21	2.47	0.44
1:A:33:LYS:HD2	1:A:33:LYS:N	2.32	0.44
1:A:181:ASN:OD1	1:A:209:HIS:CD2	2.71	0.44
3:C:191:GLU:HG2	3:C:195:LYS:HE2	2.00	0.44
3:C:194:LEU:C	3:C:196:THR:N	2.74	0.44
4:D:239:GLU:HA	4:D:242:GLU:CB	2.40	0.44
5:E:201:LEU:HD12	5:E:201:LEU:HA	1.78	0.44
6:F:51:ARG:HG2	6:F:52:ASN:N	2.32	0.44
9:I:11:GLY:HA3	9:I:178:MET:O	2.17	0.44
11:K:161:LEU:HD22	11:K:195:PHE:CE2	2.52	0.44
12:L:35:ILE:HG21	12:L:56:GLU:HB3	1.98	0.44
12:L:97:MET:O	12:L:116:ASP:HA	2.17	0.44
12:L:206:SER:O	12:L:207:PHE:HB2	2.17	0.44
1:O:42:SER:HA	1:O:54:ILE:O	2.17	0.44
1:O:181:ASN:OD1	1:O:209:HIS:CD2	2.71	0.44
3:Q:185:LYS:HZ2	3:Q:186:VAL:HB	1.81	0.44
4:R:75:PHE:HB3	4:R:133:THR:HG22	1.99	0.44
9:W:67:SER:O	9:W:71:SER:N	2.50	0.44
12:Z:206:SER:O	12:Z:207:PHE:HB2	2.17	0.44
13:a:126:ASP:HB2	13:a:130:SER:N	2.32	0.44
15:i:1158:LYS:HB2	15:i:1179:LEU:HD21	1.99	0.44
4:D:185:PRO:HB3	4:D:190:GLU:HG3	1.99	0.44
5:E:98:THR:HG23	5:E:102:TYR:HE1	1.81	0.44
7:G:104:THR:HA	7:G:105:PRO:HD2	1.83	0.44
9:I:67:SER:OG	9:I:68:LEU:N	2.50	0.44
14:N:210:LYS:O	14:N:212:LEU:CD1	2.63	0.44
1:O:177:GLU:H	1:O:177:GLU:CD	2.16	0.44
1:O:240:ASN:O	1:O:243:GLU:HB2	2.18	0.44
3:Q:77:VAL:HG12	3:Q:78:ALA:N	2.31	0.44
3:Q:173:GLN:HE21	4:R:54:LEU:HD21	1.83	0.44
6:T:38:LEU:HD23	6:T:38:LEU:N	2.32	0.44
7:U:203:HIS:O	7:U:205:ASP:N	2.50	0.44
9:W:3:ILE:HD12	9:W:44:ALA:HB3	1.99	0.44
11:Y:11:ASP:O	11:Y:12:SER:HB3	2.17	0.44
12:Z:35:ILE:HG21	12:Z:56:GLU:HB3	1.99	0.44
13:a:150:LEU:O	13:a:151:ASP:C	2.60	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:a:165:ASN:C	13:a:167:LYS:H	2.26	0.44
13:a:173:LYS:CD	13:a:174:TYR:N	2.74	0.44
15:n:1143:TYR:OH	15:o:1193:LYS:HG2	2.17	0.44
15:n:1190:PHE:O	15:n:1194:VAL:HG23	2.17	0.44
15:p:1041:LYS:HA	15:p:1044:ALA:HB3	2.00	0.44
1:A:37:GLN:HB2	15:h:1230:VAL:CB	2.48	0.44
1:A:133:TYR:O	1:A:134:MET:HB3	2.18	0.44
1:A:185:HIS:NE2	1:A:205:PHE:HE2	2.15	0.44
2:B:36:GLY:HA2	2:B:44:VAL:O	2.18	0.44
3:C:230:PHE:N	3:C:230:PHE:HD1	2.15	0.44
4:D:48:ARG:C	4:D:50:SER:H	2.25	0.44
5:E:56:SER:HG	5:E:57:PRO:HD2	1.82	0.44
6:F:23:GLU:HA	6:F:26:LEU:HD23	2.00	0.44
7:G:51:LYS:O	7:G:211:PHE:HB2	2.18	0.44
9:I:19:ARG:HD2	9:I:170:GLY:N	2.33	0.44
11:K:35:THR:CG2	11:K:36:ARG:H	2.30	0.44
11:K:198:GLN:HE21	11:K:198:GLN:HB3	1.58	0.44
13:M:6:GLY:O	13:M:57:PHE:CD1	2.70	0.44
13:M:156:PHE:HE2	13:M:172:LEU:HA	1.81	0.44
1:O:166:TYR:CG	1:O:169:THR:HB	2.53	0.44
3:Q:91:ALA:HB2	3:Q:115:LEU:HD21	1.99	0.44
3:Q:111:LEU:HD22	3:Q:111:LEU:O	2.18	0.44
4:R:151:GLU:OE1	4:R:155:ILE:HD11	2.18	0.44
4:R:239:GLU:HA	4:R:242:GLU:CB	2.40	0.44
5:S:20:ARG:O	5:S:21:LEU:HD23	2.18	0.44
8:V:46:SER:O	8:V:52:THR:HG21	2.17	0.44
8:V:154:PHE:O	8:V:155:ILE:C	2.60	0.44
8:V:187:ILE:O	8:V:187:ILE:HG23	2.17	0.44
9:W:31:CYS:SG	9:W:32:ALA:N	2.90	0.44
9:W:54:ALA:O	9:W:57:GLN:HB2	2.18	0.44
11:Y:3:ILE:O	11:Y:4:ILE:HD13	2.18	0.44
15:j:1119:GLU:O	15:j:1123:LYS:HG2	2.18	0.44
15:o:1041:LYS:HA	15:o:1044:ALA:HB3	2.00	0.44
15:p:1090:THR:O	15:p:1094:ILE:HG12	2.17	0.44
1:A:103:GLU:CG	1:A:107:LYS:HD3	2.48	0.44
1:A:185:HIS:NE2	1:A:205:PHE:CE2	2.86	0.44
2:B:213:ILE:HD12	2:B:213:ILE:C	2.42	0.44
3:C:9:ARG:NH2	3:C:12:ILE:HD11	2.33	0.44
3:C:135:PHE:O	3:C:150:THR:HA	2.17	0.44
4:D:29:ARG:HG2	15:d:1227:ASP:OD2	2.17	0.44
7:G:34:THR:CB	15:g:1231:SER:O	2.64	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:69:VAL:O	7:G:70:ASP:HB3	2.18	0.44
9:I:5:GLY:CA	9:I:14:ILE:HG22	2.47	0.44
11:K:120:ASP:C	11:K:120:ASP:OD1	2.59	0.44
12:L:190:ASN:C	12:L:191:HIS:HD2	2.26	0.44
2:P:212:ALA:O	2:P:213:ILE:HG23	2.18	0.44
3:Q:133:VAL:CG1	3:Q:134:SER:N	2.81	0.44
5:S:143:LEU:HD23	5:S:143:LEU:HA	1.83	0.44
6:T:74:LEU:HD22	6:T:81:ALA:CB	2.48	0.44
7:U:92:ARG:CD	14:b:76:TYR:CE1	3.01	0.44
8:V:137:TYR:CE2	8:V:157:HIS:HB3	2.52	0.44
8:V:143:ARG:HH12	8:V:146:MET:HE2	1.82	0.44
11:Y:161:LEU:HD22	11:Y:195:PHE:CE2	2.53	0.44
12:Z:176:ASN:ND2	12:Z:190:ASN:HB2	2.30	0.44
15:h:1041:LYS:HA	15:h:1044:ALA:HB3	2.00	0.44
15:n:1036:ILE:HG12	15:n:1077:LEU:HD11	1.99	0.44
7:G:38:GLY:N	7:G:162:ALA:O	2.50	0.44
8:H:131:SER:O	8:H:135:TYR:CD1	2.71	0.44
8:H:151:THR:HG23	8:H:152:VAL:N	2.32	0.44
10:J:87:THR:HG23	10:J:123:PHE:CZ	2.53	0.44
2:P:176:GLU:HA	3:Q:56:LEU:CD1	2.47	0.44
2:P:207:ASP:C	2:P:209:ILE:H	2.25	0.44
3:Q:42:ASP:CG	3:Q:186:VAL:HG23	2.43	0.44
6:T:17:GLY:HA3	7:U:29:ALA:HB2	2.00	0.44
8:V:156:LYS:HD2	8:V:188:PHE:CE1	2.53	0.44
9:W:134:ALA:HB1	9:W:158:ALA:HB1	1.98	0.44
11:Y:172:MET:HA	11:Y:173:PRO:HD3	1.80	0.44
12:Z:64:ARG:NH2	12:Z:68:LEU:HD21	2.33	0.44
15:g:1089:ARG:HH22	15:h:1200:HIS:HE1	1.65	0.44
1:A:46:ARG:HD2	1:A:152:PRO:HB2	2.00	0.44
1:A:202:VAL:O	1:A:203:VAL:C	2.60	0.44
3:C:106:ILE:HA	3:C:107:PRO:HD3	1.87	0.44
3:C:231:LYS:O	3:C:232:PRO:C	2.60	0.44
4:D:159:TRP:CZ2	5:E:59:LEU:HD23	2.53	0.44
5:E:241:LYS:NZ	5:E:241:LYS:HB3	2.33	0.44
7:G:173:ALA:C	7:G:175:LEU:H	2.26	0.44
8:H:134:ILE:O	8:H:138:CYS:SG	2.76	0.44
11:K:138:PHE:CD1	11:K:138:PHE:N	2.84	0.44
12:L:3:THR:HB	12:L:16:VAL:HG12	2.00	0.44
12:L:7:ARG:O	12:L:8:PHE:HB3	2.18	0.44
12:L:12:ILE:HG22	12:L:13:ILE:N	2.32	0.44
13:M:12:ILE:HD12	13:M:12:ILE:C	2.43	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:16:TYR:CZ	14:N:170:VAL:HG13	2.52	0.44
14:N:152:ASN:ND2	14:N:156:ARG:HH21	2.15	0.44
14:N:216:ASN:HD22	14:N:216:ASN:HA	1.59	0.44
1:O:158:ASP:C	1:O:158:ASP:OD1	2.61	0.44
4:R:49:ARG:CZ	15:k:1231:SER:CB	2.96	0.44
6:T:50:LYS:HD3	6:T:212:SER:OG	2.17	0.44
6:T:51:ARG:HG2	6:T:52:ASN:N	2.32	0.44
6:T:156:LEU:HD23	7:U:58:LEU:HD23	2.00	0.44
8:V:123:PRO:HB2	8:V:124:TYR:HD1	1.83	0.44
10:X:7:ASN:HA	10:X:29:GLY:O	2.17	0.44
13:a:24:ALA:HB1	13:a:202:LEU:HD11	1.99	0.44
14:b:16:TYR:CZ	14:b:170:VAL:HG13	2.53	0.44
15:g:1072:GLN:NE2	15:h:1051:ARG:HH12	2.16	0.44
1:A:75:ILE:HG21	1:A:117:LEU:HD21	2.00	0.44
1:A:195:ASN:O	1:A:196:GLU:HB2	2.17	0.44
1:A:243:GLU:O	1:A:246:VAL:N	2.49	0.44
2:B:68:THR:O	2:B:70:ASP:N	2.51	0.44
4:D:4:TYR:CD2	4:D:13:PRO:HD3	2.53	0.44
4:D:199:LEU:C	4:D:203:VAL:HG23	2.42	0.44
5:E:27:SER:O	5:E:30:ALA:HB3	2.18	0.44
5:E:209:GLU:HG3	5:E:210:GLU:N	2.32	0.44
7:G:175:LEU:O	7:G:179:VAL:HG23	2.17	0.44
7:G:216:SER:CA	7:G:230:VAL:HG23	2.47	0.44
7:G:236:GLN:O	7:G:239:ILE:N	2.50	0.44
8:H:105:LYS:O	8:H:107:LYS:N	2.50	0.44
14:N:79:PRO:HG2	14:N:80:LEU:HD12	2.00	0.44
3:Q:135:PHE:O	3:Q:150:THR:HA	2.17	0.44
7:U:216:SER:CA	7:U:230:VAL:HG23	2.47	0.44
9:W:7:LYS:HA	9:W:12:VAL:HG23	2.00	0.44
9:W:11:GLY:HA3	9:W:178:MET:O	2.18	0.44
9:W:189:ASN:C	9:W:191:LEU:N	2.73	0.44
13:a:67:ARG:HE	13:a:105:TYR:HH	1.66	0.44
13:a:125:PHE:CD2	13:a:131:TYR:HB3	2.53	0.44
14:b:49:THR:HG22	14:b:50:VAL:H	1.83	0.44
14:b:127:LEU:HG	14:b:142:LEU:HD12	2.00	0.44
15:c:1119:GLU:O	15:c:1123:LYS:HG2	2.18	0.44
15:h:1005:ARG:HH22	15:i:1018:GLU:CD	2.26	0.44
15:h:1190:PHE:O	15:h:1194:VAL:HG23	2.18	0.44
15:o:1145:LEU:HD23	15:p:1185:GLN:CD	2.43	0.44
2:B:241:GLN:O	2:B:242:GLU:C	2.60	0.43
3:C:91:ALA:HB2	3:C:115:LEU:HD21	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:103:PRO:HG2	4:D:140:PRO:HG2	2.00	0.43
5:E:82:THR:HG23	15:e:1231:SER:OG	2.18	0.43
13:M:2:PHE:CB	14:N:1:THR:HG23	2.48	0.43
13:M:30:ILE:C	13:M:30:ILE:CD1	2.91	0.43
14:N:80:LEU:C	14:N:82:ASP:H	2.26	0.43
14:N:80:LEU:O	14:N:82:ASP:N	2.51	0.43
1:O:50:CYS:SG	1:O:202:VAL:HG21	2.57	0.43
3:Q:208:TYR:O	3:Q:210:ARG:N	2.51	0.43
5:S:59:LEU:HD11	5:S:64:ILE:CD1	2.45	0.43
6:T:34:VAL:HG12	6:T:163:ALA:O	2.18	0.43
6:T:234:ILE:OXT	6:T:234:ILE:HG22	2.17	0.43
7:U:31:GLU:HG3	7:U:31:GLU:O	2.17	0.43
8:V:5:ALA:HB2	8:V:14:LEU:HB3	2.00	0.43
8:V:5:ALA:CB	8:V:14:LEU:HB3	2.48	0.43
10:X:125:LEU:H	10:X:125:LEU:CD2	2.31	0.43
12:Z:81:LYS:HG3	12:Z:85:ASN:HD21	1.83	0.43
12:Z:191:HIS:N	12:Z:191:HIS:HD2	2.11	0.43
14:b:79:PRO:HG2	14:b:80:LEU:HD12	2.00	0.43
14:b:114:ILE:HB	14:b:130:VAL:CG1	2.45	0.43
15:f:1009:ILE:HD11	15:g:1213:LEU:CB	2.48	0.43
15:i:1090:THR:O	15:i:1094:ILE:HG12	2.17	0.43
1:A:76:SER:C	1:A:78:THR:H	2.26	0.43
3:C:208:TYR:O	3:C:210:ARG:N	2.51	0.43
4:D:59:ILE:H	4:D:59:ILE:CD1	2.06	0.43
8:H:83:LYS:O	8:H:84:GLU:C	2.60	0.43
11:K:22:THR:HG23	11:K:27:VAL:HG22	2.00	0.43
13:M:165:ASN:C	13:M:167:LYS:H	2.24	0.43
1:O:210:MET:C	1:O:212:ASP:N	2.74	0.43
2:P:18:LEU:HD21	3:Q:129:ARG:HD2	2.00	0.43
9:W:7:LYS:CB	9:W:12:VAL:HG23	2.46	0.43
10:X:71:ASN:O	10:X:75:LEU:CD1	2.66	0.43
11:Y:75:LEU:HD12	11:Y:80:VAL:HG23	2.00	0.43
12:Z:12:ILE:HG22	12:Z:13:ILE:N	2.32	0.43
14:b:152:ASN:O	14:b:156:ARG:HG3	2.18	0.43
14:b:197:LEU:HD23	14:b:198:ALA:N	2.33	0.43
15:k:1099:HIS:HD2	15:l:1109:VAL:HG22	1.83	0.43
15:n:1072:GLN:NE2	15:o:1051:ARG:HH12	2.16	0.43
1:A:68:THR:O	7:G:157:TRP:CE3	2.72	0.43
1:A:220:LYS:HG2	1:A:242:GLU:OE2	2.18	0.43
5:E:78:MET:C	5:E:78:MET:SD	3.01	0.43
8:H:187:ILE:O	8:H:187:ILE:HG23	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:32:LYS:HE2	13:M:132:GLU:OE2	2.18	0.43
1:O:75:ILE:HG21	1:O:117:LEU:HD21	2.00	0.43
2:P:34:SER:HB3	2:P:47:THR:OG1	2.19	0.43
2:P:217:GLU:OE1	2:P:231:LYS:HB2	2.18	0.43
2:P:229:THR:O	2:P:231:LYS:NZ	2.45	0.43
2:P:243:ILE:O	2:P:246:ARG:N	2.47	0.43
4:R:168:SER:O	4:R:172:ARG:HB2	2.18	0.43
4:R:203:VAL:CG1	4:R:209:ASN:HB2	2.48	0.43
5:S:103:TYR:O	13:a:88:SER:HA	2.19	0.43
5:S:209:GLU:OE1	5:S:209:GLU:HA	2.18	0.43
7:U:92:ARG:HG2	14:b:76:TYR:HE1	1.82	0.43
7:U:116:GLY:O	7:U:120:GLN:N	2.35	0.43
8:V:1:THR:CB	8:V:33:LYS:HZ1	2.32	0.43
8:V:126:ILE:HD12	8:V:134:ILE:HG13	2.00	0.43
9:W:5:GLY:CA	9:W:14:ILE:HG22	2.48	0.43
10:X:13:ALA:HB2	10:X:22:ILE:HD12	1.99	0.43
11:Y:55:GLN:HG3	12:Z:88:TYR:CD2	2.54	0.43
12:Z:97:MET:O	12:Z:116:ASP:HA	2.17	0.43
12:Z:176:ASN:ND2	12:Z:190:ASN:HD22	2.16	0.43
13:a:137:ARG:NH1	13:a:147:MET:HE2	2.33	0.43
15:e:1041:LYS:HA	15:e:1044:ALA:HB3	2.01	0.43
15:j:1190:PHE:O	15:j:1194:VAL:HG23	2.18	0.43
15:k:1190:PHE:O	15:k:1194:VAL:HG23	2.19	0.43
15:n:1090:THR:O	15:n:1094:ILE:HG12	2.19	0.43
15:o:1190:PHE:O	15:o:1194:VAL:HG23	2.19	0.43
2:B:211:LEU:HD12	2:B:212:ALA:O	2.18	0.43
3:C:201:THR:CG2	3:C:202:ASP:H	2.14	0.43
4:D:100:LEU:O	4:D:102:ASP:N	2.47	0.43
6:F:34:VAL:CG1	6:F:163:ALA:O	2.66	0.43
6:F:42:THR:HG22	6:F:218:LYS:HZ1	1.83	0.43
6:F:89:ARG:NE	13:M:77:PHE:CD1	2.86	0.43
12:L:200:VAL:O	12:L:201:LYS:C	2.61	0.43
14:N:197:LEU:HD23	14:N:198:ALA:N	2.32	0.43
2:P:139:HIS:HD2	2:P:144:GLY:C	2.26	0.43
3:Q:36:ILE:CG2	3:Q:37:GLY:N	2.82	0.43
4:R:50:SER:HA	4:R:53:LYS:CD	2.47	0.43
5:S:15:PHE:CD1	5:S:21:LEU:HD21	2.53	0.43
5:S:42:THR:C	5:S:44:GLU:N	2.76	0.43
8:V:151:THR:HG23	8:V:152:VAL:N	2.33	0.43
9:W:10:ASN:O	9:W:179:GLU:HG2	2.19	0.43
14:b:169:THR:C	14:b:171:GLN:N	2.76	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:c:1072:GLN:HE22	15:d:1051:ARG:HH22	1.63	0.43
15:g:1114:LEU:HD23	15:g:1114:LEU:HA	1.88	0.43
5:E:24:VAL:O	5:E:28:LEU:HD13	2.18	0.43
5:E:219:LEU:O	5:E:231:TYR:HB2	2.18	0.43
6:F:100:ASN:CB	14:N:94:GLU:HG2	2.43	0.43
8:H:82:PHE:CE1	8:H:97:ILE:HG12	2.54	0.43
9:I:67:SER:O	9:I:71:SER:N	2.51	0.43
14:N:187:ARG:NH2	9:W:135:MET:SD	2.91	0.43
6:T:42:THR:C	6:T:43:HIS:ND1	2.76	0.43
6:T:208:VAL:HG22	6:T:227:GLY:C	2.43	0.43
7:U:187:SER:O	7:U:188:ALA:C	2.60	0.43
9:W:97:TYR:N	9:W:97:TYR:CD1	2.85	0.43
10:X:123:PHE:N	10:X:123:PHE:CD1	2.86	0.43
11:Y:138:PHE:CD1	11:Y:138:PHE:N	2.86	0.43
12:Z:38:ASN:HB2	12:Z:39:PRO:CD	2.48	0.43
14:b:12:ILE:HD11	14:b:177:ILE:HG23	2.00	0.43
14:b:114:ILE:HG22	14:b:115:ILE:N	2.32	0.43
15:c:1089:ARG:CG	15:c:1117:ILE:HG21	2.48	0.43
15:c:1190:PHE:O	15:c:1194:VAL:HG23	2.18	0.43
15:g:1036:ILE:HG12	15:g:1077:LEU:HD11	1.99	0.43
15:g:1090:THR:O	15:g:1094:ILE:HG12	2.19	0.43
15:g:1123:LYS:HE3	15:g:1204:MET:HE3	2.00	0.43
15:k:1041:LYS:HA	15:k:1044:ALA:HB3	2.01	0.43
1:A:158:ASP:HB2	1:A:159:PRO:CD	2.47	0.43
1:A:185:HIS:C	1:A:185:HIS:HD1	2.26	0.43
2:B:40:THR:HG21	2:B:182:GLU:HA	2.00	0.43
4:D:162:GLN:NE2	4:D:163:THR:N	2.62	0.43
6:F:179:PHE:O	6:F:181:LYS:N	2.52	0.43
8:H:126:ILE:HD12	8:H:134:ILE:HG13	2.00	0.43
10:J:8:GLY:HA2	10:J:140:THR:HG21	2.00	0.43
10:J:23:ALA:HB1	10:J:186:VAL:HG22	2.00	0.43
12:L:4:LEU:HD12	12:L:161:ILE:HD11	2.00	0.43
14:N:15:LYS:HD3	14:N:140:PRO:HA	2.00	0.43
14:N:49:THR:HG22	14:N:50:VAL:H	1.83	0.43
14:N:206:LEU:HD23	14:N:206:LEU:C	2.43	0.43
1:O:103:GLU:CG	1:O:107:LYS:HD3	2.49	0.43
2:P:18:LEU:CD2	3:Q:129:ARG:HD2	2.49	0.43
2:P:36:GLY:HA2	2:P:44:VAL:O	2.18	0.43
3:Q:175:LEU:CD1	3:Q:199:LYS:HD2	2.24	0.43
5:S:79:SER:C	5:S:140:VAL:HG23	2.43	0.43
8:V:15:GLY:O	8:V:16:ALA:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Z:116:ASP:OD1	12:Z:118:ASP:HB2	2.18	0.43
14:b:210:LYS:HD2	14:b:211:ASN:H	1.83	0.43
15:d:1190:PHE:O	15:d:1194:VAL:HG23	2.19	0.43
15:f:1204:MET:O	15:f:1208:VAL:HG23	2.19	0.43
15:g:1119:GLU:O	15:g:1123:LYS:HG2	2.19	0.43
15:l:1041:LYS:HA	15:l:1044:ALA:HB3	2.01	0.43
15:m:1041:LYS:HA	15:m:1044:ALA:HB3	2.01	0.43
15:n:1123:LYS:HG3	15:n:1204:MET:HE3	2.00	0.43
1:A:26:TYR:O	1:A:29:GLU:N	2.52	0.43
1:A:42:SER:HA	1:A:54:ILE:O	2.17	0.43
1:A:116:VAL:O	1:A:117:LEU:C	2.62	0.43
1:A:240:ASN:O	1:A:243:GLU:HB2	2.18	0.43
4:D:75:PHE:HB3	4:D:133:THR:HG22	2.00	0.43
5:E:42:THR:C	5:E:44:GLU:N	2.73	0.43
5:E:64:ILE:CD1	5:E:64:ILE:N	2.81	0.43
7:G:15:SER:OG	7:G:19:ARG:HB3	2.18	0.43
7:G:24:GLU:HA	7:G:27:VAL:HG23	2.01	0.43
7:G:218:CYS:HA	7:G:223:THR:HG21	2.01	0.43
9:I:54:ALA:O	9:I:57:GLN:HB2	2.19	0.43
10:J:18:ASP:HB3	10:J:191:LYS:HZ2	1.83	0.43
10:J:130:ASP:OD2	10:J:130:ASP:C	2.62	0.43
11:K:83:PHE:O	11:K:86:GLN:HB3	2.18	0.43
12:L:1:THR:HG23	12:L:33:ARG:NH2	2.32	0.43
1:O:44:ALA:HA	1:O:53:VAL:HA	2.01	0.43
1:O:104:PHE:CG	1:O:112:MET:HG3	2.53	0.43
4:R:233:VAL:O	4:R:237:GLU:HG2	2.19	0.43
4:R:239:GLU:H	4:R:239:GLU:HG3	1.55	0.43
9:W:55:VAL:HG13	9:W:56:THR:N	2.33	0.43
12:Z:36:GLU:O	12:Z:37:ILE:C	2.62	0.43
15:d:1099:HIS:HD2	15:e:1109:VAL:HG22	1.84	0.43
15:i:1041:LYS:HA	15:i:1044:ALA:HB3	2.00	0.43
15:j:1079:HIS:C	15:j:1079:HIS:CD2	2.94	0.43
15:j:1191:MET:HA	15:j:1191:MET:HE2	2.01	0.43
15:k:1099:HIS:CD2	15:l:1109:VAL:HG22	2.53	0.43
1:A:24:ARG:O	1:A:25:LEU:HB2	2.18	0.43
1:A:32:PHE:HA	1:A:35:THR:HG23	2.01	0.43
1:A:75:ILE:HD11	1:A:81:MET:CB	2.47	0.43
1:A:199:TRP:CG	1:A:200:GLU:H	2.37	0.43
2:B:190:HIS:O	2:B:192:ALA:N	2.52	0.43
2:B:243:ILE:C	2:B:245:ASP:N	2.76	0.43
3:C:111:LEU:O	3:C:111:LEU:HD22	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:240:VAL:C	3:C:242:THR:N	2.77	0.43
10:J:97:ARG:HG3	10:J:102:TYR:CE2	2.54	0.43
14:N:114:ILE:HB	14:N:130:VAL:CG1	2.48	0.43
1:O:21:PRO:HB3	15:j:1105:LEU:CD1	2.48	0.43
1:O:46:ARG:HD2	1:O:152:PRO:HB2	2.01	0.43
1:O:133:TYR:O	1:O:134:MET:HB3	2.18	0.43
1:O:164:VAL:CG2	1:O:165:GLY:N	2.81	0.43
1:O:195:ASN:HD22	1:O:195:ASN:C	2.23	0.43
1:O:200:GLU:HG2	1:O:244:ARG:NH2	2.33	0.43
3:Q:207:THR:HB	3:Q:209:ASP:OD1	2.19	0.43
4:R:37:LYS:HG2	4:R:160:SER:O	2.18	0.43
6:T:23:GLU:HA	6:T:26:LEU:HD23	1.99	0.43
7:U:203:HIS:C	7:U:205:ASP:N	2.77	0.43
8:V:15:GLY:HA2	8:V:174:ARG:O	2.19	0.43
8:V:45:ARG:HB3	8:V:45:ARG:HH11	1.83	0.43
9:W:220:ILE:HG23	10:X:46:GLY:O	2.19	0.43
11:Y:86:GLN:O	11:Y:89:ALA:HB3	2.19	0.43
13:a:63:ALA:O	13:a:67:ARG:HB2	2.18	0.43
14:b:196:SER:OG	14:b:210:LYS:HD2	2.19	0.43
15:f:1036:ILE:HG12	15:f:1077:LEU:HD11	2.00	0.43
15:k:1009:ILE:HD11	15:l:1213:LEU:CB	2.49	0.43
15:m:1009:ILE:HD11	15:n:1213:LEU:CB	2.48	0.43
15:m:1036:ILE:HG12	15:m:1077:LEU:HD11	2.00	0.43
15:n:1123:LYS:HE3	15:n:1204:MET:HE3	2.00	0.43
4:D:84:ILE:N	4:D:84:ILE:HD12	2.34	0.43
5:E:204:LEU:C	5:E:208:MET:HB2	2.44	0.43
6:F:197:ILE:HG23	6:F:198:SER:N	2.34	0.43
7:G:187:SER:O	7:G:188:ALA:C	2.61	0.43
8:H:32:ASP:C	8:H:34:LEU:H	2.27	0.43
9:I:59:ILE:O	9:I:60:GLY:C	2.61	0.43
13:M:29:ASN:OD1	13:M:29:ASN:C	2.62	0.43
13:M:137:ARG:NH1	13:M:147:MET:HE2	2.34	0.43
14:N:152:ASN:O	14:N:156:ARG:HG3	2.19	0.43
1:O:123:ASN:CG	2:P:84:VAL:HG12	2.43	0.43
1:O:230:LYS:HE3	1:O:230:LYS:CA	2.33	0.43
2:P:190:HIS:O	2:P:192:ALA:N	2.52	0.43
3:Q:109:GLU:CD	3:Q:113:ARG:HH21	2.27	0.43
4:R:84:ILE:N	4:R:84:ILE:CD1	2.82	0.43
5:S:78:MET:SD	5:S:78:MET:C	3.02	0.43
7:U:44:GLY:HA3	7:U:218:CYS:O	2.18	0.43
7:U:51:LYS:HE3	7:U:63:ASN:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:X:62:LEU:HA	10:X:62:LEU:HD23	1.75	0.43
11:Y:103:LEU:HD23	11:Y:103:LEU:HA	1.84	0.43
13:a:146:ILE:HG23	13:a:187:SER:HB3	2.01	0.43
15:d:1041:LYS:HA	15:d:1044:ALA:HB3	2.01	0.43
15:d:1099:HIS:CD2	15:e:1109:VAL:HG22	2.53	0.43
15:d:1194:VAL:O	15:d:1198:THR:HG23	2.19	0.43
15:h:1204:MET:O	15:h:1208:VAL:HG23	2.19	0.43
15:o:1005:ARG:HH22	15:p:1018:GLU:CD	2.26	0.43
