



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 5, 2026 – 08:00 PM UTC

PDB ID : 1FNT / pdb_00001fnt
Title : CRYSTAL STRUCTURE OF THE 20S PROTEASOME FROM YEAST IN
COMPLEX WITH THE PROTEASOME ACTIVATOR PA26 FROM TRY-
PANOSOME BRUCEI AT 3.2 ANGSTROMS RESOLUTION
Authors : Whitby, F.G.; Masters, E.; Kramer, L.; Knowlton, J.R.; Yao, Y.; Wang, C.C.;
Hill, C.P.
Deposited on : 2000-08-23
Resolution : 3.20 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The 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

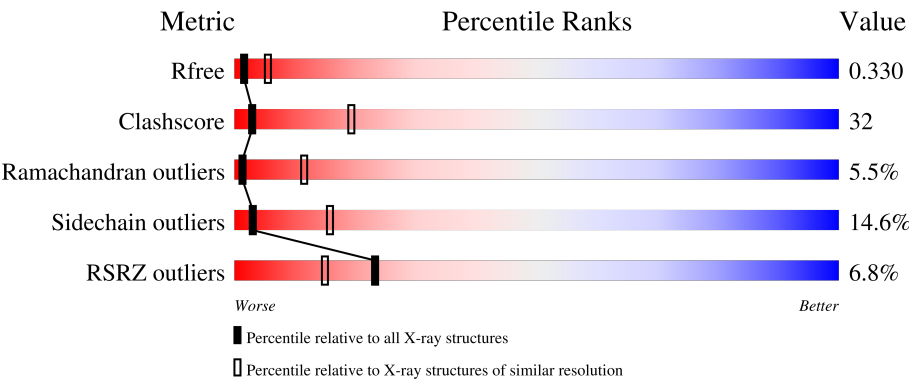
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.20 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1466 (3.20-3.20)
Clashscore	190562	1573 (3.20-3.20)
Ramachandran outliers	187476	1548 (3.20-3.20)
Sidechain outliers	187428	1547 (3.20-3.20)
RSRZ outliers	180081	1466 (3.20-3.20)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments 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% 29%46%19%6%
1	O	252	4% 26%48%20%6%
2	B	250	5% 38%43%17%..
2	P	250	3% 39%43%16%..
3	C	245	4% 40%39%17%..

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Mol	Chain	Length	Quality of chain
3	Q	245	
4	D	254	
4	R	254	
5	E	260	
5	S	260	
6	F	234	
6	T	234	
7	G	287	
7	U	287	
8	H	196	
8	V	196	
9	I	232	
9	W	232	
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 16 unique types of molecules in this entry. The entry contains 70622 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	238	Total	C	N	O	S	0	0	0
			1881	1197	314	362	8			
1	O	238	Total	C	N	O	S	0	0	0
			1881	1197	314	362	8			

- Molecule 2 is a protein called PROTEASOME COMPONENT Y7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	247	Total	C	N	O	S	0	0	0
			1868	1188	309	368	3			
2	P	247	Total	C	N	O	S	0	0	0
			1868	1188	309	368	3			

- Molecule 3 is a protein called PROTEASOME COMPONENT Y13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	241	Total	C	N	O	S	0	0	0
			1868	1180	312	373	3			
3	Q	241	Total	C	N	O	S	0	0	0
			1868	1180	312	373	3			

- Molecule 4 is a protein called PROTEASOME COMPONENT PRE6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	239	Total	C	N	O	S	0	0	0
			1862	1163	326	369	4			
4	R	239	Total	C	N	O	S	0	0	0
			1862	1163	326	369	4			

- Molecule 5 is a protein called PROTEASOME COMPONENT PUP2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	E	244	Total	C	N	O	S	0	0	0
			1871	1168	316	380	7			
5	S	244	Total	C	N	O	S	0	0	0
			1871	1168	316	380	7			

- Molecule 6 is a protein called PROTEASOME COMPONENT PRE5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	233	Total	C	N	O	S	0	0	0
			1795	1129	312	350	4			
6	T	233	Total	C	N	O	S	0	0	0
			1795	1129	312	350	4			

- Molecule 7 is a protein called PROTEASOME COMPONENT C1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	G	240	Total	C	N	O	S	0	0	0
			1869	1188	326	351	4			
7	U	240	Total	C	N	O	S	0	0	0
			1869	1188	326	351	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
			1510	954	250	299	7			
8	V	196	Total	C	N	O	S	0	0	0
			1510	954	250	299	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
			1684	1061	293	323	7			
9	W	222	Total	C	N	O	S	0	0	0
			1684	1061	293	323	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	engineered mutation	UNP P30656
Z	33	ARG	LYS	engineered mutation	UNP P30656

- Molecule 13 is a protein called 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	198	Total 1529	C 960	N 267	O 296	S 6	0	0	0
15	d	198	Total 1529	C 960	N 267	O 296	S 6	0	0	0
15	e	198	Total 1529	C 960	N 267	O 296	S 6	0	0	0
15	f	198	Total 1529	C 960	N 267	O 296	S 6	0	0	0
15	g	198	Total 1529	C 960	N 267	O 296	S 6	0	0	0
15	h	198	Total 1529	C 960	N 267	O 296	S 6	0	0	0
15	i	198	Total 1529	C 960	N 267	O 296	S 6	0	0	0
15	j	198	Total 1529	C 960	N 267	O 296	S 6	0	0	0
15	k	198	Total 1529	C 960	N 267	O 296	S 6	0	0	0
15	l	198	Total 1529	C 960	N 267	O 296	S 6	0	0	0
15	m	198	Total 1529	C 960	N 267	O 296	S 6	0	0	0
15	n	198	Total 1529	C 960	N 267	O 296	S 6	0	0	0
15	o	198	Total 1529	C 960	N 267	O 296	S 6	0	0	0
15	p	198	Total 1529	C 960	N 267	O 296	S 6	0	0	0

There are 28 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
c	49	VAL	THR	see remark 999	UNP Q9U8G2
c	226	THR	SER	see remark 999	UNP Q9U8G2
d	49	VAL	THR	see remark 999	UNP Q9U8G2
d	226	THR	SER	see remark 999	UNP Q9U8G2
e	49	VAL	THR	see remark 999	UNP Q9U8G2
e	226	THR	SER	see remark 999	UNP Q9U8G2
f	49	VAL	THR	see remark 999	UNP Q9U8G2
f	226	THR	SER	see remark 999	UNP Q9U8G2
g	49	VAL	THR	see remark 999	UNP Q9U8G2
g	226	THR	SER	see remark 999	UNP Q9U8G2
h	49	VAL	THR	see remark 999	UNP Q9U8G2
h	226	THR	SER	see remark 999	UNP Q9U8G2

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Chain	Residue	Modelled	Actual	Comment	Reference
i	49	VAL	THR	see remark 999	UNP Q9U8G2
i	226	THR	SER	see remark 999	UNP Q9U8G2
j	49	VAL	THR	see remark 999	UNP Q9U8G2
j	226	THR	SER	see remark 999	UNP Q9U8G2
k	49	VAL	THR	see remark 999	UNP Q9U8G2
k	226	THR	SER	see remark 999	UNP Q9U8G2
l	49	VAL	THR	see remark 999	UNP Q9U8G2
l	226	THR	SER	see remark 999	UNP Q9U8G2
m	49	VAL	THR	see remark 999	UNP Q9U8G2
m	226	THR	SER	see remark 999	UNP Q9U8G2
n	49	VAL	THR	see remark 999	UNP Q9U8G2
n	226	THR	SER	see remark 999	UNP Q9U8G2
o	49	VAL	THR	see remark 999	UNP Q9U8G2
o	226	THR	SER	see remark 999	UNP Q9U8G2
p	49	VAL	THR	see remark 999	UNP Q9U8G2
p	226	THR	SER	see remark 999	UNP Q9U8G2

- Molecule 16 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
16	G	1	Total Mg 1 1	0	0
16	H	1	Total Mg 1 1	0	0
16	I	1	Total Mg 1 1	0	0
16	J	2	Total Mg 2 2	0	0
16	L	1	Total Mg 1 1	0	0
16	M	1	Total Mg 1 1	0	0
16	U	1	Total Mg 1 1	0	0
16	V	1	Total Mg 1 1	0	0
16	W	1	Total Mg 1 1	0	0
16	X	2	Total Mg 2 2	0	0
16	Z	1	Total Mg 1 1	0	0

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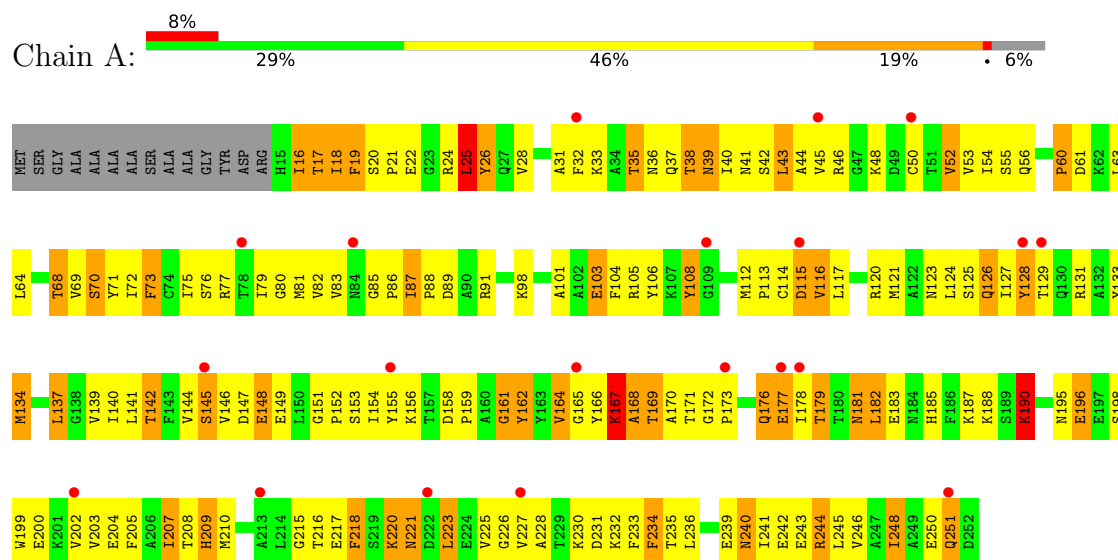
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
16	a	1	Total	Mg	0	0
			1	1		

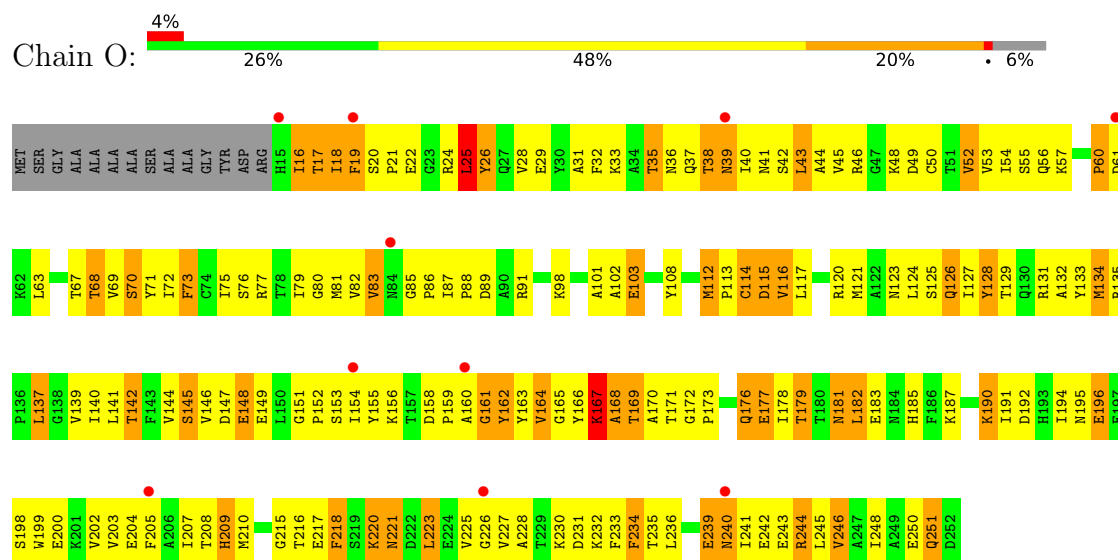
3 Residue-property plots

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

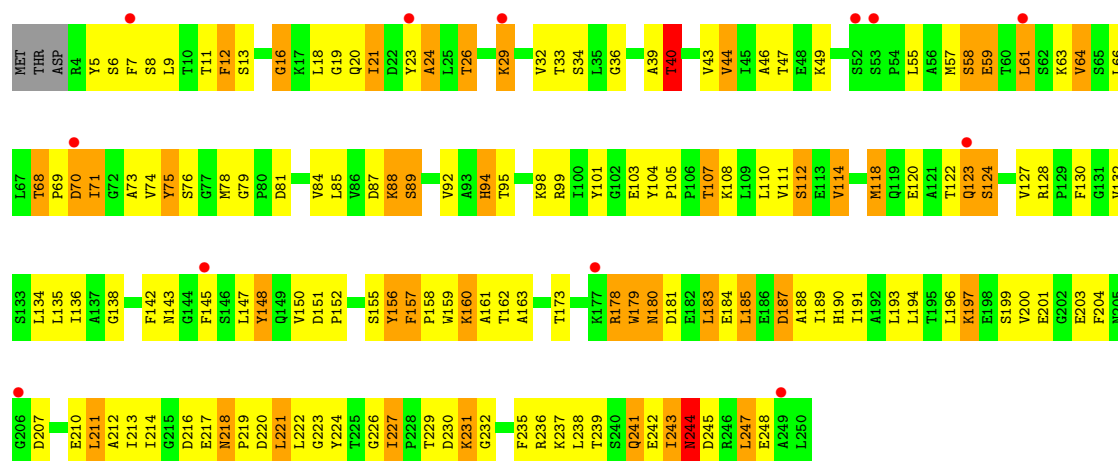


• Molecule 1: PROTEASOME COMPONENT C7-ALPHA

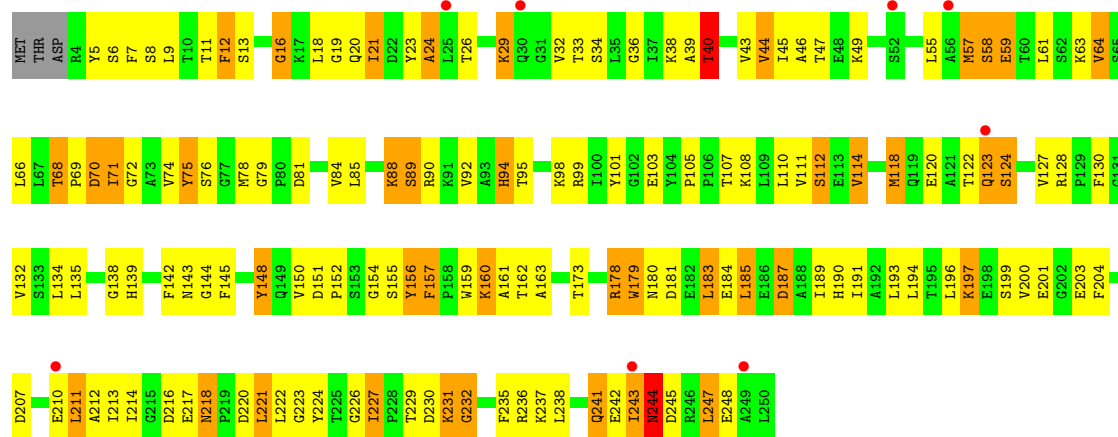


• Molecule 2: PROTEASOME COMPONENT Y7

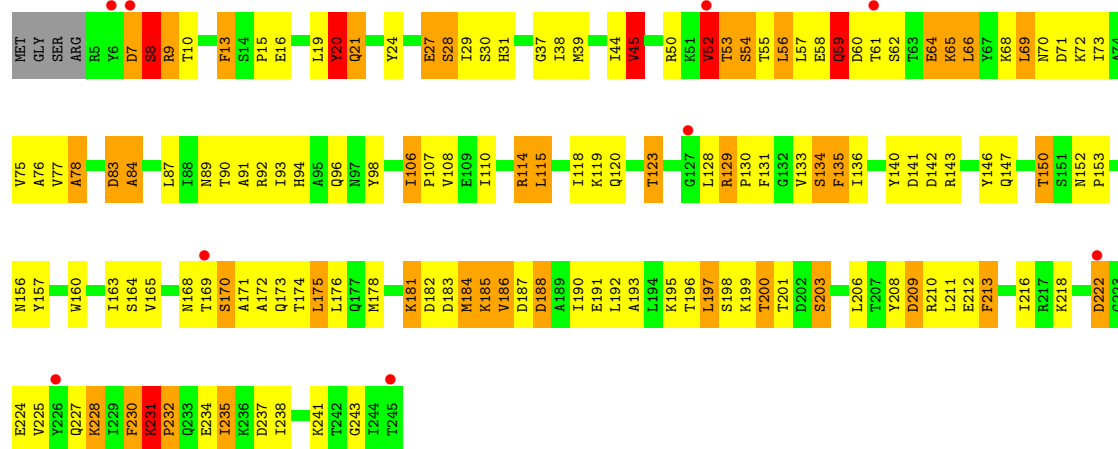




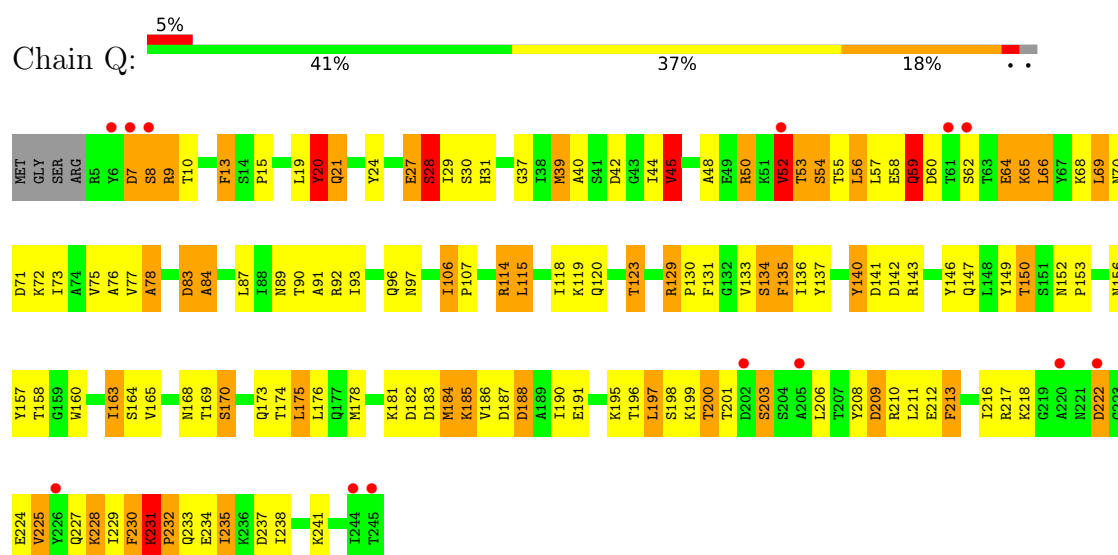
• Molecule 2: PROTEASOME COMPONENT Y7



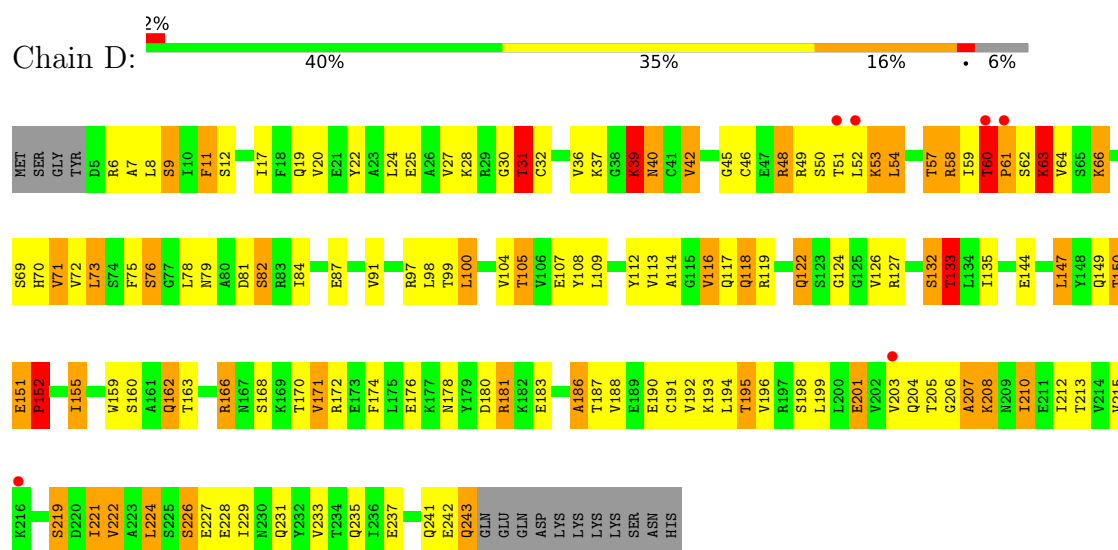
• Molecule 3: PROTEASOME COMPONENT Y13



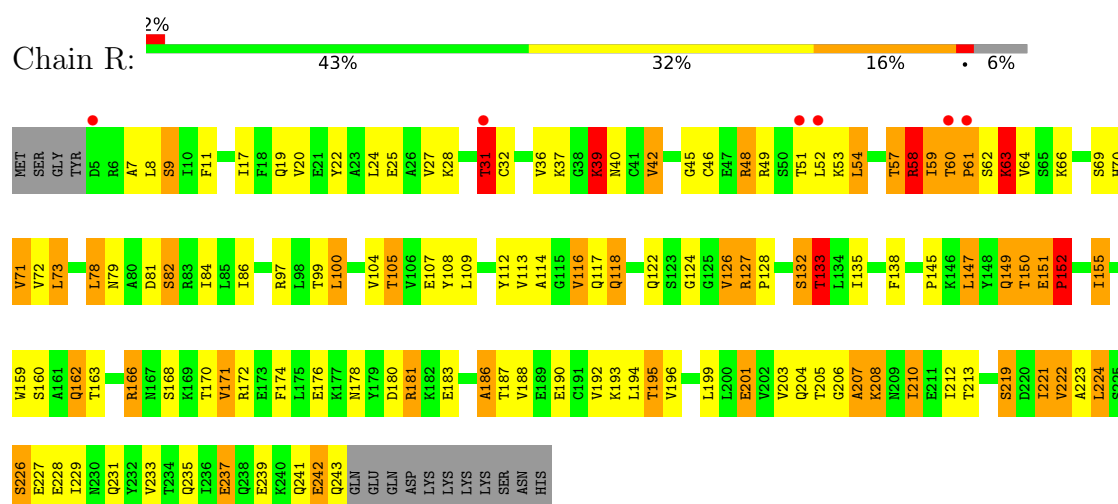
• Molecule 3: PROTEASOME COMPONENT Y13



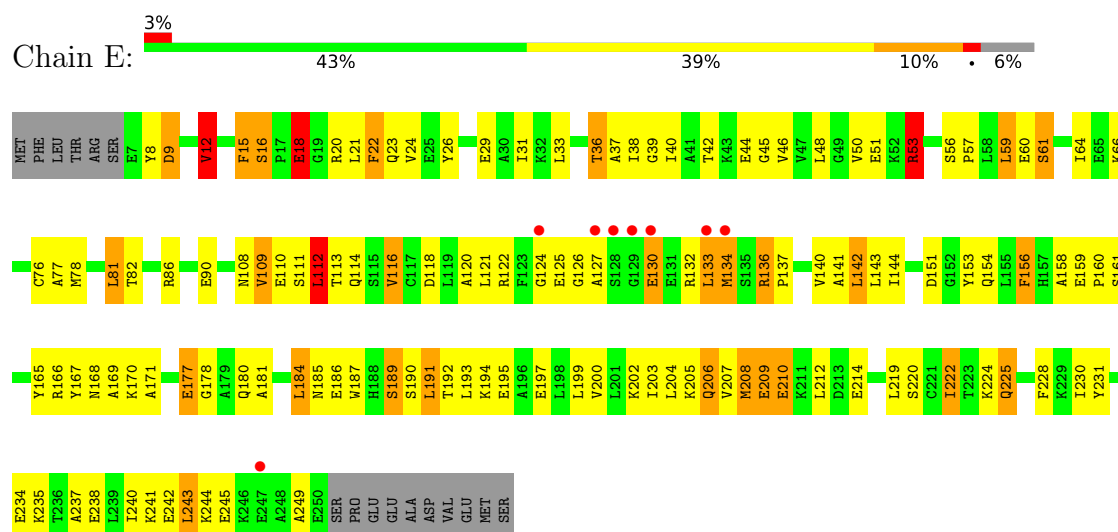
• Molecule 4: PROTEASOME COMPONENT PRE6



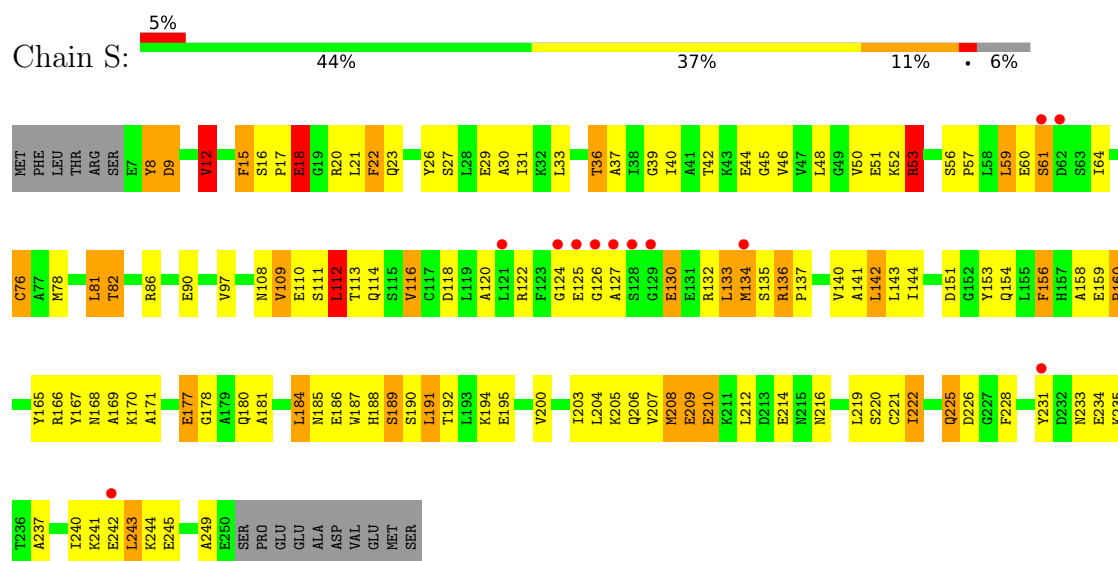
• Molecule 4: PROTEASOME COMPONENT PRE6



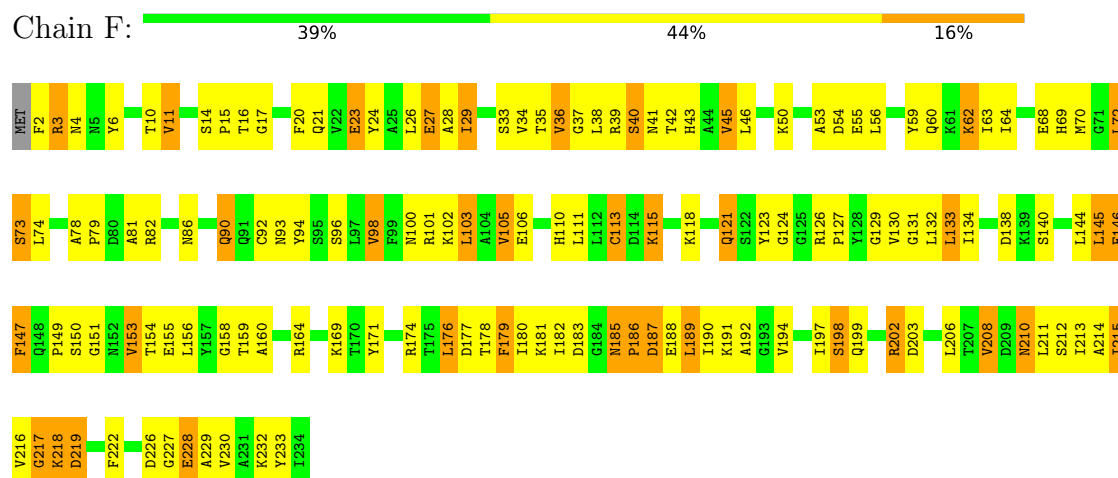
• Molecule 5: PROTEASOME COMPONENT PUP2



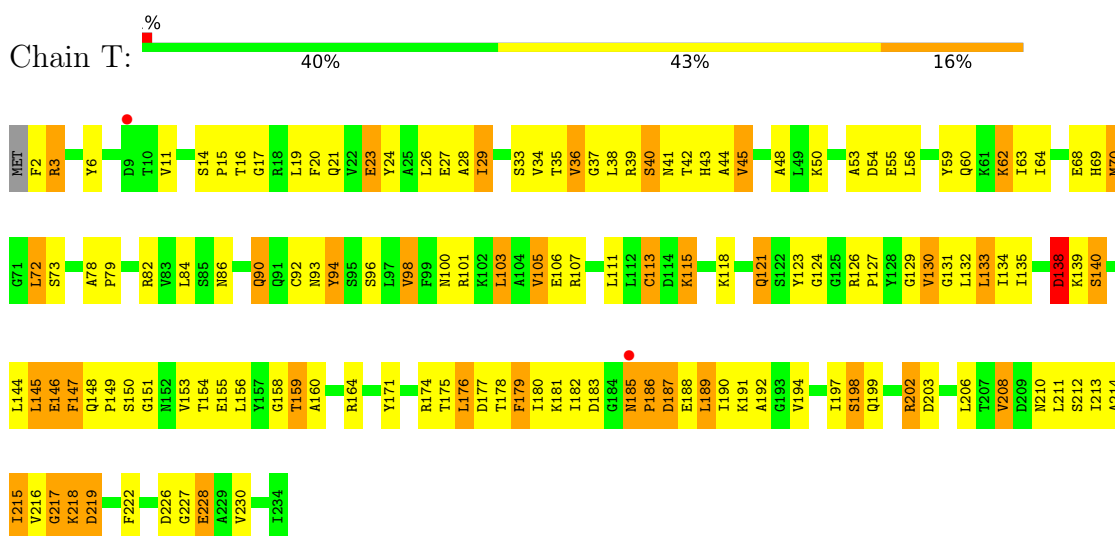
- Molecule 5: PROTEASOME COMPONENT PUP2



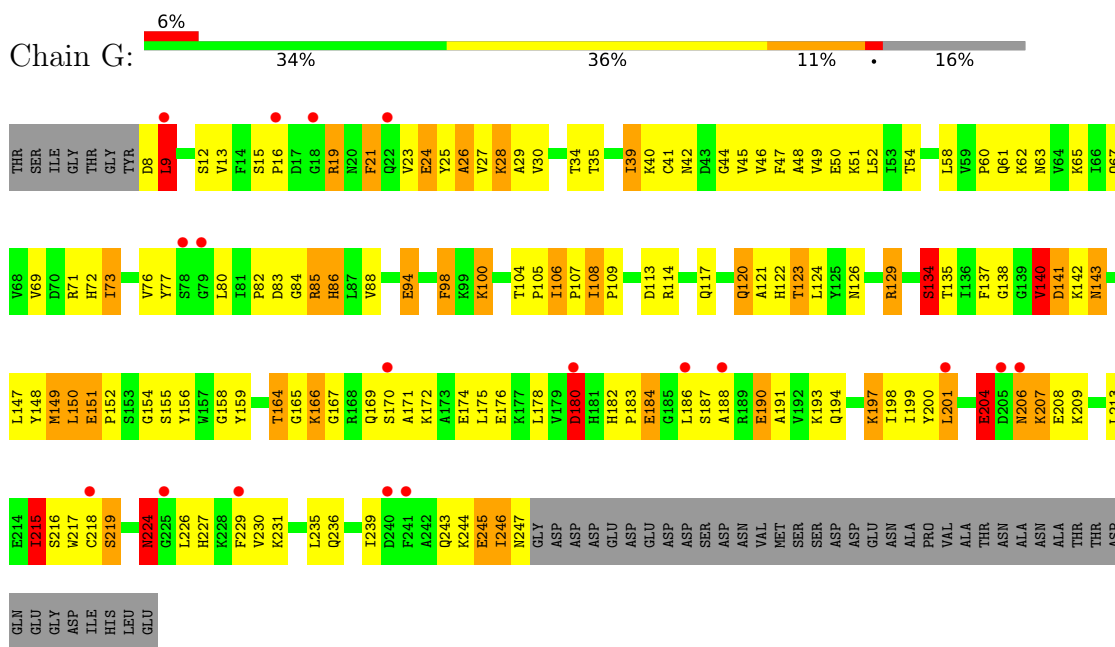
- Molecule 6: PROTEASOME COMPONENT PRE5



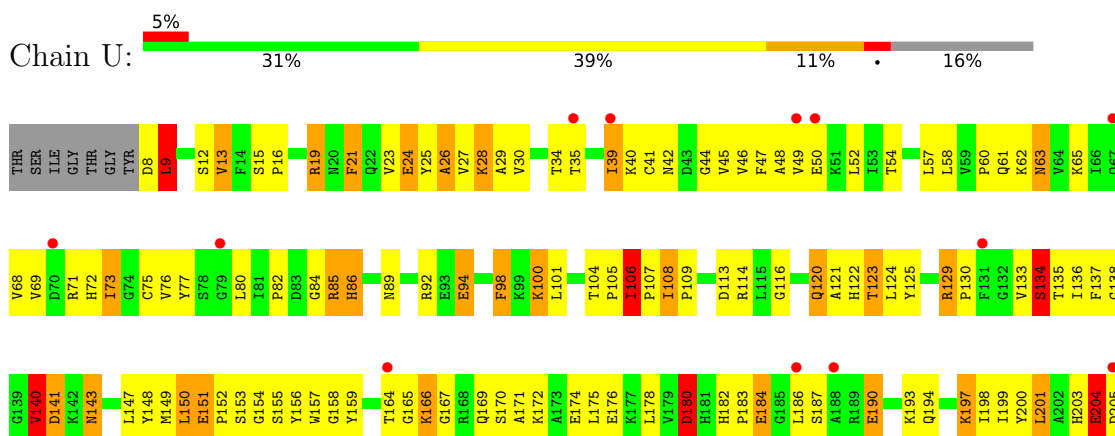
- Molecule 6: PROTEASOME COMPONENT PRE5

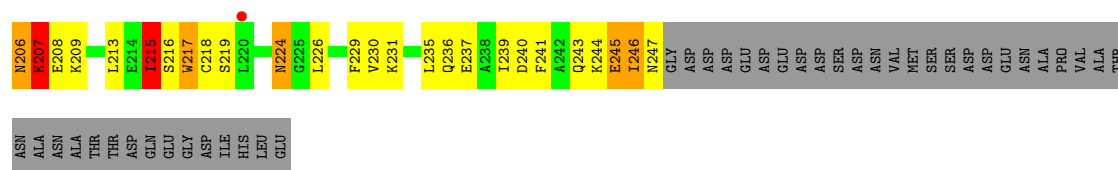


• Molecule 7: PROTEASOME COMPONENT C1

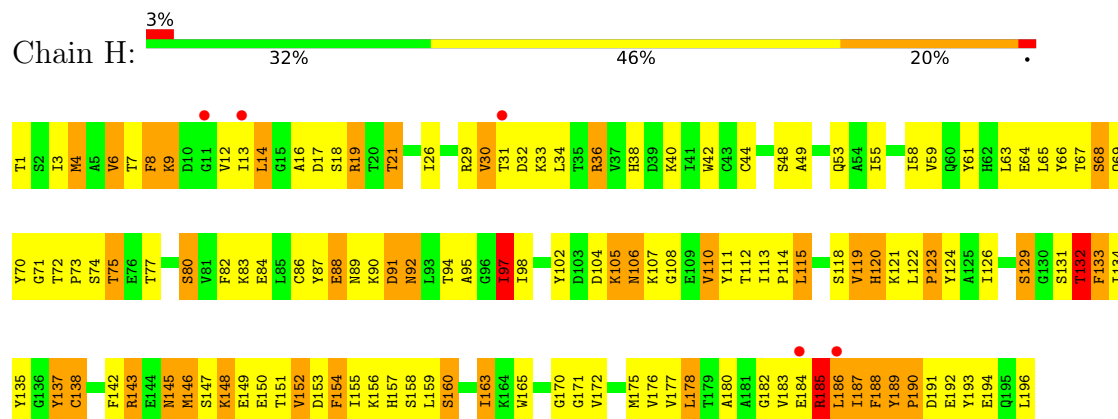


• Molecule 7: PROTEASOME COMPONENT C1

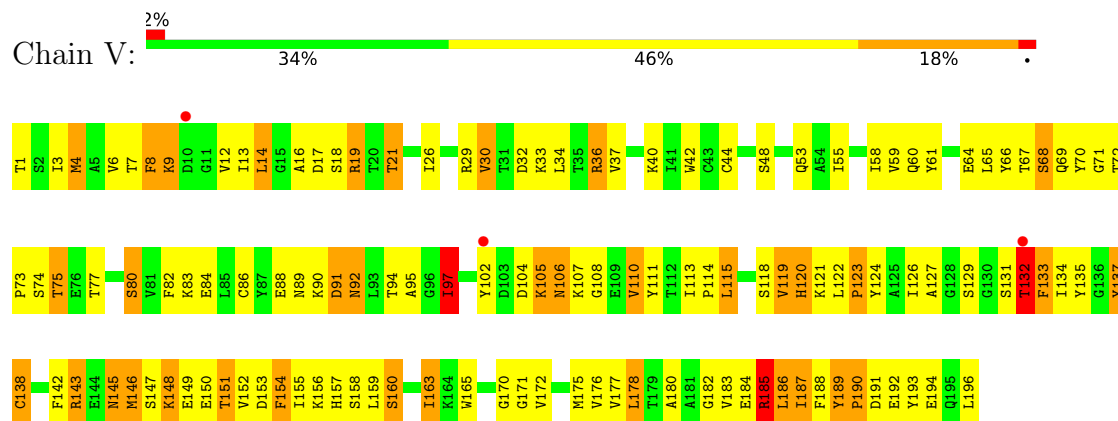




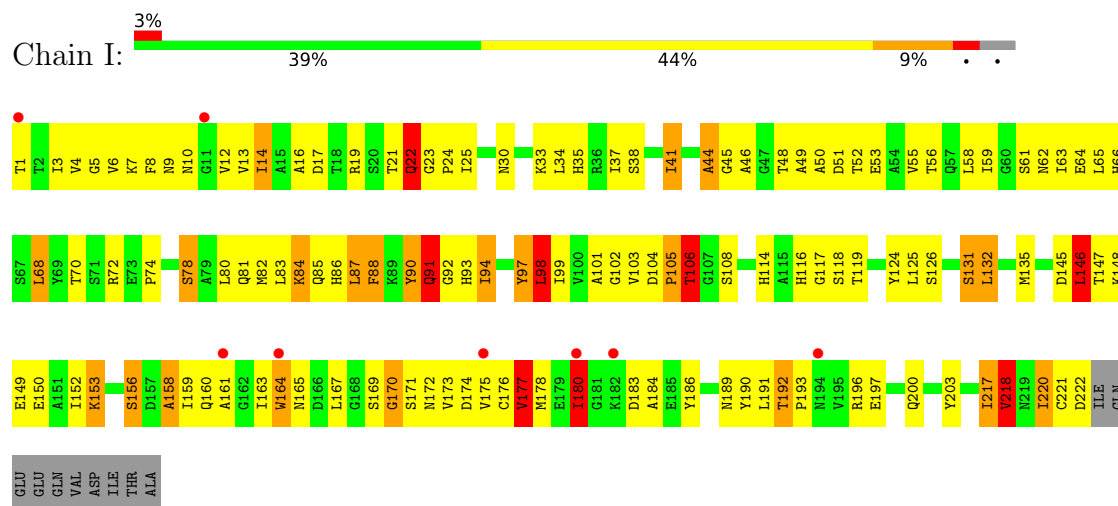
• Molecule 8: PROTEASOME COMPONENT PRE3



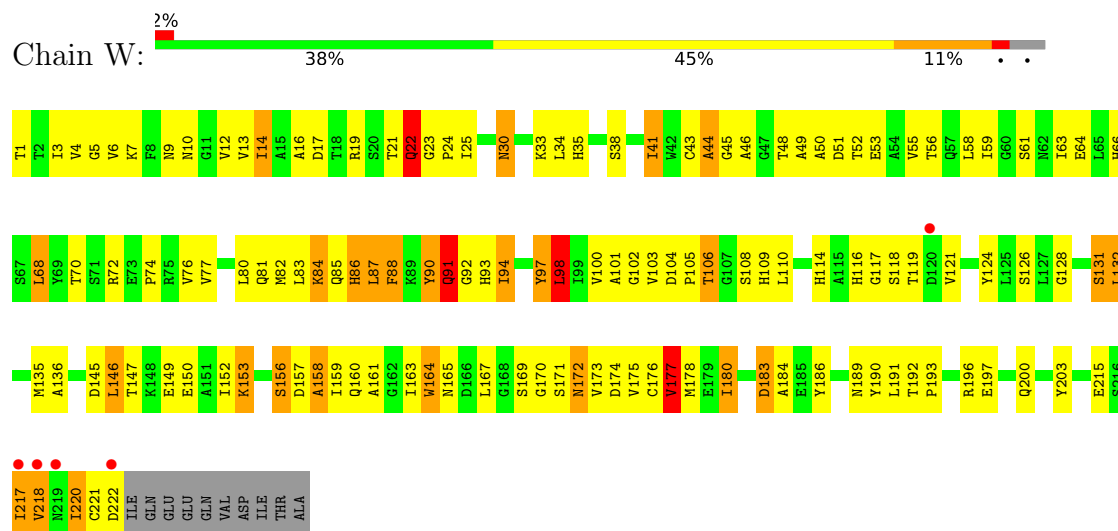
• Molecule 8: PROTEASOME COMPONENT PRE3



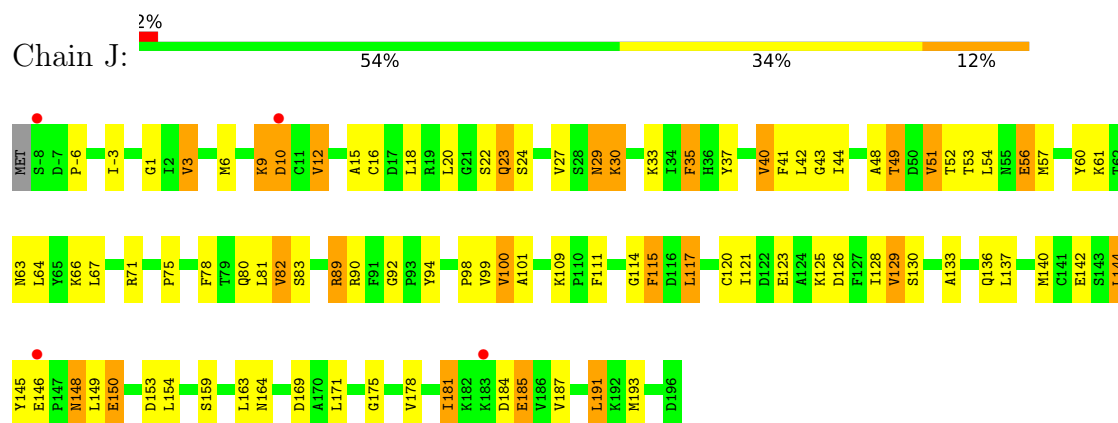
• Molecule 9: PROTEASOME COMPONENT PUP1



• Molecule 9: PROTEASOME COMPONENT PUP1



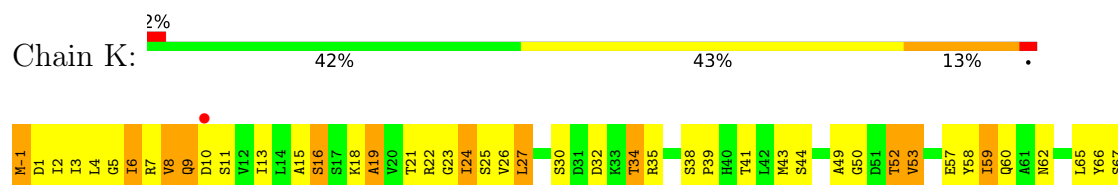
• Molecule 10: PROTEASOME COMPONENT PUP3

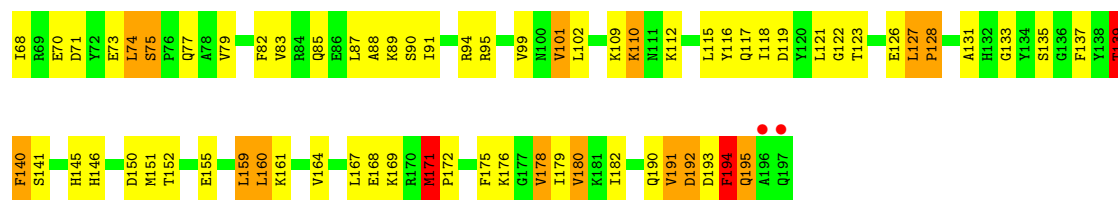


• Molecule 10: PROTEASOME COMPONENT PUP3

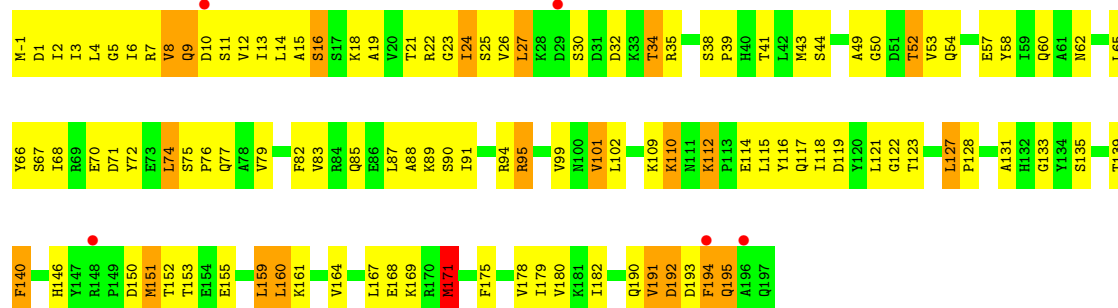
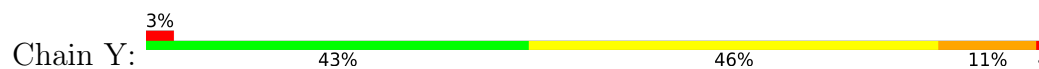


• Molecule 11: PROTEASOME COMPONENT C11

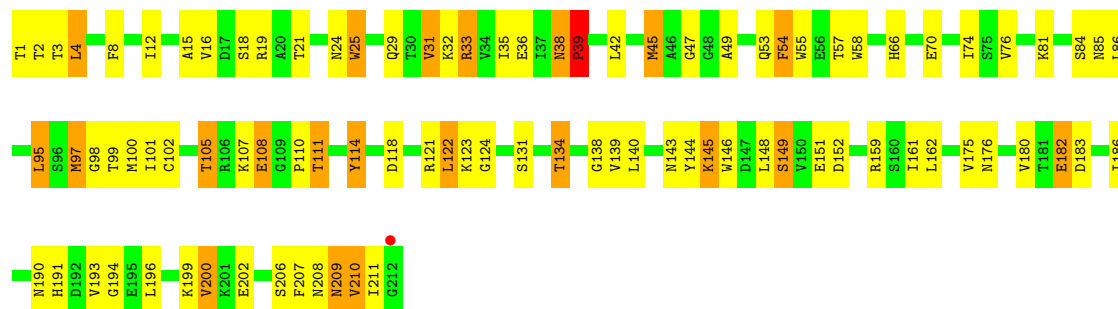




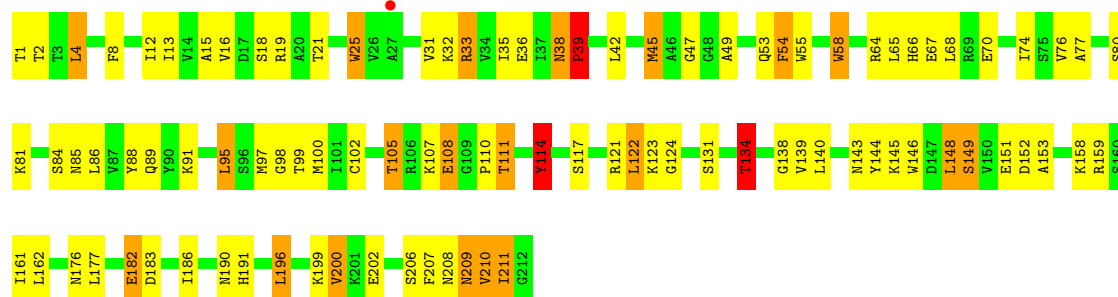
• Molecule 11: PROTEASOME COMPONENT C11



• Molecule 12: PROTEASOME COMPONENT PRE2

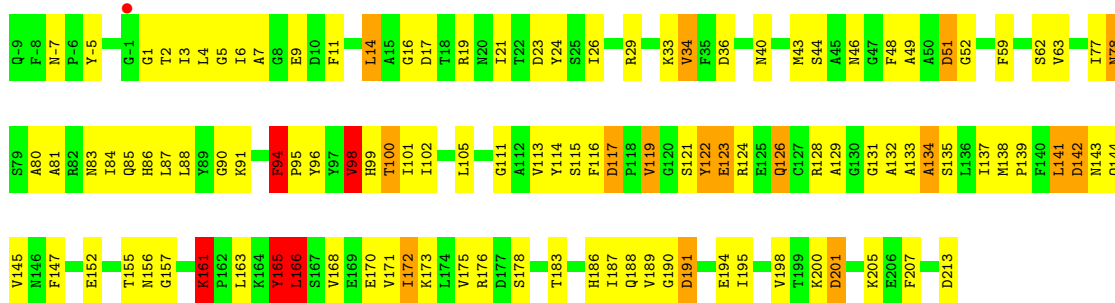


• Molecule 12: PROTEASOME COMPONENT PRE2



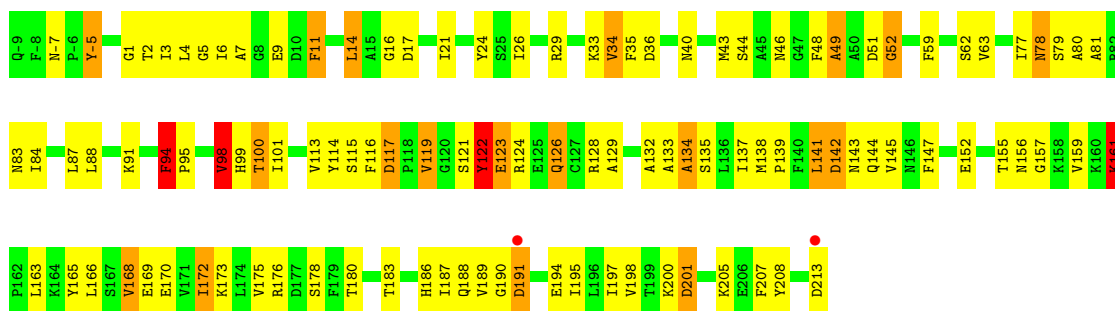
• Molecule 13: PROTEASOME COMPONENT C5

Chain M: 



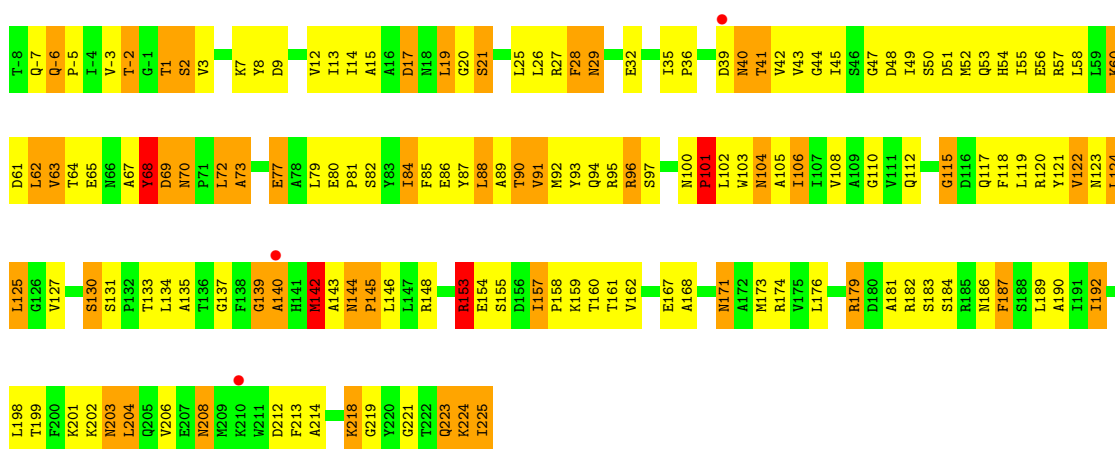
• Molecule 13: PROTEASOME COMPONENT C5

Chain a: 



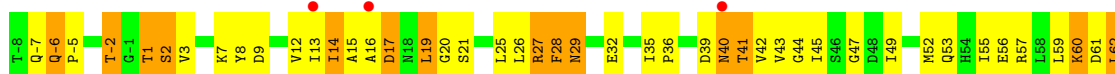
• Molecule 14: PROTEASOME COMPONENT PRE4

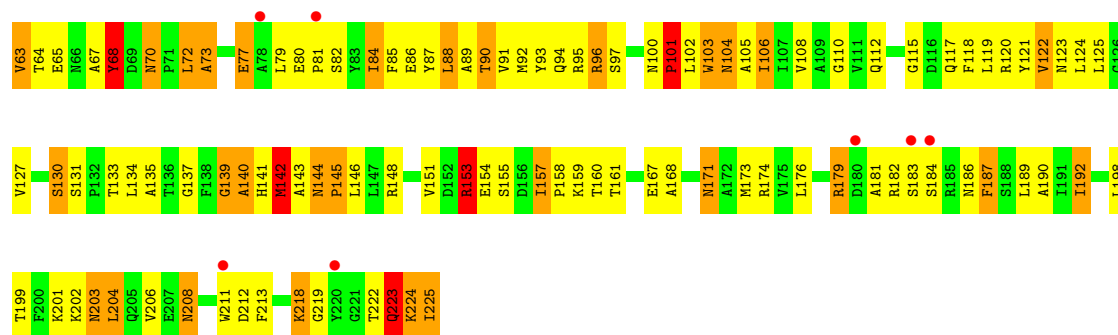
Chain N: 



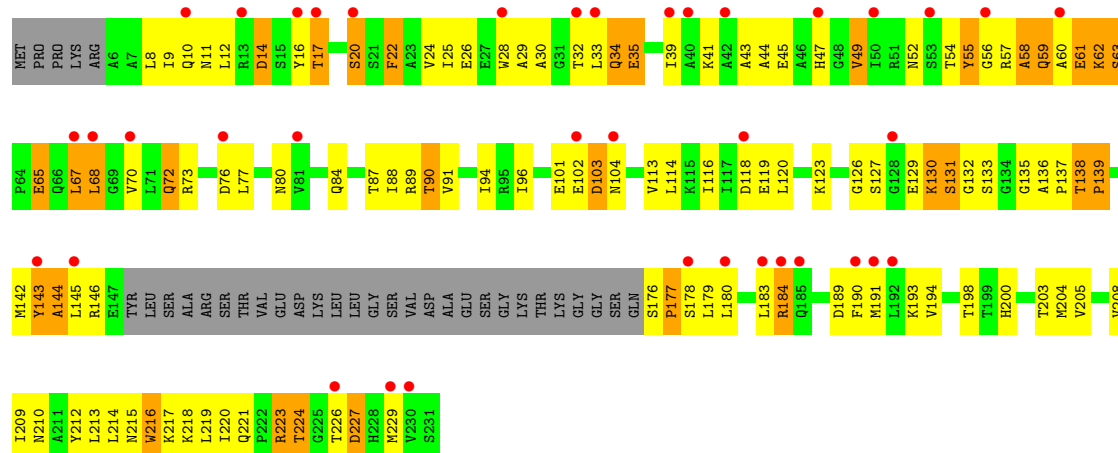
• Molecule 14: PROTEASOME COMPONENT PRE4

Chain b: 

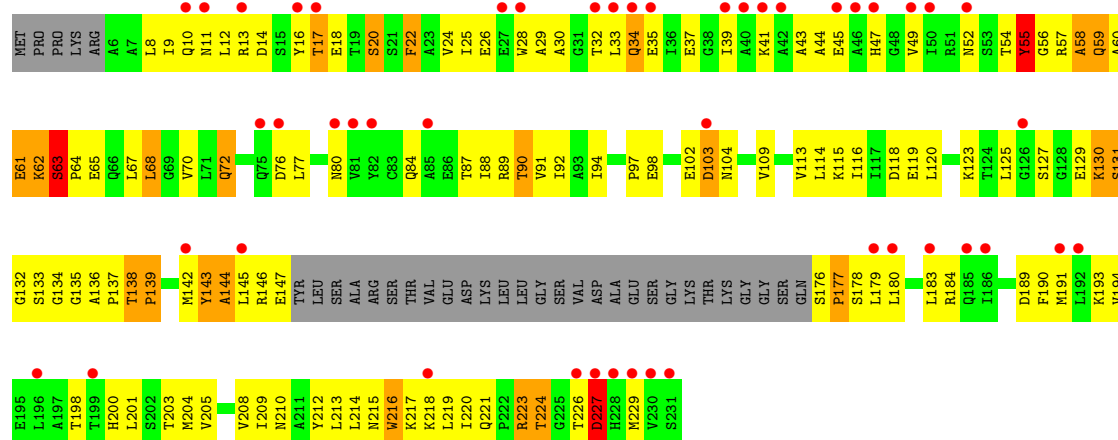




• Molecule 15: PROTEASOME ACTIVATOR PROTEIN PA26

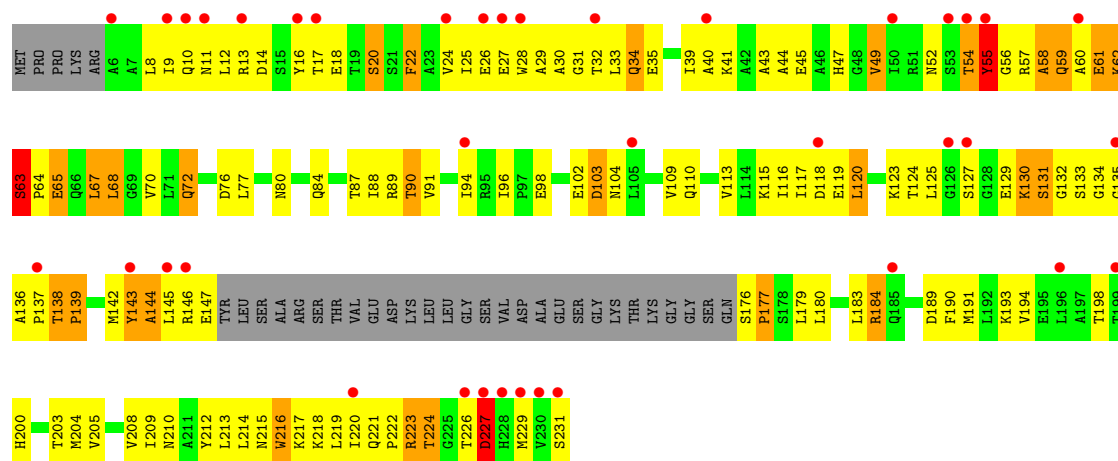


• Molecule 15: PROTEASOME ACTIVATOR PROTEIN PA26

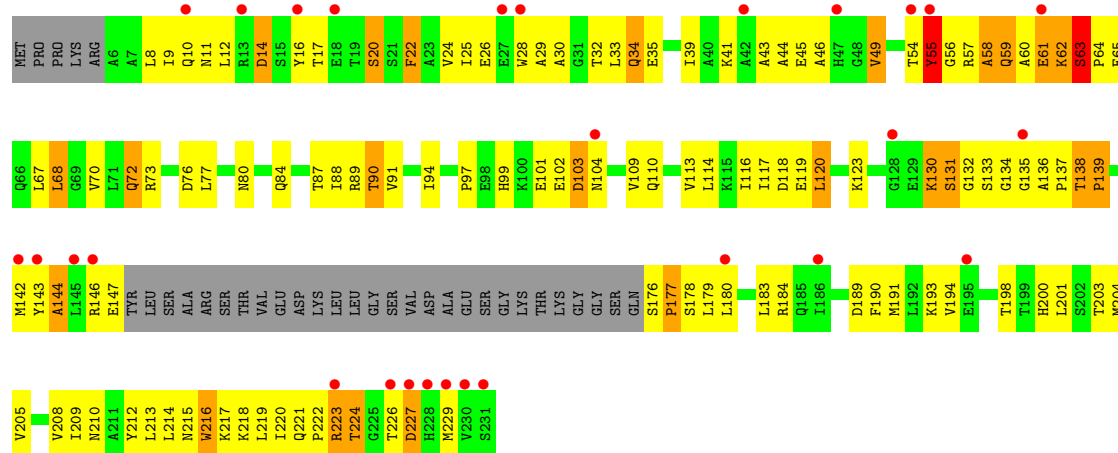


• Molecule 15: PROTEASOME ACTIVATOR PROTEIN PA26

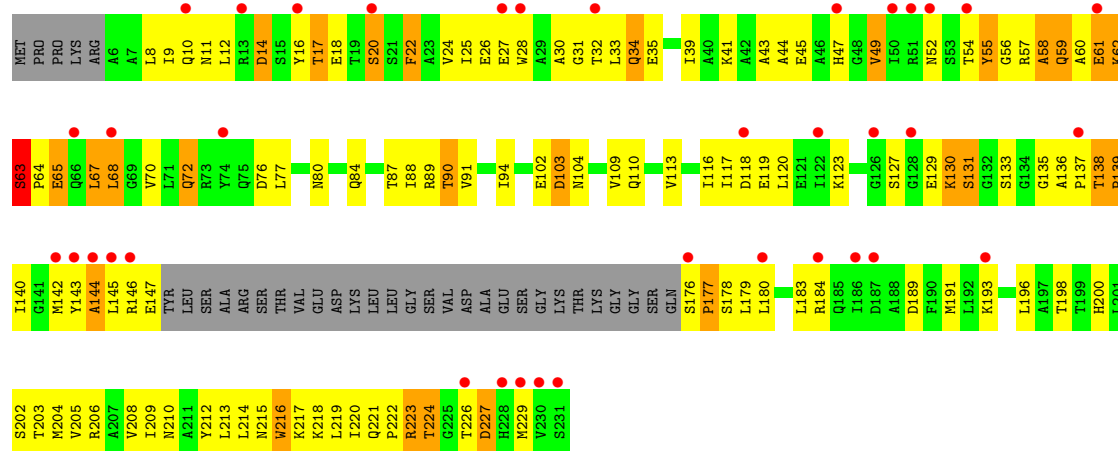




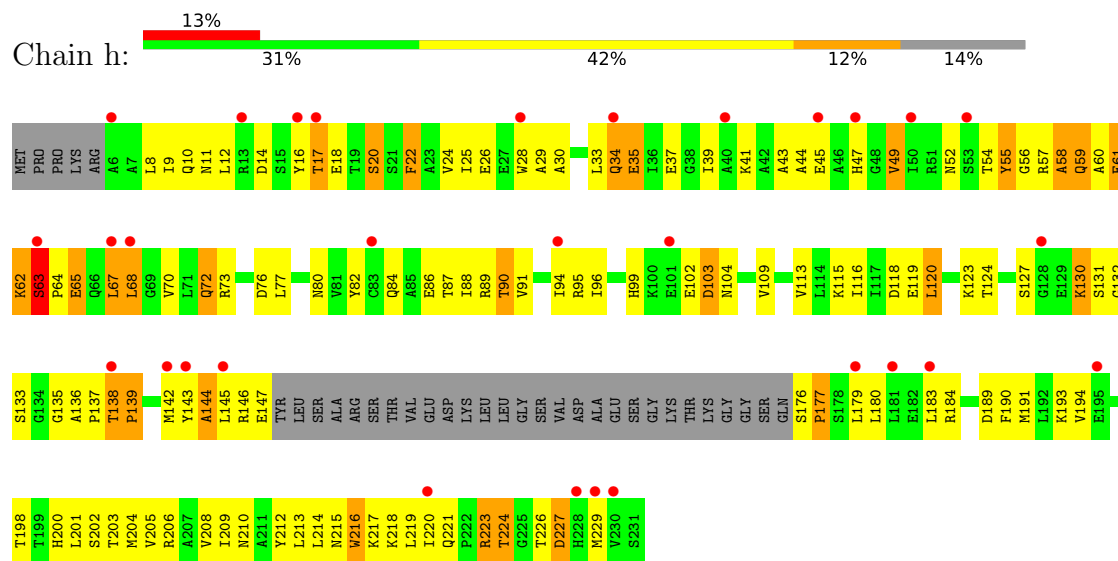
• Molecule 15: PROTEASOME ACTIVATOR PROTEIN PA26



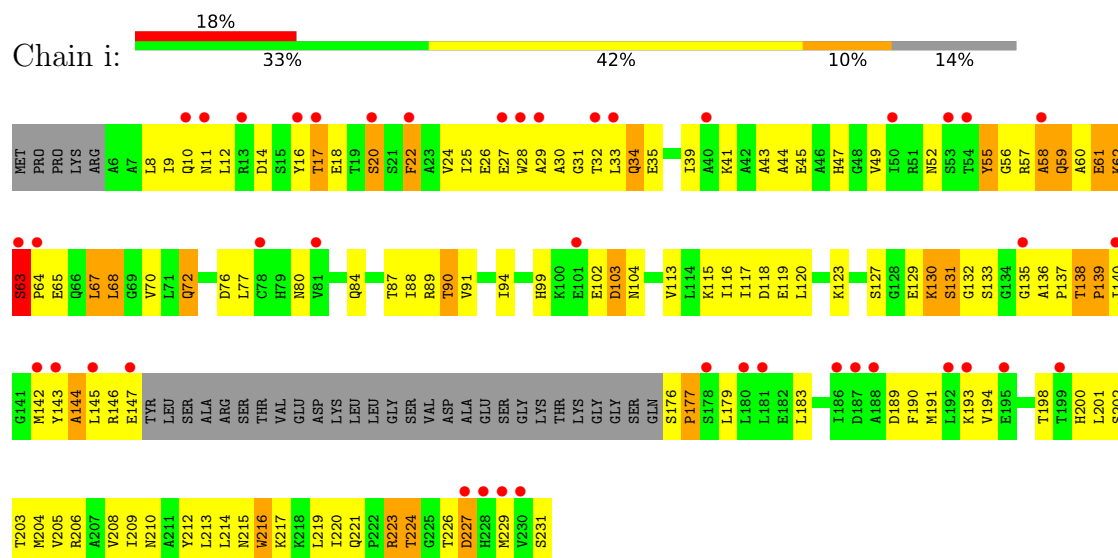
• Molecule 15: PROTEASOME ACTIVATOR PROTEIN PA26



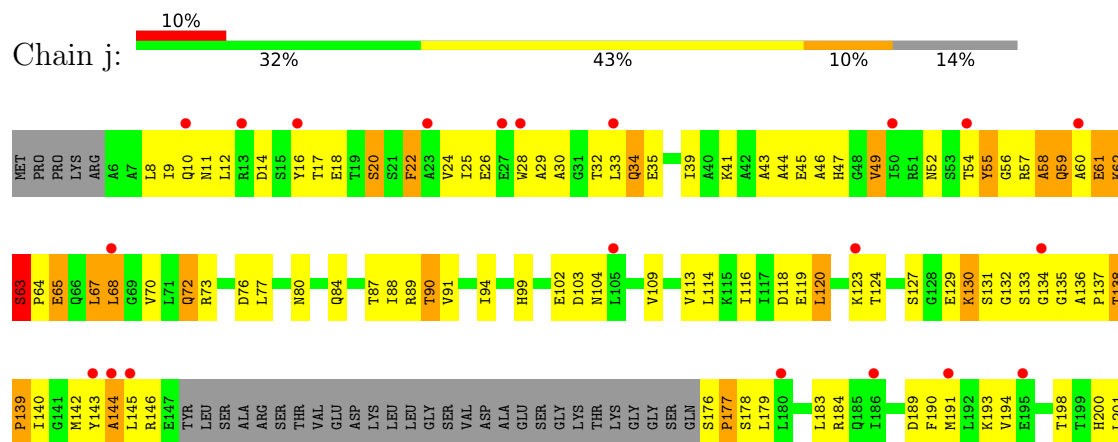
- Molecule 15: PROTEASOME ACTIVATOR PROTEIN PA26



- Molecule 15: PROTEASOME ACTIVATOR PROTEIN PA26

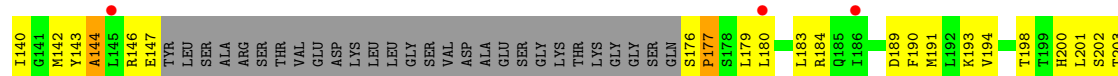
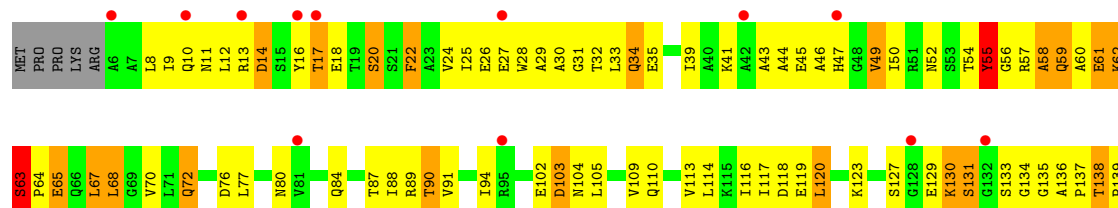


- Molecule 15: PROTEASOME ACTIVATOR PROTEIN PA26

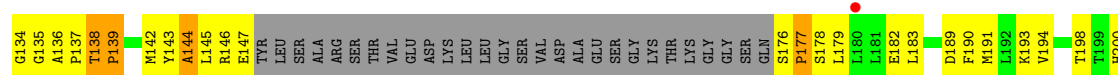
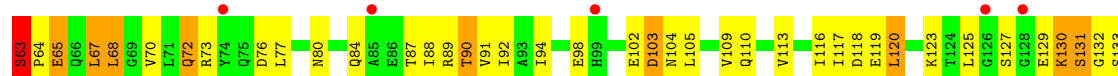
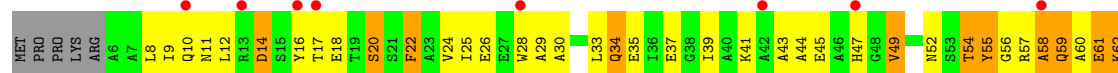




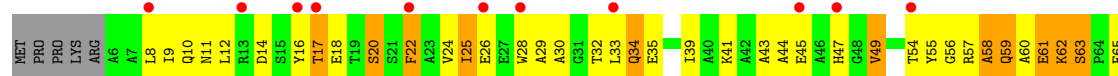
● Molecule 15: PROTEASOME ACTIVATOR PROTEIN PA26