1:A:112:MET:HA	1:A:113:PRO:HD3	1.76	0.43
2:B:170:ALA:O	2:B:173:THR:N	2.49	0.43
2:B:202:GLY:C	2:B:203:GLU:CD	2.87	0.43
3:C:160:TRP:CG	3:C:163:ILE:HB	2.53	0.43
4:D:203:VAL:CG1	4:D:209:ASN:HB2	2.48	0.43
4:D:225:SER:O	4:D:229:ILE:HG13	2.19	0.43
9:I:144:GLN:HE21	9:I:144:GLN:HB2	1.69	0.43
11:K:138:PHE:HB3	12:Z:134:THR:OG1	2.19	0.43
12:L:54:PHE:C	12:L:54:PHE:CD2	2.97	0.43
12:L:134:THR:OG1	11:Y:138:PHE:HB3	2.19	0.43
12:L:138:GLY:O	12:L:139:VAL:C	2.62	0.43
13:M:3:ASN:HD22	13:M:4:PRO:CD	2.32	0.43
13:M:126:ASP:CB	13:M:130:SER:H	2.32	0.43
1:O:199:TRP:CG	1:O:200:GLU:H	2.37	0.43
1:O:214:LEU:HD12	1:O:218:PHE:HZ	1.83	0.43
2:P:202:GLY:C	2:P:203:GLU:CD	2.87	0.43
3:Q:9:ARG:NE	3:Q:12:ILE:HD11	2.34	0.43
6:T:82:ARG:HG3	6:T:82:ARG:NH1	2.34	0.43
7:U:44:GLY:HA2	7:U:140:VAL:HG23	2.00	0.43
8:V:1:THR:CG2	8:V:33:LYS:HZ1	2.32	0.43
8:V:121:LYS:C	8:V:122:LEU:HD12	2.44	0.43
9:W:4:VAL:HA	9:W:125:LEU:O	2.18	0.43
10:X:191:LYS:CD	10:X:191:LYS:N	2.81	0.43
12:Z:19:ARG:N	12:Z:33:ARG:HH12	2.17	0.43
15:f:1089:ARG:CG	15:f:1117:ILE:HG21	2.49	0.43
15:i:1062:LYS:HG2	15:i:1063:SER:N	2.34	0.43
15:j:1146:ARG:HG2	15:j:1146:ARG:NH1	2.34	0.43
1:A:200:GLU:HG2	1:A:244:ARG:NH2	2.33	0.42
2:B:92:VAL:O	2:B:96:SER:HB2	2.19	0.42
2:B:111:VAL:HG22	2:B:136:ILE:HD12	2.01	0.42
8:H:147:SER:OG	8:H:150:GLU:N	2.36	0.42
8:H:157:HIS:CD2	8:V:140:LYS:NZ	2.87	0.42
9:I:38:SER:OG	9:I:39:PRO:CD	2.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:52:THR:HG22	9:I:96:ALA:CB	2.49	0.42
9:I:132:LEU:N	9:I:132:LEU:CD2	2.81	0.42
10:J:123:PHE:CD1	10:J:123:PHE:N	2.87	0.42
12:L:72:GLU:CD	12:L:73:ARG:H	2.27	0.42
13:M:150:LEU:O	13:M:151:ASP:C	2.61	0.42
1:O:33:LYS:HD2	1:O:33:LYS:N	2.32	0.42
1:O:36:ASN:C	1:O:38:THR:N	2.68	0.42
6:T:99:PHE:HE1	14:b:70:LEU:HD11	1.84	0.42
7:U:134:SER:CB	7:U:164:THR:HG21	2.46	0.42
9:W:132:LEU:N	9:W:132:LEU:CD2	2.80	0.42
14:b:99:VAL:O	14:b:100:MET:C	2.61	0.42
14:b:169:THR:O	14:b:172:VAL:N	2.52	0.42
14:b:220:ASP:C	14:b:222:ALA:N	2.77	0.42
15:c:1087:THR:O	15:c:1091:VAL:HG23	2.19	0.42
15:c:1156:GLU:OE2	15:d:1178:SER:CB	2.67	0.42
15:d:1009:ILE:HD11	15:e:1213:LEU:CB	2.48	0.42
15:e:1062:LYS:HG2	15:e:1063:SER:N	2.34	0.42
15:e:1190:PHE:O	15:e:1194:VAL:HG23	2.18	0.42
15:g:1035:GLU:HG3	15:g:1077:LEU:HD12	2.01	0.42
15:h:1145:LEU:HD23	15:i:1185:GLN:CD	2.44	0.42
15:k:1194:VAL:O	15:k:1198:THR:HG23	2.19	0.42
1:A:135:ARG:HH11	1:A:135:ARG:HG3	1.84	0.42
2:B:18:LEU:CD2	3:C:129:ARG:HD2	2.48	0.42
2:B:84:VAL:O	2:B:85:LEU:C	2.59	0.42
2:B:161:ALA:HB3	3:C:56:LEU:CD2	2.38	0.42
7:G:85:ARG:HG2	7:G:85:ARG:NH1	2.33	0.42
8:H:105:LYS:C	8:H:107:LYS:H	2.27	0.42
8:H:121:LYS:C	8:H:122:LEU:HD12	2.44	0.42
8:H:156:LYS:HD2	8:H:188:PHE:CE1	2.54	0.42
8:H:188:PHE:CD2	8:H:188:PHE:N	2.84	0.42
9:I:5:GLY:O	9:I:124:TYR:HA	2.19	0.42
9:I:94:ILE:O	9:I:94:ILE:HG13	2.19	0.42
11:K:86:GLN:O	11:K:89:ALA:HB3	2.19	0.42
14:N:15:LYS:HG3	14:N:127:LEU:HD22	2.01	0.42
14:N:63:ILE:O	14:N:66:LEU:HB2	2.19	0.42
1:O:244:ARG:HD2	1:O:244:ARG:H	1.82	0.42
5:S:38:ILE:HB	5:S:200:VAL:HG13	2.01	0.42
5:S:204:LEU:C	5:S:208:MET:HB2	2.43	0.42
6:T:64:ILE:HG21	6:T:85:SER:HB2	2.01	0.42
10:X:68:TYR:CD1	10:X:68:TYR:C	2.97	0.42
10:X:95:TYR:C	10:X:97:ARG:H	2.27	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:b:138:SER:O	14:b:139:SER:HB2	2.19	0.42
15:g:1123:LYS:HG3	15:g:1204:MET:HE3	2.00	0.42
15:m:1087:THR:O	15:m:1091:VAL:HG23	2.19	0.42
15:o:1204:MET:O	15:o:1208:VAL:HG23	2.19	0.42
1:A:44:ALA:O	1:A:168:ALA:CA	2.68	0.42
2:B:243:ILE:C	2:B:245:ASP:H	2.28	0.42
4:D:122:GLN:HB2	4:D:123:SER:H	1.64	0.42
5:E:97:VAL:HG11	12:L:65:LEU:CD2	2.50	0.42
6:F:158:GLY:O	6:F:159:THR:CB	2.67	0.42
7:G:213:LEU:CD2	7:G:215:ILE:HD11	2.49	0.42
8:H:46:SER:O	8:H:52:THR:HG21	2.19	0.42
8:H:81:VAL:O	8:H:85:LEU:HG	2.19	0.42
9:I:10:ASN:HA	9:I:180:ILE:HD12	2.01	0.42
10:J:125:LEU:H	10:J:125:LEU:CD2	2.32	0.42
12:L:52:CYS:O	12:L:56:GLU:HB2	2.20	0.42
13:M:108:HIS:CD2	13:M:139:GLY:HA3	2.54	0.42
1:O:184:ASN:O	1:O:188:LYS:HG3	2.18	0.42
3:Q:19:LEU:O	3:Q:20:TYR:C	2.63	0.42
4:R:27:VAL:CG1	4:R:132:SER:HB2	2.49	0.42
6:T:179:PHE:O	6:T:181:LYS:N	2.52	0.42
8:V:188:PHE:CD2	8:V:188:PHE:N	2.86	0.42
9:W:10:ASN:HA	9:W:180:ILE:HD12	2.01	0.42
14:b:63:ILE:O	14:b:66:LEU:HB2	2.19	0.42
15:c:1072:GLN:CG	15:d:1051:ARG:HH12	2.32	0.42
15:e:1119:GLU:O	15:e:1123:LYS:HG2	2.19	0.42
15:j:1072:GLN:CG	15:k:1051:ARG:HH12	2.32	0.42
15:j:1156:GLU:OE2	15:k:1178:SER:CB	2.67	0.42
15:l:1119:GLU:O	15:l:1123:LYS:HG2	2.19	0.42
15:o:1090:THR:O	15:o:1094:ILE:HG12	2.19	0.42
2:B:152:PRO:C	2:B:154:GLY:N	2.77	0.42
5:E:79:SER:HB3	5:E:172:ILE:HD12	2.00	0.42
6:F:3:ARG:H	6:F:3:ARG:HD3	1.85	0.42
6:F:41:ASN:HB2	6:F:183:ASP:OD1	2.19	0.42
6:F:82:ARG:HG3	6:F:82:ARG:NH1	2.34	0.42
7:G:37:ILE:HA	7:G:163:ALA:CB	2.47	0.42
7:G:81:ILE:HD13	7:G:81:ILE:HA	1.92	0.42
8:H:9:LYS:HB2	8:H:146:MET:O	2.19	0.42
8:H:26:ILE:HD12	14:b:187:ARG:CA	2.41	0.42
8:H:35:THR:CG2	14:b:228:TYR:CE2	3.03	0.42
8:H:45:ARG:CB	8:H:45:ARG:HH11	2.33	0.42
9:I:8:PHE:HB2	9:I:146:LEU:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:27:LEU:HD13	14:N:36:PHE:O	2.20	0.42
14:N:71:VAL:O	14:N:73:GLU:N	2.52	0.42
14:N:97:ALA:O	14:N:98:THR:C	2.59	0.42
1:O:51:THR:O	1:O:227:VAL:HG13	2.19	0.42
2:P:243:ILE:C	2:P:245:ASP:N	2.75	0.42
3:Q:190:ILE:HG13	3:Q:190:ILE:H	1.56	0.42
5:S:201:LEU:HD12	5:S:201:LEU:HA	1.74	0.42
7:U:52:LEU:HD11	7:U:206:ASN:HD22	1.82	0.42
7:U:173:ALA:C	7:U:175:LEU:H	2.27	0.42
10:X:87:THR:HG22	10:X:129:ILE:HD13	2.02	0.42
10:X:107:VAL:HG22	10:X:136:ILE:CG2	2.50	0.42
11:Y:19:LYS:CG	11:Y:180:ILE:HG13	2.48	0.42
15:p:1036:ILE:HG12	15:p:1077:LEU:HD11	2.01	0.42
1:A:12:TYR:CE1	2:B:7:PHE:CE2	3.07	0.42
1:A:214:LEU:CD1	1:A:218:PHE:HZ	2.32	0.42
3:C:176:LEU:O	3:C:178:MET:N	2.52	0.42
5:E:209:GLU:OE1	5:E:209:GLU:HA	2.19	0.42
6:F:32:GLY:HA2	15:f:1230:VAL:HG12	2.01	0.42
6:F:36:VAL:CG1	6:F:37:GLY:N	2.82	0.42
8:H:2:SER:OG	8:H:162:ALA:HB1	2.19	0.42
8:H:16:ALA:O	8:H:17:ASP:O	2.38	0.42
8:H:122:LEU:HD11	14:N:36:PHE:HE1	1.84	0.42
8:H:165:TRP:C	14:b:34:LEU:HD23	2.44	0.42
9:I:97:TYR:CD1	9:I:97:TYR:N	2.86	0.42
9:I:148:LYS:O	9:I:152:ILE:HG13	2.19	0.42
10:J:148:MET:HE2	10:J:172:ASN:HB2	2.02	0.42
11:K:92:ILE:HA	11:K:92:ILE:HD12	1.81	0.42
11:K:168:LEU:O	11:K:172:MET:HB2	2.19	0.42
12:L:19:ARG:N	12:L:33:ARG:HH12	2.17	0.42
13:M:3:ASN:HD22	13:M:4:PRO:HD2	1.84	0.42
2:P:38:LYS:HA	2:P:43:VAL:HG22	2.00	0.42
2:P:213:ILE:HD12	2:P:213:ILE:C	2.44	0.42
4:R:84:ILE:N	4:R:84:ILE:HD12	2.34	0.42
5:S:222:ILE:HG12	5:S:223:THR:N	2.29	0.42
7:U:51:LYS:O	7:U:211:PHE:HB2	2.19	0.42
8:V:173:ILE:HG22	8:V:174:ARG:N	2.34	0.42
9:W:148:LYS:O	9:W:152:ILE:HG13	2.20	0.42
13:a:17:GLY:HA3	13:a:20:PHE:CE1	2.55	0.42
13:a:80:ASN:O	13:a:81:ASP:C	2.61	0.42
14:b:102:GLN:HE21	14:b:102:GLN:HB3	1.70	0.42
14:b:168:THR:O	14:b:168:THR:HG22	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:e:1036:ILE:HG12	15:e:1077:LEU:HD11	2.01	0.42
15:h:1090:THR:O	15:h:1094:ILE:HG12	2.19	0.42
15:m:1035:GLU:HG3	15:m:1077:LEU:HD12	2.01	0.42
15:m:1204:MET:O	15:m:1208:VAL:HG23	2.19	0.42
3:C:181:LYS:O	3:C:184:MET:HB2	2.19	0.42
7:G:203:HIS:O	7:G:205:ASP:N	2.53	0.42
8:H:187:ILE:O	8:H:188:PHE:HD2	2.03	0.42
10:J:94:LEU:HD11	10:J:106:PRO:HG3	2.02	0.42
12:L:9:GLN:HE21	12:L:9:GLN:HB3	1.64	0.42
14:N:25:ASP:HA	14:N:195:PHE:HB3	2.00	0.42
14:N:114:ILE:HG22	14:N:115:ILE:N	2.35	0.42
14:N:169:THR:C	14:N:171:GLN:N	2.77	0.42
1:O:26:TYR:O	1:O:29:GLU:N	2.53	0.42
1:O:131:ARG:O	1:O:132:ALA:HB3	2.19	0.42
4:R:103:PRO:HG2	4:R:140:PRO:HG3	2.02	0.42
4:R:199:LEU:C	4:R:203:VAL:HG23	2.42	0.42
4:R:225:SER:O	4:R:229:ILE:HG13	2.20	0.42
5:S:199:LEU:HD12	5:S:199:LEU:C	2.44	0.42
6:T:198:SER:HA	6:T:201:LEU:HG	2.00	0.42
8:V:45:ARG:CB	8:V:45:ARG:HH11	2.33	0.42
8:V:131:SER:O	8:V:135:TYR:CD1	2.72	0.42
10:X:8:GLY:HA2	10:X:140:THR:HG21	2.01	0.42
10:X:17:LYS:HG3	10:X:156:ASN:CB	2.47	0.42
11:Y:139:TYR:CE2	11:Y:172:MET:HG3	2.55	0.42
12:Z:50:ALA:CB	13:a:128:VAL:HG23	2.50	0.42
15:c:1191:MET:HE2	15:c:1191:MET:HA	2.01	0.42
15:d:1062:LYS:HG2	15:d:1063:SER:N	2.34	0.42
15:d:1089:ARG:NH2	15:e:1200:HIS:CE1	2.87	0.42
15:f:1035:GLU:HG3	15:f:1077:LEU:HD12	2.02	0.42
15:g:1062:LYS:HG2	15:g:1063:SER:N	2.34	0.42
15:j:1087:THR:O	15:j:1091:VAL:HG23	2.19	0.42
15:m:1089:ARG:CG	15:m:1117:ILE:HG21	2.49	0.42
15:n:1035:GLU:HG3	15:n:1077:LEU:HD12	2.01	0.42
15:n:1119:GLU:O	15:n:1123:LYS:HG2	2.19	0.42
15:o:1062:LYS:HG2	15:o:1063:SER:N	2.35	0.42
1:A:141:LEU:HB2	1:A:157:THR:CG2	2.50	0.42
4:D:84:ILE:N	4:D:84:ILE:CD1	2.82	0.42
6:F:156:LEU:HD23	7:G:58:LEU:HD23	2.02	0.42
8:H:55:ILE:O	8:H:56:ALA:C	2.60	0.42
8:H:174:ARG:HG2	8:H:174:ARG:HH11	1.85	0.42
11:K:75:LEU:HD12	11:K:80:VAL:HG23	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:126:ASP:HB2	13:M:130:SER:N	2.33	0.42
14:N:3:GLN:HG2	14:N:4:PRO:N	2.34	0.42
1:O:37:GLN:O	15:o:1230:VAL:HB	2.20	0.42
3:Q:9:ARG:CZ	3:Q:12:ILE:HD11	2.49	0.42
9:W:76:VAL:HG11	9:W:109:HIS:HB2	2.00	0.42
12:Z:3:THR:HB	12:Z:16:VAL:HG12	2.02	0.42
12:Z:72:GLU:CD	12:Z:73:ARG:H	2.28	0.42
15:c:1062:LYS:HG2	15:c:1063:SER:N	2.35	0.42
15:e:1089:ARG:HH22	15:f:1200:HIS:CE1	2.38	0.42
15:i:1119:GLU:O	15:i:1123:LYS:HG2	2.20	0.42
15:l:1190:PHE:O	15:l:1194:VAL:HG23	2.18	0.42
15:p:1062:LYS:HG2	15:p:1063:SER:N	2.34	0.42
1:A:163:TYR:O	1:A:164:VAL:HB	2.20	0.42
2:B:168:SER:O	2:B:169:VAL:C	2.61	0.42
3:C:176:LEU:C	3:C:178:MET:H	2.27	0.42
3:C:207:THR:HB	3:C:209:ASP:OD1	2.19	0.42
4:D:103:PRO:HG2	4:D:140:PRO:HG3	2.02	0.42
4:D:212:ILE:O	4:D:224:LEU:HB2	2.20	0.42
4:D:233:VAL:O	4:D:237:GLU:HG2	2.20	0.42
7:G:108:ILE:N	7:G:109:PRO:HD3	2.35	0.42
8:H:61:TYR:CD1	8:H:61:TYR:C	2.97	0.42
8:H:165:TRP:C	14:b:34:LEU:CD2	2.93	0.42
8:H:189:TYR:HA	8:H:190:PRO:HD3	1.85	0.42
10:J:84:GLU:HA	10:J:119:PHE:HE1	1.85	0.42
13:M:135:GLN:O	13:M:135:GLN:HG2	2.20	0.42
13:M:136:CYS:SG	13:M:150:LEU:HD23	2.59	0.42
2:P:212:ALA:HB2	2:P:237:LYS:HA	2.01	0.42
4:R:159:TRP:CZ2	5:S:59:LEU:HD23	2.55	0.42
5:S:214:GLU:OE2	5:S:214:GLU:N	2.52	0.42
8:V:61:TYR:CD1	8:V:61:TYR:C	2.97	0.42
10:X:84:GLU:HA	10:X:119:PHE:HE1	1.85	0.42
11:Y:55:GLN:HG3	12:Z:88:TYR:CE2	2.55	0.42
11:Y:94:SER:O	11:Y:95:ARG:C	2.63	0.42
14:b:152:ASN:ND2	14:b:156:ARG:HH21	2.17	0.42
14:b:209:LYS:HE3	14:b:209:LYS:HB2	1.90	0.42
15:g:1089:ARG:CG	15:g:1117:ILE:HG21	2.50	0.42
15:g:1099:HIS:HD2	15:h:1109:VAL:HG22	1.84	0.42
15:k:1062:LYS:HG2	15:k:1063:SER:N	2.34	0.42
15:k:1089:ARG:NH2	15:l:1200:HIS:CE1	2.87	0.42
15:l:1012:LEU:HD23	15:l:1012:LEU:HA	1.93	0.42
15:o:1035:GLU:HG3	15:o:1077:LEU:HD12	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:p:1119:GLU:O	15:p:1123:LYS:HG2	2.20	0.42
2:B:3:ASP:OD1	15:c:1102:GLU:CA	2.60	0.42
2:B:147:LEU:O	2:B:158:PRO:HA	2.19	0.42
2:B:170:ALA:O	2:B:173:THR:HB	2.20	0.42
3:C:186:VAL:HG12	3:C:190:ILE:HD11	2.02	0.42
3:C:203:SER:O	3:C:204:SER:C	2.62	0.42
5:E:120:ALA:C	5:E:122:ARG:H	2.27	0.42
9:I:137:VAL:HG21	9:I:161:ALA:HB2	2.02	0.42
11:K:3:ILE:O	11:K:4:ILE:HD13	2.20	0.42
11:K:19:LYS:CG	11:K:180:ILE:HG13	2.50	0.42
14:N:119:VAL:HG23	14:N:200:ILE:HG22	2.01	0.42
14:N:220:ASP:C	14:N:222:ALA:N	2.77	0.42
1:O:89:ASP:O	1:O:92:ASN:HB3	2.20	0.42
1:O:91:ARG:NH1	7:U:156:TYR:CD2	2.88	0.42
1:O:202:VAL:O	1:O:203:VAL:C	2.62	0.42
2:P:111:VAL:HG22	2:P:136:ILE:HD12	2.01	0.42
3:Q:231:LYS:O	3:Q:232:PRO:C	2.63	0.42
4:R:133:THR:O	4:R:149:GLN:HA	2.20	0.42
5:S:64:ILE:CD1	5:S:64:ILE:N	2.83	0.42
5:S:99:HIS:HE1	13:a:79:HIS:NE2	2.18	0.42
5:S:120:ALA:C	5:S:122:ARG:H	2.27	0.42
8:V:48:SER:OG	8:V:49:ALA:N	2.53	0.42
11:Y:184:VAL:HG22	11:Y:189:ILE:HG12	2.02	0.42
14:b:230:THR:O	14:b:231:GLN:C	2.63	0.42
15:c:1036:ILE:CG1	15:c:1077:LEU:HD11	2.50	0.42
15:c:1200:HIS:CE1	15:i:1089:ARG:HH22	2.38	0.42
15:k:1201:LEU:O	15:k:1205:VAL:HG23	2.20	0.42
15:p:1041:LYS:HE2	15:p:1041:LYS:HB3	1.92	0.42
1:A:164:VAL:CG2	1:A:165:GLY:H	2.32	0.42
3:C:186:VAL:C	3:C:188:ASP:H	2.28	0.42
8:H:4:MET:SD	8:H:159:LEU:CD1	3.08	0.42
8:H:46:SER:HB3	8:H:96:GLY:HA3	2.02	0.42
8:H:157:HIS:O	8:H:160:SER:HB3	2.20	0.42
9:I:73:GLU:HA	9:I:74:PRO:HD3	1.83	0.42
12:L:64:ARG:NH2	12:L:68:LEU:HD21	2.35	0.42
14:N:35:ARG:O	14:N:35:ARG:HG2	2.20	0.42
1:O:21:PRO:HA	2:P:23:TYR:CD1	2.55	0.42
1:O:21:PRO:HA	2:P:23:TYR:CG	2.55	0.42
1:O:182:LEU:CD2	1:O:209:HIS:HD2	2.33	0.42
3:Q:43:GLY:HA2	3:Q:216:ILE:O	2.19	0.42
3:Q:195:LYS:O	3:Q:195:LYS:HG2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:240:VAL:C	3:Q:242:THR:N	2.77	0.42
5:S:40:ILE:HD12	5:S:200:VAL:HG23	2.02	0.42
6:T:3:ARG:H	6:T:3:ARG:HD3	1.85	0.42
7:U:95:ALA:O	7:U:98:PHE:HB3	2.19	0.42
7:U:104:THR:HA	7:U:105:PRO:HD2	1.82	0.42
7:U:217:TRP:CH2	7:U:222:GLU:HB3	2.55	0.42
8:V:45:ARG:NH1	8:V:45:ARG:HB2	2.35	0.42
8:V:81:VAL:O	8:V:85:LEU:HG	2.20	0.42
9:W:121:VAL:HG22	9:W:122:GLY:N	2.34	0.42
9:W:153:LYS:HD2	9:W:153:LYS:C	2.44	0.42
15:f:1119:GLU:O	15:f:1123:LYS:HG2	2.20	0.42
15:h:1062:LYS:HG2	15:h:1063:SER:N	2.35	0.42
15:i:1012:LEU:HD23	15:i:1012:LEU:HA	1.93	0.42
1:A:135:ARG:HG3	1:A:135:ARG:NH1	2.35	0.41
5:E:61:SER:O	5:E:63:SER:N	2.53	0.41
7:G:36:SER:O	7:G:163:ALA:CB	2.67	0.41
8:H:4:MET:SD	8:H:159:LEU:HD13	2.61	0.41
9:I:19:ARG:HH22	13:a:222:ASP:CG	2.28	0.41
11:K:53:THR:CG2	11:K:54:VAL:N	2.82	0.41
11:K:67:TYR:CD1	11:K:67:TYR:C	2.98	0.41
11:K:75:LEU:HD12	11:K:80:VAL:CG2	2.49	0.41
14:N:196:SER:OG	14:N:210:LYS:HD2	2.19	0.41
1:O:32:PHE:HA	1:O:35:THR:HG23	2.02	0.41
1:O:37:GLN:C	15:o:1230:VAL:HG12	2.44	0.41
1:O:53:VAL:O	1:O:54:ILE:HD12	2.19	0.41
2:P:40:THR:HG21	2:P:182:GLU:HA	2.02	0.41
3:Q:186:VAL:C	3:Q:188:ASP:H	2.27	0.41
6:T:39:ARG:HD2	6:T:40:SER:O	2.19	0.41
6:T:215:ILE:CG1	6:T:216:VAL:H	2.33	0.41
9:W:7:LYS:HA	9:W:12:VAL:HA	2.02	0.41
9:W:175:VAL:CG1	9:W:176:CYS:N	2.82	0.41
11:Y:19:LYS:HD3	11:Y:180:ILE:HG13	2.01	0.41
12:Z:21:THR:HG21	12:Z:170:TYR:HD1	1.85	0.41
13:a:192:THR:HG23	13:a:198:VAL:O	2.19	0.41
14:b:71:VAL:O	14:b:73:GLU:N	2.52	0.41
14:b:206:LEU:C	14:b:206:LEU:CD2	2.93	0.41
15:c:1146:ARG:HG2	15:c:1146:ARG:NH1	2.34	0.41
15:f:1041:LYS:HA	15:f:1044:ALA:HB3	2.01	0.41
15:j:1035:GLU:HG3	15:j:1077:LEU:HD12	2.02	0.41
15:l:1035:GLU:HG3	15:l:1077:LEU:HD12	2.02	0.41
15:m:1062:LYS:HG2	15:m:1063:SER:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:n:1099:HIS:HD2	15:o:1109:VAL:HG22	1.84	0.41
5:E:28:LEU:HD12	5:E:28:LEU:N	2.34	0.41
6:F:126:ARG:HH11	6:F:126:ARG:HG3	1.83	0.41
7:G:67:GLN:HG2	14:N:77:ASP:OD1	2.20	0.41
7:G:90:ARG:CD	7:G:118:TYR:HE1	2.32	0.41
8:H:144:GLU:O	8:H:145:ASN:HB3	2.20	0.41
9:I:76:VAL:HG11	9:I:109:HIS:HB2	2.01	0.41
12:L:21:THR:HG21	12:L:170:TYR:HD1	1.84	0.41
12:L:38:ASN:HB2	12:L:39:PRO:CD	2.50	0.41
12:L:104:TYR:CD1	12:L:104:TYR:C	2.98	0.41
14:N:11:VAL:O	14:N:143:ALA:HA	2.19	0.41
14:N:195:PHE:HB2	14:N:196:SER:H	1.52	0.41
14:N:209:LYS:HG2	14:N:212:LEU:HD11	2.03	0.41
1:O:243:GLU:O	1:O:246:VAL:N	2.52	0.41
2:P:34:SER:HB3	2:P:47:THR:CB	2.50	0.41
2:P:147:LEU:O	2:P:158:PRO:HA	2.20	0.41
2:P:168:SER:O	2:P:169:VAL:C	2.63	0.41
2:P:243:ILE:C	2:P:245:ASP:H	2.27	0.41
4:R:73:LEU:HD12	4:R:135:ILE:CG1	2.50	0.41
5:S:61:SER:O	5:S:63:SER:N	2.53	0.41
6:T:107:ARG:HA	6:T:110:HIS:CD2	2.55	0.41
6:T:197:ILE:HG23	6:T:198:SER:N	2.35	0.41
9:W:94:ILE:O	9:W:94:ILE:HG13	2.20	0.41
12:Z:1:THR:HG23	12:Z:33:ARG:NH2	2.30	0.41
14:b:25:ASP:HA	14:b:195:PHE:HB3	2.01	0.41
15:e:1012:LEU:HD23	15:e:1012:LEU:HA	1.93	0.41
15:i:1036:ILE:HG12	15:i:1077:LEU:HD11	2.01	0.41
15:j:1036:ILE:CG1	15:j:1077:LEU:HD11	2.50	0.41
15:j:1072:GLN:HE22	15:k:1051:ARG:HH22	1.63	0.41
15:n:1089:ARG:CG	15:n:1117:ILE:HG21	2.50	0.41
1:A:16:ILE:H	1:A:16:ILE:HG13	1.56	0.41
1:A:66:PRO:HA	1:A:69:VAL:HG23	2.02	0.41
1:A:237:SER:HB2	1:A:240:ASN:HB2	2.02	0.41
3:C:77:VAL:CG1	3:C:78:ALA:N	2.84	0.41
3:C:133:VAL:CG1	3:C:134:SER:N	2.82	0.41
4:D:29:ARG:HB3	15:d:1230:VAL:CG1	2.38	0.41
4:D:203:VAL:HG21	4:D:210:ILE:CD1	2.38	0.41
8:H:45:ARG:NH1	8:H:45:ARG:HB2	2.35	0.41
12:L:81:LYS:HD2	12:L:81:LYS:HA	1.92	0.41
13:M:80:ASN:O	13:M:81:ASP:C	2.61	0.41
2:P:128:ARG:HG3	2:P:128:ARG:HH11	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:159:GLY:O	4:R:56:ASP:HB2	2.20	0.41
3:Q:236:LYS:O	3:Q:240:VAL:HG23	2.21	0.41
4:R:4:TYR:CD2	4:R:13:PRO:HD3	2.55	0.41
4:R:96:HIS:CG	4:R:104:VAL:HG12	2.55	0.41
4:R:217:PRO:O	4:R:218:ASP:HB2	2.19	0.41
5:S:46:VAL:CG2	5:S:153:TYR:HB3	2.50	0.41
7:U:38:GLY:N	7:U:162:ALA:O	2.48	0.41
7:U:236:GLN:O	7:U:237:GLU:C	2.64	0.41
12:Z:9:GLN:HE21	12:Z:9:GLN:HB3	1.64	0.41