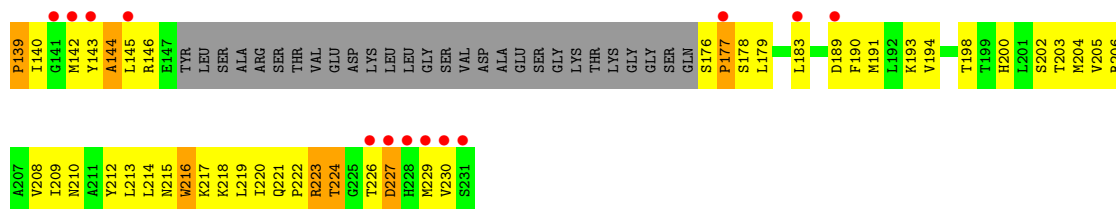


● Molecule 15: PROTEASOME ACTIVATOR PROTEIN PA26

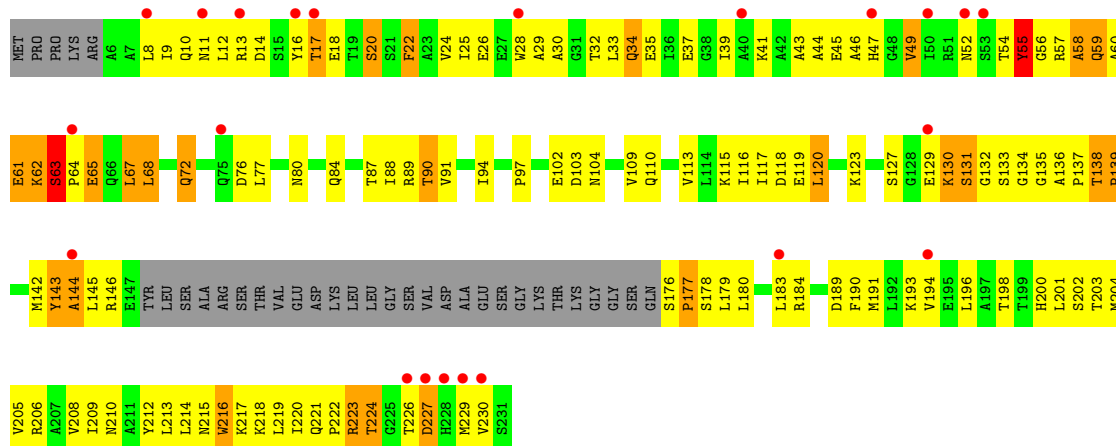


● Molecule 15: PROTEASOME ACTIVATOR PROTEIN PA26

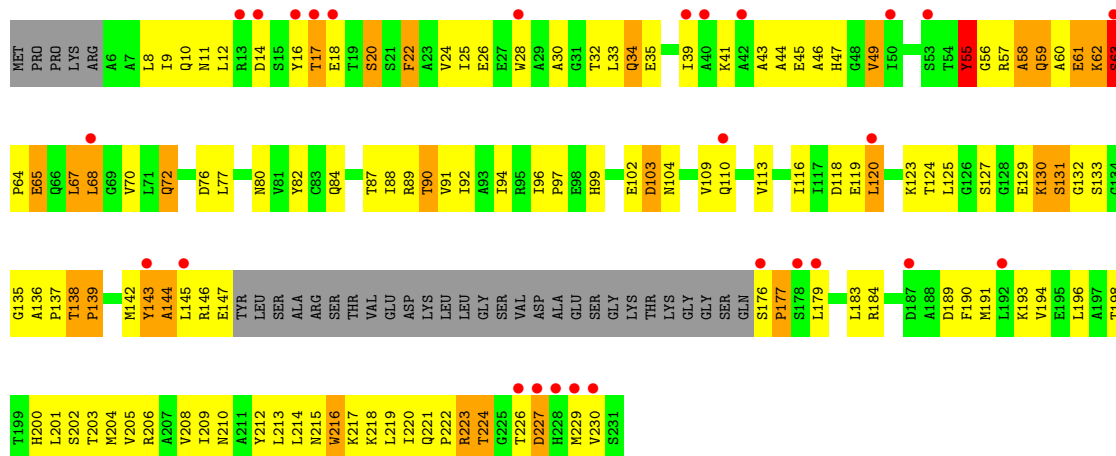




• Molecule 15: PROTEASOME ACTIVATOR PROTEIN PA26

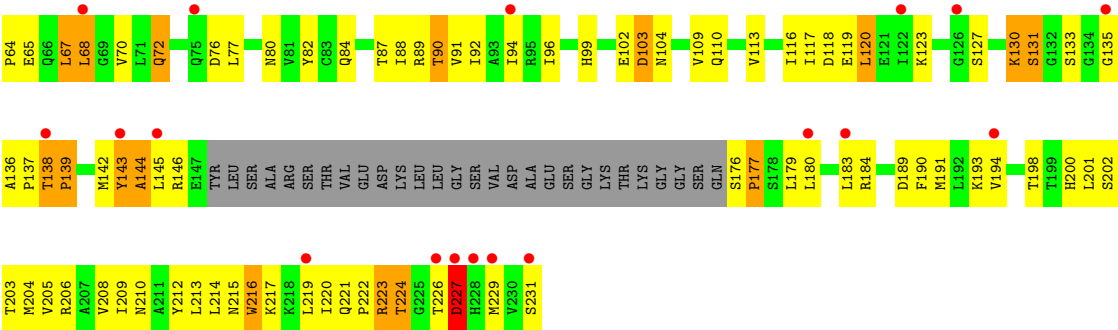


• Molecule 15: PROTEASOME ACTIVATOR PROTEIN PA26



• 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)	50.00 – 3.20 50.00 – 3.22	Depositor EDS
% Data completeness (in resolution range)	86.6 (50.00-3.20) 88.1 (50.00-3.22)	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	X-PLOR 3.851	Depositor
R, R_{free}	0.255 , 0.325 0.267 , 0.330	Depositor DCC
R_{free} test set	1028 reflections (0.54%)	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 , 85.3	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	0.88	EDS
Total number of atoms	70622	wwPDB-VP
Average B, all atoms (Å ²)	77.0	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 ⓘ

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

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	0.82	0/1918	1.36	28/2597 (1.1%)
1	O	0.76	1/1918 (0.1%)	1.34	31/2597 (1.2%)
2	B	0.80	0/1903	1.39	39/2578 (1.5%)
2	P	0.78	0/1903	1.38	38/2578 (1.5%)
3	C	0.82	1/1897 (0.1%)	1.29	25/2569 (1.0%)
3	Q	0.85	3/1897 (0.2%)	1.28	22/2569 (0.9%)
4	D	0.80	3/1890 (0.2%)	1.37	36/2560 (1.4%)
4	R	0.79	2/1890 (0.1%)	1.39	32/2560 (1.2%)
5	E	0.85	1/1896 (0.1%)	1.26	18/2555 (0.7%)
5	S	0.82	0/1896	1.25	20/2555 (0.8%)
6	F	0.73	0/1823	1.21	18/2463 (0.7%)
6	T	0.73	0/1823	1.23	20/2463 (0.8%)
7	G	0.72	0/1908	1.22	21/2576 (0.8%)
7	U	0.71	0/1908	1.25	24/2576 (0.9%)
8	H	0.79	0/1539	1.28	21/2084 (1.0%)
8	V	0.75	0/1539	1.29	22/2084 (1.1%)
9	I	0.82	0/1715	1.18	16/2326 (0.7%)
9	W	0.79	0/1715	1.17	15/2326 (0.6%)
10	J	0.78	0/1611	1.27	21/2174 (1.0%)
10	X	0.79	0/1611	1.27	20/2174 (0.9%)
11	K	0.88	1/1613 (0.1%)	1.24	23/2173 (1.1%)
11	Y	0.81	0/1613	1.25	23/2173 (1.1%)
12	L	0.82	1/1683 (0.1%)	1.25	18/2277 (0.8%)
12	Z	0.79	0/1683	1.26	16/2277 (0.7%)
13	M	0.78	0/1795	1.28	24/2420 (1.0%)
13	a	0.78	1/1795 (0.1%)	1.26	21/2420 (0.9%)
14	N	0.79	0/1855	1.27	20/2514 (0.8%)
14	b	0.80	0/1855	1.26	18/2514 (0.7%)
15	c	0.79	1/1551 (0.1%)	1.28	18/2099 (0.9%)
15	d	0.79	1/1551 (0.1%)	1.27	15/2099 (0.7%)
15	e	0.78	1/1551 (0.1%)	1.28	21/2099 (1.0%)
15	f	0.78	1/1551 (0.1%)	1.27	17/2099 (0.8%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
15	g	0.84	1/1551 (0.1%)	1.28	16/2099 (0.8%)
15	h	0.78	0/1551	1.27	18/2099 (0.9%)
15	i	0.78	1/1551 (0.1%)	1.28	15/2099 (0.7%)
15	j	0.75	1/1551 (0.1%)	1.30	12/2099 (0.6%)
15	k	0.75	1/1551 (0.1%)	1.30	18/2099 (0.9%)
15	l	0.73	0/1551	1.28	20/2099 (1.0%)
15	m	0.74	1/1551 (0.1%)	1.27	18/2099 (0.9%)
15	n	0.74	1/1551 (0.1%)	1.28	20/2099 (1.0%)
15	o	0.75	1/1551 (0.1%)	1.29	19/2099 (0.9%)
15	p	0.76	1/1551 (0.1%)	1.29	18/2099 (0.9%)
All	All	0.78	26/71806 (0.0%)	1.28	895/97118 (0.9%)

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
3	C	0	1
3	Q	0	1
9	I	0	1
9	W	0	1
13	M	0	1
13	a	0	2
14	N	0	1
14	b	0	1
All	All	0	9

All (26) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	g	32	THR	CA-CB	8.00	1.65	1.53
15	j	32	THR	CA-CB	7.50	1.64	1.53
15	c	32	THR	CA-CB	7.25	1.64	1.53
4	R	51	THR	CA-C	7.24	1.59	1.52
3	Q	52	VAL	CA-CB	7.15	1.64	1.54
15	k	32	THR	CA-CB	6.57	1.63	1.53
3	C	52	VAL	CA-CB	6.49	1.63	1.54
15	d	32	THR	CA-CB	6.44	1.63	1.53
15	e	32	THR	CA-CB	6.44	1.63	1.53
4	R	51	THR	CA-CB	6.39	1.64	1.54
4	D	6	ARG	CA-C	6.36	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	K	-1	MET	SD-CE	6.28	1.95	1.79
15	o	32	THR	CA-CB	6.28	1.62	1.53
15	i	32	THR	CA-CB	6.19	1.62	1.53
5	E	230	ILE	CA-CB	6.08	1.60	1.53
15	f	32	THR	CA-CB	6.06	1.62	1.53
15	p	32	THR	CA-CB	6.05	1.62	1.53
4	D	51	THR	CA-C	5.95	1.58	1.52
4	D	51	THR	CA-CB	5.87	1.63	1.54
3	Q	229	ILE	CA-CB	5.85	1.60	1.53
15	m	32	THR	CA-CB	5.75	1.62	1.53
12	L	97	MET	SD-CE	5.58	1.93	1.79
13	a	197	ILE	CA-CB	-5.52	1.47	1.54
1	O	191	ILE	CA-CB	5.32	1.61	1.54
3	Q	39	MET	SD-CE	-5.16	1.66	1.79
15	n	32	THR	CA-CB	5.10	1.61	1.53

All (895) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	R	8	LEU	N-CA-C	11.87	128.21	110.64
4	D	8	LEU	N-CA-C	11.82	128.14	110.64
15	j	144	ALA	N-CA-C	-11.02	98.14	112.24
15	g	144	ALA	N-CA-C	-10.87	98.32	112.24
15	e	144	ALA	N-CA-C	-10.65	98.61	112.24
15	o	144	ALA	N-CA-C	-10.65	98.61	112.24
15	d	144	ALA	N-CA-C	-10.58	98.70	112.24
8	H	189	TYR	CA-C-N	10.54	133.01	119.84
8	H	189	TYR	C-N-CA	10.54	133.01	119.84
15	p	144	ALA	N-CA-C	-10.43	98.89	112.24
15	i	144	ALA	N-CA-C	-10.37	98.96	112.24
5	E	136	ARG	N-CA-C	10.36	122.04	110.13
15	k	144	ALA	N-CA-C	-10.23	99.14	112.24
15	l	144	ALA	N-CA-C	-10.23	99.15	112.24
4	D	60	THR	CA-C-N	10.19	132.57	119.84
4	D	60	THR	C-N-CA	10.19	132.57	119.84
15	f	144	ALA	N-CA-C	-10.17	99.22	112.24
5	S	136	ARG	N-CA-C	10.16	121.81	110.13
15	c	144	ALA	N-CA-C	-10.12	99.28	112.24
15	m	144	ALA	N-CA-C	-10.12	99.28	112.24
4	R	151	GLU	CA-C-N	10.10	132.46	119.84
4	R	151	GLU	C-N-CA	10.10	132.46	119.84
15	n	144	ALA	N-CA-C	-10.07	99.35	112.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	h	144	ALA	N-CA-C	-10.03	99.40	112.24
8	V	189	TYR	CA-C-N	9.91	132.22	119.84
8	V	189	TYR	C-N-CA	9.91	132.22	119.84
4	R	60	THR	CA-C-N	9.89	132.21	119.84
4	R	60	THR	C-N-CA	9.89	132.21	119.84
10	J	148	ASN	N-CA-C	9.83	122.41	110.91
14	N	-2	THR	N-CA-C	9.79	124.37	108.41
4	D	151	GLU	CA-C-N	9.77	132.05	119.84
4	D	151	GLU	C-N-CA	9.77	132.05	119.84
14	b	-2	THR	N-CA-C	9.70	124.25	108.34
3	Q	170	SER	N-CA-C	-9.62	101.09	113.12
1	O	17	THR	N-CA-C	9.43	123.01	109.71
2	P	160	LYS	N-CA-C	-9.26	102.12	113.41
1	A	17	THR	N-CA-C	9.24	122.74	109.71
10	J	92	GLY	N-CA-C	-9.21	93.56	112.34
4	D	207	ALA	N-CA-C	-9.20	102.20	113.15
8	V	135	TYR	N-CA-C	-9.03	102.04	113.23
13	a	21	ILE	N-CA-C	9.01	121.96	108.80
4	R	124	GLY	N-CA-C	-8.97	100.57	112.14
4	D	127	ARG	CA-C-N	8.93	128.99	119.89
4	D	127	ARG	C-N-CA	8.93	128.99	119.89
10	X	92	GLY	N-CA-C	-8.92	94.13	112.34
4	D	124	GLY	N-CA-C	-8.86	100.72	112.14
2	B	160	LYS	N-CA-C	-8.86	102.61	113.41
15	l	57	ARG	N-CA-C	8.84	123.56	110.30
8	H	135	TYR	N-CA-C	-8.83	102.28	113.23
2	P	6	SER	N-CA-C	-8.79	102.70	112.72
4	R	133	THR	N-CA-C	8.79	122.85	109.23
13	M	21	ILE	N-CA-C	8.70	121.50	108.80
15	i	57	ARG	N-CA-C	8.66	123.29	110.30
13	M	98	VAL	N-CA-C	8.65	120.78	108.42
9	W	177	VAL	N-CA-C	8.63	120.55	108.12
15	n	57	ARG	N-CA-C	8.62	123.22	110.30
3	C	186	VAL	N-CA-C	8.61	119.40	110.36
10	J	144	LEU	N-CA-C	8.60	121.79	111.82
15	e	57	ARG	N-CA-C	8.58	123.17	110.30
15	g	57	ARG	N-CA-C	8.55	123.13	110.30
9	I	177	VAL	N-CA-C	8.55	120.43	108.12
14	N	202	LYS	N-CA-C	8.53	121.32	110.24
5	S	186	GLU	N-CA-C	-8.52	104.90	114.62
4	D	59	ILE	N-CA-C	8.52	124.07	113.00
4	R	207	ALA	N-CA-C	-8.51	103.03	113.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	170	SER	N-CA-C	-8.50	101.37	112.68
4	R	127	ARG	CA-C-N	8.48	128.54	119.89
4	R	127	ARG	C-N-CA	8.48	128.54	119.89
2	P	79	GLY	CA-C-N	8.45	128.95	119.32
2	P	79	GLY	C-N-CA	8.45	128.95	119.32
7	U	21	PHE	N-CA-C	8.45	120.49	111.28
15	j	57	ARG	N-CA-C	8.43	122.94	110.30
5	E	186	GLU	N-CA-C	-8.29	105.17	114.62
15	o	57	ARG	N-CA-C	8.27	122.70	110.30
7	G	21	PHE	N-CA-C	8.24	120.26	111.28
5	E	168	ASN	N-CA-C	-8.14	102.95	113.12
15	f	57	ARG	N-CA-C	8.13	122.49	110.30
15	k	57	ARG	N-CA-C	8.11	122.47	110.30
4	R	59	ILE	N-CA-C	8.04	124.01	113.07
12	Z	149	SER	N-CA-C	-8.00	98.62	110.23
13	a	165	TYR	N-CA-C	7.99	121.67	108.96
8	V	132	THR	N-CA-C	7.96	122.69	112.34
2	B	79	GLY	CA-C-N	7.93	128.36	119.32
2	B	79	GLY	C-N-CA	7.93	128.36	119.32
8	H	132	THR	N-CA-C	7.92	122.64	112.34
2	P	151	ASP	CA-C-N	7.91	127.62	119.56
2	P	151	ASP	C-N-CA	7.91	127.62	119.56
1	A	149	GLU	N-CA-C	-7.86	105.66	114.62
8	V	72	THR	CA-C-N	7.80	128.40	120.14
8	V	72	THR	C-N-CA	7.80	128.40	120.14
12	L	149	SER	N-CA-C	-7.77	98.96	110.23
14	b	202	LYS	N-CA-C	7.75	120.32	110.24
2	B	151	ASP	CA-C-N	7.73	127.44	119.56
2	B	151	ASP	C-N-CA	7.73	127.44	119.56
1	O	26	TYR	N-CA-C	7.71	121.78	112.38
7	U	129	ARG	CA-C-N	7.71	127.76	119.90
7	U	129	ARG	C-N-CA	7.71	127.76	119.90
1	O	48	LYS	N-CA-C	-7.67	105.08	114.75
13	M	165	TYR	N-CA-C	7.65	121.13	108.96
8	H	9	LYS	N-CA-C	7.62	120.48	111.71
14	b	115	GLY	N-CA-C	7.61	125.82	115.32
3	Q	231	LYS	CA-C-N	7.53	129.25	119.84
3	Q	231	LYS	C-N-CA	7.53	129.25	119.84
4	D	133	THR	N-CA-C	7.52	120.79	108.99
11	K	75	SER	N-CA-C	7.47	119.06	109.65
1	A	26	TYR	N-CA-C	7.46	121.48	112.38
12	L	45	MET	N-CA-C	7.42	119.57	107.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	b	28	PHE	N-CA-C	7.42	119.57	107.32
2	B	64	VAL	N-CA-C	-7.42	97.16	107.99
3	C	231	LYS	CA-C-N	7.42	129.11	119.84
3	C	231	LYS	C-N-CA	7.42	129.11	119.84
11	K	146	HIS	N-CA-C	7.41	121.58	112.54
6	T	179	PHE	N-CA-C	7.39	120.21	111.71
14	N	28	PHE	N-CA-C	7.38	119.50	107.32
14	N	115	GLY	N-CA-C	7.30	125.40	115.32
11	Y	171	MET	CA-C-N	7.29	126.55	118.97
11	Y	171	MET	C-N-CA	7.29	126.55	118.97
5	S	168	ASN	N-CA-C	-7.28	104.03	113.12
8	V	180	ALA	N-CA-C	-7.27	103.29	111.07
6	F	179	PHE	N-CA-C	7.26	120.06	111.71
9	W	98	LEU	N-CA-C	7.26	119.60	108.42
8	H	21	THR	N-CA-C	7.25	120.75	109.07
10	X	121	ILE	N-CA-C	7.25	119.32	108.23
13	a	98	VAL	N-CA-C	7.25	118.79	108.42
1	A	52	VAL	N-CA-C	7.21	118.72	108.42
10	J	27	VAL	N-CA-C	7.20	117.75	111.56
2	B	75	TYR	N-CA-C	7.17	118.97	108.86
1	O	149	GLU	N-CA-C	-7.17	106.45	114.62
6	T	145	LEU	N-CA-C	7.16	121.07	109.40
1	A	215	GLY	N-CA-C	-7.15	99.86	114.16
4	R	17	ILE	N-CA-C	-7.14	95.64	106.42
1	A	246	VAL	N-CA-C	-7.13	103.39	110.30
2	P	64	VAL	N-CA-C	-7.12	97.59	107.99
2	B	6	SER	N-CA-C	-7.12	103.90	112.59
7	U	9	LEU	N-CA-C	7.11	121.71	112.89
8	V	21	THR	N-CA-C	7.09	120.49	109.07
3	Q	75	VAL	N-CA-C	7.08	119.01	108.46
5	E	126	GLY	N-CA-C	-7.05	106.09	114.48
2	B	40	THR	N-CA-C	7.04	125.80	110.80
2	P	75	TYR	N-CA-C	7.04	118.78	108.86
4	R	126	VAL	CB-CA-C	-7.01	105.15	111.74
11	Y	146	HIS	N-CA-C	7.01	121.09	112.54
12	Z	45	MET	N-CA-C	7.01	118.88	107.32
10	X	-3	ILE	N-CA-C	7.00	117.61	110.82
7	G	9	LEU	N-CA-C	7.00	121.56	112.89
2	B	105	PRO	N-CA-C	6.99	119.23	110.70
8	V	163	ILE	N-CA-C	-6.98	104.05	110.82
8	H	180	ALA	N-CA-C	-6.98	103.67	111.28
2	B	114	VAL	N-CA-C	-6.97	103.67	110.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	53	THR	N-CA-C	6.97	125.66	110.80
10	X	144	LEU	N-CA-C	6.97	121.01	112.23
9	W	203	TYR	N-CA-C	6.95	121.36	113.02
8	V	9	LYS	N-CA-C	6.95	119.70	111.71
1	A	158	ASP	CA-C-N	6.93	126.90	119.28
1	A	158	ASP	C-N-CA	6.93	126.90	119.28
1	O	246	VAL	N-CA-C	-6.93	103.58	110.30
8	H	19	ARG	N-CA-C	6.92	119.76	109.59
7	G	129	ARG	CA-C-N	6.90	126.93	119.89
7	G	129	ARG	C-N-CA	6.90	126.93	119.89
14	N	29	ASN	N-CA-C	6.90	121.15	112.87
7	U	206	ASN	N-CA-C	-6.90	104.86	112.72
6	F	217	GLY	N-CA-C	6.89	121.18	111.19
12	Z	114	TYR	N-CA-C	-6.87	99.35	110.20
5	E	181	ALA	N-CA-C	-6.86	103.41	111.03
13	M	63	VAL	N-CA-C	-6.85	105.08	111.45
3	Q	53	THR	N-CA-C	6.83	125.35	110.80
5	S	12	VAL	N-CA-C	6.80	123.48	109.34
5	E	12	VAL	N-CA-C	6.79	123.46	109.34
2	P	40	THR	N-CA-C	6.79	125.27	110.80
8	V	19	ARG	N-CA-C	6.79	119.57	109.59
4	D	17	ILE	N-CA-C	-6.78	95.23	109.34
2	P	105	PRO	N-CA-C	6.78	118.97	110.70
1	O	85	GLY	CA-C-N	6.77	128.31	119.84
1	O	85	GLY	C-N-CA	6.77	128.31	119.84
13	M	23	ASP	CB-CA-C	-6.77	108.02	117.23
14	N	91	VAL	N-CA-C	6.77	116.92	110.42
6	F	103	LEU	N-CA-C	6.76	120.64	110.64
3	C	197	LEU	N-CA-C	6.75	118.63	111.28
7	G	206	ASN	N-CA-C	-6.74	105.04	112.72
6	T	103	LEU	N-CA-C	6.73	120.60	110.64
1	A	172	GLY	CA-C-N	6.72	126.67	119.28
1	A	172	GLY	C-N-CA	6.72	126.67	119.28
13	M	195	ILE	N-CA-C	6.72	117.58	108.17
3	C	7	ASP	N-CA-C	6.71	125.10	110.80
2	P	231	LYS	N-CA-C	6.71	122.56	113.97
1	A	248	ILE	N-CA-C	6.71	113.39	106.21
6	T	217	GLY	N-CA-C	6.70	120.91	111.19
15	j	22	PHE	N-CA-C	-6.70	103.98	111.28
14	b	29	ASN	N-CA-C	6.70	121.04	113.01
7	U	26	ALA	N-CA-C	-6.69	103.91	111.07
4	D	104	VAL	N-CA-C	6.69	123.26	109.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	I	37	ILE	N-CA-C	-6.69	104.33	110.82
3	Q	57	LEU	N-CA-C	6.69	119.31	108.41
1	O	239	GLU	N-CA-C	6.69	118.45	111.03
2	P	218	ASN	CA-C-N	6.67	128.18	119.84
2	P	218	ASN	C-N-CA	6.67	128.18	119.84
10	J	1	GLY	N-CA-C	6.66	121.11	112.18
4	R	104	VAL	N-CA-C	6.66	123.18	109.34
6	T	105	VAL	N-CA-C	6.65	117.40	110.62
15	l	56	GLY	N-CA-C	-6.65	97.43	113.18
11	K	171	MET	CA-C-N	6.64	126.42	119.05
11	K	171	MET	C-N-CA	6.64	126.42	119.05
13	M	17	ASP	N-CA-C	6.64	118.90	110.33
13	a	-7	ASN	CA-C-N	6.64	127.82	120.45
13	a	-7	ASN	C-N-CA	6.64	127.82	120.45
5	S	181	ALA	N-CA-C	-6.64	103.66	111.03
12	L	122	LEU	N-CA-C	6.63	119.27	108.26
9	I	203	TYR	N-CA-C	6.62	120.96	113.02
13	a	36	ASP	N-CA-C	-6.61	98.85	109.96
10	J	121	ILE	N-CA-C	6.61	118.34	108.23
2	B	12	PHE	N-CA-C	6.61	119.94	110.10
11	Y	75	SER	CA-C-N	6.60	128.09	119.84
11	Y	75	SER	C-N-CA	6.60	128.09	119.84
11	K	101	VAL	N-CA-C	6.59	118.65	108.44
13	a	173	LYS	N-CA-C	-6.58	104.04	111.14
15	i	63	SER	N-CA-C	6.57	124.34	109.81
1	O	172	GLY	CA-C-N	6.57	126.51	119.28
1	O	172	GLY	C-N-CA	6.57	126.51	119.28
14	b	106	ILE	N-CA-C	6.56	118.24	108.46
15	f	63	SER	N-CA-C	6.56	124.30	109.81
15	h	22	PHE	N-CA-C	-6.55	104.14	111.28
12	L	143	ASN	N-CA-C	6.54	121.00	112.89
12	L	114	TYR	N-CA-C	-6.54	99.87	110.20
1	A	48	LYS	N-CA-C	-6.54	106.52	114.75
1	O	52	VAL	N-CA-C	6.53	119.39	108.81
8	V	123	PRO	N-CA-C	-6.52	104.66	113.40
6	F	113	CYS	N-CA-C	-6.52	101.58	111.56
2	B	179	TRP	N-CA-C	6.50	119.49	108.90
11	K	182	ILE	N-CA-C	6.50	117.21	108.11
15	e	63	SER	N-CA-C	6.50	124.17	109.81
15	p	63	SER	N-CA-C	6.50	124.16	109.81
3	Q	7	ASP	N-CA-C	6.49	124.63	110.80
15	c	63	SER	N-CA-C	6.49	124.16	109.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	S	22	PHE	N-CA-C	6.49	118.35	111.28
15	m	63	SER	N-CA-C	6.49	124.15	109.81
7	G	180	ASP	N-CA-C	6.48	118.43	111.36
7	G	123	THR	N-CA-C	-6.48	104.79	114.64
15	o	63	SER	N-CA-C	6.48	124.14	109.81
13	M	51	ASP	N-CA-C	-6.48	104.14	111.07
15	g	63	SER	N-CA-C	6.47	124.12	109.81
3	C	118	ILE	N-CA-C	-6.46	104.73	111.58
1	O	158	ASP	CA-C-N	6.46	126.39	119.28
1	O	158	ASP	C-N-CA	6.46	126.39	119.28
13	M	90	GLY	N-CA-C	-6.45	104.84	112.64
10	X	24	SER	N-CA-C	6.44	118.84	111.11
3	C	57	LEU	N-CA-C	6.43	118.88	108.34
2	P	179	TRP	N-CA-C	6.42	119.37	108.90
12	Z	210	VAL	N-CA-C	6.41	117.31	108.84
15	d	63	SER	N-CA-C	6.41	123.97	109.81
15	k	56	GLY	N-CA-C	-6.41	98.00	113.18
7	U	13	VAL	N-CA-C	6.41	122.66	109.34
7	U	151	GLU	CA-C-N	6.41	126.90	119.47
7	U	151	GLU	C-N-CA	6.41	126.90	119.47
2	B	218	ASN	CA-C-N	6.40	127.84	119.84
2	B	218	ASN	C-N-CA	6.40	127.84	119.84
9	W	44	ALA	N-CA-C	-6.40	98.55	109.24
1	A	19	PHE	N-CA-C	6.39	124.41	110.80
1	A	32	PHE	N-CA-C	6.38	118.77	111.11
1	A	239	GLU	N-CA-C	6.38	118.11	111.03
8	H	154	PHE	N-CA-C	-6.38	103.45	111.11
9	I	98	LEU	N-CA-C	6.37	118.23	108.42
15	o	139	PRO	N-CA-C	-6.36	105.91	113.86
15	e	56	GLY	N-CA-C	-6.36	98.11	113.18
7	G	13	VAL	N-CA-C	6.36	122.56	109.34
9	I	23	GLY	N-CA-C	-6.36	99.37	112.34
15	i	56	GLY	N-CA-C	-6.35	98.12	113.18
5	S	126	GLY	N-CA-C	-6.34	106.93	114.48
6	F	105	VAL	N-CA-C	6.33	117.08	110.62
15	p	29	ALA	N-CA-C	-6.33	104.29	111.07
2	B	187	ASP	N-CA-C	-6.33	104.00	111.03
15	p	56	GLY	N-CA-C	-6.33	98.18	113.18
5	E	18	GLU	N-CA-C	-6.33	105.14	112.92
15	n	63	SER	N-CA-C	6.32	123.79	109.81
15	c	177	PRO	N-CA-C	-6.32	106.26	114.03
7	G	73	ILE	N-CA-C	6.32	116.97	107.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	U	62	LYS	N-CA-C	6.32	124.25	110.80
15	c	29	ALA	N-CA-C	-6.31	104.31	111.07
7	G	62	LYS	N-CA-C	6.31	124.24	110.80
3	C	222	ASP	N-CA-C	-6.30	105.24	113.12
8	H	123	PRO	N-CA-C	-6.30	104.95	113.40
7	U	73	ILE	N-CA-C	6.30	117.30	107.28
7	U	226	LEU	N-CA-C	6.30	119.05	110.35
4	R	51	THR	N-CA-C	6.30	121.31	112.93
15	i	29	ALA	N-CA-C	-6.30	104.33	111.07
6	T	113	CYS	N-CA-C	-6.29	101.94	111.56
15	d	223	ARG	N-CA-C	6.29	123.50	114.39
10	X	41	PHE	N-CA-C	6.28	119.70	109.59
14	N	153	ARG	N-CA-C	6.28	117.40	108.74
14	b	79	LEU	N-CA-C	6.27	119.91	110.64
14	b	153	ARG	N-CA-C	6.26	117.38	108.74
15	o	56	GLY	N-CA-C	-6.26	98.35	113.18
2	B	231	LYS	N-CA-C	6.25	121.97	113.97
8	V	154	PHE	N-CA-C	-6.25	103.61	111.11
13	a	94	PHE	N-CA-C	-6.24	96.02	109.81
7	G	106	ILE	N-CA-C	6.24	122.35	108.88
11	Y	182	ILE	N-CA-C	6.23	116.84	108.11
10	J	150	GLU	N-CA-C	-6.23	102.20	109.93
15	g	56	GLY	N-CA-C	-6.22	98.44	113.18
15	f	223	ARG	N-CA-C	6.22	123.40	114.39
10	J	41	PHE	N-CA-C	6.21	119.52	109.40
12	Z	38	ASN	CA-C-N	6.20	127.59	119.84
12	Z	38	ASN	C-N-CA	6.20	127.59	119.84
11	Y	67	SER	N-CA-C	6.20	118.84	111.71
13	M	36	ASP	N-CA-C	-6.20	99.55	109.96
2	P	227	ILE	CA-C-N	6.20	127.59	119.84
2	P	227	ILE	C-N-CA	6.20	127.59	119.84
4	D	132	SER	N-CA-C	-6.19	99.82	109.72
12	L	38	ASN	CA-C-N	6.18	127.57	119.84
12	L	38	ASN	C-N-CA	6.18	127.57	119.84
11	K	75	SER	CA-C-N	6.18	127.57	119.84
11	K	75	SER	C-N-CA	6.18	127.57	119.84
15	h	57	ARG	N-CA-C	6.17	123.95	110.80
11	Y	11	SER	N-CA-C	6.17	116.58	107.88
15	m	223	ARG	N-CA-C	6.17	123.33	114.39
12	Z	122	LEU	N-CA-C	6.17	118.49	108.26
15	h	63	SER	N-CA-C	6.17	123.43	109.81
15	l	63	SER	N-CA-C	6.16	123.43	109.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	n	56	GLY	N-CA-C	-6.16	98.58	113.18
2	P	114	VAL	N-CA-C	-6.15	104.51	110.72
15	j	63	SER	N-CA-C	6.15	123.41	109.81
13	a	195	ILE	N-CA-C	6.15	116.78	108.17
2	B	216	ASP	N-CA-C	6.15	118.52	109.24
4	D	53	LYS	N-CA-C	6.15	119.54	108.17
15	d	56	GLY	N-CA-C	-6.14	98.63	113.18
2	P	13	SER	N-CA-C	-6.13	101.29	110.24
15	c	223	ARG	N-CA-C	6.13	123.28	114.39
13	M	-7	ASN	CA-C-N	6.13	127.25	120.45
13	M	-7	ASN	C-N-CA	6.13	127.25	120.45
15	k	63	SER	N-CA-C	6.12	123.35	109.81
6	F	45	VAL	N-CA-C	6.12	117.51	108.45
9	W	146	LEU	N-CA-C	-6.11	100.06	109.52
14	b	80	GLU	N-CA-C	-6.10	102.41	110.40
3	C	54	SER	N-CA-C	-6.09	97.82	110.80
11	Y	75	SER	N-CA-C	6.09	117.32	109.65
2	B	148	TYR	N-CA-C	6.09	119.16	108.75
7	U	106	ILE	N-CA-C	6.09	122.03	108.88
6	F	14	SER	N-CA-C	-6.09	102.20	110.36
14	b	183	SER	N-CA-C	6.08	119.99	110.32
6	T	138	ASP	N-CA-C	6.08	113.77	108.78
1	A	169	THR	N-CA-C	6.08	117.81	109.18
15	h	56	GLY	N-CA-C	-6.07	98.79	113.18
3	Q	54	SER	N-CA-C	-6.06	97.88	110.80
14	b	62	LEU	N-CA-C	-6.06	104.02	112.45
14	N	32	GLU	N-CA-C	6.06	118.52	109.25
1	O	19	PHE	N-CA-C	6.06	123.71	110.80
9	W	97	TYR	N-CA-C	-6.06	100.32	109.95
7	G	134	SER	N-CA-C	-6.05	99.84	109.59
12	Z	108	GLU	N-CA-C	6.05	120.20	112.34
7	G	226	LEU	N-CA-C	6.05	118.69	110.35
15	e	22	PHE	N-CA-C	-6.05	104.02	111.33
10	X	1	GLY	N-CA-C	6.04	119.79	112.48
2	B	181	ASP	N-CA-C	6.04	120.51	113.20
14	N	157	ILE	CB-CA-C	-6.04	107.96	113.70
12	Z	143	ASN	N-CA-C	6.04	119.91	112.54
13	a	126	GLN	N-CA-C	-6.04	105.21	113.30
10	X	181	ILE	N-CA-C	6.04	117.14	107.73
6	F	145	LEU	N-CA-C	6.03	119.37	109.72
5	S	159	GLU	CA-C-N	6.03	127.37	119.84
5	S	159	GLU	C-N-CA	6.03	127.37	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	j	56	GLY	N-CA-C	-6.03	98.90	113.18
15	k	22	PHE	N-CA-C	-6.02	104.78	111.71
15	e	139	PRO	N-CA-C	-6.02	106.34	113.86
14	N	79	LEU	N-CA-C	6.01	119.54	110.64
2	P	24	ALA	N-CA-C	-6.01	104.81	111.36
14	b	2	SER	N-CA-C	6.01	119.30	110.59
14	b	157	ILE	CB-CA-C	-6.01	107.99	113.70
12	L	210	VAL	N-CA-C	6.00	116.76	108.84
5	E	22	PHE	N-CA-C	6.00	117.82	111.28
11	K	21	THR	N-CA-C	6.00	119.17	109.40
15	n	63	SER	CA-C-N	6.00	126.94	119.98
15	n	63	SER	C-N-CA	6.00	126.94	119.98
4	D	71	VAL	N-CA-C	5.99	117.31	108.45
15	m	22	PHE	N-CA-C	-5.97	104.11	111.33
15	j	223	ARG	N-CA-C	5.96	123.04	114.39
13	a	51	ASP	N-CA-C	-5.96	104.78	111.28
8	V	37	VAL	N-CA-C	-5.95	107.08	111.90
11	Y	19	ALA	N-CA-C	5.95	118.89	110.50
5	E	159	GLU	CA-C-N	5.95	127.28	119.84
5	E	159	GLU	C-N-CA	5.95	127.28	119.84
9	I	25	ILE	N-CA-C	5.95	117.57	108.71
15	k	65	GLU	N-CA-C	5.95	117.84	111.36
15	l	29	ALA	N-CA-C	-5.95	104.71	111.07
8	H	158	SER	N-CA-C	-5.94	104.49	110.97
1	A	85	GLY	CA-C-N	5.94	127.26	119.84
1	A	85	GLY	C-N-CA	5.94	127.26	119.84
14	N	183	SER	N-CA-C	5.94	119.76	110.32
2	P	221	LEU	N-CA-C	5.94	119.35	111.75
13	M	126	GLN	N-CA-C	-5.93	105.35	113.30
2	P	148	TYR	N-CA-C	5.93	119.14	109.06
15	m	56	GLY	N-CA-C	-5.93	99.14	113.18
4	R	71	VAL	N-CA-C	5.92	117.28	108.46
7	U	123	THR	N-CA-C	-5.92	105.64	114.64
4	R	53	LYS	N-CA-C	5.92	119.11	108.17
8	V	97	ILE	N-CA-C	5.92	121.64	109.34
3	Q	197	LEU	N-CA-C	5.91	117.73	111.28
7	U	101	LEU	N-CA-C	5.91	117.59	111.03
15	f	29	ALA	N-CA-C	-5.91	104.75	111.07
13	a	63	VAL	CB-CA-C	-5.91	104.30	112.04
13	a	144	GLN	N-CA-C	5.90	117.38	111.07
13	a	161	LYS	CA-C-N	5.90	125.83	119.76
13	a	161	LYS	C-N-CA	5.90	125.83	119.76

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	g	22	PHE	N-CA-C	-5.90	104.19	111.33
14	N	104	ASN	N-CA-C	5.90	118.37	109.23
15	i	131	SER	N-CA-C	-5.90	103.55	112.04
4	R	132	SER	N-CA-C	-5.89	100.29	109.72
10	J	30	LYS	N-CA-C	-5.89	104.96	113.21
4	D	9	SER	N-CA-C	-5.89	98.26	110.80
11	Y	112	LYS	CA-C-N	5.89	126.78	120.13
11	Y	112	LYS	C-N-CA	5.89	126.78	120.13
15	n	223	ARG	N-CA-C	5.89	122.93	114.39
2	P	187	ASP	N-CA-C	-5.88	104.56	110.97
7	U	134	SER	N-CA-C	-5.88	100.12	109.59
14	N	106	ILE	N-CA-C	5.88	117.22	108.46
1	A	207	ILE	N-CA-C	-5.88	104.19	110.36
3	Q	222	ASP	N-CA-C	-5.88	105.77	113.12
10	J	171	LEU	N-CA-C	5.87	119.42	112.72
15	h	223	ARG	N-CA-C	5.87	122.90	114.39
15	j	177	PRO	N-CA-C	-5.87	106.81	114.03
15	f	139	PRO	N-CA-C	-5.87	106.53	113.86
6	T	45	VAL	N-CA-C	5.86	117.12	108.45
15	e	65	GLU	N-CA-C	5.86	117.74	111.36
4	R	9	SER	N-CA-C	-5.85	98.34	110.80
13	M	173	LYS	N-CA-C	-5.84	104.83	111.14
9	I	146	LEU	N-CA-C	-5.84	100.63	109.85
2	P	72	GLY	N-CA-C	-5.83	102.62	111.14
11	K	43	MET	N-CA-C	5.83	117.94	108.26
15	c	96	ILE	CA-C-N	5.83	125.81	120.21
15	c	96	ILE	C-N-CA	5.83	125.81	120.21
2	B	39	ALA	N-CA-C	5.83	116.93	107.32
12	L	21	THR	N-CA-C	5.82	117.54	107.93
1	A	108	TYR	N-CA-C	5.82	123.08	113.89
2	B	87	ASP	N-CA-C	5.82	118.37	111.33
2	P	44	VAL	N-CA-C	5.81	116.48	108.12
11	K	67	SER	N-CA-C	5.80	119.45	112.38
6	T	14	SER	N-CA-C	-5.80	102.59	110.36
10	J	61	LYS	N-CA-C	5.79	117.60	111.28
15	h	65	GLU	N-CA-C	5.79	117.67	111.36
8	V	185	ARG	N-CA-C	5.79	118.18	107.99
15	j	140	ILE	N-CA-C	-5.79	105.45	111.58
15	o	177	PRO	N-CA-C	-5.79	106.91	114.03
10	X	27	VAL	N-CA-C	5.78	116.53	111.56
15	p	223	ARG	N-CA-C	5.78	122.77	114.39
15	e	63	SER	CA-C-N	5.77	126.67	119.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	e	63	SER	C-N-CA	5.77	126.67	119.98
8	V	186	LEU	N-CA-C	5.77	117.97	110.53
4	R	210	ILE	N-CA-C	5.77	116.17	107.75
15	c	56	GLY	N-CA-C	-5.77	99.51	113.18
15	f	177	PRO	N-CA-C	-5.76	106.94	114.03
13	M	161	LYS	CA-C-N	5.76	125.69	119.76
13	M	161	LYS	C-N-CA	5.76	125.69	119.76
2	P	216	ASP	N-CA-C	5.76	117.94	109.24
13	a	142	ASP	N-CA-C	-5.76	104.00	111.02
15	f	56	GLY	N-CA-C	-5.76	99.53	113.18
11	K	99	VAL	CB-CA-C	-5.76	100.65	111.30
2	P	12	PHE	N-CA-C	5.75	118.93	110.30
6	T	226	ASP	N-CA-C	5.75	118.33	109.07
15	j	139	PRO	N-CA-C	-5.75	106.67	113.86
1	O	223	LEU	N-CA-C	5.75	118.61	109.81
7	U	180	ASP	N-CA-C	5.75	117.62	111.36
2	P	101	TYR	N-CA-C	5.75	121.32	113.97
4	D	54	LEU	N-CA-C	-5.74	98.39	109.24
11	Y	43	MET	N-CA-C	5.74	117.79	108.26
15	n	177	PRO	N-CA-C	-5.74	106.97	114.03
15	f	49	VAL	N-CA-C	5.74	118.26	111.09
2	P	132	VAL	N-CA-C	5.73	115.92	108.35
1	O	67	THR	N-CA-C	-5.73	104.94	111.07
15	c	57	ARG	N-CA-C	5.73	123.01	110.80
15	g	177	PRO	N-CA-C	-5.73	106.98	114.03
11	Y	21	THR	N-CA-C	5.72	118.73	109.40
15	p	49	VAL	N-CA-C	5.72	118.24	111.09
5	E	130	GLU	N-CA-C	5.72	118.05	108.96
10	J	24	SER	N-CA-C	5.72	117.97	111.11
10	J	181	ILE	N-CA-C	5.71	116.02	107.51
13	M	117	ASP	N-CA-CB	-5.71	102.12	109.55
15	c	49	VAL	N-CA-C	5.71	118.23	111.09
15	e	223	ARG	N-CA-C	5.71	122.67	114.39
1	A	223	LEU	N-CA-C	5.71	117.91	109.69
13	M	63	VAL	CB-CA-C	-5.71	104.44	111.92
15	l	37	GLU	N-CA-C	-5.71	105.06	111.28
15	g	139	PRO	N-CA-C	-5.70	106.73	113.86
5	E	112	LEU	N-CA-C	-5.70	103.89	111.24
8	H	163	ILE	N-CA-C	-5.70	105.29	110.82
14	N	2	SER	N-CA-C	5.70	118.85	110.59
15	e	117	ILE	N-CA-C	-5.70	104.95	110.42
4	R	54	LEU	N-CA-C	-5.69	98.48	109.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	o	223	ARG	N-CA-C	5.69	122.64	114.39
2	B	221	LEU	N-CA-C	5.69	119.03	111.75
6	F	3	ARG	N-CA-C	5.69	118.84	109.85
10	X	47	LEU	N-CA-C	5.69	117.34	109.15
5	E	156	PHE	N-CA-C	5.68	118.33	109.52
7	G	26	ALA	N-CA-C	-5.68	104.99	111.07
15	l	22	PHE	N-CA-C	-5.68	104.46	111.33
3	C	8	SER	N-CA-C	5.68	122.89	110.80
15	g	49	VAL	N-CA-C	5.68	118.19	111.09
15	e	177	PRO	N-CA-C	-5.67	107.05	114.03
15	k	177	PRO	N-CA-C	-5.67	107.05	114.03
5	S	142	LEU	N-CA-C	5.67	118.45	109.50
15	g	223	ARG	N-CA-C	5.66	122.60	114.39
15	d	57	ARG	N-CA-C	5.66	122.85	110.80
3	C	75	VAL	N-CA-C	5.66	117.97	108.81
15	c	101	GLU	N-CA-C	5.66	118.96	112.57
2	B	227	ILE	CA-C-N	5.65	126.91	119.84
2	B	227	ILE	C-N-CA	5.65	126.91	119.84
9	W	25	ILE	N-CA-C	5.64	117.72	108.97
9	I	97	TYR	N-CA-C	-5.64	100.69	109.72
6	T	94	TYR	N-CA-C	-5.64	104.82	110.97
15	m	131	SER	N-CA-C	-5.64	103.92	112.04
15	j	49	VAL	N-CA-C	5.64	118.14	111.09
11	K	169	LYS	N-CA-C	5.64	118.15	111.33
15	i	139	PRO	N-CA-C	-5.63	106.19	113.57
15	o	17	THR	N-CA-C	-5.63	105.67	112.54
2	B	185	LEU	N-CA-C	5.63	117.89	111.02
15	h	37	GLU	N-CA-C	-5.63	105.15	111.28
8	H	120	HIS	N-CA-C	5.62	118.61	108.48
4	R	117	GLN	N-CA-C	-5.62	105.25	111.71
15	h	177	PRO	N-CA-C	-5.62	107.12	114.03
4	R	226	SER	N-CA-C	5.62	117.08	111.07
6	T	211	LEU	N-CA-C	5.61	118.79	110.48
8	H	185	ARG	N-CA-C	5.61	117.86	107.99
2	P	181	ASP	N-CA-C	5.61	119.99	113.20
15	c	22	PHE	N-CA-C	-5.61	104.54	111.33
15	c	17	THR	N-CA-C	-5.61	105.70	112.54
15	j	29	ALA	N-CA-C	-5.61	105.07	111.07
15	l	223	ARG	N-CA-C	5.61	122.52	114.39
10	J	187	VAL	N-CA-C	5.60	115.92	107.75
10	J	109	LYS	CA-C-N	5.60	125.55	119.78
10	J	109	LYS	C-N-CA	5.60	125.55	119.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	M	94	PHE	N-CA-C	-5.59	97.45	109.81
11	K	178	VAL	N-CA-C	5.59	116.41	108.42
13	M	175	VAL	N-CA-C	5.59	116.23	110.36
15	m	49	VAL	N-CA-C	5.59	118.07	111.09
2	B	44	VAL	N-CA-C	5.58	116.15	108.12
15	i	223	ARG	N-CA-C	5.58	122.48	114.39
9	I	158	ALA	N-CA-C	-5.57	104.02	112.04
13	a	117	ASP	N-CA-C	-5.57	101.93	110.07
15	o	49	VAL	N-CA-C	5.57	118.05	111.09
2	P	63	LYS	N-CA-C	-5.57	107.03	113.88
4	R	32	CYS	N-CA-C	5.57	118.52	109.06
14	b	32	GLU	N-CA-C	5.57	117.77	109.59
15	p	57	ARG	N-CA-C	5.56	122.65	110.80
15	f	131	SER	N-CA-C	-5.56	104.03	112.04
15	m	29	ALA	N-CA-C	-5.56	105.12	111.07
5	S	156	PHE	N-CA-C	5.56	118.14	109.52
5	S	130	GLU	N-CA-C	5.55	117.79	108.96
8	V	158	SER	N-CA-C	-5.55	104.92	110.97
11	Y	101	VAL	N-CA-C	5.55	117.05	108.44
2	B	223	GLY	N-CA-C	-5.55	107.38	114.37
15	d	177	PRO	N-CA-C	-5.55	107.20	114.03
15	k	223	ARG	N-CA-C	5.55	122.44	114.39
15	p	17	THR	N-CA-C	-5.54	105.78	112.54
5	S	36	THR	N-CA-C	5.54	118.26	110.23
4	D	32	CYS	N-CA-C	5.53	118.47	109.06
1	O	215	GLY	N-CA-C	-5.53	100.06	113.18
11	Y	99	VAL	CB-CA-C	-5.53	101.07	111.30
6	F	98	VAL	N-CA-C	5.53	115.66	110.30
15	l	177	PRO	N-CA-C	-5.53	107.23	114.03
13	M	191	ASP	N-CA-C	5.52	122.56	110.80
7	G	215	ILE	N-CA-C	5.52	116.62	108.45
10	J	164	ASN	N-CA-C	5.52	118.48	111.69
6	T	133	LEU	N-CA-C	-5.52	100.19	109.07
4	D	51	THR	N-CA-C	5.51	120.27	112.93
10	X	171	LEU	N-CA-C	5.51	119.01	112.72
6	F	211	LEU	N-CA-C	5.51	119.08	110.32
1	O	108	TYR	N-CA-C	5.51	122.60	113.89
15	d	17	THR	N-CA-C	-5.51	105.81	112.54
4	D	63	LYS	N-CA-C	5.51	122.53	110.80
5	S	112	LEU	N-CA-C	-5.51	104.92	111.03
7	U	150	LEU	N-CA-C	5.51	118.61	109.46
15	e	49	VAL	N-CA-C	5.51	117.98	111.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	G	150	LEU	N-CA-C	5.50	118.60	109.46
6	F	133	LEU	N-CA-C	-5.50	100.21	109.07
7	U	207	LYS	N-CA-C	5.50	117.99	111.33
3	Q	230	PHE	N-CA-C	5.50	118.30	110.10
15	l	139	PRO	N-CA-C	-5.50	106.99	113.86
9	I	44	ALA	N-CA-C	-5.49	99.48	108.76
15	n	139	PRO	N-CA-C	-5.49	107.00	113.86
9	W	49	ALA	N-CA-C	5.49	120.37	111.37
14	b	104	ASN	N-CA-C	5.49	117.73	109.23
15	p	139	PRO	N-CA-C	-5.49	107.00	113.86
12	L	134	THR	N-CA-C	5.49	117.26	111.28
15	c	131	SER	N-CA-C	-5.48	104.14	112.04
15	h	49	VAL	N-CA-C	5.48	117.94	111.09
8	H	72	THR	CA-C-N	5.48	127.41	120.51
8	H	72	THR	C-N-CA	5.48	127.41	120.51
15	m	101	GLU	N-CA-C	5.48	118.76	112.57
10	J	48	ALA	N-CA-C	5.48	122.46	110.80
15	c	65	GLU	N-CA-C	5.47	117.33	111.36
3	C	106	ILE	N-CA-C	5.47	114.31	108.95
3	C	45	VAL	N-CA-C	5.47	115.76	108.11
12	L	145	LYS	N-CA-C	-5.46	100.43	108.79
11	Y	2	ILE	N-CA-C	5.46	115.72	107.80
7	U	52	LEU	N-CA-C	5.46	117.91	107.75
6	T	98	VAL	N-CA-C	5.46	115.60	110.30
15	i	177	PRO	N-CA-C	-5.46	107.31	114.03
9	I	164	TRP	N-CA-C	5.46	119.90	112.04
15	g	140	ILE	N-CA-C	-5.46	105.79	111.58
4	D	226	SER	N-CA-C	5.46	116.91	111.07
12	L	108	GLU	N-CA-C	5.46	119.43	112.34
13	M	144	GLN	N-CA-C	5.46	116.91	111.07
15	j	65	GLU	N-CA-C	5.46	117.31	111.36
15	f	22	PHE	N-CA-C	-5.46	104.77	111.75
15	k	140	ILE	N-CA-C	-5.45	105.80	111.58
4	D	39	LYS	N-CA-C	-5.45	104.19	111.87
1	O	32	PHE	N-CA-C	5.45	117.67	111.02
1	O	176	GLN	N-CA-C	5.45	119.43	112.34
2	P	232	GLY	N-CA-C	5.45	123.46	112.34
15	d	139	PRO	N-CA-C	-5.45	107.05	113.86
5	E	142	LEU	N-CA-C	5.45	118.11	109.50
11	K	19	ALA	N-CA-C	5.45	118.54	110.48
10	X	67	LEU	N-CA-C	5.45	117.02	111.14
9	W	218	VAL	N-CA-C	5.44	120.66	109.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	Y	195	GLN	N-CA-C	-5.44	105.44	112.68
4	D	210	ILE	N-CA-C	5.44	115.69	107.75
15	h	139	PRO	N-CA-C	-5.44	107.06	113.86
2	P	71	ILE	N-CA-C	5.44	116.11	108.17
3	C	135	PHE	N-CA-C	5.43	118.31	109.24
15	o	63	SER	CA-C-N	5.43	126.28	119.98
15	o	63	SER	C-N-CA	5.43	126.28	119.98
2	B	71	ILE	N-CA-C	5.43	116.09	108.17
2	B	88	LYS	N-CA-C	-5.43	105.44	111.36
15	n	143	TYR	N-CA-C	-5.43	102.86	110.35
11	K	24	ILE	N-CA-C	5.42	116.58	111.48
15	i	17	THR	N-CA-C	-5.42	105.92	112.54
15	n	55	TYR	N-CA-C	5.42	118.59	107.37
3	Q	106	ILE	N-CA-C	5.42	114.26	108.95
3	Q	129	ARG	CA-C-N	5.42	125.72	119.92
3	Q	129	ARG	C-N-CA	5.42	125.72	119.92
15	k	117	ILE	CB-CA-C	-5.42	105.04	111.97
15	p	131	SER	N-CA-C	-5.42	104.24	112.04
10	X	187	VAL	N-CA-C	5.41	115.65	107.75
4	R	168	SER	N-CA-C	-5.41	105.47	111.36
11	Y	169	LYS	N-CA-C	5.41	117.87	111.33
1	O	169	THR	N-CA-C	5.41	116.86	109.18
12	Z	58	TRP	N-CA-C	-5.40	105.39	111.28
8	H	142	PHE	N-CA-C	5.40	117.47	108.02
15	n	65	GLU	N-CA-C	5.40	117.24	111.36
15	p	92	ILE	N-CA-C	5.39	116.05	110.82
3	Q	203	SER	N-CA-C	-5.39	102.50	110.48
15	m	17	THR	N-CA-C	-5.39	105.96	112.54
15	m	57	ARG	N-CA-C	5.39	122.28	110.80
5	E	16	SER	CA-C-N	-5.39	114.26	119.87
5	E	16	SER	C-N-CA	-5.39	114.26	119.87
15	d	29	ALA	N-CA-C	-5.39	105.30	111.07
15	d	37	GLU	N-CA-C	-5.39	105.41	111.28
15	i	22	PHE	N-CA-C	-5.38	104.86	111.75
15	p	22	PHE	N-CA-C	-5.38	104.86	111.75
7	U	75	CYS	N-CA-C	5.38	117.14	108.32
12	Z	153	ALA	N-CA-C	-5.38	105.42	111.28
15	k	63	SER	CA-C-N	5.38	126.22	119.98
15	k	63	SER	C-N-CA	5.38	126.22	119.98
15	o	65	GLU	N-CA-C	5.38	117.22	111.36
2	B	24	ALA	N-CA-C	-5.37	105.08	111.69
11	K	2	ILE	N-CA-C	5.37	115.59	107.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	N	142	MET	N-CA-C	5.37	119.83	113.12
12	L	29	GLN	N-CA-C	-5.37	105.56	113.61
4	D	215	VAL	N-CA-C	5.36	115.84	108.12
9	W	23	GLY	N-CA-C	-5.36	101.41	112.34
15	m	139	PRO	N-CA-C	-5.36	107.16	113.86
13	a	191	ASP	N-CA-C	5.36	122.21	110.80
13	a	175	VAL	N-CA-C	5.36	115.98	110.36
6	F	11	VAL	N-CA-C	5.35	120.35	113.07
8	H	6	VAL	N-CA-C	5.35	115.60	108.11
10	J	-3	ILE	N-CA-C	5.35	116.01	110.82
15	n	117	ILE	N-CA-C	-5.35	105.29	110.42
2	B	142	PHE	N-CA-C	5.35	119.93	113.41
15	o	96	ILE	CA-C-N	5.34	126.09	120.11
15	o	96	ILE	C-N-CA	5.34	126.09	120.11
8	H	97	ILE	N-CA-C	5.34	120.45	109.34
15	p	117	ILE	CB-CA-C	-5.34	105.14	111.97
4	R	39	LYS	N-CA-C	-5.34	104.34	111.87
6	T	140	SER	N-CA-C	-5.34	106.54	112.57
1	O	194	ILE	N-CA-C	5.33	115.46	107.51
10	X	48	ALA	N-CA-C	5.33	122.16	110.80
11	Y	99	VAL	N-CA-C	5.33	115.39	108.35
15	h	63	SER	CA-C-N	5.33	126.16	119.98
15	h	63	SER	C-N-CA	5.33	126.16	119.98
15	m	63	SER	CA-C-N	5.33	126.17	119.98
15	m	63	SER	C-N-CA	5.33	126.17	119.98
2	P	185	LEU	N-CA-C	5.33	117.52	111.02
2	B	63	LYS	N-CA-C	-5.33	106.84	113.55
9	W	86	HIS	N-CA-C	-5.33	104.90	111.40
3	Q	45	VAL	N-CA-C	5.32	115.56	108.11
15	i	63	SER	CA-C-N	5.32	126.15	119.98
15	i	63	SER	C-N-CA	5.32	126.15	119.98
2	B	78	MET	N-CA-C	5.32	117.14	108.63
9	I	78	SER	N-CA-C	-5.32	105.17	110.97
9	I	218	VAL	N-CA-C	5.32	120.40	109.34
15	l	63	SER	CA-C-N	5.32	126.14	119.98
15	l	63	SER	C-N-CA	5.32	126.14	119.98
2	B	104	TYR	CA-C-N	5.31	125.85	120.38
2	B	104	TYR	C-N-CA	5.31	125.85	120.38
4	R	61	PRO	N-CA-C	5.31	123.42	112.47
10	X	30	LYS	N-CA-C	-5.31	105.77	113.21
15	l	65	GLU	N-CA-C	5.31	117.15	111.36
6	F	140	SER	N-CA-C	-5.31	106.57	112.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	I	170	GLY	N-CA-C	5.31	117.75	110.69
4	D	117	GLN	N-CA-C	-5.31	105.61	111.71
11	K	128	PRO	N-CA-C	-5.30	106.81	114.18
15	f	117	ILE	N-CA-C	-5.30	105.33	110.42
5	S	8	TYR	N-CA-C	-5.30	103.03	110.50
8	V	75	THR	N-CA-C	-5.30	105.95	112.90
11	Y	24	ILE	N-CA-C	5.29	116.46	111.48
2	P	142	PHE	N-CA-C	5.29	119.86	113.41
3	Q	213	PHE	N-CA-C	5.29	117.23	109.24
14	N	187	PHE	N-CA-C	5.29	115.52	108.38
15	e	29	ALA	N-CA-C	-5.29	105.41	111.07
3	C	203	SER	N-CA-C	-5.29	102.66	110.48
8	H	186	LEU	N-CA-C	5.29	117.35	110.53
9	W	164	TRP	N-CA-C	5.28	119.65	112.04
15	f	63	SER	CA-C-N	5.28	126.11	119.98
15	f	63	SER	C-N-CA	5.28	126.11	119.98
15	m	117	ILE	N-CA-C	-5.28	105.35	110.42
3	Q	225	VAL	N-CA-C	5.28	116.58	108.71
6	T	70	MET	N-CA-C	5.28	117.28	108.99
13	a	117	ASP	N-CA-CB	-5.28	102.69	109.55
6	F	73	SER	N-CA-C	-5.27	101.74	109.81
9	I	180	ILE	N-CA-C	5.27	120.31	109.34
11	K	59	ILE	N-CA-C	-5.27	105.36	110.42
3	C	98	TYR	N-CA-C	-5.27	105.43	111.07
7	G	52	LEU	N-CA-C	5.27	118.00	107.62
8	V	142	PHE	N-CA-C	5.27	117.24	108.02
2	P	78	MET	N-CA-C	5.27	117.06	108.63
4	R	78	LEU	N-CA-C	5.27	116.83	108.67
15	k	55	TYR	N-CA-C	5.27	118.27	107.37
10	J	10	ASP	N-CA-C	5.26	119.65	113.23
11	K	53	VAL	N-CA-C	5.26	118.43	111.17
11	K	11	SER	N-CA-C	5.25	115.29	107.88
15	l	131	SER	N-CA-C	-5.25	104.47	112.04
15	m	177	PRO	N-CA-C	-5.25	107.57	114.03
9	I	49	ALA	N-CA-C	5.25	119.98	111.37
15	h	17	THR	N-CA-C	-5.25	106.13	112.54
15	h	29	ALA	N-CA-C	-5.25	105.45	111.07
4	D	191	CYS	N-CA-C	-5.25	105.67	111.71
4	D	144	GLU	CA-C-N	5.25	125.50	119.83
4	D	144	GLU	C-N-CA	5.25	125.50	119.83
2	P	39	ALA	N-CA-C	5.24	118.22	107.37
15	e	131	SER	N-CA-C	-5.24	104.49	112.04

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	S	226	ASP	N-CA-C	5.24	119.94	113.50
15	d	92	ILE	N-CA-C	5.24	115.90	110.82
15	c	139	PRO	N-CA-C	-5.24	106.71	113.57
15	d	55	TYR	N-CA-C	5.24	118.21	107.37
6	F	226	ASP	N-CA-C	5.24	117.50	109.07
1	O	190	LYS	N-CA-C	5.24	121.95	110.80
5	S	233	ASN	N-CA-C	5.23	119.15	112.87
2	B	13	SER	N-CA-C	-5.22	102.62	110.24
15	d	131	SER	N-CA-C	-5.22	104.52	112.04
1	A	87	ILE	N-CA-C	5.22	120.15	108.88
15	f	117	ILE	CB-CA-C	-5.22	105.29	111.97
10	X	150	GLU	N-CA-C	-5.21	103.47	109.93
15	i	55	TYR	N-CA-C	5.21	118.16	107.37
1	O	167	LYS	N-CA-C	-5.21	106.88	113.18
10	X	105	SER	N-CA-C	5.21	119.39	113.19
15	f	101	GLU	N-CA-C	5.21	118.46	112.57
15	l	55	TYR	N-CA-C	5.21	118.16	107.37
6	F	10	THR	N-CA-C	-5.21	106.03	112.38
10	J	100	VAL	CB-CA-C	-5.21	102.57	110.95
15	g	63	SER	CA-C-N	5.21	126.02	119.98
15	g	63	SER	C-N-CA	5.21	126.02	119.98
3	C	230	PHE	N-CA-C	5.21	117.77	109.96
15	h	132	GLY	N-CA-C	-5.21	108.85	115.31
6	T	3	ARG	N-CA-C	5.21	117.32	109.41
15	n	49	VAL	N-CA-C	5.21	117.60	111.09
3	Q	135	PHE	N-CA-C	5.20	117.93	109.24
11	Y	153	THR	N-CA-C	-5.20	105.52	111.14
11	K	195	GLN	N-CA-C	-5.20	105.76	112.68
14	b	142	MET	N-CA-C	5.20	119.62	113.12
1	O	35	THR	N-CA-C	-5.20	105.50	111.07
5	E	36	THR	N-CA-C	5.20	117.97	110.28
7	U	215	ILE	N-CA-C	5.20	116.14	108.45
4	D	12	SER	N-CA-C	-5.20	102.48	110.07
12	Z	21	THR	N-CA-C	5.20	116.84	108.32
15	o	55	TYR	N-CA-C	5.19	118.12	107.37
9	W	158	ALA	N-CA-C	-5.19	104.57	112.04
15	e	55	TYR	N-CA-C	5.19	118.11	107.37
15	g	65	GLU	N-CA-C	5.19	117.01	111.36
8	V	189	TYR	N-CA-C	5.18	115.56	109.60
15	e	96	ILE	CA-C-N	5.18	125.92	120.11
15	e	96	ILE	C-N-CA	5.18	125.92	120.11
10	X	148	ASN	N-CA-C	5.18	121.82	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	o	143	TYR	N-CA-C	-5.17	103.21	110.35
14	N	171	ASN	N-CA-C	-5.17	105.64	111.28
15	k	29	ALA	N-CA-C	-5.17	105.54	111.07
15	f	55	TYR	N-CA-C	5.17	118.06	107.37
14	b	171	ASN	N-CA-C	-5.17	105.65	111.28
15	o	92	ILE	N-CA-C	5.16	115.83	110.82
1	A	176	GLN	N-CA-C	5.16	119.05	112.34
12	Z	54	PHE	N-CA-C	5.16	116.59	110.97
15	i	117	ILE	CB-CA-C	-5.16	105.37	111.97
12	Z	19	ARG	N-CA-C	5.15	117.01	108.20
7	G	151	GLU	CA-C-N	5.15	125.44	119.47
7	G	151	GLU	C-N-CA	5.15	125.44	119.47
3	C	181	LYS	N-CA-C	-5.15	100.85	109.24
7	G	39	ILE	N-CA-C	5.15	115.69	108.17
15	p	177	PRO	N-CA-C	-5.15	107.70	114.03
1	O	112	MET	CA-C-N	5.15	125.15	120.21
1	O	112	MET	C-N-CA	5.15	125.15	120.21
15	d	22	PHE	N-CA-C	-5.14	105.17	111.75
2	P	223	GLY	N-CA-C	-5.14	107.44	114.64
4	D	113	VAL	CB-CA-C	-5.13	105.31	111.88
10	X	61	LYS	N-CA-C	5.13	116.87	111.28
15	o	131	SER	N-CA-C	-5.13	104.66	112.04
1	A	167	LYS	N-CA-C	-5.12	106.98	113.18
12	L	57	THR	N-CA-C	-5.12	105.39	111.69
1	A	35	THR	N-CA-C	-5.12	105.59	111.07
14	N	62	LEU	N-CA-C	-5.12	105.33	112.45
15	k	117	ILE	N-CA-C	-5.12	105.51	110.42
4	D	11	PHE	N-CA-C	5.11	117.82	109.59
7	U	39	ILE	N-CA-C	5.11	115.64	108.17
14	N	69	ASP	N-CA-C	5.11	117.41	111.02
2	B	26	THR	N-CA-C	-5.11	106.73	113.12
15	n	131	SER	N-CA-C	-5.11	104.69	112.04
4	D	76	SER	N-CA-C	-5.11	100.75	108.46
4	R	63	LYS	N-CA-C	5.11	121.67	110.80
15	k	49	VAL	N-CA-C	5.11	118.28	111.44
9	W	13	VAL	N-CA-C	5.10	115.47	108.12
12	Z	196	LEU	N-CA-C	5.10	117.23	111.11
13	a	35	PHE	N-CA-C	5.10	116.94	109.24
15	e	184	ARG	N-CA-C	-5.10	105.72	111.28
5	S	18	GLU	N-CA-C	-5.09	106.91	112.72
15	g	17	THR	N-CA-C	-5.09	106.33	112.54
15	l	117	ILE	N-CA-C	-5.09	105.53	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	c	126	GLY	N-CA-C	-5.09	107.72	115.66
1	O	49	ASP	N-CA-C	-5.09	105.36	112.03
5	S	76	CYS	N-CA-C	5.09	116.26	108.52
13	M	166	LEU	N-CA-C	5.09	118.51	109.96
15	n	37	GLU	N-CA-C	-5.09	105.73	111.28
5	S	82	THR	N-CA-C	5.08	116.82	111.28
15	m	25	ILE	N-CA-C	5.08	117.41	111.05
15	l	54	THR	N-CA-C	-5.08	105.87	111.71
14	N	80	GLU	N-CA-C	-5.08	103.75	110.40
13	M	142	ASP	N-CA-C	-5.08	104.83	111.02
12	Z	134	THR	N-CA-C	5.08	116.62	111.14
3	C	129	ARG	CA-C-N	5.07	125.35	119.92
3	C	129	ARG	C-N-CA	5.07	125.35	119.92
8	H	75	THR	N-CA-C	-5.07	106.25	112.90
7	U	133	VAL	CB-CA-C	-5.07	104.75	111.80
15	c	184	ARG	N-CA-C	-5.07	105.83	111.36
4	D	168	SER	N-CA-C	-5.07	105.83	111.36
12	L	180	VAL	N-CA-C	5.07	115.21	108.11
8	V	120	HIS	N-CA-C	5.07	117.61	108.48
15	n	29	ALA	N-CA-C	-5.07	105.64	111.07
12	L	101	ILE	N-CA-C	-5.07	100.45	107.80
6	T	148	GLN	CA-C-N	5.07	124.73	119.56
6	T	148	GLN	C-N-CA	5.07	124.73	119.56
15	n	17	THR	N-CA-C	-5.07	106.36	112.54
3	C	213	PHE	N-CA-C	5.07	116.89	109.24
12	L	54	PHE	N-CA-C	5.06	116.49	110.97
15	p	143	TYR	N-CA-C	-5.06	101.89	109.79
2	P	88	LYS	N-CA-C	-5.06	105.68	111.14
15	e	54	THR	N-CA-C	-5.06	105.90	111.71
15	n	132	GLY	N-CA-C	-5.06	109.04	115.31
3	C	61	THR	N-CA-C	-5.05	105.85	112.72
3	C	182	ASP	N-CA-C	5.05	117.45	111.33
15	m	126	GLY	N-CA-C	-5.05	107.78	115.66
15	l	92	ILE	N-CA-C	5.05	115.72	110.82
6	F	28	ALA	N-CA-C	-5.05	106.38	112.54
11	K	139	THR	N-CA-C	5.05	119.91	113.55
15	n	22	PHE	N-CA-C	-5.05	105.22	111.33
15	p	96	ILE	CA-C-N	5.05	125.05	120.21
15	p	96	ILE	C-N-CA	5.05	125.05	120.21
4	R	58	ARG	N-CA-C	5.04	121.54	110.80
12	L	31	VAL	N-CA-C	5.04	115.23	108.17
6	T	28	ALA	N-CA-C	-5.04	106.39	112.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	O	35	THR	CA-C-N	5.04	126.99	120.44
1	O	35	THR	C-N-CA	5.04	126.99	120.44
11	Y	151	MET	N-CA-C	5.04	117.40	110.35
15	d	132	GLY	N-CA-C	-5.04	109.06	115.31
15	l	117	ILE	CB-CA-C	-5.04	105.52	111.97
10	X	180	ILE	CB-CA-C	-5.04	104.74	110.73
3	Q	182	ASP	N-CA-C	5.04	117.42	111.33
15	k	17	THR	N-CA-C	-5.04	106.40	112.54
3	Q	97	ASN	N-CA-C	-5.03	105.87	111.36
1	O	83	VAL	CB-CA-C	-5.03	103.28	110.12
15	e	40	ALA	N-CA-C	-5.03	106.83	112.87
15	g	131	SER	N-CA-C	-5.03	104.80	112.04
2	B	101	TYR	N-CA-C	5.03	120.41	113.97
7	G	149	MET	N-CA-C	5.03	115.63	107.23
9	W	172	ASN	N-CA-C	5.03	118.16	110.36
1	A	35	THR	CA-C-N	5.03	126.98	120.44
1	A	35	THR	C-N-CA	5.03	126.98	120.44
3	Q	163	ILE	N-CA-C	5.03	115.94	108.65
5	E	224	LYS	N-CA-C	-5.02	105.81	111.28
14	b	187	PHE	N-CA-C	5.02	115.16	108.38
15	o	22	PHE	N-CA-C	-5.02	105.26	111.33
4	R	113	VAL	CB-CA-C	-5.02	105.46	111.88
15	k	131	SER	N-CA-C	-5.02	104.82	112.04
1	A	190	LYS	N-CA-C	5.01	121.47	110.80
15	g	117	ILE	CB-CA-C	-5.01	105.55	111.97
15	h	96	ILE	CA-C-N	5.01	125.72	120.11
15	h	96	ILE	C-N-CA	5.01	125.72	120.11
4	R	237	GLU	N-CA-C	-5.00	105.95	111.71
4	D	8	LEU	CA-C-N	5.00	131.10	121.54
4	D	8	LEU	C-N-CA	5.00	131.10	121.54
15	l	49	VAL	N-CA-C	5.00	118.14	111.44
15	p	55	TYR	N-CA-C	5.00	117.72	107.37

There are no chirality outliers.