15:f:1009:ILE:HD11	15:g:1213:LEU:HB2	2.01	0.41
15:g:1059:GLN:OE1	15:g:1059:GLN:N	2.53	0.41
15:h:1035:GLU:HG3	15:h:1077:LEU:HD12	2.02	0.41
15:h:1123:LYS:HG3	15:h:1204:MET:HE3	2.01	0.41
15:m:1059:GLN:N	15:m:1059:GLN:OE1	2.53	0.41
2:B:122:THR:O	2:B:124:SER:N	2.53	0.41
7:G:112:ALA:O	7:G:113:ASP:C	2.63	0.41
7:G:113:ASP:O	7:G:116:GLY:N	2.53	0.41
7:G:168:ARG:O	7:G:172:LYS:HG3	2.20	0.41
9:I:175:VAL:CG1	9:I:176:CYS:N	2.83	0.41
1:O:126:GLN:HE21	1:O:127:ILE:N	2.18	0.41
2:P:21:ILE:HD13	15:j:1229:MET:CE	2.51	0.41
2:P:35:LEU:HD22	2:P:35:LEU:N	2.34	0.41
5:S:24:VAL:O	5:S:28:LEU:HD13	2.20	0.41
7:U:5:THR:HG23	7:U:7:TYR:HD2	1.85	0.41
11:Y:22:THR:HG23	11:Y:27:VAL:HG22	2.01	0.41
12:Z:104:TYR:C	12:Z:104:TYR:CD1	2.99	0.41
14:b:193:ARG:NH2	14:b:217:MET:HE2	2.35	0.41
15:f:1059:GLN:OE1	15:f:1059:GLN:N	2.53	0.41
15:f:1087:THR:O	15:f:1091:VAL:HG23	2.20	0.41
15:l:1089:ARG:CG	15:l:1117:ILE:HG21	2.50	0.41
1:A:236:LEU:HD23	1:A:236:LEU:HA	1.78	0.41
3:C:185:LYS:HZ1	3:C:187:ASP:H	1.69	0.41
3:C:235:ILE:C	3:C:237:ASP:H	2.29	0.41
4:D:133:THR:O	4:D:149:GLN:HA	2.21	0.41
7:G:44:GLY:HA3	7:G:218:CYS:O	2.21	0.41
7:G:118:TYR:CE2	7:G:122:HIS:HE1	2.36	0.41
7:G:199:ILE:O	7:G:200:TYR:C	2.64	0.41
8:H:13:ILE:CG1	8:H:177:VAL:HG22	2.37	0.41
8:H:173:ILE:HG22	8:H:174:ARG:N	2.35	0.41
9:I:133:ALA:C	9:I:135:MET:H	2.29	0.41
10:J:7:ASN:HA	10:J:29:GLY:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:94:SER:O	11:K:95:ARG:C	2.63	0.41
12:L:205:GLY:C	11:Y:149:ARG:NH2	2.79	0.41
14:N:169:THR:O	14:N:172:VAL:N	2.53	0.41
2:P:39:ALA:HB3	2:P:42:GLY:O	2.20	0.41
2:P:212:ALA:C	2:P:213:ILE:HG23	2.45	0.41
6:T:179:PHE:C	6:T:179:PHE:CD1	2.98	0.41
7:U:24:GLU:HA	7:U:27:VAL:HG23	2.01	0.41
7:U:36:SER:O	7:U:163:ALA:CB	2.67	0.41
7:U:129:ARG:HA	7:U:130:PRO:HD3	1.83	0.41
11:Y:10:GLN:HB2	11:Y:152:MET:O	2.20	0.41
12:Z:138:GLY:O	12:Z:139:VAL:C	2.63	0.41
12:Z:173:GLY:O	12:Z:193:VAL:HB	2.19	0.41
15:d:1201:LEU:O	15:d:1205:VAL:HG23	2.20	0.41
15:n:1041:LYS:HE2	15:n:1041:LYS:HB3	1.91	0.41
15:n:1059:GLN:OE1	15:n:1059:GLN:N	2.53	0.41
15:o:1114:LEU:HD23	15:o:1114:LEU:HA	1.88	0.41
1:A:104:PHE:HB3	1:A:112:MET:HE2	2.00	0.41
1:A:158:ASP:OD1	1:A:158:ASP:C	2.63	0.41
1:A:237:SER:HB2	1:A:240:ASN:CB	2.51	0.41
2:B:113:GLU:OE1	2:B:116:LYS:HE2	2.21	0.41
5:E:112:LEU:O	5:E:113:THR:C	2.64	0.41
7:G:95:ALA:O	7:G:98:PHE:HB3	2.19	0.41
7:G:224:ASN:C	7:G:224:ASN:HD22	2.27	0.41
8:H:10:ASP:CG	8:H:179:THR:HG22	2.46	0.41
8:H:172:VAL:HG23	8:H:173:ILE:O	2.20	0.41
10:J:14:MET:HE3	10:J:166:ILE:CG1	2.35	0.41
12:L:186:ILE:HG22	12:L:188:HIS:CD2	2.55	0.41
13:M:125:PHE:CD2	13:M:131:TYR:HB3	2.56	0.41
14:N:63:ILE:O	14:N:66:LEU:N	2.54	0.41
1:O:178:ILE:HD13	1:O:210:MET:CE	2.50	0.41
2:P:109:LEU:HD23	2:P:109:LEU:HA	1.81	0.41
2:P:150:VAL:HG13	2:P:156:TYR:HB3	2.02	0.41
4:R:18:PHE:O	4:R:19:GLN:C	2.63	0.41
5:S:108:ASN:HD21	13:a:82:LYS:NZ	2.19	0.41
6:T:46:LEU:HG	6:T:135:ILE:CD1	2.46	0.41
7:U:56:LYS:HA	7:U:56:LYS:HD3	1.93	0.41
7:U:135:THR:O	7:U:149:MET:HA	2.19	0.41
9:W:137:VAL:HG21	9:W:161:ALA:HB2	2.02	0.41
11:Y:140:THR:O	11:Y:141:PHE:C	2.63	0.41
11:Y:158:LEU:HD23	11:Y:158:LEU:HA	1.91	0.41
12:Z:106:ARG:HG3	12:Z:106:ARG:NH1	2.32	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:b:15:LYS:HD3	14:b:140:PRO:HA	2.01	0.41
15:c:1158:LYS:HB2	15:c:1179:LEU:HD21	2.03	0.41
15:e:1089:ARG:CG	15:e:1117:ILE:HG21	2.50	0.41
15:l:1036:ILE:HG12	15:l:1077:LEU:HD11	2.02	0.41
15:o:1087:THR:O	15:o:1091:VAL:HG23	2.20	0.41
1:A:21:PRO:HA	2:B:23:TYR:CD1	2.56	0.41
2:B:212:ALA:O	2:B:213:ILE:HG23	2.21	0.41
3:C:236:LYS:O	3:C:240:VAL:HG23	2.21	0.41
5:E:46:VAL:CG2	5:E:153:TYR:HB3	2.51	0.41
6:F:111:LEU:HD23	6:F:111:LEU:HA	1.85	0.41
8:H:15:GLY:HA2	8:H:174:ARG:O	2.20	0.41
8:H:67:THR:HA	8:H:71:GLY:O	2.20	0.41
9:I:50:ALA:CB	10:J:126:ILE:HG13	2.51	0.41
9:I:83:LEU:HD12	9:I:113:ILE:HD11	2.02	0.41
10:J:87:THR:HG22	10:J:129:ILE:HD13	2.03	0.41
12:L:116:ASP:OD1	12:L:118:ASP:HB2	2.20	0.41
13:M:63:ALA:O	13:M:67:ARG:HB2	2.21	0.41
1:O:103:GLU:HA	8:V:61:TYR:HE2	1.85	0.41
1:O:116:VAL:O	1:O:117:LEU:C	2.63	0.41
3:Q:218:LYS:HB2	3:Q:225:VAL:HA	2.03	0.41
3:Q:235:ILE:O	3:Q:236:LYS:C	2.63	0.41
3:Q:235:ILE:C	3:Q:237:ASP:H	2.29	0.41
7:U:218:CYS:HA	7:U:223:THR:HG21	2.03	0.41
8:V:55:ILE:O	8:V:56:ALA:C	2.63	0.41
8:V:60:GLN:O	8:V:61:TYR:C	2.63	0.41
8:V:105:LYS:HG2	8:V:106:ASN:N	2.35	0.41
8:V:172:VAL:HG23	8:V:173:ILE:O	2.21	0.41
9:W:162:GLY:O	9:W:163:ILE:C	2.64	0.41
9:W:176:CYS:SG	9:W:178:MET:HE2	2.60	0.41
9:W:215:GLU:O	9:W:216:SER:HB3	2.21	0.41
13:a:30:ILE:C	13:a:30:ILE:CD1	2.92	0.41
15:f:1012:LEU:HD23	15:f:1012:LEU:HA	1.94	0.41
15:m:1009:ILE:HD11	15:n:1213:LEU:HB2	2.01	0.41
1:A:37:GLN:HB2	15:h:1230:VAL:CG2	2.51	0.41
1:A:123:ASN:CG	2:B:84:VAL:HG12	2.45	0.41
1:A:158:ASP:OD2	1:A:162:TYR:HB3	2.21	0.41
2:B:139:HIS:HD2	2:B:144:GLY:C	2.28	0.41
2:B:217:GLU:OE1	2:B:231:LYS:HB2	2.20	0.41
3:C:42:ASP:CG	3:C:186:VAL:HG23	2.46	0.41
4:D:170:THR:O	4:D:171:VAL:C	2.64	0.41
6:F:69:HIS:HE1	6:F:70:MET:CE	2.30	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:84:LYS:HE2	9:I:119:THR:HG23	2.01	0.41
9:I:139:GLU:HB3	14:b:186:TYR:CD1	2.55	0.41
9:I:215:GLU:O	9:I:216:SER:HB3	2.21	0.41
10:J:89:LEU:C	10:J:91:SER:N	2.78	0.41
13:M:24:ALA:HB1	13:M:202:LEU:HD11	2.01	0.41
13:M:222:ASP:HB2	9:W:19:ARG:NH2	2.36	0.41
14:N:54:SER:HB3	14:N:113:ALA:HB3	2.03	0.41
14:N:210:LYS:HD2	14:N:211:ASN:H	1.86	0.41
14:N:218:LYS:HE2	9:W:142:TRP:O	2.20	0.41
1:O:220:LYS:HG2	1:O:242:GLU:OE2	2.20	0.41
3:Q:15:PRO:HA	4:R:22:TYR:CG	2.56	0.41
4:R:125:GLY:C	4:R:126:VAL:HG23	2.45	0.41
5:S:147:HIS:ND1	5:S:147:HIS:C	2.79	0.41
6:T:69:HIS:ND1	6:T:69:HIS:C	2.79	0.41
11:Y:39:SER:CB	11:Y:40:PRO:HD2	2.39	0.41
12:Z:190:ASN:C	12:Z:191:HIS:HD2	2.29	0.41
15:h:1089:ARG:CG	15:h:1117:ILE:HG21	2.51	0.41
15:h:1194:VAL:O	15:h:1198:THR:HG23	2.21	0.41
15:j:1062:LYS:HG2	15:j:1063:SER:N	2.35	0.41
15:k:1036:ILE:HG12	15:k:1077:LEU:HD11	2.03	0.41
15:k:1059:GLN:OE1	15:k:1059:GLN:N	2.54	0.41
15:l:1062:LYS:HG2	15:l:1063:SER:N	2.34	0.41
15:l:1113:VAL:O	15:l:1116:ILE:CG2	2.67	0.41
15:m:1119:GLU:O	15:m:1123:LYS:HG2	2.20	0.41
15:n:1062:LYS:HG2	15:n:1063:SER:N	2.34	0.41
1:A:21:PRO:HA	2:B:23:TYR:CG	2.55	0.41
1:A:44:ALA:HA	1:A:53:VAL:HA	2.02	0.41
1:A:71:TYR:OH	15:h:1231:SER:CB	2.69	0.41
1:A:123:ASN:HD21	2:B:83:ARG:NE	2.18	0.41
1:A:134:MET:HE3	7:G:124:LEU:HD22	2.03	0.41
1:A:189:SER:C	1:A:191:ILE:H	2.29	0.41
2:B:3:ASP:OD1	15:c:1103:ASP:N	2.53	0.41
2:B:35:LEU:HD22	2:B:35:LEU:N	2.36	0.41
3:C:43:GLY:HA2	3:C:216:ILE:O	2.20	0.41
3:C:96:GLN:NE2	3:C:96:GLN:HA	2.36	0.41
3:C:190:ILE:HG13	3:C:190:ILE:H	1.57	0.41
4:D:127:ARG:HA	4:D:128:PRO:HD3	1.93	0.41
5:E:79:SER:C	5:E:140:VAL:HG23	2.45	0.41
6:F:97:LEU:HD11	13:M:70:ASN:OD1	2.21	0.41
6:F:179:PHE:C	6:F:179:PHE:CD1	2.99	0.41
8:H:97:ILE:HG23	8:H:113:ILE:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:115:LEU:HD22	8:H:115:LEU:N	2.34	0.41
8:H:122:LEU:HB3	8:H:123:PRO:CD	2.50	0.41
8:H:143:ARG:NH1	8:H:146:MET:HE2	2.36	0.41
11:K:20:ALA:HB2	11:K:177:LYS:HB2	2.03	0.41
11:K:192:VAL:C	11:K:194:ASP:N	2.73	0.41
12:L:4:LEU:HD12	12:L:161:ILE:CD1	2.51	0.41
13:M:192:THR:HG23	13:M:198:VAL:O	2.21	0.41
14:N:21:ILE:CG2	14:N:22:ILE:N	2.84	0.41
14:N:182:ARG:HG3	14:N:214:VAL:CG1	2.51	0.41
14:N:210:LYS:O	14:N:211:ASN:O	2.38	0.41
14:N:228:TYR:HE2	8:V:35:THR:CG2	2.34	0.41
1:O:44:ALA:O	1:O:168:ALA:CA	2.69	0.41
2:P:104:TYR:OH	9:W:64:GLU:OE1	2.39	0.41
2:P:122:THR:O	2:P:124:SER:N	2.53	0.41
2:P:161:ALA:HB3	3:Q:56:LEU:CD2	2.38	0.41
2:P:244:ASN:N	2:P:244:ASN:HD22	2.19	0.41
3:Q:4:ARG:HH21	4:R:6:ARG:CD	2.34	0.41
3:Q:6:TYR:CD2	3:Q:15:PRO:HD3	2.56	0.41
3:Q:22:VAL:HG11	15:k:1229:MET:CE	2.47	0.41
3:Q:96:GLN:NE2	3:Q:96:GLN:HA	2.36	0.41
3:Q:176:LEU:C	3:Q:178:MET:H	2.29	0.41
3:Q:203:SER:O	3:Q:204:SER:C	2.64	0.41
6:T:17:GLY:CA	7:U:29:ALA:HB2	2.51	0.41
7:U:224:ASN:C	7:U:224:ASN:HD22	2.28	0.41
8:V:9:LYS:HB2	8:V:146:MET:O	2.21	0.41
8:V:46:SER:HB3	8:V:96:GLY:HA3	2.02	0.41
9:W:5:GLY:O	9:W:124:TYR:HA	2.21	0.41
9:W:63:ILE:HG13	9:W:82:MET:HE1	2.03	0.41
9:W:84:LYS:HE2	9:W:119:THR:HG23	2.02	0.41
9:W:144:GLN:HE21	9:W:144:GLN:HB2	1.65	0.41
10:X:30:SER:O	10:X:31:GLN:C	2.64	0.41
11:Y:9:VAL:HB	11:Y:10:GLN:H	1.72	0.41
11:Y:162:LYS:O	11:Y:166:GLN:HG3	2.20	0.41
12:Z:5:ALA:HA	12:Z:13:ILE:O	2.20	0.41
13:a:98:TYR:CE2	13:a:101:ARG:HD3	2.56	0.41
14:b:37:ASN:C	14:b:39:VAL:N	2.79	0.41
14:b:88:GLU:HB2	14:b:91:TYR:CD1	2.56	0.41
14:b:141:THR:O	14:b:142:LEU:HD23	2.21	0.41
14:b:210:LYS:O	14:b:211:ASN:O	2.39	0.41
15:c:1035:GLU:HG3	15:c:1077:LEU:HD12	2.03	0.41
15:d:1036:ILE:HG12	15:d:1077:LEU:HD11	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:e:1035:GLU:HG3	15:e:1077:LEU:HD12	2.02	0.41
15:h:1036:ILE:CG1	15:h:1077:LEU:HD11	2.51	0.41
15:h:1114:LEU:HA	15:h:1114:LEU:HD23	1.88	0.41
15:i:1087:THR:O	15:i:1091:VAL:HG23	2.21	0.41
15:j:1113:VAL:O	15:j:1116:ILE:CG2	2.67	0.41
15:m:1041:LYS:HE2	15:m:1041:LYS:HB3	1.91	0.41
15:o:1089:ARG:CG	15:o:1117:ILE:HG21	2.51	0.41
15:p:1059:GLN:OE1	15:p:1059:GLN:N	2.53	0.41
6:F:107:ARG:HA	6:F:110:HIS:CD2	2.56	0.41
6:F:144:LEU:O	6:F:145:LEU:HD12	2.21	0.41
7:G:66:ILE:O	7:G:229:PHE:HZ	2.03	0.41
7:G:136:ILE:HG12	7:G:149:MET:CG	2.36	0.41
7:G:236:GLN:O	7:G:237:GLU:C	2.64	0.41
8:H:163:ILE:HG12	8:H:163:ILE:H	1.68	0.41
9:I:87:LEU:HD12	9:I:115:ALA:O	2.21	0.41
12:L:205:GLY:HA3	11:Y:149:ARG:HH21	1.86	0.41
13:M:172:LEU:HD12	13:M:172:LEU:N	2.22	0.41
14:N:193:ARG:NH2	14:N:217:MET:HE2	2.36	0.41
1:O:237:SER:HB2	1:O:240:ASN:HB2	2.02	0.41
4:R:166:ARG:HG2	4:R:166:ARG:NH1	2.36	0.41
6:T:126:ARG:HH11	6:T:126:ARG:HG3	1.86	0.41
6:T:140:SER:HB2	6:T:143:HIS:NE2	2.36	0.41
7:U:168:ARG:O	7:U:172:LYS:HG3	2.21	0.41
7:U:237:GLU:O	7:U:241:PHE:HB2	2.21	0.41
8:V:163:ILE:HG12	8:V:163:ILE:H	1.70	0.41
8:V:174:ARG:HG2	8:V:174:ARG:HH11	1.86	0.41
9:W:67:SER:OG	9:W:68:LEU:N	2.54	0.41
11:Y:103:LEU:HD23	11:Y:118:GLN:HA	2.03	0.41
13:a:2:PHE:CB	14:b:1:THR:HG23	2.50	0.41
14:b:197:LEU:C	14:b:197:LEU:CD2	2.88	0.41
15:e:1114:LEU:HD23	15:e:1114:LEU:HA	1.87	0.41
15:e:1204:MET:O	15:e:1208:VAL:HG23	2.21	0.41
15:f:1062:LYS:HG2	15:f:1063:SER:N	2.35	0.41
15:h:1087:THR:O	15:h:1091:VAL:HG23	2.20	0.41
15:p:1114:LEU:HA	15:p:1114:LEU:HD23	1.89	0.41
2:B:34:SER:OG	2:B:76:SER:HB2	2.21	0.40
2:B:212:ALA:C	2:B:213:ILE:HG23	2.46	0.40
7:G:44:GLY:HA2	7:G:140:VAL:HG23	2.02	0.40
12:L:106:ARG:HG3	12:L:106:ARG:NH1	2.32	0.40
14:N:25:ASP:HA	14:N:195:PHE:CB	2.51	0.40
1:O:63:LEU:CD2	7:U:175:LEU:HD12	2.50	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:158:ASP:OD2	1:O:162:TYR:HB3	2.21	0.40
2:P:92:VAL:O	2:P:96:SER:HB2	2.21	0.40
3:Q:141:ASP:OD2	3:Q:147:GLN:NE2	2.54	0.40
4:R:100:LEU:O	4:R:101:GLU:HB2	2.21	0.40
6:T:174:ARG:C	6:T:176:LEU:H	2.28	0.40
7:U:213:LEU:CD2	7:U:215:ILE:HD11	2.50	0.40
10:X:66:PHE:CZ	10:X:90:VAL:HB	2.56	0.40
10:X:108:VAL:CG1	10:X:109:ALA:N	2.84	0.40
10:X:148:MET:HE2	10:X:172:ASN:HB2	2.02	0.40
12:Z:211:ILE:HD12	12:Z:211:ILE:N	2.29	0.40
13:a:30:ILE:HD12	13:a:30:ILE:O	2.21	0.40
14:b:3:GLN:HG2	14:b:4:PRO:N	2.36	0.40
15:e:1123:LYS:HG3	15:e:1204:MET:HE3	2.03	0.40
15:g:1085:ALA:C	15:g:1087:THR:N	2.79	0.40
15:i:1059:GLN:OE1	15:i:1059:GLN:N	2.53	0.40
15:j:1082:TYR:OH	15:k:1200:HIS:HB2	2.21	0.40
15:k:1114:LEU:HA	15:k:1114:LEU:HD23	1.88	0.40
15:l:1089:ARG:HH22	15:m:1200:HIS:CE1	2.38	0.40
15:o:1036:ILE:CG1	15:o:1077:LEU:HD11	2.51	0.40
1:A:65:ASP:OD1	1:A:65:ASP:C	2.65	0.40
1:A:220:LYS:HB2	1:A:220:LYS:HZ2	1.85	0.40
2:B:44:VAL:HG23	2:B:213:ILE:CG2	2.51	0.40
2:B:244:ASN:N	2:B:244:ASN:HD22	2.19	0.40
3:C:9:ARG:HE	3:C:12:ILE:CD1	2.34	0.40
4:D:29:ARG:NH1	15:d:1227:ASP:OD2	2.52	0.40
5:E:39:GLY:HA2	5:E:47:VAL:O	2.20	0.40
5:E:64:ILE:N	5:E:64:ILE:HD12	2.36	0.40
6:F:140:SER:HB2	6:F:143:HIS:NE2	2.36	0.40
6:F:157:TYR:CE1	7:G:59:VAL:HG22	2.56	0.40
6:F:208:VAL:HG22	6:F:227:GLY:C	2.45	0.40
7:G:92:ARG:NE	14:N:76:TYR:CE1	2.89	0.40
7:G:203:HIS:C	7:G:205:ASP:N	2.79	0.40
8:H:38:HIS:CE1	8:H:67:THR:HG21	2.56	0.40
9:I:167:LEU:HD22	13:a:196:ILE:O	2.22	0.40
10:J:106:PRO:O	10:J:107:VAL:HG23	2.21	0.40
10:J:130:ASP:O	10:J:130:ASP:CG	2.65	0.40
11:K:139:TYR:CE2	11:K:172:MET:HG3	2.56	0.40
12:L:4:LEU:CD1	12:L:161:ILE:HD11	2.51	0.40
1:O:18:ILE:N	1:O:18:ILE:CD1	2.83	0.40
1:O:18:ILE:HG23	2:P:20:GLN:NE2	2.36	0.40
1:O:112:MET:HA	1:O:113:PRO:HD3	1.77	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:176:GLN:NE2	1:O:180:THR:HG23	2.36	0.40
3:Q:16:GLU:HB2	15:k:1102:GLU:OE2	2.21	0.40
4:R:171:VAL:HG23	4:R:172:ARG:N	2.37	0.40
4:R:238:GLN:C	4:R:240:LYS:N	2.80	0.40
5:S:235:LYS:O	5:S:238:GLU:HG2	2.21	0.40
7:U:236:GLN:O	7:U:239:ILE:N	2.53	0.40
8:V:65:LEU:O	8:V:65:LEU:HG	2.22	0.40
8:V:122:LEU:HB3	8:V:123:PRO:CD	2.50	0.40
9:W:56:THR:O	9:W:57:GLN:C	2.64	0.40
10:X:71:ASN:O	10:X:75:LEU:HD12	2.20	0.40
11:Y:67:TYR:CD1	11:Y:67:TYR:C	2.99	0.40
15:l:1114:LEU:HD23	15:l:1114:LEU:HA	1.86	0.40
15:l:1143:TYR:OH	15:m:1193:LYS:HG2	2.21	0.40
15:n:1041:LYS:HA	15:n:1044:ALA:HB3	2.03	0.40
15:o:1123:LYS:HG3	15:o:1204:MET:HE3	2.01	0.40
4:D:194:LEU:HA	4:D:197:ARG:CD	2.52	0.40
7:G:49:VAL:HG22	7:G:50:GLU:N	2.37	0.40
7:G:145:ALA:C	7:G:146:HIS:ND1	2.80	0.40
7:G:176:GLU:O	7:G:179:VAL:HB	2.21	0.40
8:H:149:GLU:C	8:H:151:THR:N	2.79	0.40
9:I:142:TRP:O	14:b:218:LYS:HE2	2.22	0.40
13:M:124:SER:OG	13:M:137:ARG:HD2	2.21	0.40
1:O:71:TYR:OH	15:o:1231:SER:OG	2.34	0.40
1:O:123:ASN:HD21	2:P:83:ARG:NE	2.17	0.40
1:O:127:ILE:H	1:O:127:ILE:HG13	1.59	0.40
2:P:47:THR:HG21	2:P:63:LYS:HE2	2.02	0.40
4:R:227:GLU:O	4:R:228:GLU:C	2.65	0.40
5:S:28:LEU:C	5:S:30:ALA:N	2.80	0.40
6:T:194:VAL:C	6:T:197:ILE:HG22	2.46	0.40
8:V:82:PHE:CE1	8:V:97:ILE:HG12	2.56	0.40
8:V:83:LYS:O	8:V:84:GLU:C	2.62	0.40
9:W:73:GLU:HA	9:W:74:PRO:HD3	1.86	0.40
10:X:23:ALA:HB1	10:X:186:VAL:HG22	2.04	0.40
10:X:37:ASN:H	10:X:37:ASN:ND2	2.20	0.40
12:Z:208:ASN:C	12:Z:210:VAL:N	2.73	0.40
13:a:108:HIS:HE1	13:a:124:SER:OG	2.05	0.40
14:b:45:VAL:HG21	14:b:67:LEU:HD13	2.03	0.40
15:f:1090:THR:O	15:f:1094:ILE:HG12	2.22	0.40
15:n:1145:LEU:HD23	15:o:1185:GLN:NE2	2.36	0.40
1:A:103:GLU:HA	8:H:61:TYR:HE2	1.85	0.40
5:E:34:GLY:N	15:e:1230:VAL:CG1	2.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:69:HIS:ND1	6:F:69:HIS:C	2.79	0.40
7:G:64:VAL:HG12	7:G:66:ILE:H	1.86	0.40
8:H:151:THR:O	8:H:154:PHE:N	2.52	0.40
8:H:156:LYS:HG3	8:H:175:MET:HE1	2.04	0.40
9:I:7:LYS:HA	9:I:12:VAL:HG23	2.03	0.40
13:M:17:GLY:HA3	13:M:20:PHE:CE1	2.56	0.40
1:O:237:SER:HB2	1:O:240:ASN:CB	2.51	0.40
2:P:84:VAL:O	2:P:85:LEU:C	2.63	0.40
2:P:218:ASN:HA	2:P:219:PRO:HD2	1.90	0.40
4:R:39:LYS:O	4:R:40:ASN:HB3	2.21	0.40
7:U:108:ILE:N	7:U:109:PRO:HD3	2.35	0.40
8:V:105:LYS:C	8:V:107:LYS:H	2.30	0.40
11:Y:194:ASP:HA	11:Y:197:ALA:HB3	2.03	0.40
12:Z:54:PHE:CD2	12:Z:54:PHE:C	2.99	0.40
12:Z:86:LEU:C	12:Z:86:LEU:HD13	2.47	0.40
13:a:3:ASN:HD22	13:a:4:PRO:HD2	1.87	0.40
14:b:35:ARG:O	14:b:35:ARG:HG2	2.22	0.40
14:b:209:LYS:HG2	14:b:212:LEU:HD11	2.04	0.40
15:c:1114:LEU:HD23	15:c:1114:LEU:HA	1.93	0.40
15:j:1158:LYS:HB2	15:j:1179:LEU:HD21	2.03	0.40
15:j:1194:VAL:O	15:j:1198:THR:HG23	2.22	0.40
15:p:1087:THR:O	15:p:1091:VAL:HG23	2.21	0.40
1:A:37:GLN:O	15:h:1230:VAL:HB	2.21	0.40
1:A:89:ASP:O	1:A:92:ASN:HB3	2.21	0.40
1:A:126:GLN:HE21	1:A:127:ILE:N	2.19	0.40
3:C:15:PRO:HA	4:D:22:TYR:CG	2.56	0.40
3:C:93:ILE:HD12	3:C:93:ILE:H	1.85	0.40
4:D:52:LEU:HD22	4:D:52:LEU:N	2.37	0.40
6:F:39:ARG:HD2	6:F:40:SER:O	2.21	0.40
8:H:15:GLY:O	8:H:16:ALA:HB2	2.21	0.40
12:L:105:THR:OG1	12:L:108:GLU:HG2	2.21	0.40
14:N:206:LEU:C	14:N:206:LEU:CD2	2.95	0.40
1:O:17:THR:O	1:O:17:THR:CG2	2.69	0.40
3:Q:188:ASP:O	3:Q:191:GLU:HB3	2.21	0.40
4:R:194:LEU:HA	4:R:197:ARG:CD	2.52	0.40
5:S:98:THR:HG22	5:S:102:TYR:CE1	2.57	0.40
6:T:31:GLN:NE2	15:m:1227:ASP:OD2	2.55	0.40
6:T:62:LYS:HE3	6:T:74:LEU:O	2.22	0.40
6:T:137:TYR:CE2	6:T:218:LYS:HA	2.57	0.40
7:U:133:VAL:O	7:U:152:PRO:HD3	2.22	0.40
7:U:204:GLU:HG3	7:U:204:GLU:O	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:V:156:LYS:NZ	8:V:188:PHE:HD1	2.19	0.40
8:V:161:GLN:O	8:V:162:ALA:C	2.64	0.40
12:Z:64:ARG:CZ	12:Z:68:LEU:HD21	2.51	0.40
13:a:13:LEU:O	13:a:23:LEU:HA	2.22	0.40
14:b:25:ASP:HA	14:b:195:PHE:CB	2.51	0.40
15:j:1018:GLU:CD	15:p:1005:ARG:HH22	2.28	0.40
15:l:1204:MET:O	15:l:1208:VAL:HG23	2.21	0.40
15:o:1194:VAL:O	15:o:1198:THR:HG23	2.21	0.40
15:p:1194:VAL:O	15:p:1198:THR:HG23	2.21	0.40