All (9) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	C	20	TYR	Sidechain
9	I	190	TYR	Sidechain
13	M	165	TYR	Sidechain
14	N	68	TYR	Sidechain
3	Q	20	TYR	Sidechain

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Mol	Chain	Res	Type	Group
9	W	190	TYR	Sidechain
13	a	-5	TYR	Sidechain
13	a	122	TYR	Sidechain
14	b	68	TYR	Sidechain

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1881	0	1876	195	0
1	O	1881	0	1876	199	0
2	B	1868	0	1866	126	0
2	P	1868	0	1866	123	0
3	C	1868	0	1860	119	0
3	Q	1868	0	1860	120	0
4	D	1862	0	1866	89	0
4	R	1862	0	1866	86	0
5	E	1871	0	1840	100	0
5	S	1871	0	1840	93	0
6	F	1795	0	1797	119	0
6	T	1795	0	1797	116	0
7	G	1869	0	1864	143	0
7	U	1869	0	1864	148	0
8	H	1510	0	1476	138	0
8	V	1510	0	1476	128	0
9	I	1684	0	1688	98	0
9	W	1684	0	1688	111	0
10	J	1581	0	1574	67	0
10	X	1581	0	1574	76	0
11	K	1585	0	1590	85	0
11	Y	1585	0	1590	80	0
12	L	1646	0	1595	55	0
12	Z	1646	0	1595	74	0
13	M	1757	0	1711	78	0
13	a	1757	0	1710	76	0
14	N	1824	0	1832	136	0
14	b	1824	0	1832	135	0
15	c	1529	0	1545	129	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
15	d	1529	0	1545	133	0
15	e	1529	0	1545	136	0
15	f	1529	0	1545	126	0
15	g	1529	0	1545	134	0
15	h	1529	0	1545	135	0
15	i	1529	0	1545	135	0
15	j	1529	0	1545	130	0
15	k	1529	0	1545	136	0
15	l	1529	0	1545	138	0
15	m	1529	0	1545	133	0
15	n	1529	0	1545	138	0
15	o	1529	0	1545	134	0
15	p	1529	0	1545	132	0
16	G	1	0	0	0	0
16	H	1	0	0	0	0
16	I	1	0	0	0	0
16	J	2	0	0	0	0
16	L	1	0	0	0	0
16	M	1	0	0	0	0
16	U	1	0	0	0	0
16	V	1	0	0	0	0
16	W	1	0	0	0	0
16	X	2	0	0	0	0
16	Z	1	0	0	0	0
16	a	1	0	0	0	0
All	All	70622	0	70499	4544	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 32.

All (4544) 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)
2:B:46:ALA:HB2	2:B:211:LEU:HD12	1.34	1.10
1:A:38:THR:HA	15:e:231:SER:HB3	1.34	1.06
15:p:25:ILE:HA	15:p:28:TRP:HD1	1.20	1.06
15:m:25:ILE:HA	15:m:28:TRP:HD1	1.20	1.05
15:k:176:SER:HB3	15:l:142:MET:HB2	1.36	1.05
2:P:46:ALA:HB2	2:P:211:LEU:HD12	1.37	1.05
15:i:25:ILE:HA	15:i:28:TRP:HD1	1.21	1.05
15:l:176:SER:HB3	15:m:142:MET:HB2	1.35	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:d:25:ILE:HA	15:d:28:TRP:HD1	1.18	1.04
15:j:25:ILE:HA	15:j:28:TRP:HD1	1.21	1.04
15:f:25:ILE:HA	15:f:28:TRP:HD1	1.18	1.04
15:n:25:ILE:HA	15:n:28:TRP:HD1	1.19	1.03
15:h:25:ILE:HA	15:h:28:TRP:HD1	1.21	1.03
8:H:13:ILE:HG12	8:H:177:VAL:HA	1.41	1.03
15:e:25:ILE:HA	15:e:28:TRP:HD1	1.23	1.03
15:g:25:ILE:HA	15:g:28:TRP:HD1	1.21	1.03
15:l:25:ILE:HA	15:l:28:TRP:HD1	1.21	1.02
15:o:25:ILE:HA	15:o:28:TRP:HD1	1.23	1.02
15:c:25:ILE:HA	15:c:28:TRP:HD1	1.20	1.02
15:k:25:ILE:HA	15:k:28:TRP:HD1	1.20	1.02
15:o:176:SER:HB3	15:p:142:MET:HB2	1.37	1.02
9:I:103:VAL:HG12	9:I:108:SER:HA	1.39	1.00
15:c:142:MET:HB2	15:i:176:SER:HB3	1.40	0.99
15:h:176:SER:HB3	15:i:142:MET:HB2	1.44	0.98
15:l:25:ILE:HA	15:l:28:TRP:CD1	1.99	0.98
15:f:25:ILE:HA	15:f:28:TRP:CD1	1.99	0.97
15:c:25:ILE:HA	15:c:28:TRP:CD1	1.98	0.97
15:m:25:ILE:HA	15:m:28:TRP:CD1	2.00	0.97
15:k:25:ILE:HA	15:k:28:TRP:CD1	1.99	0.96
8:H:107:LYS:HD2	8:H:108:GLY:H	1.26	0.96
15:g:25:ILE:HA	15:g:28:TRP:CD1	1.99	0.96
15:d:25:ILE:HA	15:d:28:TRP:CD1	2.01	0.96
8:V:107:LYS:HD2	8:V:108:GLY:H	1.29	0.96
15:d:176:SER:HB3	15:e:142:MET:HB2	1.48	0.96
14:b:40:ASN:HD22	14:b:40:ASN:H	1.13	0.95
3:C:185:LYS:HZ2	3:C:187:ASP:H	1.09	0.95
15:i:25:ILE:HA	15:i:28:TRP:CD1	2.01	0.95
15:n:25:ILE:HA	15:n:28:TRP:CD1	2.00	0.95
15:j:25:ILE:HA	15:j:28:TRP:CD1	2.00	0.95
8:V:13:ILE:HG12	8:V:177:VAL:HA	1.44	0.95
7:U:143:ASN:H	7:U:143:ASN:HD22	1.10	0.95
9:W:22:GLN:HE21	9:W:22:GLN:HA	1.31	0.94
15:e:176:SER:HB3	15:f:142:MET:HB2	1.47	0.94
15:p:25:ILE:HA	15:p:28:TRP:CD1	2.01	0.94
15:h:25:ILE:HA	15:h:28:TRP:CD1	2.01	0.94
7:G:143:ASN:HD22	7:G:143:ASN:H	1.10	0.94
14:N:72:LEU:HD12	14:N:72:LEU:H	1.33	0.94
15:m:22:PHE:HZ	15:n:9:ILE:HD11	1.32	0.94
3:C:96:GLN:HE22	10:J:63:ASN:HD22	1.15	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:26:ILE:HD12	14:b:179:ARG:HA	1.50	0.94
15:o:25:ILE:HA	15:o:28:TRP:CD1	2.03	0.93
9:W:103:VAL:HG12	9:W:108:SER:HA	1.50	0.93
14:b:104:ASN:HB3	14:b:106:ILE:HD11	1.49	0.93
6:T:100:ASN:HB2	14:b:86:GLU:HG2	1.50	0.93
14:N:40:ASN:H	14:N:40:ASN:HD22	1.12	0.93
9:I:22:GLN:HA	9:I:22:GLN:HE21	1.33	0.93
9:W:6:VAL:HG12	9:W:124:TYR:HB3	1.51	0.93
15:e:25:ILE:HA	15:e:28:TRP:CD1	2.04	0.93
14:N:104:ASN:HB3	14:N:106:ILE:HD11	1.51	0.92
14:b:72:LEU:H	14:b:72:LEU:HD12	1.33	0.91
9:I:6:VAL:HG12	9:I:124:TYR:HB3	1.51	0.91
15:c:22:PHE:HZ	15:d:9:ILE:HD11	1.36	0.91
3:Q:185:LYS:HZ2	3:Q:187:ASP:H	1.14	0.91
15:j:142:MET:HB2	15:p:176:SER:HB3	1.53	0.91
12:Z:35:ILE:HD11	12:Z:45:MET:HE3	1.53	0.90
13:M:147:PHE:HE2	13:M:163:LEU:HA	1.37	0.90
7:U:77:TYR:CE1	7:U:84:GLY:HA3	2.05	0.90
2:P:222:LEU:HD11	2:P:232:GLY:HA2	1.53	0.89
6:T:179:PHE:HA	6:T:182:ILE:HG13	1.53	0.89
2:B:222:LEU:HD11	2:B:232:GLY:HA2	1.52	0.89
12:L:105:THR:HG23	12:L:108:GLU:HB2	1.52	0.89
15:g:176:SER:HB3	15:h:142:MET:HB2	1.55	0.89
3:Q:96:GLN:HE22	10:X:63:ASN:HD22	1.18	0.87
15:c:39:ILE:HG22	15:c:198:THR:HG23	1.57	0.87
4:D:162:GLN:HE21	4:D:163:THR:H	1.22	0.87
15:c:176:SER:HB3	15:d:142:MET:HB2	1.55	0.87
11:K:167:LEU:O	11:K:171:MET:HB2	1.74	0.87
1:O:146:VAL:HG22	1:O:152:PRO:HA	1.58	0.86
13:a:147:PHE:HE2	13:a:163:LEU:HA	1.40	0.86
15:f:176:SER:HB3	15:g:142:MET:HB2	1.57	0.85
7:U:72:HIS:HD2	7:U:73:ILE:HG13	1.41	0.85
6:F:100:ASN:HB2	14:N:86:GLU:HG2	1.56	0.85
15:f:22:PHE:HZ	15:g:9:ILE:HD11	1.41	0.85
6:T:215:ILE:HG13	6:T:216:VAL:N	1.92	0.85
1:A:33:LYS:H	1:A:33:LYS:HD2	1.41	0.85
8:V:8:PHE:HE2	8:V:148:LYS:HA	1.41	0.84
4:D:192:VAL:O	4:D:196:VAL:HG23	1.75	0.84
15:p:20:SER:HB2	15:p:91:VAL:HG22	1.60	0.84
1:A:124:LEU:HA	1:A:127:ILE:HD12	1.60	0.84
12:Z:105:THR:HG23	12:Z:108:GLU:HB2	1.57	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:R:133:THR:HG23	4:R:150:THR:HG23	1.58	0.84
8:H:143:ARG:HH11	8:H:146:MET:HE2	1.43	0.84
12:Z:47:GLY:HA3	12:Z:97:MET:HA	1.60	0.84
15:c:20:SER:HA	15:c:24:VAL:HG21	1.59	0.84
2:B:187:ASP:O	2:B:191:ILE:HG12	1.77	0.84
8:H:8:PHE:HE2	8:H:148:LYS:HA	1.43	0.84
15:j:20:SER:HB2	15:j:91:VAL:HG22	1.60	0.84
15:k:20:SER:HA	15:k:24:VAL:HG21	1.60	0.84
7:G:72:HIS:HD2	7:G:73:ILE:HG13	1.41	0.83
14:N:60:LYS:O	14:N:64:THR:HG23	1.79	0.83
15:o:20:SER:HA	15:o:24:VAL:HG21	1.59	0.83
6:F:179:PHE:HA	6:F:182:ILE:HG13	1.59	0.83
1:O:44:ALA:HB2	1:O:53:VAL:HG12	1.57	0.83
15:f:20:SER:HA	15:f:24:VAL:HG21	1.59	0.83
15:o:177:PRO:HG3	15:p:62:LYS:HA	1.60	0.83
1:A:146:VAL:HG22	1:A:152:PRO:HA	1.58	0.83
8:H:13:ILE:HD13	8:H:177:VAL:HG22	1.61	0.83
11:Y:167:LEU:O	11:Y:171:MET:HB2	1.78	0.82
15:c:210:ASN:O	15:c:214:LEU:HD13	1.78	0.82
7:G:150:LEU:HD12	7:G:151:GLU:N	1.94	0.82
15:h:20:SER:HB2	15:h:91:VAL:HG22	1.61	0.82
8:H:59:VAL:HG11	8:H:82:PHE:HE2	1.45	0.82
1:A:44:ALA:HB2	1:A:53:VAL:HG12	1.61	0.82
15:n:20:SER:HA	15:n:24:VAL:HG21	1.60	0.82
15:e:138:THR:HG22	15:e:142:MET:HG3	1.61	0.82
15:m:176:SER:HB3	15:n:142:MET:HB2	1.60	0.81
6:T:155:GLU:HB3	7:U:63:ASN:HD21	1.45	0.81
8:V:59:VAL:HG11	8:V:82:PHE:HE2	1.46	0.81
15:k:22:PHE:HZ	15:l:9:ILE:HD11	1.43	0.81
4:R:192:VAL:O	4:R:196:VAL:HG23	1.80	0.81
15:m:20:SER:HB2	15:m:91:VAL:HG22	1.63	0.81
15:m:20:SER:HA	15:m:24:VAL:HG21	1.62	0.81
15:e:20:SER:HA	15:e:24:VAL:HG21	1.63	0.81
1:O:33:LYS:H	1:O:33:LYS:HD2	1.44	0.81
15:i:20:SER:HA	15:i:24:VAL:HG21	1.63	0.81
1:A:21:PRO:HG2	15:d:102:GLU:OE2	1.81	0.81
15:l:20:SER:HB2	15:l:91:VAL:HG22	1.63	0.81
4:D:133:THR:HG23	4:D:150:THR:HG23	1.60	0.81
15:j:176:SER:HB3	15:k:142:MET:HB2	1.62	0.81
6:F:6:TYR:CD1	6:F:15:PRO:HD3	2.16	0.80
7:G:30:VAL:HG11	7:G:134:SER:HB2	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:k:20:SER:HB2	15:k:91:VAL:HG22	1.61	0.80
15:o:20:SER:HB2	15:o:91:VAL:HG22	1.63	0.80
6:F:155:GLU:HB3	7:G:63:ASN:HD21	1.46	0.80
14:b:121:TYR:HE1	14:b:123:ASN:HD22	1.30	0.80
15:d:138:THR:HG22	15:d:142:MET:HG3	1.64	0.80
15:k:210:ASN:O	15:k:214:LEU:HD13	1.81	0.80
14:N:49:ILE:HG22	14:N:53:GLN:HE21	1.47	0.80
4:R:228:GLU:HA	4:R:231:GLN:HE21	1.47	0.80
7:U:30:VAL:HG11	7:U:134:SER:HB2	1.64	0.80
10:J:184:ASP:CG	10:J:185:GLU:H	1.90	0.80
14:N:153:ARG:HG3	14:N:153:ARG:HH11	1.46	0.80
15:e:20:SER:HB2	15:e:91:VAL:HG22	1.64	0.80
12:L:35:ILE:HD11	12:L:45:MET:HE3	1.61	0.80
15:c:138:THR:HG22	15:c:142:MET:HG3	1.63	0.80
1:O:124:LEU:HA	1:O:127:ILE:HD12	1.65	0.80
15:f:20:SER:HB2	15:f:91:VAL:HG22	1.64	0.79
1:O:68:THR:HG21	7:U:158:GLY:HA3	1.62	0.79
15:d:210:ASN:O	15:d:214:LEU:HD13	1.81	0.79
15:k:25:ILE:HD11	15:k:91:VAL:HG21	1.63	0.79
15:d:22:PHE:HZ	15:e:9:ILE:HD11	1.45	0.79
1:A:68:THR:HG21	7:G:158:GLY:HA3	1.62	0.79
13:M:147:PHE:CE2	13:M:163:LEU:HA	2.17	0.79
4:R:162:GLN:HE21	4:R:163:THR:H	1.31	0.79
15:i:138:THR:HG22	15:i:142:MET:HG3	1.64	0.79
1:A:45:VAL:HG12	1:A:168:ALA:HB1	1.63	0.79
6:T:227:GLY:O	6:T:230:VAL:HG22	1.82	0.79
15:i:20:SER:HB2	15:i:91:VAL:HG22	1.65	0.79
4:D:228:GLU:HA	4:D:231:GLN:NE2	1.98	0.79
7:G:198:ILE:HA	7:G:201:LEU:HD22	1.63	0.79
6:T:6:TYR:CD1	6:T:15:PRO:HD3	2.18	0.79
4:D:228:GLU:HA	4:D:231:GLN:HE21	1.46	0.79
15:g:20:SER:HA	15:g:24:VAL:HG21	1.63	0.79
7:U:199:ILE:HG21	7:U:213:LEU:HD13	1.66	0.78
8:V:13:ILE:HD13	8:V:177:VAL:HG22	1.64	0.78
9:W:22:GLN:HA	9:W:22:GLN:NE2	1.98	0.78
15:l:176:SER:CB	15:m:142:MET:HB2	2.14	0.78
15:n:20:SER:HB2	15:n:91:VAL:HG22	1.65	0.78
14:b:60:LYS:O	14:b:64:THR:HG23	1.83	0.78
1:O:183:GLU:HB3	1:O:187:LYS:NZ	1.99	0.78
7:U:198:ILE:HA	7:U:201:LEU:HD22	1.64	0.78
15:g:20:SER:HB2	15:g:91:VAL:HG22	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:i:39:ILE:HG22	15:i:198:THR:HG23	1.66	0.78
2:B:68:THR:HG23	2:B:71:ILE:HB	1.65	0.78
2:P:187:ASP:O	2:P:191:ILE:HG12	1.83	0.78
15:j:20:SER:HA	15:j:24:VAL:HG21	1.64	0.78
7:G:71:ARG:CZ	14:N:64:THR:HG22	2.14	0.78
7:U:150:LEU:HD12	7:U:151:GLU:N	1.98	0.78
15:j:22:PHE:HZ	15:k:9:ILE:HD11	1.48	0.78
1:A:54:ILE:HA	1:A:225:VAL:HG22	1.65	0.78
12:L:47:GLY:HA3	12:L:97:MET:HA	1.66	0.78
15:d:25:ILE:HD11	15:d:91:VAL:HG21	1.66	0.78
14:b:19:LEU:HB2	14:b:184:SER:HB2	1.66	0.78
6:F:215:ILE:HG13	6:F:216:VAL:N	1.99	0.77
14:b:35:ILE:HG12	14:b:56:GLU:HG2	1.65	0.77
15:f:25:ILE:HD11	15:f:91:VAL:HG21	1.65	0.77
15:h:20:SER:HA	15:h:24:VAL:HG21	1.64	0.77
15:c:62:LYS:HA	15:i:177:PRO:HG3	1.65	0.77
5:S:136:ARG:HB2	5:S:137:PRO:HD2	1.65	0.77
10:J:78:PHE:O	10:J:82:VAL:HG12	1.84	0.77
7:U:143:ASN:H	7:U:143:ASN:ND2	1.83	0.77
15:i:25:ILE:HD11	15:i:91:VAL:HG21	1.65	0.77
15:n:25:ILE:HD11	15:n:91:VAL:HG21	1.66	0.77
9:I:22:GLN:HA	9:I:22:GLN:NE2	2.00	0.77
1:O:181:ASN:HB3	1:O:209:HIS:CE1	2.20	0.77
15:g:22:PHE:HZ	15:h:9:ILE:HD11	1.48	0.77
15:m:22:PHE:CZ	15:n:9:ILE:HD11	2.18	0.77
15:o:22:PHE:HZ	15:p:9:ILE:HD11	1.49	0.77
5:E:136:ARG:HB2	5:E:137:PRO:HD2	1.67	0.77
6:F:53:ALA:CB	15:g:229:MET:HE1	2.15	0.77
7:G:77:TYR:CE1	7:G:84:GLY:HA3	2.20	0.77
1:O:26:TYR:OH	15:k:102:GLU:HB3	1.85	0.77
8:V:143:ARG:HH11	8:V:146:MET:HE2	1.49	0.77
15:c:9:ILE:HD11	15:i:22:PHE:HZ	1.50	0.77
15:o:138:THR:HG22	15:o:142:MET:HG3	1.67	0.77
6:F:227:GLY:O	6:F:230:VAL:HG22	1.84	0.76
4:R:11:PHE:H	5:S:23:GLN:HE22	1.33	0.76
15:d:20:SER:HA	15:d:24:VAL:HG21	1.67	0.76
1:A:101:ALA:HA	1:A:112:MET:HE3	1.67	0.76
9:W:64:GLU:O	9:W:68:LEU:HD12	1.85	0.76
10:X:78:PHE:O	10:X:82:VAL:HG12	1.85	0.76
3:Q:169:THR:O	3:Q:173:GLN:HB2	1.84	0.76
15:d:20:SER:HB2	15:d:91:VAL:HG22	1.66	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:114:PRO:HD2	8:H:118:SER:O	1.85	0.76
3:C:150:THR:HG21	3:C:160:TRP:HE1	1.50	0.76
15:h:138:THR:HG21	15:h:142:MET:HE3	1.66	0.76
15:o:25:ILE:HD11	15:o:91:VAL:HG21	1.67	0.76
8:H:17:ASP:HB2	8:H:170:GLY:O	1.86	0.76
14:b:49:ILE:HG22	14:b:53:GLN:HE21	1.50	0.76
14:b:121:TYR:HE1	14:b:123:ASN:ND2	1.83	0.76
15:p:20:SER:HA	15:p:24:VAL:HG21	1.66	0.76
2:B:110:LEU:O	2:B:114:VAL:HG23	1.86	0.76
15:g:213:LEU:HD22	15:h:9:ILE:HG23	1.66	0.76
1:A:181:ASN:HB3	1:A:209:HIS:CE1	2.21	0.76
4:D:162:GLN:NE2	4:D:163:THR:H	1.83	0.76
6:F:185:ASN:C	6:F:185:ASN:HD22	1.93	0.76
4:R:228:GLU:HA	4:R:231:GLN:NE2	2.00	0.76
5:E:142:LEU:HB2	5:E:158:ALA:HB3	1.68	0.76
7:G:199:ILE:HG21	7:G:213:LEU:HD13	1.68	0.76
3:Q:150:THR:HG21	3:Q:160:TRP:HE1	1.49	0.76
15:j:138:THR:HG22	15:j:142:MET:HG3	1.66	0.76
15:m:25:ILE:HD11	15:m:91:VAL:HG21	1.66	0.76
15:c:25:ILE:HD11	15:c:91:VAL:HG21	1.67	0.75
15:p:210:ASN:O	15:p:214:LEU:HD13	1.86	0.75
7:G:171:ALA:O	7:G:175:LEU:HG	1.84	0.75
8:V:111:TYR:HA	8:V:120:HIS:O	1.86	0.75
1:O:45:VAL:HG12	1:O:168:ALA:HB1	1.69	0.75
13:a:147:PHE:CE2	13:a:163:LEU:HA	2.20	0.75
15:d:177:PRO:HG3	15:e:62:LYS:HA	1.68	0.75
15:j:210:ASN:O	15:j:214:LEU:HD13	1.86	0.75
8:H:67:THR:HG22	8:H:73:PRO:HD3	1.69	0.75
5:E:76:CYS:SG	5:E:142:LEU:HD22	2.26	0.75
14:b:153:ARG:HH11	14:b:153:ARG:HG3	1.49	0.75
15:g:39:ILE:HG22	15:g:198:THR:HG23	1.68	0.75
15:l:138:THR:HG22	15:l:142:MET:HG3	1.66	0.75
14:N:179:ARG:HA	8:V:26:ILE:HD12	1.67	0.75
1:O:38:THR:HA	15:l:231:SER:HB3	1.68	0.75
15:j:39:ILE:HG12	15:j:77:LEU:HD21	1.68	0.75
15:l:20:SER:HA	15:l:24:VAL:HG21	1.67	0.75
14:N:8:TYR:HB2	14:N:160:THR:O	1.86	0.75
15:c:39:ILE:HG12	15:c:77:LEU:HD21	1.67	0.75
15:k:138:THR:HG22	15:k:142:MET:HG3	1.69	0.75
15:o:39:ILE:HG22	15:o:198:THR:HG23	1.68	0.75
8:V:114:PRO:HD2	8:V:118:SER:O	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:g:25:ILE:HD11	15:g:91:VAL:HG21	1.69	0.75
8:H:7:THR:HG22	8:H:12:VAL:HB	1.69	0.75
1:O:101:ALA:HA	1:O:112:MET:HE3	1.68	0.75
8:V:17:ASP:HB2	8:V:170:GLY:O	1.87	0.75
15:k:39:ILE:HG12	15:k:77:LEU:HD21	1.68	0.75
11:K:52:THR:HG23	11:K:53:VAL:H	1.51	0.74
14:N:35:ILE:HG12	14:N:56:GLU:HG2	1.68	0.74
6:T:50:LYS:HE2	6:T:212:SER:HB2	1.67	0.74
15:n:22:PHE:HZ	15:o:9:ILE:HD11	1.52	0.74
4:R:162:GLN:HE22	4:R:172:ARG:HE	1.35	0.74
15:c:20:SER:HB2	15:c:91:VAL:HG22	1.69	0.74
15:n:210:ASN:O	15:n:214:LEU:HD13	1.86	0.74
6:F:121:GLN:HE22	7:G:86:HIS:HD2	1.35	0.74
15:h:216:TRP:O	15:h:220:ILE:HD12	1.88	0.74
2:B:244:ASN:O	2:B:247:LEU:HB3	1.88	0.74
6:F:53:ALA:HB1	15:g:229:MET:HE1	1.70	0.74
15:e:25:ILE:HD11	15:e:91:VAL:HG21	1.69	0.74
2:B:197:LYS:HA	2:B:204:PHE:CE1	2.21	0.74
2:P:197:LYS:HA	2:P:204:PHE:CE1	2.23	0.74
14:b:8:TYR:HB2	14:b:160:THR:O	1.86	0.74
15:h:138:THR:HG22	15:h:142:MET:HG3	1.68	0.74
15:i:138:THR:HG21	15:i:142:MET:HE3	1.69	0.74
15:n:138:THR:HG22	15:n:142:MET:HG3	1.67	0.74
7:G:40:LYS:HA	7:G:45:VAL:HG12	1.67	0.74
8:V:156:LYS:HZ3	8:V:188:PHE:HD1	1.33	0.74
15:j:9:ILE:HD11	15:p:22:PHE:HZ	1.53	0.74
7:G:150:LEU:HD12	7:G:151:GLU:H	1.52	0.74
7:G:231:LYS:HA	7:G:235:LEU:HD22	1.69	0.74
8:H:107:LYS:CD	8:H:108:GLY:H	2.00	0.74
1:O:234:PHE:HD1	1:O:234:PHE:H	1.36	0.74
15:c:33:LEU:HG	15:d:16:TYR:OH	1.88	0.74
15:d:39:ILE:HG22	15:d:198:THR:HG23	1.69	0.74
15:h:25:ILE:HD11	15:h:91:VAL:HG21	1.70	0.74
8:H:122:LEU:HD11	14:N:28:PHE:HE1	1.53	0.73
8:V:185:ARG:HH11	8:V:185:ARG:HG3	1.53	0.73
5:S:109:VAL:HB	5:S:154:GLN:NE2	2.03	0.73
13:M:7:ALA:HB2	13:M:113:VAL:HG23	1.70	0.73
14:N:91:VAL:O	14:N:95:ARG:HG2	1.88	0.73
14:b:57:ARG:HG2	14:b:57:ARG:HH11	1.52	0.73
5:E:170:LYS:HD2	5:E:171:ALA:H	1.52	0.73
6:F:50:LYS:HE2	6:F:212:SER:HB2	1.68	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:c:22:PHE:CZ	15:d:9:ILE:HD11	2.21	0.73
15:c:61:GLU:HG2	15:c:62:LYS:H	1.51	0.73
15:l:133:SER:O	15:l:137:PRO:HD3	1.89	0.73
15:h:39:ILE:HG22	15:h:198:THR:HG23	1.70	0.73
8:H:59:VAL:HG11	8:H:82:PHE:CE2	2.23	0.73
15:p:138:THR:HG22	15:p:142:MET:HG3	1.69	0.73
8:V:59:VAL:HG11	8:V:82:PHE:CE2	2.22	0.73
12:Z:66:HIS:HD2	12:Z:74:ILE:HB	1.53	0.73
15:l:25:ILE:HD11	15:l:91:VAL:HG21	1.70	0.73
15:n:176:SER:HB3	15:o:142:MET:HB2	1.69	0.73
15:p:39:ILE:HG22	15:p:198:THR:HG23	1.71	0.73
1:A:234:PHE:HD1	1:A:234:PHE:H	1.37	0.73
7:U:171:ALA:O	7:U:175:LEU:HG	1.87	0.73
10:X:133:ALA:HB2	10:X:169:ASP:HB2	1.68	0.73
15:c:142:MET:HB2	15:i:176:SER:CB	2.16	0.73
8:H:155:ILE:HG21	8:H:175:MET:SD	2.28	0.73
8:V:67:THR:HA	8:V:71:GLY:O	1.89	0.73
15:c:70:VAL:HG11	15:c:191:MET:HE1	1.71	0.73
15:p:90:THR:O	15:p:94:ILE:HG12	1.89	0.73
7:G:109:PRO:HA	7:G:148:TYR:OH	1.89	0.73
7:G:143:ASN:H	7:G:143:ASN:ND2	1.81	0.73
1:O:21:PRO:HG2	15:k:102:GLU:OE2	1.87	0.73
10:X:184:ASP:CG	10:X:185:GLU:H	1.94	0.73
11:Y:52:THR:HG23	11:Y:53:VAL:H	1.54	0.73
4:D:73:LEU:HD12	4:D:135:ILE:HG12	1.70	0.72
15:g:138:THR:HG22	15:g:142:MET:HG3	1.69	0.72
1:O:199:TRP:O	1:O:203:VAL:HG23	1.89	0.72
15:f:138:THR:HG22	15:f:142:MET:HG3	1.69	0.72
15:g:72:GLN:O	15:g:76:ASP:HB2	1.89	0.72
2:B:40:THR:HG23	2:B:183:LEU:O	1.89	0.72
3:Q:20:TYR:OH	15:p:102:GLU:HB3	1.89	0.72
15:j:138:THR:HG21	15:j:142:MET:HE3	1.71	0.72
15:l:90:THR:O	15:l:94:ILE:HG12	1.89	0.72
8:H:1:THR:HA	8:H:33:LYS:NZ	2.04	0.72
1:O:225:VAL:O	1:O:236:LEU:HB2	1.89	0.72
15:l:22:PHE:HZ	15:m:9:ILE:HD11	1.54	0.72
15:l:177:PRO:HG3	15:m:62:LYS:HA	1.71	0.72
7:G:187:SER:OG	7:G:190:GLU:HB2	1.90	0.72
8:H:111:TYR:HA	8:H:120:HIS:O	1.89	0.72
8:H:177:VAL:HB	8:H:184:GLU:HB3	1.70	0.72
1:O:54:ILE:HA	1:O:225:VAL:HG22	1.69	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:201:THR:HG22	3:Q:203:SER:H	1.53	0.72
5:S:142:LEU:HB2	5:S:158:ALA:HB3	1.72	0.72
6:T:185:ASN:HD22	6:T:185:ASN:C	1.97	0.72
14:b:73:ALA:HA	14:b:77:GLU:O	1.90	0.72
15:f:39:ILE:HG12	15:f:77:LEU:HD21	1.72	0.72
15:j:213:LEU:HD22	15:k:9:ILE:HG23	1.71	0.72
15:m:61:GLU:HG2	15:m:62:LYS:N	2.04	0.72
15:p:72:GLN:O	15:p:76:ASP:HB2	1.88	0.72
15:e:210:ASN:O	15:e:214:LEU:HD13	1.90	0.72
4:D:46:CYS:HB3	4:D:63:LYS:HD2	1.72	0.72
4:R:46:CYS:HB3	4:R:63:LYS:HD2	1.72	0.72
15:c:61:GLU:HG2	15:c:62:LYS:N	2.05	0.72
15:h:61:GLU:HG2	15:h:62:LYS:H	1.54	0.72
1:A:225:VAL:O	1:A:236:LEU:HB2	1.89	0.71
14:N:121:TYR:HE1	14:N:123:ASN:HD22	1.34	0.71
2:P:68:THR:HG23	2:P:71:ILE:HB	1.71	0.71
7:U:150:LEU:HD12	7:U:151:GLU:H	1.55	0.71
15:h:22:PHE:HZ	15:i:9:ILE:HD11	1.55	0.71
15:p:24:VAL:HG12	15:p:28:TRP:HE1	1.55	0.71
1:A:38:THR:HA	15:e:231:SER:CB	2.16	0.71
7:G:72:HIS:CD2	7:G:73:ILE:HG13	2.25	0.71
8:H:40:LYS:NZ	8:H:182:GLY:HA2	2.05	0.71
9:I:160:GLN:O	9:I:164:TRP:HD1	1.73	0.71
15:g:61:GLU:HG2	15:g:62:LYS:H	1.54	0.71
15:i:90:THR:O	15:i:94:ILE:HG12	1.90	0.71
2:B:222:LEU:HD11	2:B:232:GLY:CA	2.20	0.71
14:N:104:ASN:HB3	14:N:106:ILE:CD1	2.20	0.71
3:Q:187:ASP:HA	3:Q:190:ILE:HD12	1.71	0.71
6:T:78:ALA:HB3	6:T:79:PRO:HD3	1.71	0.71
13:a:14:LEU:HD13	13:a:34:VAL:HG13	1.72	0.71
14:b:104:ASN:HB3	14:b:106:ILE:CD1	2.20	0.71
15:e:61:GLU:HG2	15:e:62:LYS:H	1.56	0.71
15:i:210:ASN:O	15:i:214:LEU:HD13	1.89	0.71
15:m:138:THR:HG22	15:m:142:MET:HG3	1.72	0.71
10:J:6:MET:HE2	10:J:145:TYR:HD1	1.54	0.71
2:P:244:ASN:O	2:P:247:LEU:HB3	1.91	0.71
5:S:8:TYR:O	5:S:9:ASP:HB2	1.90	0.71
9:W:163:ILE:HG23	9:W:170:GLY:HA2	1.72	0.71
15:h:133:SER:O	15:h:137:PRO:HD3	1.90	0.71
1:A:53:VAL:O	1:A:225:VAL:HG13	1.91	0.71
5:S:31:ILE:HD13	5:S:141:ALA:HB2	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:d:39:ILE:HG12	15:d:77:LEU:HD21	1.73	0.71
15:j:25:ILE:HD11	15:j:91:VAL:HG21	1.72	0.71
14:N:19:LEU:HB2	14:N:184:SER:HB2	1.72	0.71
8:V:1:THR:HA	8:V:33:LYS:NZ	2.06	0.71
15:f:210:ASN:O	15:f:214:LEU:HD13	1.91	0.71
15:m:210:ASN:O	15:m:214:LEU:HD13	1.90	0.71
1:A:126:GLN:HE21	1:A:127:ILE:N	1.89	0.71
9:I:64:GLU:O	9:I:68:LEU:HD12	1.91	0.71
5:S:76:CYS:SG	5:S:142:LEU:HD22	2.31	0.71
7:U:40:LYS:HA	7:U:45:VAL:HG12	1.72	0.71
15:h:39:ILE:HG12	15:h:77:LEU:HD21	1.73	0.71
15:m:61:GLU:HG2	15:m:62:LYS:H	1.53	0.71
8:V:7:THR:HG22	8:V:12:VAL:HB	1.73	0.71
8:V:107:LYS:CD	8:V:108:GLY:H	2.01	0.71
15:e:61:GLU:HG2	15:e:62:LYS:N	2.05	0.71
15:o:213:LEU:HD22	15:p:9:ILE:HG23	1.73	0.71
3:C:170:SER:O	3:C:174:THR:HG23	1.91	0.71
15:j:216:TRP:O	15:j:220:ILE:HD12	1.91	0.71
15:k:25:ILE:HD11	15:k:91:VAL:CG2	2.21	0.71
15:n:72:GLN:O	15:n:76:ASP:HB2	1.90	0.71
15:o:176:SER:HB2	15:p:142:MET:SD	2.31	0.71
1:A:183:GLU:HB3	1:A:187:LYS:NZ	2.05	0.70
10:J:52:THR:O	10:J:56:GLU:HG2	1.91	0.70
1:O:129:THR:HG22	2:P:128:ARG:HH21	1.55	0.70
14:N:36:PRO:HA	14:N:42:VAL:HA	1.72	0.70
7:U:94:GLU:HG2	7:U:114:ARG:HD2	1.73	0.70
15:i:61:GLU:HG2	15:i:62:LYS:N	2.07	0.70
1:A:22:GLU:HA	2:B:26:THR:HG21	1.72	0.70
4:D:162:GLN:HE22	4:D:172:ARG:HE	1.39	0.70
3:C:201:THR:HG22	3:C:203:SER:H	1.55	0.70
2:P:222:LEU:HD11	2:P:232:GLY:CA	2.21	0.70
6:T:121:GLN:HE22	7:U:86:HIS:HD2	1.39	0.70
15:f:177:PRO:HG3	15:g:62:LYS:HA	1.73	0.70
10:J:133:ALA:HB2	10:J:169:ASP:HB2	1.71	0.70
11:Y:191:VAL:O	11:Y:191:VAL:HG12	1.92	0.70
7:U:187:SER:OG	7:U:190:GLU:HB2	1.91	0.70
15:n:61:GLU:HG2	15:n:62:LYS:H	1.56	0.70
3:C:187:ASP:HA	3:C:190:ILE:HD12	1.71	0.70
7:U:34:THR:O	7:U:165:GLY:HA3	1.91	0.70
15:g:61:GLU:HG2	15:g:62:LYS:N	2.07	0.70
15:p:25:ILE:HD11	15:p:91:VAL:HG21	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:113:PRO:HD2	1:A:116:VAL:HG21	1.73	0.70
15:e:39:ILE:HG22	15:e:198:THR:HG23	1.74	0.70
15:f:61:GLU:HG2	15:f:62:LYS:H	1.57	0.70
15:i:216:TRP:O	15:i:220:ILE:HD12	1.92	0.70
15:k:61:GLU:HG2	15:k:62:LYS:N	2.07	0.70
15:k:138:THR:HG21	15:k:142:MET:HE3	1.74	0.70
7:G:143:ASN:HD22	7:G:143:ASN:N	1.87	0.70
15:e:39:ILE:HG12	15:e:77:LEU:HD21	1.73	0.70
15:i:61:GLU:HG2	15:i:62:LYS:H	1.57	0.70
15:k:177:PRO:HG3	15:l:62:LYS:HA	1.73	0.70
3:C:131:PHE:O	3:C:153:PRO:HB3	1.92	0.70
5:E:12:VAL:H	5:E:23:GLN:HG3	1.57	0.70
8:H:13:ILE:CD1	8:H:177:VAL:HG22	2.21	0.70
7:U:49:VAL:HG22	7:U:50:GLU:H	1.57	0.70
15:l:17:THR:HG22	15:l:94:ILE:HG22	1.74	0.70
8:H:107:LYS:HD2	8:H:108:GLY:N	2.05	0.69
15:d:90:THR:O	15:d:94:ILE:HG12	1.92	0.69
15:d:138:THR:HG21	15:d:142:MET:HE3	1.73	0.69
15:f:61:GLU:HG2	15:f:62:LYS:N	2.07	0.69
15:f:135:GLY:O	15:f:139:PRO:HD3	1.92	0.69
15:h:72:GLN:O	15:h:76:ASP:HB2	1.92	0.69
15:j:90:THR:O	15:j:94:ILE:HG12	1.92	0.69
1:A:24:ARG:C	1:A:25:LEU:HD12	2.17	0.69
8:H:185:ARG:HG3	8:H:185:ARG:HH11	1.57	0.69
15:c:72:GLN:O	15:c:76:ASP:HB2	1.91	0.69
15:f:39:ILE:HG22	15:f:198:THR:HG23	1.73	0.69
15:l:72:GLN:O	15:l:76:ASP:HB2	1.92	0.69
15:p:39:ILE:HG12	15:p:77:LEU:HD21	1.73	0.69
7:U:9:LEU:H	7:U:9:LEU:HD12	1.56	0.69
15:f:72:GLN:O	15:f:76:ASP:HB2	1.92	0.69
2:P:44:VAL:HA	2:P:213:ILE:HG22	1.74	0.69
4:R:162:GLN:NE2	4:R:163:THR:H	1.89	0.69
15:c:213:LEU:HD22	15:d:9:ILE:HG23	1.75	0.69
15:m:59:GLN:HG2	15:m:60:ALA:H	1.57	0.69
9:I:58:LEU:O	9:I:61:SER:HB3	1.91	0.69
10:J:146:GLU:HB3	10:J:149:LEU:HD21	1.75	0.69
1:O:113:PRO:HD2	1:O:116:VAL:HG21	1.75	0.69
7:U:72:HIS:CD2	7:U:73:ILE:HG13	2.26	0.69
15:l:39:ILE:HG12	15:l:77:LEU:HD21	1.74	0.69
15:m:90:THR:O	15:m:94:ILE:HG12	1.92	0.69
7:G:30:VAL:CG1	7:G:134:SER:HB2	2.23	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:a:115:SER:OG	13:a:128:ARG:HD2	1.92	0.69
1:A:205:PHE:O	1:A:208:THR:HB	1.91	0.69
2:B:227:ILE:HG12	9:I:186:TYR:HD2	1.58	0.69
10:X:146:GLU:HB3	10:X:149:LEU:HD21	1.74	0.69
15:c:133:SER:O	15:c:137:PRO:HD3	1.92	0.69
15:k:90:THR:O	15:k:94:ILE:HG12	1.93	0.69
3:C:169:THR:O	3:C:173:GLN:HB2	1.92	0.69
5:E:8:TYR:O	5:E:9:ASP:HB2	1.92	0.69
6:F:78:ALA:HB3	6:F:79:PRO:HD3	1.74	0.69
13:M:14:LEU:HD13	13:M:34:VAL:HG13	1.75	0.69
3:Q:170:SER:O	3:Q:174:THR:HG23	1.93	0.69
6:T:33:SER:HB3	6:T:62:LYS:NZ	2.06	0.69
11:Y:-1:MET:SD	11:Y:133:GLY:HA3	2.32	0.69
13:a:7:ALA:HB2	13:a:113:VAL:HG23	1.73	0.69
15:d:30:ALA:O	15:d:33:LEU:HB3	1.92	0.69
5:S:170:LYS:HD2	5:S:171:ALA:H	1.57	0.69
5:S:209:GLU:HB3	5:S:210:GLU:OE2	1.92	0.69
15:h:61:GLU:HG2	15:h:62:LYS:N	2.07	0.69
15:k:61:GLU:HG2	15:k:62:LYS:H	1.56	0.69
2:B:66:LEU:HD13	2:B:235:PHE:CD1	2.28	0.69
1:A:203:VAL:O	1:A:207:ILE:HG13	1.94	0.68
7:G:243:GLN:O	7:G:246:ILE:HG22	1.92	0.68
3:Q:131:PHE:O	3:Q:153:PRO:HB3	1.93	0.68
4:R:64:VAL:HG11	4:R:213:THR:HG21	1.75	0.68
8:V:40:LYS:NZ	8:V:182:GLY:HA2	2.08	0.68
10:X:6:MET:HE2	10:X:145:TYR:HD1	1.57	0.68
1:O:203:VAL:O	1:O:207:ILE:HG13	1.93	0.68
15:d:72:GLN:O	15:d:76:ASP:HB2	1.92	0.68
1:A:137:LEU:N	1:A:137:LEU:HD23	2.07	0.68
2:B:118:MET:SD	2:B:152:PRO:HA	2.34	0.68
11:K:-1:MET:SD	11:K:133:GLY:HA3	2.33	0.68
15:e:138:THR:HG21	15:e:142:MET:HE3	1.73	0.68
15:e:177:PRO:HG3	15:f:62:LYS:HA	1.75	0.68
15:j:61:GLU:HG2	15:j:62:LYS:N	2.08	0.68
15:k:176:SER:CB	15:l:142:MET:HB2	2.17	0.68
5:E:142:LEU:HB3	5:E:144:ILE:CD1	2.23	0.68
9:I:163:ILE:HG23	9:I:170:GLY:HA2	1.76	0.68
4:R:73:LEU:HD12	4:R:135:ILE:HG12	1.74	0.68
14:b:36:PRO:HA	14:b:42:VAL:HA	1.75	0.68
15:f:213:LEU:HD22	15:g:9:ILE:HG23	1.76	0.68
15:i:25:ILE:HD11	15:i:91:VAL:CG2	2.24	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:i:135:GLY:O	15:i:139:PRO:HD3	1.93	0.68
15:j:9:ILE:HG23	15:p:213:LEU:HD22	1.74	0.68
15:p:61:GLU:HG2	15:p:62:LYS:N	2.09	0.68
1:O:16:ILE:HG22	1:O:17:THR:N	2.09	0.68
6:T:2:PHE:CD1	6:T:3:ARG:HG2	2.29	0.68
15:c:22:PHE:HZ	15:d:9:ILE:CD1	2.04	0.68
15:d:61:GLU:HG2	15:d:62:LYS:H	1.58	0.68
15:d:61:GLU:HG2	15:d:62:LYS:N	2.09	0.68
15:i:24:VAL:HG12	15:i:28:TRP:HE1	1.58	0.68
15:l:61:GLU:HG2	15:l:62:LYS:H	1.58	0.68
15:p:216:TRP:O	15:p:220:ILE:HD12	1.92	0.68
7:G:49:VAL:HG22	7:G:50:GLU:H	1.59	0.68
14:N:57:ARG:HG2	14:N:57:ARG:HH11	1.58	0.68
15:h:103:ASP:HB3	15:h:223:ARG:HG2	1.76	0.68
15:l:59:GLN:HG2	15:l:60:ALA:H	1.58	0.68
15:l:210:ASN:O	15:l:214:LEU:HD13	1.93	0.68
15:m:39:ILE:HG12	15:m:77:LEU:HD21	1.76	0.68
1:O:25:LEU:O	1:O:28:VAL:HG22	1.94	0.68
2:P:111:VAL:HG12	2:P:156:TYR:HD2	1.57	0.68
7:U:231:LYS:HA	7:U:235:LEU:HD22	1.76	0.68
15:g:90:THR:O	15:g:94:ILE:HG12	1.94	0.68
15:k:133:SER:O	15:k:137:PRO:HD3	1.94	0.68
15:n:90:THR:O	15:n:94:ILE:HG12	1.93	0.68
4:R:203:VAL:HG21	4:R:210:ILE:HD11	1.75	0.68
12:Z:35:ILE:HD11	12:Z:45:MET:CE	2.23	0.68
15:c:138:THR:HG21	15:c:142:MET:HE3	1.75	0.68
15:d:133:SER:O	15:d:137:PRO:HD3	1.94	0.68
15:j:62:LYS:HA	15:p:177:PRO:HG3	1.75	0.68
15:l:61:GLU:HG2	15:l:62:LYS:N	2.08	0.68
14:N:224:LYS:HG3	14:N:225:ILE:H	1.59	0.68
15:f:90:THR:O	15:f:94:ILE:HG12	1.94	0.68
15:h:17:THR:HG22	15:h:94:ILE:HG22	1.75	0.68
15:j:133:SER:O	15:j:137:PRO:HD3	1.94	0.68
5:E:209:GLU:HB3	5:E:210:GLU:OE2	1.93	0.67
6:F:113:CYS:SG	6:F:151:GLY:O	2.50	0.67
13:M:187:ILE:HD11	9:W:24:PRO:HA	1.76	0.67
1:O:234:PHE:HD1	1:O:234:PHE:N	1.92	0.67
10:X:52:THR:O	10:X:56:GLU:HG2	1.94	0.67
14:b:87:TYR:CD2	14:b:88:LEU:HD23	2.29	0.67
15:h:90:THR:O	15:h:94:ILE:HG12	1.94	0.67
8:H:126:ILE:HD12	8:H:134:ILE:HG13	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:205:PHE:O	1:O:208:THR:HB	1.94	0.67
2:P:95:THR:HA	2:P:99:ARG:HD2	1.77	0.67
7:U:30:VAL:CG1	7:U:134:SER:HB2	2.24	0.67
9:W:160:GLN:O	9:W:164:TRP:HD1	1.78	0.67
15:c:90:THR:O	15:c:94:ILE:HG12	1.93	0.67
15:f:22:PHE:CZ	15:g:9:ILE:HD11	2.27	0.67
9:I:172:ASN:OD1	9:I:192:THR:HG22	1.92	0.67
10:J:129:VAL:HB	10:J:137:LEU:HD13	1.76	0.67
14:N:40:ASN:H	14:N:40:ASN:ND2	1.90	0.67
7:U:109:PRO:HA	7:U:148:TYR:OH	1.94	0.67
8:V:107:LYS:HD2	8:V:108:GLY:N	2.07	0.67
1:A:240:ASN:H	1:A:240:ASN:ND2	1.93	0.67
8:H:67:THR:HA	8:H:71:GLY:O	1.93	0.67
7:U:143:ASN:HD22	7:U:143:ASN:N	1.89	0.67
7:U:243:GLN:O	7:U:246:ILE:HG22	1.95	0.67
15:e:133:SER:O	15:e:137:PRO:HD3	1.93	0.67
15:f:25:ILE:HD11	15:f:91:VAL:CG2	2.24	0.67
3:C:58:GLU:HG2	3:C:59:GLN:H	1.58	0.67
8:H:32:ASP:CG	14:b:219:GLY:H	2.01	0.67
6:T:113:CYS:SG	6:T:151:GLY:O	2.47	0.67
15:e:72:GLN:O	15:e:76:ASP:HB2	1.95	0.67