All (37) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:f:1065:GLU:C	15:p:1167:GLY:CA[1_554]	0.47	1.73
15:f:1065:GLU:CD	15:p:1165:GLU:OE1[1_554]	0.71	1.49
15:f:1067:LEU:N	15:p:1167:GLY:O[1_554]	0.86	1.34
15:f:1066:GLN:N	15:p:1167:GLY:CA[1_554]	0.94	1.26
15:f:1066:GLN:N	15:p:1167:GLY:C[1_554]	1.01	1.19
15:f:1065:GLU:OE1	15:p:1165:GLU:OE1[1_554]	1.21	0.99
15:f:1065:GLU:OE2	15:p:1165:GLU:OE1[1_554]	1.24	0.96
15:f:1070:VAL:CG2	15:p:1168:LYS:NZ[1_554]	1.24	0.96
15:f:1065:GLU:O	15:p:1167:GLY:N[1_554]	1.33	0.87
15:f:1066:GLN:CB	15:p:1168:LYS:N[1_554]	1.43	0.77
15:f:1066:GLN:CG	15:p:1168:LYS:CB[1_554]	1.47	0.73
15:f:1065:GLU:OE2	15:p:1165:GLU:CD[1_554]	1.48	0.72
15:f:1066:GLN:OE1	15:p:1168:LYS:O[1_554]	1.50	0.70
15:f:1065:GLU:C	15:p:1167:GLY:N[1_554]	1.51	0.69
15:f:1065:GLU:O	15:p:1167:GLY:CA[1_554]	1.58	0.62
15:f:1065:GLU:OE2	15:p:1165:GLU:OE2[1_554]	1.59	0.61
15:f:1066:GLN:CA	15:p:1167:GLY:C[1_554]	1.60	0.60
15:f:1169:THR:OG1	15:p:1052:ASN:O[1_554]	1.60	0.60
15:f:1066:GLN:CA	15:p:1168:LYS:N[1_554]	1.65	0.55
15:f:1065:GLU:CA	15:p:1167:GLY:CA[1_554]	1.75	0.45
15:f:1067:LEU:N	15:p:1167:GLY:C[1_554]	1.75	0.45
15:f:1066:GLN:N	15:p:1168:LYS:N[1_554]	1.77	0.43
15:f:1066:GLN:CB	15:p:1168:LYS:CA[1_554]	1.78	0.42
15:f:1066:GLN:OE1	15:p:1168:LYS:C[1_554]	1.79	0.41
15:f:1065:GLU:CD	15:p:1165:GLU:CD[1_554]	1.86	0.34
15:f:1066:GLN:C	15:p:1167:GLY:C[1_554]	1.86	0.34

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:f:1066:GLN:C	15:p:1167:GLY:O[1_554]	1.86	0.34
15:f:1070:VAL:CG2	15:p:1168:LYS:CE[1_554]	1.89	0.31
15:f:1065:GLU:C	15:p:1167:GLY:C[1_554]	1.96	0.24
15:f:1070:VAL:CB	15:p:1168:LYS:NZ[1_554]	2.01	0.19
15:f:1066:GLN:N	15:p:1167:GLY:N[1_554]	2.05	0.15
15:f:1066:GLN:CD	15:p:1168:LYS:CB[1_554]	2.06	0.14
15:f:1065:GLU:CG	15:p:1165:GLU:OE1[1_554]	2.07	0.13
15:f:1066:GLN:CB	15:p:1168:LYS:CB[1_554]	2.08	0.12
15:f:1169:THR:OG1	15:p:1053:SER:CA[1_554]	2.11	0.09
15:f:1066:GLN:N	15:p:1167:GLY:O[1_554]	2.13	0.07
15:f:1067:LEU:CA	15:p:1167:GLY:O[1_554]	2.17	0.03

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	241/252 (96%)	175 (73%)	53 (22%)	13 (5%)	1	11
1	O	241/252 (96%)	174 (72%)	54 (22%)	13 (5%)	1	11
2	B	247/250 (99%)	192 (78%)	39 (16%)	16 (6%)	1	7
2	P	247/250 (99%)	193 (78%)	38 (15%)	16 (6%)	1	7
3	C	241/258 (93%)	192 (80%)	35 (14%)	14 (6%)	1	10
3	Q	241/258 (93%)	192 (80%)	35 (14%)	14 (6%)	1	10
4	D	239/254 (94%)	203 (85%)	28 (12%)	8 (3%)	3	20
4	R	239/254 (94%)	203 (85%)	28 (12%)	8 (3%)	3	20
5	E	243/260 (94%)	204 (84%)	27 (11%)	12 (5%)	1	12
5	S	243/260 (94%)	201 (83%)	30 (12%)	12 (5%)	1	12
6	F	232/234 (99%)	192 (83%)	33 (14%)	7 (3%)	3	22
6	T	232/234 (99%)	191 (82%)	33 (14%)	8 (3%)	3	19
7	G	241/288 (84%)	188 (78%)	37 (15%)	16 (7%)	1	7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	U	241/288 (84%)	188 (78%)	37 (15%)	16 (7%)	1	7
8	H	194/196 (99%)	143 (74%)	38 (20%)	13 (7%)	1	7
8	V	194/196 (99%)	142 (73%)	37 (19%)	15 (8%)	1	5
9	I	220/222 (99%)	173 (79%)	37 (17%)	10 (4%)	2	14
9	W	220/222 (99%)	174 (79%)	35 (16%)	11 (5%)	1	12
10	J	202/205 (98%)	173 (86%)	24 (12%)	5 (2%)	4	25
10	X	202/205 (98%)	174 (86%)	23 (11%)	5 (2%)	4	25
11	K	196/198 (99%)	171 (87%)	20 (10%)	5 (3%)	4	25
11	Y	196/198 (99%)	170 (87%)	21 (11%)	5 (3%)	4	25
12	L	210/212 (99%)	183 (87%)	24 (11%)	3 (1%)	9	37
12	Z	210/212 (99%)	185 (88%)	22 (10%)	3 (1%)	9	37
13	M	220/222 (99%)	193 (88%)	24 (11%)	3 (1%)	9	37
13	a	220/222 (99%)	192 (87%)	25 (11%)	3 (1%)	9	37
14	N	231/233 (99%)	176 (76%)	39 (17%)	16 (7%)	1	6
14	b	231/233 (99%)	176 (76%)	39 (17%)	16 (7%)	1	6
15	c	228/231 (99%)	207 (91%)	14 (6%)	7 (3%)	3	21
15	d	228/231 (99%)	206 (90%)	16 (7%)	6 (3%)	4	25
15	e	228/231 (99%)	206 (90%)	16 (7%)	6 (3%)	4	25
15	f	228/231 (99%)	200 (88%)	17 (8%)	11 (5%)	2	13
15	g	228/231 (99%)	202 (89%)	18 (8%)	8 (4%)	3	19
15	h	228/231 (99%)	209 (92%)	15 (7%)	4 (2%)	6	33
15	i	228/231 (99%)	207 (91%)	16 (7%)	5 (2%)	5	28
15	j	228/231 (99%)	207 (91%)	14 (6%)	7 (3%)	3	21
15	k	228/231 (99%)	206 (90%)	16 (7%)	6 (3%)	4	25
15	l	228/231 (99%)	206 (90%)	16 (7%)	6 (3%)	4	25
15	m	228/231 (99%)	199 (87%)	18 (8%)	11 (5%)	2	13
15	n	228/231 (99%)	202 (89%)	18 (8%)	8 (4%)	3	19
15	o	228/231 (99%)	209 (92%)	15 (7%)	4 (2%)	6	33
15	p	228/231 (99%)	207 (91%)	16 (7%)	5 (2%)	5	28
All	All	9506/9802 (97%)	7986 (84%)	1140 (12%)	380 (4%)	2	16