15:g:59:GLN:HG2	15:g:60:ALA:H	1.59	0.67
15:j:39:ILE:HG22	15:j:198:THR:HG23	1.75	0.67
1:A:26:TYR:OH	15:d:102:GLU:HB3	1.94	0.67
9:W:22:GLN:HE21	9:W:22:GLN:CA	2.06	0.67
15:j:103:ASP:HB3	15:j:223:ARG:HG2	1.76	0.67
14:N:181:ALA:HA	8:V:19:ARG:HH12	1.60	0.67
15:g:133:SER:O	15:g:137:PRO:HD3	1.95	0.67
15:i:133:SER:O	15:i:137:PRO:HD3	1.94	0.67
15:n:61:GLU:HG2	15:n:62:LYS:N	2.09	0.67
15:o:90:THR:O	15:o:94:ILE:HG12	1.93	0.67
8:V:8:PHE:CE2	8:V:148:LYS:HA	2.28	0.67
14:b:143:ALA:C	14:b:145:PRO:HD2	2.20	0.67
15:d:216:TRP:N	15:d:219:LEU:HD13	2.10	0.67
15:j:24:VAL:HG12	15:j:28:TRP:HE1	1.59	0.67
15:m:72:GLN:O	15:m:76:ASP:HB2	1.94	0.67
15:o:72:GLN:O	15:o:76:ASP:HB2	1.94	0.67
1:A:199:TRP:O	1:A:203:VAL:HG23	1.95	0.67
4:R:37:LYS:HE2	4:R:160:SER:HA	1.77	0.67
15:p:17:THR:HG22	15:p:94:ILE:HG22	1.76	0.67
15:p:133:SER:O	15:p:137:PRO:HD3	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:2:PHE:CD1	6:F:3:ARG:HG2	2.30	0.67
1:O:24:ARG:C	1:O:25:LEU:HD12	2.20	0.67
3:Q:58:GLU:HG2	3:Q:59:GLN:H	1.60	0.67
10:X:29:ASN:O	10:X:30:LYS:HG3	1.95	0.67
15:n:25:ILE:HD11	15:n:91:VAL:CG2	2.25	0.67
8:V:67:THR:HG22	8:V:73:PRO:HD3	1.77	0.66
15:d:25:ILE:HD11	15:d:91:VAL:CG2	2.25	0.66
15:o:25:ILE:HD11	15:o:91:VAL:CG2	2.25	0.66
15:m:135:GLY:O	15:m:139:PRO:HD3	1.96	0.66
8:H:19:ARG:HB3	8:H:170:GLY:H	1.59	0.66
8:H:165:TRP:C	14:b:26:LEU:HD23	2.20	0.66
1:O:22:GLU:HA	2:P:26:THR:HG21	1.76	0.66
2:P:40:THR:HG23	2:P:183:LEU:O	1.95	0.66
7:G:9:LEU:H	7:G:9:LEU:HD12	1.60	0.66
7:G:34:THR:O	7:G:165:GLY:HA3	1.96	0.66
8:H:13:ILE:HG23	8:H:176:VAL:O	1.95	0.66
4:R:70:HIS:ND1	4:R:71:VAL:HG23	2.10	0.66
15:j:61:GLU:HG2	15:j:62:LYS:H	1.59	0.66
2:B:200:VAL:HG11	2:B:203:GLU:O	1.95	0.66
9:W:172:ASN:OD1	9:W:192:THR:HG22	1.96	0.66
15:f:138:THR:HG21	15:f:142:MET:HE3	1.76	0.66
15:g:216:TRP:O	15:g:220:ILE:HD12	1.94	0.66
8:V:155:ILE:HG21	8:V:175:MET:SD	2.35	0.66
15:c:16:TYR:OH	15:i:33:LEU:HG	1.95	0.66
15:h:24:VAL:HG12	15:h:28:TRP:HE1	1.61	0.66
15:k:39:ILE:HG22	15:k:198:THR:HG23	1.76	0.66
15:o:17:THR:HG22	15:o:94:ILE:HG22	1.76	0.66
1:A:16:ILE:HG22	1:A:17:THR:N	2.10	0.66
5:S:204:LEU:O	5:S:208:MET:HB2	1.96	0.66
9:W:38:SER:HB2	9:W:41:ILE:HD13	1.77	0.66
9:W:52:THR:O	9:W:56:THR:HG23	1.96	0.66
15:f:59:GLN:HG2	15:f:60:ALA:H	1.61	0.66
15:g:39:ILE:HG12	15:g:77:LEU:HD21	1.77	0.66
15:h:177:PRO:HG3	15:i:62:LYS:HA	1.77	0.66
15:n:30:ALA:O	15:n:33:LEU:HB3	1.96	0.66
9:I:147:THR:H	9:I:150:GLU:HB2	1.61	0.66
13:M:115:SER:OG	13:M:128:ARG:HD2	1.95	0.66
15:c:59:GLN:HG2	15:c:60:ALA:H	1.61	0.66
15:d:216:TRP:O	15:d:220:ILE:HD12	1.95	0.66
15:g:25:ILE:HD11	15:g:91:VAL:CG2	2.26	0.66
15:n:135:GLY:O	15:n:139:PRO:HD3	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:p:59:GLN:HG2	15:p:60:ALA:H	1.61	0.66
1:A:244:ARG:O	1:A:248:ILE:HG12	1.96	0.66
4:D:64:VAL:HG11	4:D:213:THR:HG21	1.77	0.66
14:N:121:TYR:HE1	14:N:123:ASN:ND2	1.93	0.66
8:V:126:ILE:HD12	8:V:134:ILE:HG13	1.77	0.66
14:b:17:ASP:HA	14:b:187:PHE:HB3	1.78	0.66
15:c:135:GLY:O	15:c:139:PRO:HD3	1.96	0.66
15:m:22:PHE:HZ	15:n:9:ILE:CD1	2.08	0.66
15:m:25:ILE:HD11	15:m:91:VAL:CG2	2.26	0.66
1:A:54:ILE:HG21	1:A:210:MET:SD	2.36	0.66
1:O:53:VAL:O	1:O:225:VAL:HG13	1.96	0.66
2:P:110:LEU:O	2:P:114:VAL:HG23	1.95	0.66
2:P:111:VAL:HG12	2:P:156:TYR:CD2	2.30	0.66
14:b:157:ILE:N	14:b:158:PRO:HD2	2.11	0.66
1:A:234:PHE:HD1	1:A:234:PHE:N	1.93	0.65
9:I:165:ASN:ND2	14:b:145:PRO:HA	2.11	0.65
2:P:200:VAL:HG11	2:P:203:GLU:O	1.96	0.65
9:W:217:ILE:N	9:W:217:ILE:HD12	2.11	0.65
15:e:59:GLN:HG2	15:e:60:ALA:H	1.62	0.65
15:p:135:GLY:O	15:p:139:PRO:HD3	1.96	0.65
2:P:214:ILE:HD13	2:P:235:PHE:HA	1.78	0.65
1:A:129:THR:HG22	2:B:128:ARG:HH21	1.61	0.65
11:K:4:LEU:HB2	11:K:15:ALA:HB3	1.78	0.65
15:o:61:GLU:HG2	15:o:62:LYS:H	1.61	0.65
1:A:115:ASP:HB3	1:A:155:TYR:CE1	2.32	0.65
8:V:147:SER:H	8:V:150:GLU:HB3	1.61	0.65
15:g:216:TRP:N	15:g:219:LEU:HD13	2.12	0.65
15:n:133:SER:O	15:n:137:PRO:HD3	1.96	0.65
1:A:87:ILE:O	1:A:91:ARG:HG3	1.97	0.65
5:E:45:GLY:HA2	5:E:153:TYR:CE1	2.31	0.65
11:K:191:VAL:O	11:K:191:VAL:HG12	1.96	0.65
14:N:87:TYR:CD2	14:N:88:LEU:HD23	2.31	0.65
15:g:138:THR:HG21	15:g:142:MET:HE3	1.79	0.65
15:e:17:THR:HG22	15:e:94:ILE:HG22	1.78	0.65
15:f:24:VAL:HG12	15:f:28:TRP:HE1	1.61	0.65
15:h:213:LEU:HD22	15:i:9:ILE:HG23	1.79	0.65
15:k:135:GLY:O	15:k:139:PRO:HD3	1.96	0.65
15:o:133:SER:O	15:o:137:PRO:HD3	1.97	0.65
3:Q:90:THR:HA	3:Q:93:ILE:HD12	1.77	0.65
4:R:31:THR:HB	4:R:63:LYS:NZ	2.11	0.65
8:V:13:ILE:CD1	8:V:177:VAL:HG22	2.26	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:j:135:GLY:O	15:j:139:PRO:HD3	1.97	0.65
15:o:210:ASN:O	15:o:214:LEU:HD13	1.97	0.65
5:E:113:THR:O	5:E:116:VAL:HG23	1.96	0.65
7:G:197:LYS:HG2	7:G:201:LEU:HD21	1.79	0.65
15:c:25:ILE:HD11	15:c:91:VAL:CG2	2.26	0.65
15:e:22:PHE:HZ	15:f:9:ILE:HD11	1.61	0.65
15:k:22:PHE:CZ	15:l:9:ILE:HD11	2.30	0.65
15:n:59:GLN:HG2	15:n:60:ALA:H	1.60	0.65
15:n:206:ARG:HB3	15:o:94:ILE:HD11	1.79	0.65
1:A:128:TYR:HD1	1:A:133:TYR:HE1	1.44	0.65
14:N:73:ALA:HA	14:N:77:GLU:O	1.96	0.65
15:k:59:GLN:HG2	15:k:60:ALA:H	1.61	0.65
15:m:177:PRO:HG3	15:n:62:LYS:HA	1.79	0.65
9:I:22:GLN:HE21	9:I:22:GLN:CA	2.08	0.65
2:P:66:LEU:HD13	2:P:235:PHE:CD1	2.32	0.65
9:W:1:THR:HA	9:W:33:LYS:HZ3	1.62	0.65
10:X:3:VAL:HG22	10:X:16:CYS:HB3	1.79	0.65
15:f:17:THR:HG22	15:f:94:ILE:HG22	1.79	0.65
15:k:216:TRP:O	15:k:220:ILE:HD12	1.97	0.65
3:C:76:ALA:HB3	3:C:136:ILE:HB	1.78	0.64
5:E:15:PHE:HB2	6:F:21:GLN:OE1	1.97	0.64
8:H:147:SER:H	8:H:150:GLU:HB3	1.61	0.64
1:O:234:PHE:N	1:O:234:PHE:CD1	2.64	0.64
5:S:12:VAL:H	5:S:23:GLN:HG3	1.62	0.64
15:h:25:ILE:HD11	15:h:91:VAL:CG2	2.28	0.64
15:l:138:THR:HG21	15:l:142:MET:HE3	1.77	0.64
15:m:138:THR:HG21	15:m:142:MET:HE3	1.79	0.64
15:o:138:THR:HG21	15:o:142:MET:HE3	1.78	0.64
4:D:11:PHE:H	5:E:23:GLN:HE22	1.42	0.64
9:I:24:PRO:HA	13:a:187:ILE:HD11	1.79	0.64
13:a:147:PHE:CD1	13:a:161:LYS:HE3	2.33	0.64
14:b:224:LYS:HG3	14:b:225:ILE:H	1.61	0.64
15:j:59:GLN:HG2	15:j:60:ALA:H	1.61	0.64
15:k:72:GLN:O	15:k:76:ASP:HB2	1.97	0.64
15:p:61:GLU:HG2	15:p:62:LYS:H	1.61	0.64
14:N:157:ILE:N	14:N:158:PRO:HD2	2.13	0.64
3:Q:216:ILE:HG12	3:Q:227:GLN:HB3	1.78	0.64
6:T:208:VAL:O	6:T:227:GLY:HA2	1.98	0.64
7:U:21:PHE:HA	7:U:24:GLU:CG	2.27	0.64
10:X:129:VAL:HB	10:X:137:LEU:HD13	1.79	0.64
15:m:216:TRP:O	15:m:220:ILE:HD12	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:46:ALA:HB2	2:B:211:LEU:CD1	2.22	0.64
4:R:188:VAL:O	4:R:192:VAL:HG23	1.98	0.64
15:d:24:VAL:HG12	15:d:28:TRP:HE1	1.63	0.64
15:f:204:MET:O	15:f:208:VAL:HG23	1.97	0.64
15:o:61:GLU:HG2	15:o:62:LYS:N	2.13	0.64
4:D:70:HIS:ND1	4:D:71:VAL:HG23	2.12	0.64
8:H:156:LYS:HZ3	8:H:188:PHE:HD1	1.45	0.64
9:I:59:ILE:HG12	9:I:83:LEU:HD23	1.80	0.64
15:m:17:THR:HG22	15:m:94:ILE:HG22	1.78	0.64
15:n:39:ILE:HG22	15:n:198:THR:HG23	1.80	0.64
8:H:8:PHE:CE2	8:H:148:LYS:HA	2.31	0.64
5:S:15:PHE:HB2	6:T:21:GLN:OE1	1.98	0.64
2:B:44:VAL:HA	2:B:213:ILE:HG22	1.80	0.64
12:L:176:ASN:ND2	12:L:190:ASN:HD22	1.95	0.64
1:O:227:VAL:HB	1:O:234:PHE:CE1	2.32	0.64
15:e:90:THR:O	15:e:94:ILE:HG12	1.98	0.64
3:C:66:LEU:HD23	3:C:212:GLU:HB3	1.80	0.64
5:E:31:ILE:HD13	5:E:141:ALA:HB2	1.79	0.64
15:c:103:ASP:HB2	15:c:223:ARG:HE	1.62	0.64
15:g:210:ASN:O	15:g:214:LEU:HD13	1.96	0.64
15:m:12:LEU:O	15:m:16:TYR:HD1	1.81	0.64
15:m:133:SER:O	15:m:137:PRO:HD3	1.98	0.64
1:A:204:GLU:HB3	1:A:248:ILE:CG2	2.28	0.64
14:b:17:ASP:HA	14:b:187:PHE:CB	2.28	0.64
15:e:24:VAL:HG12	15:e:28:TRP:HE1	1.62	0.64
15:h:59:GLN:HG2	15:h:60:ALA:H	1.63	0.64
7:U:21:PHE:HA	7:U:24:GLU:HG2	1.80	0.64
7:U:42:ASN:HD21	7:U:187:SER:HA	1.61	0.64
15:k:12:LEU:O	15:k:16:TYR:HD1	1.80	0.64
10:J:178:VAL:HG23	10:J:191:LEU:HD21	1.80	0.63
8:V:58:ILE:O	8:V:61:TYR:HB3	1.97	0.63
9:W:156:SER:O	9:W:160:GLN:HG3	1.98	0.63
15:g:70:VAL:HG11	15:g:191:MET:HE1	1.80	0.63
15:i:72:GLN:O	15:i:76:ASP:HB2	1.98	0.63
1:A:128:TYR:HA	1:A:133:TYR:CE1	2.33	0.63
1:A:178:ILE:O	1:A:182:LEU:HG	1.99	0.63
4:D:66:LYS:HA	4:D:72:VAL:HG12	1.78	0.63
8:H:1:THR:HA	8:H:33:LYS:HZ1	1.60	0.63
12:L:4:LEU:C	12:L:4:LEU:HD22	2.23	0.63
14:N:85:PHE:HB2	14:N:108:VAL:HG21	1.80	0.63
1:O:16:ILE:HG22	1:O:17:THR:H	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:128:TYR:HD1	1:O:133:TYR:HE1	1.44	0.63
6:T:23:GLU:HA	6:T:26:LEU:HD12	1.80	0.63
13:a:168:VAL:HG22	13:a:172:ILE:HD11	1.79	0.63
15:e:216:TRP:O	15:e:220:ILE:HD12	1.99	0.63
15:l:25:ILE:HD11	15:l:91:VAL:CG2	2.28	0.63
9:I:19:ARG:HH22	13:a:213:ASP:HB2	1.64	0.63
3:Q:96:GLN:NE2	10:X:63:ASN:HD22	1.93	0.63
8:V:177:VAL:HB	8:V:184:GLU:HB3	1.79	0.63
15:e:25:ILE:HD11	15:e:91:VAL:CG2	2.27	0.63
15:h:224:THR:HG22	15:h:226:THR:H	1.63	0.63
5:E:51:GLU:HG3	5:E:208:MET:HG2	1.81	0.63
13:a:91:LYS:HB3	13:a:94:PHE:O	1.98	0.63
3:C:218:LYS:HG2	3:C:224:GLU:O	1.99	0.63
10:X:89:ARG:HG3	10:X:94:TYR:CE2	2.34	0.63
15:j:72:GLN:O	15:j:76:ASP:HB2	1.99	0.63
15:l:135:GLY:O	15:l:139:PRO:HD3	1.98	0.63
15:m:24:VAL:HG12	15:m:28:TRP:HE1	1.63	0.63
15:n:24:VAL:HG12	15:n:28:TRP:HE1	1.64	0.63
2:B:211:LEU:HG	2:B:212:ALA:N	2.14	0.63
3:C:96:GLN:NE2	10:J:63:ASN:HD22	1.92	0.63
5:E:109:VAL:HB	5:E:154:GLN:NE2	2.12	0.63
10:J:89:ARG:HG3	10:J:94:TYR:CE2	2.33	0.63
14:N:87:TYR:O	14:N:91:VAL:HG23	1.99	0.63
1:O:44:ALA:CB	1:O:53:VAL:HG12	2.28	0.63
15:e:28:TRP:CZ2	15:e:87:THR:HG21	2.34	0.63
15:f:133:SER:O	15:f:137:PRO:HD3	1.99	0.63
15:l:213:LEU:HD22	15:m:9:ILE:HG23	1.81	0.63
15:o:30:ALA:O	15:o:33:LEU:HB3	1.99	0.63
1:A:43:LEU:HD12	1:A:178:ILE:CG2	2.28	0.63
11:Y:127:LEU:HD22	11:Y:128:PRO:HD2	1.81	0.63
11:Y:191:VAL:O	11:Y:193:ASP:N	2.32	0.63
15:e:135:GLY:O	15:e:139:PRO:HD3	1.98	0.63
15:i:17:THR:HG22	15:i:94:ILE:HG22	1.81	0.63
1:A:227:VAL:HB	1:A:234:PHE:CE1	2.33	0.63
2:B:89:SER:O	2:B:92:VAL:HG12	1.99	0.63
4:D:54:LEU:HG	4:D:54:LEU:O	1.99	0.63
1:O:126:GLN:HE21	1:O:127:ILE:N	1.97	0.63
1:O:181:ASN:HB3	1:O:209:HIS:HE1	1.61	0.63
1:O:244:ARG:O	1:O:248:ILE:HG12	1.99	0.63
14:b:85:PHE:HB2	14:b:108:VAL:HG21	1.81	0.63
15:i:204:MET:O	15:i:208:VAL:HG23	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:l:30:ALA:O	15:l:33:LEU:HB3	1.99	0.63
15:o:59:GLN:HG2	15:o:60:ALA:H	1.62	0.63
15:o:70:VAL:HG11	15:o:191:MET:HE1	1.81	0.63
15:p:138:THR:HG21	15:p:142:MET:HE3	1.81	0.63
4:D:22:TYR:O	4:D:25:GLU:HB2	1.99	0.63
1:O:137:LEU:N	1:O:137:LEU:HD23	2.13	0.63
1:O:204:GLU:HB3	1:O:248:ILE:CG2	2.28	0.63
1:A:21:PRO:HA	2:B:23:TYR:CD1	2.34	0.62
1:A:103:GLU:HA	8:H:61:TYR:HE2	1.62	0.62
1:A:234:PHE:N	1:A:234:PHE:CD1	2.65	0.62
1:O:181:ASN:HD22	1:O:181:ASN:N	1.97	0.62
2:P:227:ILE:HG12	9:W:186:TYR:HD2	1.63	0.62
4:R:54:LEU:O	4:R:54:LEU:HG	1.99	0.62
15:d:176:SER:OG	15:d:179:LEU:HB2	1.99	0.62
15:f:216:TRP:O	15:f:220:ILE:HD12	1.98	0.62
15:j:204:MET:O	15:j:208:VAL:HG23	1.98	0.62
3:C:90:THR:HA	3:C:93:ILE:HD12	1.80	0.62
9:I:84:LYS:HE3	9:I:119:THR:CG2	2.29	0.62
13:M:168:VAL:HG22	13:M:172:ILE:HD11	1.81	0.62
14:N:135:ALA:HB1	14:N:139:GLY:HA3	1.80	0.62
8:V:1:THR:HA	8:V:33:LYS:HZ1	1.62	0.62
11:Y:168:GLU:HG2	11:Y:175:PHE:HZ	1.65	0.62
15:i:70:VAL:HG11	15:i:191:MET:HE1	1.80	0.62
1:A:25:LEU:O	1:A:28:VAL:HG22	1.98	0.62
3:C:199:LYS:O	3:C:200:THR:HG23	2.00	0.62
3:C:210:ARG:HH11	3:C:210:ARG:HG3	1.63	0.62
5:E:204:LEU:O	5:E:208:MET:HB2	1.98	0.62
1:O:20:SER:HB2	1:O:21:PRO:HD2	1.80	0.62
3:Q:210:ARG:HG3	3:Q:210:ARG:HH11	1.64	0.62
15:c:17:THR:HG22	15:c:94:ILE:HG22	1.81	0.62
15:j:216:TRP:N	15:j:219:LEU:HD13	2.14	0.62
15:k:213:LEU:HD22	15:l:9:ILE:HG23	1.80	0.62
15:l:24:VAL:HG12	15:l:28:TRP:HE1	1.63	0.62
15:o:39:ILE:HG12	15:o:77:LEU:HD21	1.81	0.62
4:D:37:LYS:HE2	4:D:160:SER:HA	1.81	0.62
5:E:177:GLU:H	5:E:177:GLU:CD	2.07	0.62
13:M:1:GLY:HA3	13:M:33:LYS:HE2	1.80	0.62
7:U:19:ARG:CB	7:U:19:ARG:HH11	2.11	0.62
15:g:17:THR:HG22	15:g:94:ILE:HG22	1.80	0.62
15:h:210:ASN:O	15:h:214:LEU:HD13	1.98	0.62
9:I:156:SER:O	9:I:160:GLN:HG3	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:66:HIS:HD2	12:L:74:ILE:HB	1.63	0.62
2:P:89:SER:O	2:P:92:VAL:HG12	1.98	0.62
8:V:13:ILE:HG23	8:V:176:VAL:O	1.99	0.62
12:Z:4:LEU:C	12:Z:4:LEU:HD22	2.24	0.62
15:p:30:ALA:O	15:p:33:LEU:HB3	1.99	0.62
4:D:151:GLU:HB2	4:D:152:PRO:HD2	1.82	0.62
3:Q:66:LEU:HD23	3:Q:212:GLU:HB3	1.81	0.62
4:R:151:GLU:HG2	4:R:155:ILE:HG13	1.81	0.62
5:S:124:GLY:H	5:S:132:ARG:HB2	1.63	0.62
15:i:39:ILE:HG12	15:i:77:LEU:HD21	1.80	0.62
15:o:24:VAL:HG12	15:o:28:TRP:HE1	1.65	0.62
2:B:178:ARG:NH2	2:B:194:LEU:HD12	2.14	0.62
8:V:123:PRO:HB2	8:V:124:TYR:HD1	1.64	0.62
15:e:216:TRP:N	15:e:219:LEU:HD13	2.14	0.62
1:A:128:TYR:HD1	1:A:133:TYR:CE1	2.18	0.62
8:V:19:ARG:HB3	8:V:170:GLY:H	1.63	0.62
9:W:7:LYS:HA	9:W:12:VAL:HA	1.79	0.62
1:A:38:THR:CA	15:e:231:SER:HB3	2.22	0.62
2:B:36:GLY:O	2:B:161:ALA:HA	2.00	0.62
15:l:216:TRP:O	15:l:220:ILE:HD12	2.00	0.62
15:n:39:ILE:HG12	15:n:77:LEU:HD21	1.80	0.62
2:B:238:LEU:N	2:B:238:LEU:HD12	2.14	0.62
3:Q:199:LYS:O	3:Q:200:THR:HG23	2.00	0.62
3:Q:218:LYS:HG2	3:Q:224:GLU:O	2.00	0.62
15:k:24:VAL:HG12	15:k:28:TRP:HE1	1.65	0.62
15:n:17:THR:HG22	15:n:94:ILE:HG22	1.81	0.62
15:n:138:THR:HG21	15:n:142:MET:HE3	1.82	0.62
15:p:25:ILE:HD12	15:p:88:ILE:HA	1.82	0.62
6:F:33:SER:HB3	6:F:62:LYS:NZ	2.14	0.61
11:K:168:GLU:HG2	11:K:175:PHE:HZ	1.65	0.61
12:L:196:LEU:O	12:L:200:VAL:HG23	1.98	0.61
1:A:146:VAL:HG22	1:A:152:PRO:CA	2.30	0.61
1:O:202:VAL:O	1:O:205:PHE:HB3	2.00	0.61
5:S:219:LEU:O	5:S:231:TYR:HB2	2.00	0.61
8:V:157:HIS:NE2	8:V:196:LEU:HD13	2.14	0.61
15:g:61:GLU:O	15:g:62:LYS:HB2	2.00	0.61
15:i:103:ASP:HB2	15:i:223:ARG:HE	1.65	0.61
6:F:185:ASN:HD22	6:F:186:PRO:N	1.97	0.61
7:G:19:ARG:CB	7:G:19:ARG:HH11	2.13	0.61
13:M:4:LEU:HD12	13:M:5:GLY:N	2.15	0.61
2:P:112:SER:HA	2:P:156:TYR:HE2	1.63	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:Y:4:LEU:HB2	11:Y:15:ALA:HB3	1.82	0.61
15:n:216:TRP:N	15:n:219:LEU:HD13	2.14	0.61
2:B:214:ILE:HD13	2:B:235:PHE:HA	1.82	0.61
3:C:133:VAL:HG12	3:C:134:SER:N	2.16	0.61
4:D:203:VAL:HG21	4:D:210:ILE:HD11	1.81	0.61
1:O:54:ILE:HG21	1:O:210:MET:SD	2.40	0.61
10:X:129:VAL:HB	10:X:137:LEU:CD1	2.30	0.61
15:c:61:GLU:O	15:c:62:LYS:HB2	2.00	0.61
15:n:216:TRP:O	15:n:220:ILE:HD12	1.99	0.61
15:p:25:ILE:HD11	15:p:91:VAL:CG2	2.30	0.61
6:T:144:LEU:C	6:T:145:LEU:HD12	2.25	0.61
9:W:147:THR:H	9:W:150:GLU:HB2	1.65	0.61
15:e:61:GLU:O	15:e:62:LYS:HB2	1.98	0.61
15:h:70:VAL:HG11	15:h:191:MET:HE1	1.82	0.61
15:i:138:THR:N	15:i:139:PRO:HD2	2.16	0.61
15:j:103:ASP:HB2	15:j:223:ARG:NE	2.15	0.61
15:k:17:THR:HG22	15:k:94:ILE:HG22	1.81	0.61
1:A:16:ILE:HG22	1:A:17:THR:H	1.66	0.61
8:H:4:MET:HB2	8:H:126:ILE:HG22	1.80	0.61
1:O:43:LEU:HD12	1:O:178:ILE:CG2	2.31	0.61
8:V:14:LEU:HD12	8:V:34:LEU:HD22	1.83	0.61
12:Z:53:GLN:OE1	13:a:121:SER:HA	2.01	0.61
15:l:12:LEU:O	15:l:16:TYR:HD1	1.84	0.61
1:A:181:ASN:HD22	1:A:181:ASN:N	1.98	0.61
1:A:200:GLU:O	1:A:204:GLU:HG3	2.01	0.61
5:E:192:THR:HG23	5:E:195:GLU:OE1	2.00	0.61
12:Z:196:LEU:O	12:Z:200:VAL:HG23	2.00	0.61
1:A:204:GLU:HB3	1:A:248:ILE:HG21	1.82	0.61
2:B:111:VAL:HG12	2:B:156:TYR:HD2	1.64	0.61
7:G:94:GLU:HG2	7:G:114:ARG:HD2	1.83	0.61
9:I:52:THR:O	9:I:55:VAL:HG12	2.00	0.61
14:N:57:ARG:O	14:N:61:ASP:HB2	2.00	0.61
3:Q:87:LEU:H	3:Q:87:LEU:HD12	1.66	0.61
15:i:59:GLN:HG2	15:i:60:ALA:H	1.65	0.61
15:j:61:GLU:O	15:j:62:LYS:HB2	2.01	0.61
7:G:194:GLN:HE22	7:G:197:LYS:HZ1	1.49	0.61
13:M:117:ASP:HB2	13:M:121:SER:OG	2.01	0.61
1:O:72:ILE:HA	1:O:81:MET:O	2.01	0.61
1:O:178:ILE:O	1:O:182:LEU:HG	2.01	0.61
13:a:139:PRO:O	13:a:142:ASP:HB2	2.00	0.61
15:d:22:PHE:HZ	15:e:9:ILE:CD1	2.14	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:f:22:PHE:HZ	15:g:9:ILE:CD1	2.13	0.61
15:l:176:SER:OG	15:m:139:PRO:HA	2.01	0.61
9:I:172:ASN:ND2	9:I:192:THR:HA	2.16	0.61
10:J:9:LYS:HG3	10:J:148:ASN:HD22	1.66	0.61
14:N:35:ILE:O	14:N:43:VAL:HG22	2.01	0.61
1:O:17:THR:O	1:O:18:ILE:HG23	1.99	0.61
5:S:142:LEU:HB3	5:S:144:ILE:CD1	2.31	0.61
7:U:42:ASN:ND2	7:U:187:SER:HA	2.14	0.61
12:Z:25:TRP:CZ3	13:a:135:SER:HA	2.36	0.61
14:b:171:ASN:ND2	14:b:174:ARG:HH21	1.98	0.61
15:c:24:VAL:HG12	15:c:28:TRP:HE1	1.66	0.61
15:g:30:ALA:O	15:g:33:LEU:HB3	2.01	0.61
15:h:12:LEU:O	15:h:16:TYR:HD1	1.84	0.61
15:h:103:ASP:HB2	15:h:223:ARG:HE	1.66	0.61
15:k:70:VAL:HG11	15:k:191:MET:HE1	1.83	0.61
1:A:45:VAL:HG12	1:A:168:ALA:CB	2.31	0.60
14:N:17:ASP:HA	14:N:187:PHE:HB3	1.83	0.60
9:W:84:LYS:HE3	9:W:119:THR:CG2	2.30	0.60
15:l:39:ILE:HG22	15:l:198:THR:HG23	1.83	0.60
15:m:30:ALA:O	15:m:33:LEU:HB3	2.01	0.60
1:A:80:GLY:HA3	1:A:233:PHE:CZ	2.36	0.60
3:C:77:VAL:HG12	3:C:78:ALA:N	2.17	0.60
2:P:157:PHE:CZ	15:j:229:MET:HE3	2.37	0.60
2:P:178:ARG:NH2	2:P:194:LEU:HD12	2.17	0.60
15:d:22:PHE:CZ	15:e:9:ILE:HD11	2.31	0.60
2:B:68:THR:CG2	2:B:71:ILE:HB	2.30	0.60
6:F:208:VAL:O	6:F:227:GLY:HA2	2.01	0.60
7:G:194:GLN:O	7:G:198:ILE:HG13	2.01	0.60
12:L:54:PHE:C	12:L:54:PHE:CD2	2.78	0.60
14:N:120:ARG:NH1	14:N:130:SER:HB2	2.17	0.60
2:P:46:ALA:HB2	2:P:211:LEU:CD1	2.23	0.60
15:k:216:TRP:N	15:k:219:LEU:HD13	2.16	0.60
15:n:130:LYS:HA	15:n:133:SER:HB3	1.83	0.60
15:o:55:TYR:HA	15:o:184:ARG:HH21	1.66	0.60
1:A:126:GLN:NE2	1:A:127:ILE:N	2.49	0.60
3:C:216:ILE:HG12	3:C:227:GLN:HB3	1.83	0.60
5:E:124:GLY:H	5:E:132:ARG:HB2	1.65	0.60
1:O:41:ASN:OD1	1:O:173:PRO:HD2	2.01	0.60
1:O:162:TYR:HD1	1:O:162:TYR:C	2.10	0.60
4:R:105:THR:HG23	4:R:108:TYR:HB3	1.82	0.60
7:U:153:SER:HB3	15:l:230:VAL:HG13	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:V:4:MET:HB2	8:V:126:ILE:HG22	1.82	0.60
15:o:216:TRP:O	15:o:220:ILE:HD12	2.00	0.60
1:A:82:VAL:CG1	1:A:142:THR:HB	2.31	0.60
4:D:151:GLU:HG2	4:D:155:ILE:HG13	1.83	0.60
4:D:162:GLN:HE21	4:D:163:THR:N	1.97	0.60
9:W:59:ILE:HG12	9:W:83:LEU:HD23	1.81	0.60
9:W:84:LYS:HE3	9:W:119:THR:HG23	1.84	0.60
15:d:17:THR:HG22	15:d:94:ILE:HG22	1.82	0.60
15:j:25:ILE:HD11	15:j:91:VAL:CG2	2.30	0.60
15:n:109:VAL:HG21	15:n:218:LYS:HD3	1.83	0.60
8:H:58:ILE:O	8:H:61:TYR:HB3	2.01	0.60
10:J:129:VAL:HB	10:J:137:LEU:CD1	2.31	0.60
1:O:159:PRO:C	1:O:161:GLY:H	2.09	0.60
9:W:58:LEU:O	9:W:61:SER:HB3	2.02	0.60
10:X:9:LYS:HG3	10:X:148:ASN:HD22	1.66	0.60
15:c:39:ILE:CG2	15:c:198:THR:HG23	2.31	0.60
15:i:61:GLU:O	15:i:62:LYS:HB2	2.02	0.60
1:A:148:GLU:CD	1:A:148:GLU:H	2.10	0.60
5:E:59:LEU:HD13	5:E:60:GLU:N	2.17	0.60
9:I:173:VAL:O	9:I:189:ASN:HA	2.02	0.60
13:M:4:LEU:HD12	13:M:5:GLY:H	1.66	0.60
1:O:204:GLU:HB3	1:O:248:ILE:HG21	1.83	0.60
3:Q:77:VAL:HG22	3:Q:135:PHE:HE1	1.64	0.60
11:Y:152:THR:HG23	11:Y:155:GLU:OE1	2.01	0.60
15:d:28:TRP:HZ3	15:d:84:GLN:HG2	1.67	0.60
15:d:59:GLN:HG2	15:d:60:ALA:H	1.65	0.60
15:o:224:THR:HG22	15:o:226:THR:H	1.66	0.60
9:I:217:ILE:HD12	9:I:217:ILE:N	2.17	0.60
14:N:17:ASP:HA	14:N:187:PHE:CB	2.32	0.60
1:O:21:PRO:HA	2:P:23:TYR:CD1	2.37	0.60
1:O:240:ASN:ND2	1:O:240:ASN:H	1.97	0.60
4:R:224:LEU:HD23	4:R:229:ILE:HG12	1.83	0.60
7:U:175:LEU:HA	7:U:178:LEU:HD12	1.84	0.60
15:o:135:GLY:O	15:o:139:PRO:HD3	2.02	0.60
2:B:95:THR:HA	2:B:99:ARG:HD2	1.84	0.60
5:E:64:ILE:HD12	5:E:64:ILE:N	2.17	0.60
10:J:115:PHE:N	10:J:115:PHE:CD1	2.70	0.60
1:O:41:ASN:O	1:O:55:SER:HA	2.02	0.60
3:Q:39:MET:HE2	3:Q:146:TYR:HB3	1.82	0.60
12:Z:66:HIS:CD2	12:Z:74:ILE:HB	2.36	0.60
15:m:39:ILE:HG22	15:m:198:THR:HG23	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:m:213:LEU:HD22	15:n:9:ILE:HG23	1.82	0.60
1:A:75:ILE:HD11	1:A:81:MET:HE2	1.84	0.60
4:D:99:THR:O	4:D:100:LEU:HD13	2.01	0.60
7:G:98:PHE:C	7:G:98:PHE:CD1	2.80	0.60
14:N:105:ALA:C	14:N:106:ILE:HD12	2.27	0.60
14:N:145:PRO:HA	9:W:165:ASN:ND2	2.16	0.60
5:S:177:GLU:CD	5:S:177:GLU:H	2.10	0.60
11:Y:7:ARG:HG2	11:Y:7:ARG:HH11	1.66	0.60
15:f:216:TRP:N	15:f:219:LEU:HD13	2.16	0.60
15:i:205:VAL:O	15:i:209:ILE:HG12	2.01	0.60
15:p:205:VAL:O	15:p:209:ILE:HG12	2.01	0.60
6:F:23:GLU:HA	6:F:26:LEU:HD12	1.84	0.59
8:H:157:HIS:NE2	8:H:196:LEU:HD13	2.16	0.59
1:O:70:SER:O	1:O:71:TYR:HD1	1.84	0.59
1:O:128:TYR:HA	1:O:133:TYR:CE1	2.37	0.59
1:O:146:VAL:HG22	1:O:152:PRO:CA	2.31	0.59
15:f:30:ALA:O	15:f:33:LEU:HB3	2.02	0.59
4:D:224:LEU:HD23	4:D:229:ILE:HG12	1.83	0.59
14:N:143:ALA:C	14:N:145:PRO:HD2	2.26	0.59
1:O:46:ARG:HG3	1:O:167:LYS:O	2.03	0.59
14:b:40:ASN:H	14:b:40:ASN:ND2	1.93	0.59
15:d:176:SER:HB2	15:e:142:MET:SD	2.43	0.59
1:A:181:ASN:HB3	1:A:209:HIS:HE1	1.63	0.59
1:A:202:VAL:O	1:A:205:PHE:HB3	2.02	0.59
1:O:181:ASN:HD22	1:O:181:ASN:H	1.50	0.59
5:S:45:GLY:HA2	5:S:153:TYR:CE1	2.38	0.59
7:U:54:THR:HA	7:U:209:LYS:HD2	1.83	0.59
12:Z:54:PHE:C	12:Z:54:PHE:CD2	2.79	0.59
15:c:9:ILE:HD11	15:i:22:PHE:CZ	2.35	0.59
15:c:30:ALA:O	15:c:33:LEU:HB3	2.02	0.59
15:c:138:THR:N	15:c:139:PRO:HD2	2.17	0.59
15:l:147:GLU:HA	15:m:143:TYR:OH	2.01	0.59
1:A:131:ARG:HA	2:B:127:VAL:HG12	1.83	0.59
2:B:157:PHE:CZ	15:c:229:MET:HE3	2.36	0.59
3:C:77:VAL:HG22	3:C:135:PHE:HE1	1.67	0.59
1:O:33:LYS:HD2	1:O:33:LYS:N	2.17	0.59
8:V:14:LEU:CD1	8:V:34:LEU:HD22	2.33	0.59
10:X:115:PHE:N	10:X:115:PHE:CD1	2.70	0.59
14:b:49:ILE:HG22	14:b:53:GLN:NE2	2.17	0.59
14:b:153:ARG:HG2	14:b:155:SER:H	1.66	0.59
15:g:224:THR:HG22	15:g:226:THR:H	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:j:16:TYR:OH	15:p:33:LEU:HG	2.02	0.59
15:n:12:LEU:O	15:n:16:TYR:HD1	1.84	0.59
1:A:20:SER:HB2	1:A:21:PRO:HD2	1.83	0.59
1:A:43:LEU:C	1:A:43:LEU:HD23	2.27	0.59
1:A:155:TYR:CD2	1:A:165:GLY:HA2	2.38	0.59
4:D:36:VAL:CG1	4:D:195:THR:HG23	2.33	0.59
7:G:47:PHE:O	7:G:215:ILE:HG22	2.03	0.59
8:H:74:SER:OG	8:H:75:THR:N	2.34	0.59
8:H:177:VAL:O	8:H:183:VAL:HA	2.02	0.59
2:P:71:ILE:HG12	2:P:138:GLY:HA3	1.84	0.59
7:U:71:ARG:CZ	14:b:64:THR:HG22	2.32	0.59
11:Y:74:LEU:HD12	11:Y:79:VAL:HG22	1.84	0.59
13:a:29:ARG:HD2	13:a:191:ASP:OD1	2.01	0.59
15:c:204:MET:O	15:c:208:VAL:HG23	2.03	0.59
15:d:12:LEU:O	15:d:16:TYR:HD1	1.85	0.59
15:h:61:GLU:O	15:h:62:LYS:HB2	2.03	0.59
15:n:213:LEU:HD22	15:o:9:ILE:HG23	1.84	0.59
5:E:220:SER:HA	5:E:231:TYR:HD1	1.68	0.59
8:H:13:ILE:HD11	8:H:177:VAL:HG13	1.84	0.59
13:M:29:ARG:HD2	13:M:191:ASP:OD1	2.01	0.59
3:Q:222:ASP:C	3:Q:224:GLU:H	2.10	0.59
4:D:206:GLY:C	4:D:208:LYS:H	2.11	0.59
14:N:45:ILE:HG21	14:N:52:MET:HG3	1.83	0.59
2:P:64:VAL:HG21	2:P:212:ALA:HB3	1.84	0.59
2:P:84:VAL:O	2:P:88:LYS:HG3	2.02	0.59
3:Q:70:ASN:ND2	3:Q:71:ASP:H	2.00	0.59
15:f:61:GLU:O	15:f:62:LYS:HB2	2.01	0.59
15:h:135:GLY:O	15:h:139:PRO:HD3	2.02	0.59
15:h:138:THR:N	15:h:139:PRO:HD2	2.18	0.59
15:m:22:PHE:HD1	15:m:212:TYR:HH	1.49	0.59
4:D:199:LEU:O	4:D:203:VAL:HG23	2.03	0.59
5:E:16:SER:HB3	5:E:22:PHE:HE2	1.67	0.59
3:Q:76:ALA:HB3	3:Q:136:ILE:HB	1.85	0.59
4:R:11:PHE:N	5:S:23:GLN:HE22	2.00	0.59
4:R:66:LYS:HA	4:R:72:VAL:HG12	1.84	0.59
5:S:64:ILE:HD12	5:S:64:ILE:N	2.17	0.59
10:X:35:PHE:CD2	10:X:35:PHE:N	2.71	0.59
13:a:1:GLY:HA3	13:a:33:LYS:HE2	1.84	0.59
14:b:57:ARG:O	14:b:61:ASP:HB2	2.03	0.59
1:A:42:SER:HA	1:A:54:ILE:O	2.03	0.59
1:O:128:TYR:HD1	1:O:133:TYR:CE1	2.19	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S:51:GLU:HG3	5:S:208:MET:HG2	1.83	0.59
6:T:134:ILE:N	6:T:134:ILE:HD12	2.18	0.59
15:d:135:GLY:O	15:d:139:PRO:HD3	2.02	0.59
15:i:216:TRP:N	15:i:219:LEU:HD13	2.18	0.59
15:j:103:ASP:HB2	15:j:223:ARG:HE	1.68	0.59
15:l:138:THR:N	15:l:139:PRO:HD2	2.17	0.59
3:C:29:ILE:C	3:C:31:HIS:H	2.09	0.59
4:D:37:LYS:HB3	4:D:42:VAL:HG13	1.85	0.59
1:O:82:VAL:CG1	1:O:142:THR:HB	2.33	0.59
1:O:115:ASP:HB3	1:O:155:TYR:CE1	2.38	0.59
6:T:190:ILE:O	6:T:194:VAL:HG23	2.03	0.59
15:e:176:SER:CB	15:f:142:MET:HB2	2.28	0.59
15:h:205:VAL:O	15:h:209:ILE:HG12	2.02	0.59
1:O:128:TYR:CD1	1:O:133:TYR:CE1	2.91	0.58
2:B:112:SER:HA	2:B:156:TYR:HE2	1.68	0.58
15:c:22:PHE:HD1	15:c:212:TYR:HH	1.52	0.58
1:A:250:GLU:HG2	1:A:251:GLN:N	2.17	0.58
2:B:178:ARG:HH21	2:B:194:LEU:HD12	1.68	0.58
4:D:31:THR:HB	4:D:63:LYS:NZ	2.19	0.58
4:D:188:VAL:O	4:D:192:VAL:HG23	2.02	0.58
1:O:251:GLN:O	1:O:251:GLN:HG2	2.04	0.58
4:R:37:LYS:HB3	4:R:42:VAL:HG13	1.85	0.58
6:T:131:GLY:O	6:T:132:LEU:HD23	2.02	0.58
8:V:74:SER:OG	8:V:75:THR:N	2.36	0.58
8:V:143:ARG:NH1	8:V:143:ARG:HB3	2.19	0.58
14:b:40:ASN:HD22	14:b:40:ASN:N	1.86	0.58
15:c:9:ILE:HG23	15:i:213:LEU:HD22	1.85	0.58
15:c:216:TRP:N	15:c:219:LEU:HD13	2.17	0.58
15:g:204:MET:O	15:g:208:VAL:HG23	2.03	0.58
15:h:130:LYS:HA	15:h:133:SER:HB3	1.84	0.58
15:o:77:LEU:HA	15:o:80:ASN:HD22	1.67	0.58
1:A:44:ALA:CB	1:A:53:VAL:HG12	2.31	0.58
2:B:111:VAL:HG12	2:B:156:TYR:CD2	2.38	0.58
2:B:218:ASN:HD21	2:B:236:ARG:HD2	1.69	0.58
6:F:194:VAL:O	6:F:197:ILE:HG22	2.02	0.58
13:M:91:LYS:HE2	13:M:94:PHE:O	2.03	0.58
7:U:194:GLN:HE22	7:U:197:LYS:HZ1	1.50	0.58
15:g:147:GLU:HA	15:h:143:TYR:OH	2.03	0.58
15:k:89:ARG:NH2	15:k:118:ASP:HA	2.18	0.58
15:l:61:GLU:O	15:l:62:LYS:HB2	2.02	0.58
15:m:61:GLU:O	15:m:62:LYS:HB2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:79:ILE:HD12	1:A:79:ILE:N	2.18	0.58
2:B:224:TYR:HA	9:I:184:ALA:O	2.03	0.58
10:J:35:PHE:CD2	10:J:35:PHE:N	2.71	0.58
1:O:162:TYR:C	1:O:162:TYR:CD1	2.82	0.58
2:P:118:MET:SD	2:P:152:PRO:HA	2.42	0.58
7:U:169:GLN:H	7:U:169:GLN:CD	2.10	0.58
15:m:130:LYS:HA	15:m:133:SER:HB3	1.86	0.58
15:o:61:GLU:O	15:o:62:LYS:HB2	2.02	0.58
6:F:82:ARG:O	6:F:86:ASN:HB2	2.04	0.58
7:G:42:ASN:ND2	7:G:187:SER:HA	2.18	0.58
7:G:42:ASN:HD21	7:G:187:SER:HA	1.67	0.58
14:N:142:MET:HE3	9:W:135:MET:HB3	1.86	0.58
1:O:203:VAL:HG12	1:O:207:ILE:HD11	1.84	0.58
12:Z:176:ASN:ND2	12:Z:190:ASN:HD22	2.01	0.58
15:m:204:MET:O	15:m:208:VAL:HG23	2.04	0.58