All (380) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	150	LEU
1	A	168	ALA
1	A	221	ASN
1	A	232	LYS
2	B	123	GLN
2	B	124	SER
2	B	244	ASN
3	C	4	ARG
3	C	20	TYR
3	C	183	ASP
3	C	203	SER
3	C	221	ASN
4	D	40	ASN
4	D	56	ASP
4	D	205	THR
5	E	61	SER
5	E	127	ALA
5	E	130	GLU
5	E	209	GLU
5	E	249	ALA
6	F	142	ALA
6	F	218	LYS
6	F	228	GLU
7	G	182	HIS
7	G	183	PRO
7	G	184	GLU
8	H	17	ASP
8	H	97	ILE
8	H	105	LYS
8	H	106	ASN
8	H	137	TYR
8	H	138	CYS
9	I	91	GLN
9	I	189	ASN
10	J	193	GLU
11	K	193	ASP
12	L	209	ASN
14	N	25	ASP
14	N	81	ALA
14	N	130	VAL
14	N	211	ASN
14	N	221	PHE
1	O	150	LEU

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Mol	Chain	Res	Type
1	O	168	ALA
1	O	221	ASN
1	O	232	LYS
2	P	123	GLN
2	P	124	SER
2	P	244	ASN
3	Q	4	ARG
3	Q	20	TYR
3	Q	183	ASP
3	Q	203	SER
3	Q	221	ASN
4	R	40	ASN
4	R	56	ASP
4	R	205	THR
5	S	127	ALA
5	S	130	GLU
5	S	209	GLU
5	S	249	ALA
6	T	142	ALA
6	T	218	LYS
6	T	228	GLU
7	U	182	HIS
7	U	183	PRO
7	U	184	GLU
8	V	17	ASP
8	V	97	ILE
8	V	105	LYS
8	V	106	ASN
8	V	137	TYR
8	V	138	CYS
9	W	189	ASN
10	X	193	GLU
11	Y	193	ASP
12	Z	209	ASN
14	b	25	ASP
14	b	81	ALA
14	b	130	VAL
14	b	211	ASN
14	b	221	PHE
15	c	1133	SER
15	c	1139	PRO
15	c	1162	VAL

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Mol	Chain	Res	Type
15	c	1164	ALA
15	d	1133	SER
15	d	1139	PRO
15	e	1133	SER
15	e	1139	PRO
15	f	1133	SER
15	f	1139	PRO
15	f	1162	VAL
15	f	1174	SER
15	g	1133	SER
15	g	1139	PRO
15	g	1162	VAL
15	g	1163	ASP
15	g	1164	ALA
15	g	1170	LYS
15	h	1133	SER
15	h	1139	PRO
15	i	1133	SER
15	i	1139	PRO
15	i	1162	VAL
15	j	1133	SER
15	j	1139	PRO
15	j	1162	VAL
15	j	1164	ALA
15	k	1133	SER
15	k	1139	PRO
15	l	1133	SER
15	l	1139	PRO
15	m	1133	SER
15	m	1139	PRO
15	m	1162	VAL
15	m	1174	SER
15	m	1175	GLN
15	n	1133	SER
15	n	1139	PRO
15	n	1162	VAL
15	n	1163	ASP
15	n	1164	ALA
15	n	1170	LYS
15	o	1133	SER
15	o	1139	PRO
15	p	1133	SER

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Mol	Chain	Res	Type
15	p	1139	PRO
15	p	1162	VAL
1	A	37	GLN
1	A	151	GLY
1	A	164	VAL
1	A	190	LYS
1	A	243	GLU
2	B	20	GLN
2	B	31	GLY
2	B	182	GLU
2	B	242	GLU
2	B	243	ILE
3	C	184	MET
3	C	223	GLY
5	E	131	GLU
5	E	134	MET
5	E	206	GLN
5	E	244	LYS
6	F	118	LYS
6	F	159	THR
7	G	71	ARG
7	G	72	HIS
7	G	186	LEU
7	G	188	ALA
7	G	204	GLU
7	G	207	LYS
8	H	74	SER
9	I	22	GLN
9	I	95	GLY
9	I	221	CYS
13	M	81	ASP
14	N	24	ALA
14	N	132	LEU
14	N	152	ASN
14	N	189	ALA
1	O	37	GLN
1	O	151	GLY
1	O	164	VAL
1	O	175	GLN
1	O	190	LYS
1	O	243	GLU
2	P	20	GLN

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Mol	Chain	Res	Type
2	P	31	GLY
2	P	182	GLU
2	P	242	GLU
2	P	243	ILE
3	Q	184	MET
3	Q	223	GLY
3	Q	236	LYS
5	S	61	SER
5	S	131	GLU
5	S	134	MET
5	S	206	GLN
5	S	244	LYS
6	T	118	LYS
6	T	159	THR
7	U	71	ARG
7	U	72	HIS
7	U	152	PRO
7	U	185	GLY
7	U	186	LEU
7	U	188	ALA
7	U	204	GLU
7	U	207	LYS
8	V	74	SER
9	W	22	GLN
9	W	91	GLN
9	W	95	GLY
9	W	221	CYS
13	a	81	ASP
14	b	24	ALA
14	b	132	LEU
14	b	152	ASN
14	b	189	ALA
15	c	1163	ASP
15	c	1166	SER
15	e	1174	SER
15	f	1164	ALA
15	f	1170	LYS
15	f	1175	GLN
15	j	1163	ASP
15	j	1166	SER
15	l	1174	SER
15	m	1164	ALA

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Mol	Chain	Res	Type
15	m	1170	LYS
1	A	175	GLN
1	A	189	SER
3	C	80	LEU
3	C	209	ASP
3	C	236	LYS
5	E	189	SER
7	G	70	ASP
7	G	152	PRO
7	G	185	GLY
7	G	224	ASN
8	H	9	LYS
8	H	33	LYS
8	H	191	ASP
9	I	48	THR
9	I	145	ASP
10	J	5	SER
11	K	141	PHE
14	N	76	TYR
14	N	151	ALA
14	N	170	VAL
1	O	77	ARG
1	O	189	SER
3	Q	80	LEU
3	Q	209	ASP
7	U	224	ASN
8	V	9	LYS
9	W	145	ASP
10	X	5	SER
11	Y	141	PHE
13	a	37	SER
14	b	76	TYR
14	b	151	ALA
14	b	170	VAL
15	d	1162	VAL
15	d	1176	SER
15	f	1166	SER
15	f	1173	GLY
15	f	1176	SER
15	g	1166	SER
15	k	1162	VAL
15	k	1176	SER

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Mol	Chain	Res	Type
15	m	1166	SER
15	m	1173	GLY
15	m	1176	SER
15	n	1166	SER
1	A	77	ARG
1	A	200	GLU
2	B	29	LYS
2	B	79	GLY
3	C	233	GLN
4	D	58	ARG
4	D	78	LEU
5	E	214	GLU
6	F	117	GLN
6	F	232	LYS
8	H	68	SER
8	H	145	ASN
9	I	17	ASP
9	I	49	ALA
11	K	50	ALA
12	L	97	MET
12	L	165	ALA
13	M	37	SER
13	M	58	ALA
1	O	200	GLU
2	P	79	GLY
3	Q	195	LYS
3	Q	233	GLN
4	R	58	ARG
4	R	78	LEU
4	R	122	GLN
5	S	189	SER
5	S	214	GLU
6	T	232	LYS
7	U	70	ASP
7	U	210	ASP
8	V	33	LYS
8	V	68	SER
8	V	145	ASN
8	V	191	ASP
9	W	17	ASP
9	W	48	THR
9	W	49	ALA

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Mol	Chain	Res	Type
11	Y	192	VAL
12	Z	97	MET
12	Z	165	ALA
13	a	58	ALA
14	b	9	THR
2	B	69	PRO
2	B	122	THR
2	B	208	THR
2	B	219	PRO
3	C	177	GLN
3	C	234	GLU
4	D	122	GLN
7	G	210	ASP
11	K	192	VAL
2	P	29	LYS
2	P	122	THR
2	P	208	THR
2	P	219	PRO
3	Q	234	GLU
4	R	200	LEU
6	T	117	GLN
8	V	50	ALA
11	Y	50	ALA
15	d	1226	SER
15	e	1226	SER
15	i	1226	SER
15	k	1226	SER
15	l	1226	SER
15	p	1226	SER
2	B	191	ILE
3	C	195	LYS
4	D	200	LEU
5	E	62	ASP
7	G	241	PHE
9	I	39	PRO
10	J	2	ASP
14	N	9	THR
2	P	69	PRO
2	P	158	PRO
2	P	191	ILE
3	Q	30	SER
5	S	62	ASP

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Mol	Chain	Res	Type
6	T	5	ASN
7	U	241	PHE
9	W	21	THR
9	W	39	PRO
10	X	2	ASP
15	h	1226	SER
15	o	1226	SER
2	B	158	PRO
11	K	9	VAL
11	Y	9	VAL
15	i	1064	PRO
15	p	1064	PRO
4	D	202	VAL
7	G	84	GLY
10	J	100	GLY
10	J	107	VAL
14	N	177	ILE
4	R	202	VAL
8	V	30	VAL
14	b	11	VAL
14	b	22	ILE
14	b	177	ILE
15	c	1064	PRO
15	d	1064	PRO
15	e	1162	VAL
15	f	1064	PRO
15	h	1064	PRO
15	j	1064	PRO
15	k	1064	PRO
15	l	1162	VAL
15	m	1064	PRO
15	o	1064	PRO
8	H	30	VAL
14	N	11	VAL
7	U	84	GLY
10	X	100	GLY
10	X	107	VAL
15	e	1064	PRO
15	l	1064	PRO
15	n	1064	PRO
14	N	22	ILE
8	V	189	TYR

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Mol	Chain	Res	Type
15	g	1064	PRO

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	207/210 (99%)	184 (89%)	23 (11%)	6	25
1	O	207/210 (99%)	184 (89%)	23 (11%)	6	25
2	B	208/209 (100%)	186 (89%)	22 (11%)	6	26
2	P	208/209 (100%)	185 (89%)	23 (11%)	6	25
3	C	203/216 (94%)	181 (89%)	22 (11%)	6	26
3	Q	203/216 (94%)	181 (89%)	22 (11%)	6	26
4	D	213/226 (94%)	191 (90%)	22 (10%)	7	27
4	R	213/226 (94%)	191 (90%)	22 (10%)	7	27
5	E	201/215 (94%)	188 (94%)	13 (6%)	15	46
5	S	201/215 (94%)	188 (94%)	13 (6%)	15	46
6	F	193/193 (100%)	177 (92%)	16 (8%)	10	37
6	T	193/193 (100%)	176 (91%)	17 (9%)	9	34
7	G	201/239 (84%)	182 (90%)	19 (10%)	8	31
7	U	201/239 (84%)	182 (90%)	19 (10%)	8	31
8	H	162/162 (100%)	144 (89%)	18 (11%)	6	25
8	V	162/162 (100%)	144 (89%)	18 (11%)	6	25
9	I	181/181 (100%)	166 (92%)	15 (8%)	10	37
9	W	181/181 (100%)	166 (92%)	15 (8%)	10	37
10	J	172/173 (99%)	163 (95%)	9 (5%)	21	52
10	X	172/173 (99%)	163 (95%)	9 (5%)	21	52
11	K	175/175 (100%)	156 (89%)	19 (11%)	6	25
11	Y	175/175 (100%)	155 (89%)	20 (11%)	5	23
12	L	169/169 (100%)	151 (89%)	18 (11%)	6	26

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
12	Z	169/169 (100%)	152 (90%)	17 (10%)	7	29
13	M	185/185 (100%)	168 (91%)	17 (9%)	8	32
13	a	185/185 (100%)	167 (90%)	18 (10%)	8	31
14	N	199/199 (100%)	182 (92%)	17 (8%)	10	35
14	b	199/199 (100%)	181 (91%)	18 (9%)	9	33
15	c	188/189 (100%)	182 (97%)	6 (3%)	34	63
15	d	188/189 (100%)	186 (99%)	2 (1%)	65	77
15	e	188/189 (100%)	186 (99%)	2 (1%)	65	77
15	f	188/189 (100%)	182 (97%)	6 (3%)	34	63
15	g	188/189 (100%)	183 (97%)	5 (3%)	39	66
15	h	188/189 (100%)	186 (99%)	2 (1%)	65	77
15	i	188/189 (100%)	186 (99%)	2 (1%)	65	77
15	j	188/189 (100%)	182 (97%)	6 (3%)	34	63
15	k	188/189 (100%)	186 (99%)	2 (1%)	65	77
15	l	188/189 (100%)	186 (99%)	2 (1%)	65	77
15	m	188/189 (100%)	182 (97%)	6 (3%)	34	63
15	n	188/189 (100%)	183 (97%)	5 (3%)	39	66
15	o	188/189 (100%)	186 (99%)	2 (1%)	65	77
15	p	188/189 (100%)	186 (99%)	2 (1%)	65	77
All	All	7970/8150 (98%)	7416 (93%)	554 (7%)	14	43

All (554) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	43	LEU
1	A	56	GLN
1	A	65	ASP
1	A	66	PRO
1	A	73	PHE
1	A	117	LEU
1	A	124	LEU
1	A	126	GLN
1	A	127	ILE
1	A	128	TYR
1	A	133	TYR

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Mol	Chain	Res	Type
1	A	150	LEU
1	A	153	SER
1	A	154	ILE
1	A	163	TYR
1	A	167	LYS
1	A	185	HIS
1	A	220	LYS
1	A	221	ASN
1	A	230	LYS
1	A	234	PHE
1	A	237	SER
1	A	250	GLU
2	B	10	THR
2	B	26	THR
2	B	28	VAL
2	B	35	LEU
2	B	55	LEU
2	B	59	GLU
2	B	68	THR
2	B	86	VAL
2	B	108	LYS
2	B	118	MET
2	B	134	LEU
2	B	150	VAL
2	B	157	PHE
2	B	173	THR
2	B	178	ARG
2	B	182	GLU
2	B	184	GLU
2	B	203	GLU
2	B	204	PHE
2	B	211	LEU
2	B	220	ASP
2	B	244	ASN
3	C	10	THR
3	C	26	LEU
3	C	53	THR
3	C	80	LEU
3	C	81	THR
3	C	86	ILE
3	C	111	LEU
3	C	115	LEU

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Mol	Chain	Res	Type
3	C	123	THR
3	C	134	SER
3	C	142	ASP
3	C	150	THR
3	C	158	THR
3	C	161	LYS
3	C	175	LEU
3	C	183	ASP
3	C	185	LYS
3	C	190	ILE
3	C	191	GLU
3	C	192	LEU
3	C	217	ARG
3	C	224	GLU
4	D	9	SER
4	D	24	LEU
4	D	29	ARG
4	D	49	ARG
4	D	52	LEU
4	D	53	LYS
4	D	54	LEU
4	D	59	ILE
4	D	72	VAL
4	D	101	GLU
4	D	105	THR
4	D	118	GLN
4	D	132	SER
4	D	162	GLN
4	D	166	ARG
4	D	196	VAL
4	D	208	LYS
4	D	211	GLU
4	D	215	VAL
4	D	218	ASP
4	D	226	SER
4	D	239	GLU
5	E	48	LEU
5	E	70	ILE
5	E	78	MET
5	E	110	GLU
5	E	119	LEU
5	E	154	GLN

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Mol	Chain	Res	Type
5	E	159	GLU
5	E	180	GLN
5	E	184	LEU
5	E	222	ILE
5	E	233	ASN
5	E	241	LYS
5	E	245	GLU
6	F	3	ARG
6	F	10	THR
6	F	31	GLN
6	F	62	LYS
6	F	72	LEU
6	F	82	ARG
6	F	90	GLN
6	F	94	TYR
6	F	117	GLN
6	F	147	PHE
6	F	171	TYR
6	F	176	LEU
6	F	189	LEU
6	F	199	GLN
6	F	206	LEU
6	F	228	GLU
7	G	19	ARG
7	G	27	VAL
7	G	28	LYS
7	G	42	ASN
7	G	68	VAL
7	G	76	VAL
7	G	80	LEU
7	G	81	ILE
7	G	97	SER
7	G	120	GLN
7	G	126	ASN
7	G	127	SER
7	G	135	THR
7	G	142	LYS
7	G	147	LEU
7	G	152	PRO
7	G	201	LEU
7	G	215	ILE
7	G	243	GLN

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Mol	Chain	Res	Type
8	H	4	MET
8	H	8	PHE
8	H	21	THR
8	H	36	ARG
8	H	72	THR
8	H	82	PHE
8	H	83	LYS
8	H	84	GLU
8	H	88	GLU
8	H	92	ASN
8	H	97	ILE
8	H	104	ASP
8	H	118	SER
8	H	132	THR
8	H	149	GLU
8	H	163	ILE
8	H	172	VAL
8	H	175	MET
9	I	10	ASN
9	I	21	THR
9	I	39	PRO
9	I	41	ILE
9	I	63	ILE
9	I	76	VAL
9	I	81	GLN
9	I	82	MET
9	I	85	GLN
9	I	98	LEU
9	I	132	LEU
9	I	144	GLN
9	I	146	LEU
9	I	177	VAL
9	I	178	MET
10	J	37	ASN
10	J	64	GLU
10	J	90	VAL
10	J	123	PHE
10	J	125	LEU
10	J	133	LYS
10	J	138	SER
10	J	171	LEU
10	J	191	LYS

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Mol	Chain	Res	Type
11	K	7	ILE
11	K	8	ARG
11	K	11	ASP
11	K	22	THR
11	K	28	LEU
11	K	54	VAL
11	K	75	LEU
11	K	78	GLN
11	K	86	GLN
11	K	92	ILE
11	K	100	VAL
11	K	110	LYS
11	K	111	LYS
11	K	136	SER
11	K	162	LYS
11	K	183	ILE
11	K	194	ASP
11	K	196	GLN
11	K	198	GLN
12	L	4	LEU
12	L	9	GLN
12	L	21	THR
12	L	25	TRP
12	L	33	ARG
12	L	35	ILE
12	L	39	PRO
12	L	65	LEU
12	L	69	ARG
12	L	86	LEU
12	L	95	LEU
12	L	104	TYR
12	L	105	THR
12	L	111	THR
12	L	145	LYS
12	L	191	HIS
12	L	208	ASN
12	L	211	ILE
13	M	3	ASN
13	M	18	GLU
13	M	23	LEU
13	M	27	THR
13	M	31	THR

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Mol	Chain	Res	Type
13	M	49	ASN
13	M	52	MET
13	M	67	ARG
13	M	85	SER
13	M	109	THR
13	M	135	GLN
13	M	165	ASN
13	M	172	LEU
13	M	174	TYR
13	M	175	LEU
13	M	214	LYS
13	M	221	ARG
14	N	34	LEU
14	N	48	ASN
14	N	72	THR
14	N	85	GLU
14	N	96	LEU
14	N	102	GLN
14	N	104	ARG
14	N	111	TRP
14	N	132	LEU
14	N	138	SER
14	N	140	PRO
14	N	171	GLN
14	N	184	LEU
14	N	206	LEU
14	N	212	LEU
14	N	216	ASN
14	N	226	LYS
1	O	43	LEU
1	O	56	GLN
1	O	65	ASP
1	O	66	PRO
1	O	73	PHE
1	O	117	LEU
1	O	124	LEU
1	O	126	GLN
1	O	127	ILE
1	O	128	TYR
1	O	133	TYR
1	O	150	LEU
1	O	153	SER

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Mol	Chain	Res	Type
1	O	154	ILE
1	O	163	TYR
1	O	167	LYS
1	O	185	HIS
1	O	220	LYS
1	O	221	ASN
1	O	230	LYS
1	O	234	PHE
1	O	237	SER
1	O	250	GLU
2	P	10	THR
2	P	26	THR
2	P	28	VAL
2	P	35	LEU
2	P	55	LEU
2	P	59	GLU
2	P	68	THR
2	P	80	PRO
2	P	86	VAL
2	P	108	LYS
2	P	118	MET
2	P	134	LEU
2	P	150	VAL
2	P	157	PHE
2	P	173	THR
2	P	178	ARG
2	P	182	GLU
2	P	184	GLU
2	P	203	GLU
2	P	204	PHE
2	P	211	LEU
2	P	220	ASP
2	P	244	ASN
3	Q	10	THR
3	Q	26	LEU
3	Q	53	THR
3	Q	80	LEU
3	Q	81	THR
3	Q	86	ILE
3	Q	111	LEU
3	Q	115	LEU
3	Q	123	THR

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Mol	Chain	Res	Type
3	Q	134	SER
3	Q	142	ASP
3	Q	150	THR
3	Q	158	THR
3	Q	161	LYS
3	Q	175	LEU
3	Q	183	ASP
3	Q	185	LYS
3	Q	190	ILE
3	Q	191	GLU
3	Q	192	LEU
3	Q	217	ARG
3	Q	224	GLU
4	R	9	SER
4	R	24	LEU
4	R	29	ARG
4	R	49	ARG
4	R	52	LEU
4	R	53	LYS
4	R	54	LEU
4	R	59	ILE
4	R	72	VAL
4	R	101	GLU
4	R	105	THR
4	R	118	GLN
4	R	132	SER
4	R	162	GLN
4	R	166	ARG
4	R	196	VAL
4	R	208	LYS
4	R	211	GLU
4	R	215	VAL
4	R	218	ASP
4	R	226	SER
4	R	239	GLU
5	S	48	LEU
5	S	70	ILE
5	S	78	MET
5	S	110	GLU
5	S	119	LEU
5	S	154	GLN
5	S	159	GLU

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Mol	Chain	Res	Type
5	S	180	GLN
5	S	184	LEU
5	S	222	ILE
5	S	233	ASN
5	S	241	LYS
5	S	245	GLU
6	T	3	ARG
6	T	4	ASN
6	T	10	THR
6	T	31	GLN
6	T	62	LYS
6	T	72	LEU
6	T	82	ARG
6	T	90	GLN
6	T	94	TYR
6	T	117	GLN
6	T	147	PHE
6	T	171	TYR
6	T	176	LEU
6	T	189	LEU
6	T	199	GLN
6	T	206	LEU
6	T	228	GLU
7	U	19	ARG
7	U	27	VAL
7	U	28	LYS
7	U	42	ASN
7	U	68	VAL
7	U	76	VAL
7	U	80	LEU
7	U	81	ILE
7	U	97	SER
7	U	120	GLN
7	U	126	ASN
7	U	127	SER
7	U	135	THR
7	U	142	LYS
7	U	147	LEU
7	U	152	PRO
7	U	201	LEU
7	U	215	ILE
7	U	243	GLN

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Mol	Chain	Res	Type
8	V	4	MET
8	V	8	PHE
8	V	21	THR
8	V	36	ARG
8	V	72	THR
8	V	82	PHE
8	V	83	LYS
8	V	84	GLU
8	V	88	GLU
8	V	92	ASN
8	V	97	ILE
8	V	104	ASP
8	V	110	VAL
8	V	118	SER
8	V	132	THR
8	V	149	GLU
8	V	172	VAL
8	V	175	MET
9	W	10	ASN
9	W	21	THR
9	W	39	PRO
9	W	41	ILE
9	W	63	ILE
9	W	76	VAL
9	W	81	GLN
9	W	82	MET
9	W	85	GLN
9	W	98	LEU
9	W	132	LEU
9	W	144	GLN
9	W	146	LEU
9	W	177	VAL
9	W	178	MET
10	X	37	ASN
10	X	64	GLU
10	X	90	VAL
10	X	123	PHE
10	X	125	LEU
10	X	133	LYS
10	X	138	SER
10	X	171	LEU
10	X	191	LYS

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Mol	Chain	Res	Type
11	Y	7	ILE
11	Y	8	ARG
11	Y	11	ASP
11	Y	22	THR
11	Y	28	LEU
11	Y	54	VAL
11	Y	75	LEU
11	Y	78	GLN
11	Y	86	GLN
11	Y	91	SER
11	Y	92	ILE
11	Y	100	VAL
11	Y	110	LYS
11	Y	111	LYS
11	Y	136	SER
11	Y	162	LYS
11	Y	183	ILE
11	Y	194	ASP
11	Y	196	GLN
11	Y	198	GLN
12	Z	4	LEU
12	Z	9	GLN
12	Z	21	THR
12	Z	25	TRP
12	Z	33	ARG
12	Z	35	ILE
12	Z	65	LEU
12	Z	69	ARG
12	Z	86	LEU
12	Z	95	LEU
12	Z	104	TYR
12	Z	105	THR
12	Z	111	THR
12	Z	145	LYS
12	Z	191	HIS
12	Z	208	ASN
12	Z	211	ILE
13	a	3	ASN
13	a	18	GLU
13	a	23	LEU
13	a	27	THR
13	a	31	THR

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Mol	Chain	Res	Type
13	a	49	ASN
13	a	51	VAL
13	a	52	MET
13	a	67	ARG
13	a	85	SER
13	a	109	THR
13	a	135	GLN
13	a	165	ASN
13	a	172	LEU
13	a	174	TYR
13	a	175	LEU
13	a	214	LYS
13	a	221	ARG
14	b	9	THR
14	b	34	LEU
14	b	48	ASN
14	b	72	THR
14	b	85	GLU
14	b	96	LEU
14	b	102	GLN
14	b	104	ARG
14	b	111	TRP
14	b	132	LEU
14	b	138	SER
14	b	140	PRO
14	b	171	GLN
14	b	184	LEU
14	b	206	LEU
14	b	212	LEU
14	b	216	ASN
14	b	226	LYS
15	c	1127	SER
15	c	1130	LYS
15	c	1162	VAL
15	c	1165	GLU
15	c	1168	LYS
15	c	1170	LYS
15	d	1127	SER
15	d	1130	LYS
15	e	1127	SER
15	e	1174	SER
15	f	1127	SER

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Mol	Chain	Res	Type
15	f	1130	LYS
15	f	1165	GLU
15	f	1166	SER
15	f	1168	LYS
15	f	1174	SER
15	g	1127	SER
15	g	1130	LYS
15	g	1162	VAL
15	g	1166	SER
15	g	1170	LYS
15	h	1127	SER
15	h	1130	LYS
15	i	1127	SER
15	i	1174	SER
15	j	1127	SER
15	j	1130	LYS
15	j	1162	VAL
15	j	1165	GLU
15	j	1168	LYS
15	j	1170	LYS
15	k	1127	SER
15	k	1130	LYS
15	l	1127	SER
15	l	1174	SER
15	m	1127	SER
15	m	1130	LYS
15	m	1165	GLU
15	m	1166	SER
15	m	1168	LYS
15	m	1174	SER
15	n	1127	SER
15	n	1130	LYS
15	n	1162	VAL
15	n	1166	SER
15	n	1170	LYS
15	o	1127	SER
15	o	1130	LYS
15	p	1127	SER
15	p	1174	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (291) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	39	ASN
1	A	92	ASN
1	A	123	ASN
1	A	126	GLN
1	A	130	GLN
1	A	176	GLN
1	A	184	ASN
1	A	193	HIS
1	A	195	ASN
1	A	209	HIS
2	B	94	HIS
2	B	139	HIS
2	B	218	ASN
2	B	244	ASN
3	C	31	HIS
3	C	70	ASN
3	C	94	HIS
3	C	96	GLN
3	C	103	ASN
3	C	120	GLN
3	C	124	GLN
3	C	156	ASN
3	C	173	GLN
3	C	177	GLN
3	C	221	ASN
3	C	227	GLN
4	D	94	GLN
4	D	117	GLN
4	D	122	GLN
4	D	162	GLN
4	D	178	ASN
4	D	209	ASN
4	D	230	ASN
4	D	238	GLN
4	D	241	GLN
4	D	243	GLN
5	E	99	HIS
5	E	108	ASN
5	E	154	GLN
5	E	206	GLN
5	E	215	ASN
5	E	233	ASN
6	F	100	ASN

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Mol	Chain	Res	Type
6	F	110	HIS
6	F	119	ASN
6	F	121	GLN
6	F	152	ASN
6	F	166	GLN
6	F	185	ASN
7	G	72	HIS
7	G	89	ASN
7	G	122	HIS
7	G	126	ASN
7	G	194	GLN
7	G	206	ASN
7	G	224	ASN
7	G	227	HIS
8	H	38	HIS
8	H	60	GLN
8	H	69	GLN
8	H	157	HIS
8	H	195	GLN
9	I	22	GLN
9	I	35	HIS
9	I	62	ASN
9	I	66	HIS
9	I	144	GLN
9	I	160	GLN
9	I	165	ASN
10	J	37	ASN
10	J	63	ASN
10	J	71	ASN
10	J	88	GLN
10	J	156	ASN
11	K	37	GLN
11	K	63	ASN
11	K	118	GLN
11	K	147	HIS
11	K	191	GLN
11	K	196	GLN
11	K	198	GLN
12	L	9	GLN
12	L	66	HIS
12	L	85	ASN
12	L	133	GLN

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Mol	Chain	Res	Type
12	L	143	ASN
12	L	176	ASN
12	L	188	HIS
12	L	190	ASN
12	L	191	HIS
12	L	208	ASN
13	M	3	ASN
13	M	49	ASN
13	M	70	ASN
13	M	80	ASN
13	M	108	HIS
13	M	152	ASN
13	M	159	GLN
13	M	165	ASN
13	M	195	HIS
13	M	197	GLN
14	N	3	GLN
14	N	18	ASN
14	N	48	ASN
14	N	62	HIS
14	N	108	ASN
14	N	112	ASN
14	N	149	HIS
14	N	152	ASN
14	N	171	GLN
14	N	179	ASN
14	N	194	ASN
14	N	216	ASN
1	O	39	ASN
1	O	92	ASN
1	O	123	ASN
1	O	126	GLN
1	O	130	GLN
1	O	176	GLN
1	O	184	ASN
1	O	193	HIS
1	O	195	ASN
1	O	209	HIS
2	P	94	HIS
2	P	139	HIS
2	P	218	ASN
2	P	244	ASN

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Mol	Chain	Res	Type
3	Q	70	ASN
3	Q	94	HIS
3	Q	96	GLN
3	Q	97	ASN
3	Q	103	ASN
3	Q	120	GLN
3	Q	124	GLN
3	Q	156	ASN
3	Q	173	GLN
3	Q	177	GLN
3	Q	221	ASN
3	Q	227	GLN
4	R	94	GLN
4	R	117	GLN
4	R	122	GLN
4	R	162	GLN
4	R	178	ASN
4	R	209	ASN
4	R	230	ASN
4	R	238	GLN
4	R	241	GLN
4	R	243	GLN
5	S	99	HIS
5	S	108	ASN
5	S	154	GLN
5	S	206	GLN
5	S	215	ASN
5	S	233	ASN
6	T	100	ASN
6	T	110	HIS
6	T	119	ASN
6	T	121	GLN
6	T	152	ASN
6	T	166	GLN
6	T	185	ASN
7	U	72	HIS
7	U	89	ASN
7	U	122	HIS
7	U	126	ASN
7	U	194	GLN
7	U	206	ASN
7	U	224	ASN

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Mol	Chain	Res	Type
8	V	38	HIS
8	V	60	GLN
8	V	69	GLN
8	V	157	HIS
8	V	195	GLN
9	W	22	GLN
9	W	35	HIS
9	W	62	ASN
9	W	66	HIS
9	W	144	GLN
9	W	160	GLN
9	W	165	ASN
10	X	37	ASN
10	X	63	ASN
10	X	88	GLN
10	X	156	ASN
11	Y	37	GLN
11	Y	63	ASN
11	Y	118	GLN
11	Y	147	HIS
11	Y	191	GLN
11	Y	196	GLN
11	Y	198	GLN
12	Z	9	GLN
12	Z	66	HIS
12	Z	85	ASN
12	Z	133	GLN
12	Z	143	ASN
12	Z	176	ASN
12	Z	190	ASN
12	Z	191	HIS
13	a	3	ASN
13	a	49	ASN
13	a	80	ASN
13	a	108	HIS
13	a	152	ASN
13	a	158	ASN
13	a	165	ASN
13	a	195	HIS
13	a	197	GLN
14	b	2	GLN
14	b	3	GLN

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Mol	Chain	Res	Type
14	b	18	ASN
14	b	48	ASN
14	b	62	HIS
14	b	108	ASN
14	b	149	HIS
14	b	152	ASN
14	b	171	GLN
14	b	179	ASN
14	b	211	ASN
14	b	216	ASN
15	c	1047	HIS
15	c	1052	ASN
15	c	1072	GLN
15	c	1099	HIS
15	c	1111	HIS
15	d	1047	HIS
15	d	1052	ASN
15	d	1072	GLN
15	d	1079	HIS
15	d	1099	HIS
15	d	1111	HIS
15	e	1047	HIS
15	e	1072	GLN
15	e	1079	HIS
15	e	1111	HIS
15	f	1047	HIS
15	f	1052	ASN
15	f	1072	GLN
15	f	1079	HIS
15	f	1099	HIS
15	f	1111	HIS
15	g	1047	HIS
15	g	1052	ASN
15	g	1072	GLN
15	g	1079	HIS
15	g	1099	HIS
15	h	1047	HIS
15	h	1072	GLN
15	h	1079	HIS
15	h	1111	HIS
15	i	1047	HIS
15	i	1072	GLN

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Mol	Chain	Res	Type
15	i	1079	HIS
15	i	1099	HIS
15	j	1047	HIS
15	j	1052	ASN
15	j	1072	GLN
15	j	1099	HIS
15	j	1111	HIS
15	k	1047	HIS
15	k	1052	ASN
15	k	1072	GLN
15	k	1079	HIS
15	k	1099	HIS
15	k	1111	HIS
15	l	1047	HIS
15	l	1052	ASN
15	l	1072	GLN
15	l	1079	HIS
15	l	1111	HIS
15	m	1047	HIS
15	m	1072	GLN
15	m	1079	HIS
15	m	1099	HIS
15	m	1111	HIS
15	n	1047	HIS
15	n	1052	ASN
15	n	1072	GLN
15	n	1079	HIS
15	n	1099	HIS
15	o	1047	HIS
15	o	1052	ASN
15	o	1072	GLN
15	o	1079	HIS
15	o	1111	HIS
15	p	1047	HIS
15	p	1052	ASN
15	p	1072	GLN
15	p	1079	HIS
15	p	1099	HIS

5.3.3 RNA ⓘ

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 oligosaccharides 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](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
15	i	2
15	p	2
15	f	1
15	m	1
15	e	1
15	l	1
15	h	1
15	o	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	i	1172:GLY	C	1173:GLY	N	1.91
1	p	1172:GLY	C	1173:GLY	N	1.91
1	i	1173:GLY	C	1174:S ER	N	1.16
1	p	1173:GLY	C	1174:S ER	N	1.16
1	f	1175:G LN	C	1176:S ER	N	1.15
1	m	1175:G LN	C	1176:S ER	N	1.15
1	e	1175:G LN	C	1176:S ER	N	1.14
1	l	1175:G LN	C	1176:S ER	N	1.14
1	h	1170:L YS	C	1171:G LY	N	1.10

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	o	1170:LYS	C	1171:GLY	N	1.10

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	243/252 (96%)	0.88	19 (7%) 19 12	47, 82, 112, 124	0
1	O	243/252 (96%)	0.59	9 (3%) 45 28	47, 82, 112, 125	0
2	B	249/250 (99%)	0.56	11 (4%) 39 24	45, 67, 102, 123	0
2	P	249/250 (99%)	0.33	3 (1%) 76 58	46, 68, 102, 123	0
3	C	243/258 (94%)	0.24	5 (2%) 63 43	32, 60, 108, 122	0
3	Q	243/258 (94%)	0.22	6 (2%) 58 39	32, 62, 108, 122	0
4	D	241/254 (94%)	0.24	7 (2%) 53 35	34, 58, 105, 135	0
4	R	241/254 (94%)	0.16	6 (2%) 58 39	35, 61, 104, 133	0
5	E	245/260 (94%)	0.27	6 (2%) 59 40	31, 55, 108, 133	0
5	S	245/260 (94%)	0.13	3 (1%) 76 58	33, 57, 108, 134	0
6	F	234/234 (100%)	0.09	4 (1%) 69 49	34, 58, 78, 111	0
6	T	234/234 (100%)	0.08	1 (0%) 88 79	36, 59, 79, 111	0
7	G	243/288 (84%)	0.59	7 (2%) 53 35	48, 69, 112, 121	0
7	U	243/288 (84%)	0.45	6 (2%) 58 39	50, 70, 112, 121	0
8	H	196/196 (100%)	0.53	6 (3%) 51 33	46, 66, 91, 98	0
8	V	196/196 (100%)	0.39	3 (1%) 72 52	46, 66, 91, 98	0
9	I	222/222 (100%)	0.39	2 (0%) 81 64	40, 60, 84, 128	0
9	W	222/222 (100%)	0.23	2 (0%) 81 64	39, 59, 84, 127	0
10	J	204/205 (99%)	-0.19	2 (0%) 79 62	28, 43, 63, 76	0
10	X	204/205 (99%)	-0.26	0 100 100	27, 43, 62, 76	0
11	K	198/198 (100%)	-0.20	0 100 100	23, 40, 61, 126	0
11	Y	198/198 (100%)	-0.25	1 (0%) 87 76	24, 41, 62, 126	0
12	L	212/212 (100%)	-0.38	0 100 100	17, 37, 55, 72	0
12	Z	212/212 (100%)	-0.38	0 100 100	18, 38, 54, 70	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å²)	Q<0.9
13	M	222/222 (100%)	-0.16	2 (0%)	81	64	24, 47, 65, 80	0
13	a	222/222 (100%)	-0.14	1 (0%)	87	76	24, 48, 66, 80	0
14	N	233/233 (100%)	0.33	4 (1%)	69	49	34, 60, 87, 98	0
14	b	233/233 (100%)	0.39	3 (1%)	75	55	36, 61, 87, 98	0
15	c	195/231 (84%)	1.02	22 (11%)	10	7	46, 79, 110, 123	0
15	d	195/231 (84%)	0.77	20 (10%)	12	8	46, 75, 109, 125	0
15	e	195/231 (84%)	0.47	8 (4%)	41	26	40, 70, 104, 122	0
15	f	195/231 (84%)	0.41	10 (5%)	33	21	38, 69, 103, 130	0
15	g	195/231 (84%)	0.57	14 (7%)	21	14	47, 75, 110, 159	0
15	h	195/231 (84%)	0.92	22 (11%)	10	7	55, 85, 119, 168	0
15	i	192/231 (83%)	1.19	34 (17%)	4	3	48, 85, 112, 159	1 (0%)
15	j	195/231 (84%)	0.91	17 (8%)	16	11	61, 96, 124, 134	0
15	k	195/231 (84%)	0.85	18 (9%)	14	10	66, 100, 130, 138	0
15	l	195/231 (84%)	0.70	14 (7%)	21	14	64, 98, 127, 136	0
15	m	195/231 (84%)	0.70	10 (5%)	33	21	56, 96, 129, 140	0
15	n	195/231 (84%)	0.70	13 (6%)	24	15	58, 92, 130, 169	0
15	o	195/231 (84%)	0.80	16 (8%)	17	11	64, 93, 122, 167	0
15	p	192/231 (83%)	0.82	14 (7%)	21	13	56, 93, 119, 165	1 (0%)
All	All	9094/9802 (92%)	0.37	351 (3%)	43	27	17, 65, 113, 169	2 (0%)

All (351) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
15	p	1231	SER	6.6
15	m	1231	SER	6.5
15	g	1230	VAL	5.6
15	p	1229	MET	5.5
15	h	1231	SER	5.4
15	c	1231	SER	5.0
4	D	52	LEU	5.0
15	l	1231	SER	4.8
15	g	1231	SER	4.8
15	o	1229	MET	4.7
15	p	1230	VAL	4.7
15	f	1231	SER	4.5
5	E	128	SER	4.5

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Mol	Chain	Res	Type	RSRZ
15	i	1231	SER	4.5
15	g	1124	THR	4.4
9	W	218	VAL	4.4
3	C	245	THR	4.2
15	g	1157	ASP	4.2
15	c	1159	LEU	4.2
15	o	1231	SER	4.1
15	d	1159	LEU	4.1
1	A	213	ALA	4.1
15	d	1193	LYS	4.1
15	i	1039	ILE	4.0
1	A	78	THR	3.9
15	i	1229	MET	3.9
4	R	51	THR	3.9
15	k	1143	TYR	3.8
15	i	1230	VAL	3.8
15	o	1159	LEU	3.7
15	j	1143	TYR	3.6
15	j	1231	SER	3.6
15	f	1228	HIS	3.5
9	I	220	ILE	3.5
15	c	1124	THR	3.5
15	p	1124	THR	3.5
15	h	1147	GLU	3.4
15	o	1230	VAL	3.4
15	o	1228	HIS	3.4
5	E	247	GLU	3.4
15	j	1074	TYR	3.4
15	c	1040	ALA	3.3
15	k	1231	SER	3.3
15	i	1159	LEU	3.3
15	m	1183	LEU	3.3
15	o	1183	LEU	3.3
4	R	59	ILE	3.3
3	Q	244	ILE	3.3
13	M	222	ASP	3.2
15	e	1159	LEU	3.2
15	p	1228	HIS	3.2
3	Q	52	VAL	3.2
9	I	175	VAL	3.2
15	g	1159	LEU	3.2
15	d	1187	ASP	3.2

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Mol	Chain	Res	Type	RSRZ
15	i	1220	ILE	3.2
15	o	1226	SER	3.2
15	d	1147	GLU	3.2
15	d	1228	HIS	3.2
15	i	1075	GLN	3.2
15	g	1227	ASP	3.2
15	f	1124	THR	3.2
15	f	1227	ASP	3.1
15	i	1179	LEU	3.1
3	C	52	VAL	3.1
15	p	1159	LEU	3.1
1	A	12	TYR	3.1
15	c	1230	VAL	3.1
15	n	1143	TYR	3.1
15	h	1228	HIS	3.1
5	S	128	SER	3.1
7	G	10	SER	3.1
15	m	1194	VAL	3.1
15	g	1229	MET	3.1
15	i	1036	ILE	3.1
15	d	1178	SER	3.0
15	h	1229	MET	3.0
15	f	1157	ASP	3.0
15	l	1179	LEU	3.0
15	i	1157	ASP	3.0
5	E	207	VAL	3.0
15	h	1230	VAL	3.0
1	A	178	ILE	3.0
2	B	61	LEU	3.0
15	i	1228	HIS	2.9
4	R	52	LEU	2.9
15	o	1124	THR	2.9
15	d	1230	VAL	2.9
15	n	1230	VAL	2.9
1	O	231	ASP	2.9
15	n	1189	ASP	2.9
1	A	168	ALA	2.9
2	B	52	SER	2.9
15	l	1192	LEU	2.9
15	n	1229	MET	2.9
15	j	1055	TYR	2.9
4	D	60	THR	2.8

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Mol	Chain	Res	Type	RSRZ
15	g	1143	TYR	2.8
15	h	1220	ILE	2.8
15	i	1033	LEU	2.8
15	f	1230	VAL	2.8
15	c	1192	LEU	2.8
15	n	1157	ASP	2.8
4	D	59	ILE	2.8
15	g	1104	ASN	2.8
15	i	1082	TYR	2.8
15	i	1043	ALA	2.8
15	c	1179	LEU	2.8
15	h	1002	PRO	2.8
2	B	210	GLU	2.8
7	U	5	THR	2.8
15	j	1047	HIS	2.7
15	m	1228	HIS	2.7
15	c	1155	VAL	2.7
15	h	1050	ILE	2.7
4	D	51	THR	2.7
15	m	1229	MET	2.7
7	G	218	CYS	2.7
15	l	1002	PRO	2.7
15	d	1050	ILE	2.7
15	p	1146	ARG	2.7
15	e	1183	LEU	2.7
15	n	1183	LEU	2.7
15	h	1177	PRO	2.7
15	d	1229	MET	2.7
14	b	86	ALA	2.7
15	c	1055	TYR	2.7
15	h	1159	LEU	2.7
15	i	1192	LEU	2.7
4	R	61	PRO	2.7
15	n	1227	ASP	2.7
1	O	40	ILE	2.6
3	Q	49	GLU	2.6
15	h	1028	TRP	2.6
15	i	1046	ALA	2.6
15	j	1091	VAL	2.6
15	l	1055	TYR	2.6
15	j	1046	ALA	2.6
15	j	1149	LEU	2.6

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Mol	Chain	Res	Type	RSRZ
6	F	6	TYR	2.6
15	c	1050	ILE	2.6
1	O	39	ASN	2.6
5	E	245	GLU	2.6
15	k	1182	GLU	2.6
1	O	129	THR	2.6
4	D	54	LEU	2.6
15	c	1039	ILE	2.6
15	e	1231	SER	2.6
15	d	1177	PRO	2.6
8	H	11	GLY	2.6
15	o	1050	ILE	2.6
15	l	1185	GLN	2.6
1	A	138	GLY	2.6
15	j	1124	THR	2.6
15	m	1124	THR	2.6
14	N	5	ILE	2.5
15	e	1143	TYR	2.5
7	G	18	GLY	2.5
3	C	60	ASP	2.5
10	J	18	ASP	2.5
3	C	244	ILE	2.5
15	c	1033	LEU	2.5
15	c	1053	SER	2.5
15	h	1227	ASP	2.5
15	h	1094	ILE	2.5
15	i	1002	PRO	2.5
15	h	1056	GLY	2.5
2	B	123	GLN	2.5
15	o	1075	GLN	2.5
1	A	45	VAL	2.5
15	d	1157	ASP	2.5
15	d	1148	TYR	2.5
15	f	1143	TYR	2.5
15	g	1228	HIS	2.5
15	h	1008	LEU	2.5
15	k	1071	LEU	2.5
1	O	249	ALA	2.5
15	k	1046	ALA	2.5
15	m	1159	LEU	2.5
15	d	1055	TYR	2.5
15	o	1143	TYR	2.5

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Mol	Chain	Res	Type	RSRZ
15	c	1182	GLU	2.4
15	j	1157	ASP	2.4
15	k	1124	THR	2.4
1	A	71	TYR	2.4
3	Q	243	GLY	2.4
15	h	1151	ALA	2.4
15	m	1050	ILE	2.4
15	j	1004	LYS	2.4
5	S	168	ASN	2.4
15	g	1177	PRO	2.4
7	U	44	GLY	2.4
15	g	1225	GLY	2.4
15	n	1231	SER	2.4
15	j	1008	LEU	2.4
15	k	1002	PRO	2.4
15	l	1230	VAL	2.4
11	Y	195	PHE	2.4
8	V	132	THR	2.4
15	k	1194	VAL	2.4
15	f	1229	MET	2.4
15	l	1229	MET	2.4
1	A	37	GLN	2.4
15	i	1182	GLU	2.4
15	e	1230	VAL	2.4
2	B	208	THR	2.3
15	d	1078	CYS	2.4
15	p	1002	PRO	2.4
15	p	1177	PRO	2.4
15	e	1124	THR	2.3
15	i	1011	ASN	2.3
15	i	1080	ASN	2.3
15	p	1036	ILE	2.3
14	N	188	ASP	2.3
15	i	1124	THR	2.3
2	B	205	ASN	2.3
7	U	70	ASP	2.3
6	F	204	GLU	2.3
15	e	1195	GLU	2.3
1	A	154	ILE	2.3
1	O	153	SER	2.3
4	D	207	ALA	2.3
8	H	18	SER	2.3

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Mol	Chain	Res	Type	RSRZ
15	l	1050	ILE	2.3
15	p	1015	SER	2.3
3	Q	184	MET	2.3
15	c	1143	TYR	2.3
9	W	219	ASN	2.3
15	j	1105	LEU	2.3
2	B	48	GLU	2.3
15	i	1081	VAL	2.3
1	O	66	PRO	2.3
14	N	191	SER	2.3
15	l	1124	THR	2.3
15	d	1179	LEU	2.3
15	k	1159	LEU	2.3
14	N	47	ASP	2.3
15	l	1157	ASP	2.3
5	S	248	ALA	2.3
6	T	160	ALA	2.3
2	B	247	LEU	2.3
15	h	1199	THR	2.3
15	i	1196	LEU	2.3
15	k	1036	ILE	2.2
15	c	1046	ALA	2.2
15	j	1207	ALA	2.2
1	O	150	LEU	2.2
15	l	1228	HIS	2.2
10	J	191	LYS	2.2
15	d	1143	TYR	2.2
15	h	1178	SER	2.2
15	o	1055	TYR	2.2
15	i	1146	ARG	2.2
15	i	1221	GLN	2.2
15	j	1230	VAL	2.2
2	P	167	GLY	2.2
5	E	54	ALA	2.2
7	G	196	ALA	2.2
8	H	117	GLY	2.2
8	V	11	GLY	2.2
15	e	1229	MET	2.2
15	k	1219	LEU	2.2
13	M	62	ASP	2.2
7	G	241	PHE	2.2
1	A	145	SER	2.2

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Mol	Chain	Res	Type	RSRZ
15	k	1075	GLN	2.2
3	C	168	ASN	2.2
7	G	9	LEU	2.2
15	d	1067	LEU	2.2
15	j	1078	CYS	2.2
15	h	1004	LYS	2.2
8	H	172	VAL	2.2
15	d	1063	SER	2.2
15	p	1092	ILE	2.2
7	U	50	GLU	2.2
15	c	1064	PRO	2.2
15	o	1002	PRO	2.2
2	B	178	ARG	2.2
3	Q	226	TYR	2.1
15	k	1180	LEU	2.1
2	P	249	ALA	2.1
15	g	1226	SER	2.1
15	l	1063	SER	2.1
15	h	1195	GLU	2.1
15	f	1177	PRO	2.1
15	i	1022	PHE	2.1
8	H	10	ASP	2.1
15	k	1230	VAL	2.1
15	n	1155	VAL	2.1
15	d	1181	LEU	2.1
15	j	1071	LEU	2.1
2	B	236	ARG	2.1
15	d	1188	ALA	2.1
1	O	226	GLY	2.1
8	V	15	GLY	2.1
14	b	191	SER	2.1
15	i	1222	PRO	2.1
1	A	222	ASP	2.1
14	b	219	TRP	2.1
15	i	1028	TRP	2.1
15	k	1157	ASP	2.1
1	A	79	ILE	2.1
15	h	1124	THR	2.1
15	m	1055	TYR	2.1
15	n	1179	LEU	2.1
1	A	177	GLU	2.1
2	P	138	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
8	H	184	GLU	2.1
4	R	40	ASN	2.1
15	f	1159	LEU	2.1
15	i	1067	LEU	2.1
15	i	1183	LEU	2.1
1	A	198	SER	2.1
15	c	1052	ASN	2.1
1	A	75	ILE	2.1
15	c	1067	LEU	2.1
15	m	1196	LEU	2.1
15	n	1068	LEU	2.1
15	n	1159	LEU	2.1
2	B	87	ASP	2.1
4	R	60	THR	2.1
15	o	1016	TYR	2.1
15	c	1029	ALA	2.1
4	D	124	GLY	2.1
15	k	1147	GLU	2.1
5	E	6	SER	2.0
6	F	103	LEU	2.0
7	G	215	ILE	2.0
15	h	1011	ASN	2.0
15	i	1219	LEU	2.0
15	k	1152	ARG	2.0
15	o	1180	LEU	2.0
15	c	1191	MET	2.0
1	A	128	TYR	2.0
6	F	54	ASP	2.0
1	A	50	CYS	2.0
7	U	238	ALA	2.0
15	i	1148	TYR	2.0
15	o	1190	PHE	2.0
15	p	1147	GLU	2.0
15	i	1070	VAL	2.0
15	p	1081	VAL	2.0
1	A	245	LEU	2.0
15	g	1179	LEU	2.0
15	n	1053	SER	2.0
15	k	1082	TYR	2.0
15	l	1143	TYR	2.0
7	U	205	ASP	2.0
13	a	200	ASP	2.0

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Mol	Chain	Res	Type	RSRZ
15	c	1225	GLY	2.0
15	i	1037	GLU	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 oligosaccharides 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.