15:p:138:THR:N	15:p:139:PRO:HD2	2.19	0.58
8:H:18:SER:HB2	8:H:30:VAL:HA	1.86	0.58
12:L:35:ILE:HD11	12:L:45:MET:CE	2.33	0.58
1:O:75:ILE:HD11	1:O:81:MET:HE2	1.85	0.58
15:d:203:THR:OG1	15:e:90:THR:HG23	2.04	0.58
15:f:176:SER:OG	15:f:179:LEU:HB2	2.03	0.58
15:j:17:THR:HG22	15:j:94:ILE:HG22	1.83	0.58
15:k:30:ALA:O	15:k:33:LEU:HB3	2.02	0.58
2:B:94:HIS:NE2	2:B:98:LYS:HD3	2.18	0.58
6:F:150:SER:O	7:G:82:PRO:HG2	2.04	0.58
14:N:49:ILE:HG22	14:N:53:GLN:NE2	2.17	0.58
14:N:174:ARG:HA	14:N:206:VAL:HG11	1.85	0.58
15:l:133:SER:HA	15:l:136:ALA:CB	2.34	0.58
3:C:150:THR:CG2	3:C:160:TRP:HE1	2.16	0.58
5:E:219:LEU:O	5:E:231:TYR:HB2	2.04	0.58
15:g:24:VAL:HG12	15:g:28:TRP:HE1	1.68	0.58
15:g:135:GLY:O	15:g:139:PRO:HD3	2.03	0.58
15:j:70:VAL:HG11	15:j:191:MET:HE1	1.86	0.58
15:n:224:THR:HG22	15:n:226:THR:H	1.68	0.58
15:p:55:TYR:HA	15:p:184:ARG:HH21	1.68	0.58
1:A:128:TYR:CD1	1:A:133:TYR:CE1	2.90	0.58
3:C:20:TYR:OH	15:i:102:GLU:HB3	2.03	0.58
7:G:54:THR:HA	7:G:209:LYS:HD2	1.84	0.58
5:S:16:SER:HB3	5:S:22:PHE:HE2	1.68	0.58
7:U:197:LYS:HG2	7:U:201:LEU:HD21	1.86	0.58
11:Y:24:ILE:HG23	11:Y:25:SER:H	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:n:61:GLU:O	15:n:62:LYS:HB2	2.03	0.58
1:A:28:VAL:O	1:A:31:ALA:HB3	2.04	0.57
1:A:183:GLU:HB3	1:A:187:LYS:HZ2	1.68	0.57
2:B:159:TRP:CE3	2:B:162:THR:HB	2.39	0.57
4:D:180:ASP:OD2	4:D:183:GLU:HG3	2.04	0.57
8:H:143:ARG:HB3	8:H:143:ARG:NH1	2.19	0.57
11:K:24:ILE:HG23	11:K:25:SER:H	1.68	0.57
1:O:103:GLU:HA	8:V:61:TYR:HE2	1.67	0.57
5:S:192:THR:HG23	5:S:195:GLU:OE1	2.02	0.57
6:T:194:VAL:O	6:T:197:ILE:HG22	2.03	0.57
15:c:130:LYS:HA	15:c:133:SER:HB3	1.86	0.57
15:n:138:THR:N	15:n:139:PRO:HD2	2.19	0.57
3:C:185:LYS:HZ2	3:C:187:ASP:N	1.93	0.57
13:a:117:ASP:HB2	13:a:121:SER:OG	2.04	0.57
15:d:8:LEU:HA	15:d:11:ASN:ND2	2.19	0.57
15:e:12:LEU:O	15:e:16:TYR:HD1	1.87	0.57
15:p:65:GLU:HA	15:p:68:LEU:HD23	1.86	0.57
1:A:33:LYS:HD2	1:A:33:LYS:N	2.15	0.57
8:H:32:ASP:OD1	14:b:218:LYS:HA	2.04	0.57
9:I:196:ARG:HH12	10:J:142:GLU:HG3	1.70	0.57
8:V:156:LYS:NZ	8:V:188:PHE:HD1	2.00	0.57
15:e:65:GLU:HA	15:e:68:LEU:HD23	1.87	0.57
15:f:147:GLU:HA	15:g:143:TYR:OH	2.05	0.57
15:g:113:VAL:O	15:g:116:ILE:HG22	2.04	0.57
15:h:28:TRP:CZ2	15:h:87:THR:HG21	2.39	0.57
15:l:224:THR:HG22	15:l:226:THR:H	1.70	0.57
8:H:14:LEU:HD12	8:H:34:LEU:HD22	1.85	0.57
1:O:164:VAL:HG22	1:O:165:GLY:H	1.68	0.57
2:P:238:LEU:N	2:P:238:LEU:HD12	2.19	0.57
5:S:108:ASN:O	5:S:111:SER:N	2.37	0.57
15:g:22:PHE:HD1	15:g:212:TYR:HH	1.49	0.57
6:F:131:GLY:O	6:F:132:LEU:HD23	2.05	0.57
14:N:153:ARG:HG2	14:N:155:SER:H	1.68	0.57
1:O:63:LEU:HD11	7:U:175:LEU:HB2	1.86	0.57
2:P:211:LEU:HG	2:P:212:ALA:N	2.17	0.57
4:R:69:SER:O	4:R:221:ILE:HD12	2.04	0.57
5:S:167:TYR:CD1	5:S:170:LYS:HB2	2.40	0.57
7:U:47:PHE:O	7:U:215:ILE:HG22	2.04	0.57
7:U:98:PHE:C	7:U:98:PHE:CD1	2.83	0.57
14:b:9:ASP:HB3	14:b:158:PRO:O	2.04	0.57
15:d:138:THR:N	15:d:139:PRO:HD2	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:e:205:VAL:O	15:e:209:ILE:HG12	2.05	0.57
15:f:130:LYS:HA	15:f:133:SER:HB3	1.85	0.57
15:g:138:THR:N	15:g:139:PRO:HD2	2.20	0.57
15:h:204:MET:O	15:h:208:VAL:HG23	2.04	0.57
15:o:204:MET:O	15:o:208:VAL:HG23	2.04	0.57
7:G:60:PRO:O	7:G:61:GLN:HB2	2.05	0.57
8:H:4:MET:SD	8:H:159:LEU:CD1	2.92	0.57
13:M:139:PRO:O	13:M:142:ASP:HB2	2.04	0.57
3:Q:133:VAL:HG12	3:Q:134:SER:N	2.19	0.57
4:R:22:TYR:O	4:R:25:GLU:HB2	2.04	0.57
8:V:66:TYR:CE1	8:V:70:TYR:HB2	2.40	0.57
8:V:122:LEU:HD11	14:b:28:PHE:HE1	1.68	0.57
13:a:43:MET:HG2	13:a:44:SER:N	2.19	0.57
13:a:80:ALA:O	13:a:83:ASN:HB3	2.04	0.57
15:e:28:TRP:HZ3	15:e:84:GLN:HG2	1.69	0.57
15:h:30:ALA:O	15:h:33:LEU:HB3	2.05	0.57
15:l:133:SER:HA	15:l:136:ALA:HB3	1.86	0.57
15:m:59:GLN:CG	15:m:60:ALA:H	2.18	0.57
1:A:242:GLU:HA	1:A:245:LEU:HD12	1.85	0.57
13:M:147:PHE:CD1	13:M:161:LYS:HE3	2.40	0.57
14:N:82:SER:HA	14:N:118:PHE:CE2	2.40	0.57
1:O:79:ILE:HD12	1:O:79:ILE:N	2.18	0.57
1:O:183:GLU:O	1:O:187:LYS:HG3	2.04	0.57
3:Q:150:THR:CG2	3:Q:160:TRP:HE1	2.17	0.57
6:T:43:HIS:HB3	6:T:215:ILE:HD11	1.86	0.57
15:g:103:ASP:HB2	15:g:223:ARG:HE	1.69	0.57
15:l:216:TRP:N	15:l:219:LEU:HD13	2.20	0.57
15:n:113:VAL:O	15:n:116:ILE:HG22	2.04	0.57
11:K:115:LEU:HD12	11:K:116:TYR:N	2.19	0.57
11:K:191:VAL:O	11:K:193:ASP:N	2.38	0.57
14:N:9:ASP:HB3	14:N:158:PRO:O	2.03	0.57
1:O:87:ILE:O	1:O:91:ARG:HG3	2.05	0.57
1:O:242:GLU:HA	1:O:245:LEU:HD12	1.85	0.57
10:X:178:VAL:HG23	10:X:191:LEU:HD21	1.86	0.57
11:Y:117:GLN:HE22	11:Y:131:ALA:H	1.53	0.57
12:Z:12:ILE:HD13	12:Z:102:CYS:HB3	1.86	0.57
15:g:103:ASP:HB3	15:g:223:ARG:HG2	1.85	0.57
15:h:176:SER:OG	15:h:179:LEU:HB2	2.04	0.57
15:o:45:GLU:O	15:o:49:VAL:HG23	2.05	0.57
15:p:61:GLU:O	15:p:62:LYS:HB2	2.03	0.57
1:A:159:PRO:C	1:A:161:GLY:H	2.13	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:9:LYS:HD3	8:H:146:MET:O	2.05	0.57
9:I:165:ASN:HD21	14:b:148:ARG:HD2	1.70	0.57
14:N:148:ARG:HD2	9:W:165:ASN:HD21	1.69	0.57
6:T:150:SER:O	7:U:82:PRO:HG2	2.05	0.57
7:U:166:LYS:NZ	7:U:206:ASN:HD21	2.03	0.57
10:X:29:ASN:N	10:X:29:ASN:HD22	2.02	0.57
14:b:174:ARG:HA	14:b:206:VAL:HG11	1.86	0.57
15:g:177:PRO:HG3	15:h:62:LYS:HA	1.86	0.57
15:g:203:THR:OG1	15:h:90:THR:HG23	2.05	0.57
15:i:176:SER:OG	15:i:179:LEU:HB2	2.05	0.57
15:k:138:THR:N	15:k:139:PRO:HD2	2.19	0.57
15:k:176:SER:HB2	15:l:142:MET:SD	2.45	0.57
15:l:103:ASP:HB3	15:l:223:ARG:HG2	1.86	0.57
15:m:138:THR:N	15:m:139:PRO:HD2	2.19	0.57
1:O:80:GLY:HA3	1:O:233:PHE:CZ	2.40	0.57
6:T:17:GLY:HA3	7:U:29:ALA:HB2	1.87	0.57
11:Y:3:ILE:C	11:Y:4:LEU:HD23	2.29	0.57
15:j:138:THR:N	15:j:139:PRO:HD2	2.20	0.57
15:o:216:TRP:N	15:o:219:LEU:HD13	2.19	0.57
15:p:204:MET:O	15:p:208:VAL:HG23	2.05	0.57
1:A:17:THR:O	1:A:18:ILE:HG23	2.04	0.56
1:A:88:PRO:HD3	7:G:155:SER:HB3	1.86	0.56
2:B:184:GLU:O	2:B:187:ASP:HB2	2.05	0.56
9:I:14:ILE:HD13	9:I:101:ALA:HB3	1.85	0.56
11:K:127:LEU:HD22	11:K:128:PRO:HD2	1.87	0.56
4:R:199:LEU:O	4:R:203:VAL:HG23	2.05	0.56
8:V:177:VAL:O	8:V:183:VAL:HA	2.05	0.56
11:Y:95:ARG:NH1	11:Y:95:ARG:HB3	2.20	0.56
14:b:87:TYR:HD2	14:b:88:LEU:HD23	1.70	0.56
14:b:105:ALA:C	14:b:106:ILE:HD12	2.29	0.56
15:c:224:THR:HG22	15:c:226:THR:H	1.69	0.56
15:m:176:SER:OG	15:m:179:LEU:HB2	2.04	0.56
1:A:41:ASN:O	1:A:55:SER:HA	2.04	0.56
3:C:165:VAL:C	3:C:169:THR:HG21	2.30	0.56
6:F:34:VAL:HG22	6:F:35:THR:N	2.20	0.56
7:G:180:ASP:O	7:G:183:PRO:HD3	2.05	0.56
11:K:32:ASP:OD1	11:K:34:THR:HB	2.05	0.56
4:R:105:THR:HG23	4:R:108:TYR:CB	2.35	0.56
9:W:72:ARG:HG3	9:W:72:ARG:HH11	1.70	0.56
15:c:103:ASP:HB3	15:c:223:ARG:HG2	1.86	0.56
15:c:216:TRP:O	15:c:220:ILE:HD12	2.03	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:e:138:THR:N	15:e:139:PRO:HD2	2.20	0.56
15:f:138:THR:N	15:f:139:PRO:HD2	2.19	0.56
15:h:136:ALA:N	15:h:137:PRO:CD	2.68	0.56
2:B:64:VAL:HG21	2:B:212:ALA:HB3	1.87	0.56
3:C:163:ILE:HG13	3:C:164:SER:N	2.20	0.56
6:F:20:PHE:HZ	15:f:102:GLU:HB3	1.71	0.56
8:H:3:ILE:HG22	8:H:16:ALA:CB	2.35	0.56
8:H:186:LEU:HD22	8:H:188:PHE:HE2	1.70	0.56
11:K:74:LEU:HD12	11:K:79:VAL:HG22	1.86	0.56
11:K:117:GLN:HE22	11:K:131:ALA:H	1.53	0.56
14:N:26:LEU:HD23	8:V:165:TRP:C	2.29	0.56
1:O:183:GLU:HB3	1:O:187:LYS:HZ2	1.66	0.56
2:P:184:GLU:O	2:P:187:ASP:HB2	2.05	0.56
3:Q:29:ILE:C	3:Q:31:HIS:H	2.13	0.56
3:Q:195:LYS:O	3:Q:199:LYS:HD3	2.05	0.56
5:S:113:THR:O	5:S:116:VAL:HG23	2.06	0.56
8:V:26:ILE:HG21	8:V:29:ARG:HB3	1.87	0.56
8:V:163:ILE:HG23	8:V:170:GLY:HA2	1.86	0.56
9:W:88:PHE:HB2	9:W:116:HIS:O	2.04	0.56
11:Y:195:GLN:HA	11:Y:195:GLN:NE2	2.18	0.56
15:c:55:TYR:HA	15:c:184:ARG:HH21	1.70	0.56
15:f:77:LEU:HA	15:f:80:ASN:HD22	1.69	0.56
15:h:176:SER:HB2	15:i:142:MET:SD	2.46	0.56
15:i:30:ALA:O	15:i:33:LEU:HB3	2.06	0.56
15:j:45:GLU:O	15:j:49:VAL:HG23	2.06	0.56
15:l:205:VAL:O	15:l:209:ILE:HG12	2.05	0.56
15:n:204:MET:O	15:n:208:VAL:HG23	2.05	0.56
1:A:164:VAL:HG22	1:A:165:GLY:H	1.71	0.56
8:V:92:ASN:N	8:V:92:ASN:ND2	2.52	0.56
12:Z:66:HIS:CE1	12:Z:70:GLU:HG3	2.40	0.56
15:d:89:ARG:NH2	15:d:118:ASP:HA	2.20	0.56
15:k:25:ILE:HG21	15:k:212:TYR:CE1	2.41	0.56
15:m:216:TRP:N	15:m:219:LEU:HD13	2.20	0.56
15:n:22:PHE:HZ	15:o:9:ILE:CD1	2.18	0.56
3:C:222:ASP:C	3:C:224:GLU:H	2.13	0.56
6:F:50:LYS:HB3	6:F:59:TYR:HB3	1.86	0.56
6:F:96:SER:O	6:F:100:ASN:HA	2.05	0.56
8:H:14:LEU:CD1	8:H:34:LEU:HD22	2.36	0.56
11:K:3:ILE:C	11:K:4:LEU:HD23	2.29	0.56
11:K:3:ILE:HD13	11:K:16:SER:HB3	1.87	0.56
14:N:7:LYS:HA	14:N:12:VAL:HG12	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:40:ASN:HD22	14:N:40:ASN:N	1.83	0.56
7:U:100:LYS:NZ	7:U:100:LYS:HB3	2.21	0.56
14:b:218:LYS:HZ2	14:b:218:LYS:HB3	1.71	0.56
15:e:130:LYS:HA	15:e:133:SER:HB3	1.87	0.56
15:k:61:GLU:O	15:k:62:LYS:HB2	2.05	0.56
15:l:25:ILE:HD12	15:l:88:ILE:HA	1.87	0.56
15:o:205:VAL:O	15:o:209:ILE:HG12	2.06	0.56
3:C:70:ASN:ND2	3:C:71:ASP:H	2.03	0.56
3:C:152:ASN:HB2	3:C:153:PRO:CD	2.36	0.56
4:D:70:HIS:HB3	4:D:219:SER:OG	2.05	0.56
11:K:9:GLN:HE21	11:K:150:ASP:HA	1.70	0.56
14:N:221:GLY:O	9:W:77:VAL:HG11	2.06	0.56
5:S:78:MET:HA	5:S:142:LEU:HD23	1.88	0.56
6:T:215:ILE:HG13	6:T:216:VAL:H	1.70	0.56
15:c:203:THR:OG1	15:d:90:THR:HG23	2.05	0.56
15:j:62:LYS:HG3	15:p:177:PRO:HG3	1.87	0.56
15:o:22:PHE:HZ	15:p:9:ILE:CD1	2.17	0.56
15:o:119:GLU:O	15:o:123:LYS:HG2	2.06	0.56
8:H:26:ILE:HG21	8:H:29:ARG:HB3	1.87	0.56
8:H:123:PRO:HB2	8:H:124:TYR:HD1	1.71	0.56
14:N:203:ASN:O	14:N:204:LEU:HD13	2.06	0.56
1:O:134:MET:HE3	7:U:124:LEU:HD13	1.87	0.56
4:R:151:GLU:HB2	4:R:152:PRO:HD2	1.86	0.56
6:T:34:VAL:HG22	6:T:35:THR:N	2.19	0.56
7:U:60:PRO:O	7:U:61:GLN:HB2	2.05	0.56
15:g:109:VAL:HG21	15:g:218:LYS:HD3	1.88	0.56
15:k:25:ILE:HD12	15:k:88:ILE:HA	1.87	0.56
15:o:176:SER:CB	15:p:142:MET:HB2	2.25	0.56
10:J:49:THR:HG21	11:K:121:LEU:O	2.04	0.56
13:M:176:ARG:NH1	9:W:200:GLN:HE22	2.04	0.56
2:P:224:TYR:HA	9:W:184:ALA:O	2.06	0.56
7:U:19:ARG:HH11	7:U:19:ARG:HB2	1.70	0.56
9:W:34:LEU:HD22	9:W:174:ASP:HB3	1.88	0.56
11:Y:62:ASN:O	11:Y:65:LEU:HB3	2.05	0.56
15:e:8:LEU:HA	15:e:11:ASN:ND2	2.21	0.56
15:g:22:PHE:HZ	15:h:9:ILE:CD1	2.17	0.56
15:l:204:MET:O	15:l:208:VAL:HG23	2.06	0.56
4:D:105:THR:HG23	4:D:108:TYR:HB3	1.88	0.56
4:R:36:VAL:CG1	4:R:195:THR:HG23	2.36	0.56
9:W:173:VAL:O	9:W:189:ASN:HA	2.05	0.56
10:X:37:TYR:O	10:X:40:VAL:HG23	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:d:224:THR:HG22	15:d:226:THR:H	1.70	0.56
15:m:205:VAL:O	15:m:209:ILE:HG12	2.06	0.56
15:o:65:GLU:HA	15:o:68:LEU:HD23	1.88	0.56
15:p:119:GLU:O	15:p:123:LYS:HG2	2.05	0.56
1:A:250:GLU:HG2	1:A:251:GLN:H	1.70	0.56
7:G:44:GLY:HA3	7:G:218:CYS:O	2.06	0.56
13:M:213:ASP:HB2	9:W:19:ARG:HH22	1.71	0.56
1:O:128:TYR:HA	1:O:133:TYR:CD1	2.41	0.56
11:Y:34:THR:HG23	11:Y:35:ARG:N	2.20	0.56
14:b:15:ALA:HB1	14:b:173:MET:HE2	1.88	0.56
15:j:8:LEU:HA	15:j:11:ASN:ND2	2.21	0.56
9:I:103:VAL:CG1	9:I:108:SER:HA	2.25	0.55
8:V:18:SER:HB2	8:V:30:VAL:HA	1.87	0.55
15:j:28:TRP:HZ3	15:j:84:GLN:HG2	1.71	0.55
15:l:59:GLN:CG	15:l:60:ALA:H	2.19	0.55
1:A:54:ILE:CG2	1:A:210:MET:SD	2.94	0.55
6:F:189:LEU:O	6:F:192:ALA:HB3	2.07	0.55
11:K:95:ARG:HB3	11:K:95:ARG:NH1	2.21	0.55
3:Q:19:LEU:O	3:Q:21:GLN:N	2.39	0.55
5:S:37:ALA:CB	5:S:50:VAL:HG12	2.36	0.55
6:T:185:ASN:ND2	6:T:188:GLU:H	2.03	0.55
11:Y:32:ASP:OD1	11:Y:34:THR:HB	2.07	0.55
11:Y:82:PHE:O	11:Y:85:GLN:HB3	2.07	0.55
11:Y:115:LEU:HD12	11:Y:116:TYR:N	2.21	0.55
15:d:61:GLU:O	15:d:62:LYS:HB2	2.06	0.55
15:i:22:PHE:HD1	15:i:212:TYR:HH	1.54	0.55
15:k:204:MET:O	15:k:208:VAL:HG23	2.06	0.55
15:p:8:LEU:HA	15:p:11:ASN:ND2	2.21	0.55
15:p:28:TRP:CZ2	15:p:87:THR:HG21	2.42	0.55
2:B:68:THR:C	2:B:70:ASP:H	2.14	0.55
6:F:187:ASP:O	6:F:191:LYS:HG3	2.06	0.55
7:G:21:PHE:HA	7:G:24:GLU:CG	2.36	0.55
11:K:7:ARG:HG2	11:K:7:ARG:HH11	1.71	0.55
1:O:126:GLN:O	1:O:129:THR:HB	2.06	0.55
2:P:36:GLY:O	2:P:161:ALA:HA	2.05	0.55
2:P:200:VAL:HG21	2:P:204:PHE:CE1	2.42	0.55
8:V:156:LYS:HD2	8:V:188:PHE:CE1	2.41	0.55
15:c:9:ILE:CD1	15:i:22:PHE:HZ	2.19	0.55
15:c:177:PRO:HG3	15:d:62:LYS:HA	1.87	0.55
15:g:12:LEU:O	15:g:16:TYR:HD1	1.89	0.55
15:h:138:THR:CG2	15:h:142:MET:HE3	2.34	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:63:LEU:HD11	7:G:175:LEU:HB2	1.88	0.55
1:O:131:ARG:HA	2:P:127:VAL:HG12	1.89	0.55
3:Q:165:VAL:C	3:Q:169:THR:HG21	2.32	0.55
6:T:53:ALA:CB	15:n:229:MET:HE1	2.37	0.55
7:U:194:GLN:O	7:U:198:ILE:HG13	2.06	0.55
11:Y:38:SER:HB2	11:Y:39:PRO:HD2	1.88	0.55
11:Y:160:LEU:C	11:Y:160:LEU:HD23	2.32	0.55
15:d:130:LYS:HA	15:d:133:SER:HB3	1.88	0.55
15:f:12:LEU:O	15:f:16:TYR:HD1	1.89	0.55
15:g:59:GLN:CG	15:g:60:ALA:H	2.19	0.55
15:n:25:ILE:HD12	15:n:88:ILE:HA	1.89	0.55
2:B:71:ILE:HG12	2:B:138:GLY:HA3	1.89	0.55
7:G:100:LYS:NZ	7:G:100:LYS:HB3	2.20	0.55
9:I:72:ARG:HH11	9:I:72:ARG:HG3	1.71	0.55
9:I:84:LYS:HE3	9:I:119:THR:HG23	1.88	0.55
2:P:178:ARG:HH21	2:P:194:LEU:HD12	1.70	0.55
6:T:96:SER:O	6:T:100:ASN:HA	2.06	0.55
6:T:187:ASP:O	6:T:191:LYS:HG3	2.07	0.55
8:V:190:PRO:O	8:V:194:GLU:HG3	2.06	0.55
15:c:139:PRO:HA	15:i:176:SER:OG	2.06	0.55
15:e:30:ALA:O	15:e:33:LEU:HB3	2.07	0.55
15:f:120:LEU:HA	15:f:204:MET:HE3	1.88	0.55
15:f:224:THR:HG22	15:f:226:THR:H	1.72	0.55
15:h:216:TRP:N	15:h:219:LEU:HD13	2.22	0.55
15:i:25:ILE:HD12	15:i:88:ILE:HA	1.87	0.55
15:i:89:ARG:NH2	15:i:118:ASP:HA	2.22	0.55
15:j:176:SER:HB2	15:k:142:MET:SD	2.46	0.55
15:o:25:ILE:HD12	15:o:88:ILE:HA	1.87	0.55
8:H:190:PRO:HA	8:H:193:TYR:CE2	2.42	0.55
10:J:49:THR:HB	11:K:122:GLY:O	2.07	0.55
1:O:20:SER:OG	1:O:24:ARG:N	2.39	0.55
13:a:117:ASP:OD2	13:a:119:VAL:HG22	2.07	0.55
14:b:102:LEU:N	14:b:102:LEU:HD12	2.21	0.55
14:b:120:ARG:NH1	14:b:130:SER:HB2	2.21	0.55
15:e:176:SER:OG	15:e:179:LEU:HB2	2.07	0.55
15:f:22:PHE:HD1	15:f:212:TYR:HH	1.52	0.55
15:j:89:ARG:NH2	15:j:118:ASP:HA	2.22	0.55
15:l:176:SER:OG	15:l:179:LEU:HB2	2.06	0.55
15:m:25:ILE:HD12	15:m:88:ILE:HA	1.89	0.55
1:A:181:ASN:HD22	1:A:181:ASN:H	1.53	0.55
11:Y:66:TYR:CE1	11:Y:74:LEU:HD23	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:d:28:TRP:CZ3	15:d:84:GLN:HG2	2.41	0.55
15:e:204:MET:O	15:e:208:VAL:HG23	2.07	0.55
15:p:224:THR:HG22	15:p:226:THR:H	1.72	0.55
7:G:67:GLN:HG2	14:N:69:ASP:OD1	2.06	0.55
8:H:26:ILE:HD12	14:b:179:ARG:CA	2.31	0.55
9:I:83:LEU:O	9:I:87:LEU:HB2	2.06	0.55
14:N:186:ASN:HD22	14:N:203:ASN:ND2	2.05	0.55
3:Q:238:ILE:HD12	3:Q:241:LYS:HD2	1.89	0.55
7:U:23:VAL:O	7:U:27:VAL:HG23	2.07	0.55
8:V:185:ARG:HG3	8:V:185:ARG:NH1	2.22	0.55
9:W:126:SER:HB3	9:W:135:MET:HE2	1.89	0.55
15:f:70:VAL:HG11	15:f:191:MET:HE1	1.87	0.55
1:A:220:LYS:CB	1:A:242:GLU:HB2	2.36	0.55
7:G:217:TRP:N	7:G:217:TRP:CD1	2.74	0.55
1:O:220:LYS:CB	1:O:242:GLU:HB2	2.37	0.55
2:P:218:ASN:HD21	2:P:236:ARG:HD2	1.72	0.55
3:Q:64:GLU:O	3:Q:65:LYS:HG2	2.07	0.55
5:S:97:VAL:HG11	12:Z:65:LEU:HD21	1.89	0.55
5:S:220:SER:HA	5:S:231:TYR:HD1	1.71	0.55
6:T:94:TYR:O	6:T:98:VAL:HG23	2.07	0.55
15:d:213:LEU:HD22	15:e:9:ILE:HG23	1.88	0.55
15:f:109:VAL:HG21	15:f:218:LYS:HD3	1.89	0.55
15:g:55:TYR:HA	15:g:184:ARG:HH21	1.72	0.55
15:j:25:ILE:HD12	15:j:88:ILE:HA	1.88	0.55
15:j:30:ALA:O	15:j:33:LEU:HB3	2.06	0.55
1:A:41:ASN:HB2	1:A:56:GLN:OE1	2.07	0.55
2:B:212:ALA:CB	2:B:237:LYS:HA	2.37	0.55
8:H:4:MET:SD	8:H:159:LEU:HD11	2.47	0.55
11:K:38:SER:HB2	11:K:39:PRO:HD2	1.89	0.55
2:P:159:TRP:CE3	2:P:162:THR:HB	2.42	0.55
8:V:48:SER:HB2	8:V:94:THR:HB	1.88	0.55
9:W:14:ILE:HD13	9:W:101:ALA:HB3	1.88	0.55
15:c:58:ALA:O	15:c:59:GLN:HB2	2.07	0.55
15:e:224:THR:HG22	15:e:226:THR:H	1.72	0.55
15:h:136:ALA:N	15:h:137:PRO:HD2	2.22	0.55
15:j:12:LEU:O	15:j:16:TYR:HD1	1.90	0.55
1:A:139:VAL:HG23	1:A:141:LEU:HD21	1.87	0.54
3:C:37:GLY:HA2	3:C:45:VAL:O	2.06	0.54
3:C:39:MET:HE2	3:C:146:TYR:HB3	1.89	0.54
4:D:221:ILE:O	4:D:222:VAL:HB	2.07	0.54
6:F:144:LEU:HD23	6:F:144:LEU:C	2.32	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:66:HIS:CE1	12:L:70:GLU:HG3	2.42	0.54
5:S:118:ASP:O	5:S:122:ARG:HG2	2.06	0.54
13:a:4:LEU:HD12	13:a:5:GLY:N	2.23	0.54
15:h:45:GLU:O	15:h:49:VAL:HG23	2.07	0.54
3:C:146:TYR:O	3:C:147:GLN:HG3	2.07	0.54
6:F:70:MET:CE	6:F:105:VAL:HG22	2.37	0.54
6:F:159:THR:OG1	6:F:160:ALA:N	2.38	0.54
9:I:126:SER:HB3	9:I:135:MET:HE2	1.90	0.54
9:I:153:LYS:C	9:I:153:LYS:HD3	2.33	0.54
7:U:46:VAL:HG22	7:U:217:TRP:HB3	1.89	0.54
9:W:83:LEU:O	9:W:87:LEU:HB2	2.07	0.54
10:X:133:ALA:HB2	10:X:169:ASP:CB	2.37	0.54
15:c:103:ASP:HB2	15:c:223:ARG:NE	2.22	0.54
15:d:136:ALA:N	15:d:137:PRO:HD2	2.23	0.54
15:d:214:LEU:HG	15:e:13:ARG:NH1	2.22	0.54
15:e:70:VAL:HG11	15:e:191:MET:HE1	1.88	0.54
15:i:193:LYS:HE2	15:i:193:LYS:HA	1.89	0.54
15:j:177:PRO:HG3	15:k:62:LYS:HA	1.89	0.54
15:k:8:LEU:HA	15:k:11:ASN:ND2	2.22	0.54
9:I:1:THR:HA	9:I:33:LYS:HZ3	1.72	0.54
1:O:126:GLN:NE2	1:O:127:ILE:N	2.55	0.54
2:P:212:ALA:CB	2:P:237:LYS:HA	2.37	0.54
4:R:181:ARG:HH22	5:S:60:GLU:HG2	1.72	0.54
6:T:82:ARG:O	6:T:86:ASN:HB2	2.07	0.54
11:Y:160:LEU:O	11:Y:164:VAL:HG23	2.07	0.54
13:a:137:ILE:HG23	13:a:178:SER:HB3	1.88	0.54
14:b:122:VAL:O	14:b:122:VAL:HG13	2.07	0.54
15:c:113:VAL:O	15:c:116:ILE:HG22	2.07	0.54
15:f:33:LEU:HG	15:g:16:TYR:OH	2.07	0.54
15:h:193:LYS:HE2	15:h:193:LYS:HA	1.88	0.54
15:i:224:THR:HG22	15:i:226:THR:H	1.72	0.54
15:l:113:VAL:O	15:l:116:ILE:HG22	2.07	0.54
15:o:127:SER:HA	15:o:130:LYS:HG3	1.89	0.54
15:p:25:ILE:HG21	15:p:212:TYR:CE1	2.42	0.54
5:E:64:ILE:HD12	5:E:64:ILE:H	1.73	0.54
6:F:33:SER:HB3	6:F:62:LYS:HZ1	1.71	0.54
8:H:53:GLN:HE22	9:I:119:THR:H	1.54	0.54
2:P:16:GLY:HA3	3:Q:28:SER:HB2	1.90	0.54
9:W:196:ARG:HH12	10:X:142:GLU:HG3	1.72	0.54
15:g:65:GLU:HA	15:g:68:LEU:HD23	1.90	0.54
15:j:9:ILE:HD11	15:p:22:PHE:CZ	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:j:22:PHE:CZ	15:k:9:ILE:HD11	2.37	0.54
15:k:65:GLU:HA	15:k:68:LEU:HD23	1.89	0.54
2:B:84:VAL:O	2:B:88:LYS:HG3	2.07	0.54
8:H:190:PRO:O	8:H:194:GLU:HG3	2.07	0.54
12:L:12:ILE:HD13	12:L:102:CYS:HB3	1.89	0.54
5:S:40:ILE:HD12	5:S:200:VAL:HG23	1.88	0.54
13:a:46:ASN:C	13:a:98:VAL:HG12	2.33	0.54
15:d:77:LEU:HA	15:d:80:ASN:HD22	1.72	0.54
15:g:216:TRP:O	15:g:219:LEU:HB2	2.08	0.54
15:j:10:GLN:O	15:j:14:ASP:HB2	2.07	0.54
15:j:113:VAL:O	15:j:116:ILE:HG22	2.07	0.54
15:n:109:VAL:HG22	15:o:99:HIS:HD2	1.73	0.54
9:I:88:PHE:HB2	9:I:116:HIS:O	2.07	0.54
1:O:18:ILE:N	1:O:18:ILE:HD13	2.22	0.54
6:T:171:TYR:C	6:T:171:TYR:CD2	2.85	0.54
7:U:85:ARG:CG	7:U:85:ARG:HH11	2.21	0.54
7:U:182:HIS:HA	7:U:184:GLU:OE2	2.07	0.54
10:X:49:THR:HG21	11:Y:121:LEU:O	2.08	0.54
14:b:91:VAL:O	14:b:95:ARG:HG2	2.06	0.54
15:f:59:GLN:CG	15:f:60:ALA:H	2.20	0.54
15:f:203:THR:OG1	15:g:90:THR:HG23	2.08	0.54
15:k:28:TRP:CZ2	15:k:87:THR:HG21	2.43	0.54
15:k:130:LYS:HA	15:k:133:SER:HB3	1.89	0.54
15:l:22:PHE:HZ	15:m:9:ILE:CD1	2.21	0.54
15:n:59:GLN:CG	15:n:60:ALA:H	2.20	0.54
15:n:65:GLU:HA	15:n:68:LEU:HD23	1.89	0.54
1:A:35:THR:O	1:A:38:THR:HG22	2.07	0.54
1:A:40:ILE:HD12	1:A:56:GLN:O	2.07	0.54
1:A:43:LEU:HD22	1:A:54:ILE:HB	1.90	0.54
3:C:87:LEU:H	3:C:87:LEU:HD12	1.73	0.54
7:G:21:PHE:HA	7:G:24:GLU:HG2	1.89	0.54
11:K:34:THR:HG23	11:K:35:ARG:N	2.23	0.54
1:O:200:GLU:O	1:O:204:GLU:HG3	2.08	0.54
5:S:59:LEU:HD13	5:S:60:GLU:N	2.22	0.54
14:b:82:SER:HA	14:b:118:PHE:CE2	2.43	0.54
14:b:122:VAL:HA	14:b:127:VAL:O	2.07	0.54
15:f:110:GLN:NE2	15:f:222:PRO:HB3	2.22	0.54
15:i:130:LYS:HA	15:i:133:SER:HB3	1.88	0.54
15:j:224:THR:HG22	15:j:226:THR:H	1.72	0.54
15:o:58:ALA:O	15:o:59:GLN:HB2	2.07	0.54
4:D:114:ALA:O	4:D:118:GLN:HB2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:166:LYS:NZ	7:G:206:ASN:HD21	2.05	0.54
7:G:194:GLN:HE22	7:G:197:LYS:NZ	2.06	0.54
10:J:3:VAL:HG22	10:J:16:CYS:HB3	1.90	0.54
11:K:24:ILE:HG23	11:K:25:SER:N	2.23	0.54
11:K:126:GLU:O	11:K:127:LEU:HD23	2.07	0.54
1:O:88:PRO:HD3	7:U:155:SER:HB3	1.90	0.54
1:O:155:TYR:CD2	1:O:165:GLY:HA2	2.42	0.54
1:O:250:GLU:HG2	1:O:251:GLN:N	2.23	0.54
13:a:194:GLU:HG3	13:a:205:LYS:HD3	1.89	0.54
15:e:77:LEU:HA	15:e:80:ASN:HD22	1.73	0.54
15:h:22:PHE:HZ	15:i:9:ILE:CD1	2.21	0.54
15:m:224:THR:HG22	15:m:226:THR:H	1.72	0.54
15:p:130:LYS:HA	15:p:133:SER:HB3	1.90	0.54
1:A:162:TYR:HD1	1:A:162:TYR:C	2.15	0.54
2:B:57:MET:HB2	2:B:59:GLU:OE2	2.07	0.54
2:B:185:LEU:HD21	2:B:213:ILE:HD13	1.89	0.54
5:E:108:ASN:O	5:E:111:SER:N	2.41	0.54
6:F:144:LEU:C	6:F:145:LEU:HD12	2.32	0.54
8:H:156:LYS:HD2	8:H:188:PHE:CE1	2.43	0.54
8:H:156:LYS:NZ	8:H:188:PHE:HD1	2.05	0.54
8:H:163:ILE:HG23	8:H:170:GLY:HA2	1.90	0.54
9:I:132:LEU:HD23	9:I:132:LEU:N	2.23	0.54
7:U:39:ILE:HG13	7:U:46:VAL:HB	1.90	0.54
7:U:135:THR:O	7:U:149:MET:HA	2.06	0.54
7:U:229:PHE:HD2	7:U:231:LYS:HE3	1.73	0.54
11:Y:87:LEU:HA	11:Y:90:SER:HB3	1.90	0.54
15:c:25:ILE:HD12	15:c:88:ILE:HA	1.90	0.54
15:c:176:SER:HB2	15:d:142:MET:SD	2.48	0.54
15:j:9:ILE:CD1	15:p:22:PHE:HZ	2.19	0.54
15:n:89:ARG:NH2	15:n:118:ASP:HA	2.23	0.54
15:n:97:PRO:HB2	15:n:223:ARG:NH1	2.23	0.54
1:A:203:VAL:HG12	1:A:207:ILE:HD11	1.89	0.54
2:B:12:PHE:HE2	3:C:130:PRO:HG2	1.72	0.54
8:H:175:MET:HB2	8:H:186:LEU:HB2	1.90	0.54
14:N:122:VAL:HA	14:N:127:VAL:O	2.07	0.54
2:P:160:LYS:HD3	2:P:179:TRP:CH2	2.43	0.54
4:R:180:ASP:OD2	4:R:183:GLU:HG3	2.08	0.54
8:V:160:SER:HB2	8:V:193:TYR:HB2	1.90	0.54
14:b:87:TYR:O	14:b:91:VAL:HG23	2.08	0.54
15:d:216:TRP:CA	15:d:219:LEU:HD13	2.38	0.54
15:o:113:VAL:O	15:o:116:ILE:HG22	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:41:ASN:OD1	1:A:173:PRO:HD2	2.08	0.53
5:E:118:ASP:O	5:E:122:ARG:HG2	2.09	0.53
10:J:100:VAL:HG12	10:J:101:ALA:N	2.23	0.53
1:O:42:SER:HA	1:O:54:ILE:O	2.09	0.53
1:O:185:HIS:ND1	1:O:185:HIS:O	2.41	0.53
5:S:151:ASP:HB2	5:S:154:GLN:OE1	2.08	0.53
7:U:201:LEU:HD13	7:U:201:LEU:H	1.73	0.53
9:W:38:SER:HB2	9:W:41:ILE:CD1	2.37	0.53
14:b:133:THR:O	14:b:134:LEU:HD23	2.07	0.53
15:d:131:SER:C	15:d:133:SER:H	2.16	0.53
15:d:136:ALA:N	15:d:137:PRO:CD	2.72	0.53
15:e:28:TRP:CZ3	15:e:84:GLN:HG2	2.43	0.53
15:h:25:ILE:HD12	15:h:88:ILE:HA	1.89	0.53
15:h:113:VAL:O	15:h:116:ILE:HG22	2.08	0.53
15:h:200:HIS:O	15:h:203:THR:HB	2.07	0.53
15:i:138:THR:CG2	15:i:142:MET:HE3	2.38	0.53
15:p:12:LEU:O	15:p:16:TYR:HD1	1.91	0.53
1:A:70:SER:O	1:A:71:TYR:HD1	1.90	0.53
3:C:44:ILE:HD11	3:C:146:TYR:HB3	1.91	0.53
3:C:58:GLU:HG2	3:C:59:GLN:N	2.23	0.53
3:C:238:ILE:HD12	3:C:241:LYS:HD2	1.89	0.53
9:I:3:ILE:HG22	9:I:16:ALA:CB	2.39	0.53
9:I:7:LYS:HA	9:I:12:VAL:HA	1.90	0.53
14:b:186:ASN:HD22	14:b:203:ASN:ND2	2.04	0.53
15:c:176:SER:OG	15:c:179:LEU:HB2	2.08	0.53
15:d:113:VAL:O	15:d:116:ILE:HG22	2.08	0.53
15:h:25:ILE:HG21	15:h:212:TYR:CE1	2.43	0.53
15:l:130:LYS:HA	15:l:133:SER:HB3	1.90	0.53
15:m:176:SER:CB	15:n:142:MET:HB2	2.33	0.53
15:n:205:VAL:O	15:n:209:ILE:HG12	2.09	0.53
15:o:138:THR:N	15:o:139:PRO:HD2	2.24	0.53
1:A:128:TYR:HA	1:A:133:TYR:CD1	2.42	0.53
3:C:140:TYR:CD1	3:C:140:TYR:C	2.87	0.53
5:E:180:GLN:O	5:E:184:LEU:HB2	2.08	0.53
7:G:245:GLU:C	7:G:247:ASN:H	2.16	0.53
9:W:52:THR:O	9:W:55:VAL:HG12	2.08	0.53
14:b:45:ILE:HG21	14:b:52:MET:HG3	1.90	0.53
15:e:25:ILE:HG21	15:e:212:TYR:CE1	2.43	0.53
15:f:25:ILE:HD12	15:f:88:ILE:HA	1.90	0.53
15:h:103:ASP:HB2	15:h:223:ARG:NE	2.23	0.53
15:j:205:VAL:O	15:j:209:ILE:HG12	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:l:65:GLU:HA	15:l:68:LEU:HD23	1.89	0.53
15:o:176:SER:OG	15:o:179:LEU:HB2	2.06	0.53
15:p:77:LEU:HA	15:p:80:ASN:HD22	1.73	0.53
15:p:89:ARG:NH2	15:p:118:ASP:HA	2.24	0.53
1:A:162:TYR:C	1:A:162:TYR:CD1	2.86	0.53
1:A:248:ILE:HG22	1:A:251:GLN:OE1	2.08	0.53
5:E:40:ILE:HD12	5:E:200:VAL:HG23	1.91	0.53
6:F:37:GLY:HA2	6:F:45:VAL:O	2.09	0.53
11:K:62:ASN:O	11:K:65:LEU:HB3	2.08	0.53
11:K:110:LYS:O	11:K:112:LYS:HG3	2.07	0.53
3:Q:152:ASN:HB2	3:Q:153:PRO:CD	2.39	0.53
7:U:150:LEU:HD11	7:U:154:GLY:HA2	1.91	0.53
9:W:153:LYS:C	9:W:153:LYS:HD3	2.33	0.53
14:b:7:LYS:HA	14:b:12:VAL:HG12	1.90	0.53
14:b:35:ILE:O	14:b:43:VAL:HG22	2.09	0.53
14:b:92:MET:HE2	14:b:106:ILE:HD13	1.90	0.53
15:h:8:LEU:HA	15:h:11:ASN:ND2	2.23	0.53
15:k:103:ASP:HB3	15:k:223:ARG:HG2	1.90	0.53
15:o:17:THR:CG2	15:o:94:ILE:HG22	2.39	0.53
15:p:133:SER:HA	15:p:136:ALA:CB	2.39	0.53
1:A:72:ILE:HA	1:A:81:MET:O	2.08	0.53
6:F:171:TYR:CD2	6:F:171:TYR:C	2.87	0.53
12:L:16:VAL:CG2	12:L:176:ASN:HB2	2.38	0.53
8:V:8:PHE:HE2	8:V:148:LYS:CA	2.17	0.53
9:W:132:LEU:N	9:W:132:LEU:HD23	2.21	0.53
10:X:3:VAL:CG2	10:X:16:CYS:HB3	2.38	0.53
13:a:91:LYS:HE2	13:a:94:PHE:O	2.08	0.53
15:e:25:ILE:HD12	15:e:88:ILE:HA	1.91	0.53
15:f:25:ILE:HG21	15:f:212:TYR:CE1	2.44	0.53
15:f:28:TRP:CZ2	15:f:87:THR:HG21	2.43	0.53
15:k:22:PHE:HZ	15:l:9:ILE:CD1	2.17	0.53
15:k:103:ASP:HB2	15:k:223:ARG:HE	1.74	0.53
15:k:176:SER:OG	15:l:139:PRO:HA	2.08	0.53
9:I:66:HIS:O	9:I:70:THR:HG23	2.09	0.53
12:L:176:ASN:HD21	12:L:190:ASN:HD22	1.53	0.53
13:M:77:ILE:HG23	13:M:78:ASN:N	2.24	0.53
14:N:87:TYR:HD2	14:N:88:LEU:HD23	1.73	0.53
2:P:98:LYS:HA	2:P:103:GLU:O	2.08	0.53
15:j:99:HIS:HD2	15:p:109:VAL:HG22	1.72	0.53
15:j:119:GLU:O	15:j:123:LYS:HG2	2.09	0.53
15:j:176:SER:OG	15:j:179:LEU:HB2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:j:178:SER:HB3	15:k:63:SER:OG	2.08	0.53
15:m:33:LEU:HG	15:n:16:TYR:OH	2.09	0.53
15:n:214:LEU:HD23	15:o:97:PRO:C	2.34	0.53
10:J:184:ASP:CG	10:J:185:GLU:N	2.62	0.53
11:K:160:LEU:HD23	11:K:160:LEU:C	2.34	0.53
1:O:45:VAL:HG12	1:O:168:ALA:CB	2.39	0.53
1:O:123:ASN:O	1:O:127:ILE:HG13	2.09	0.53
2:P:81:ASP:O	2:P:85:LEU:HB2	2.07	0.53
4:R:163:THR:HG21	4:R:171:VAL:HG23	1.91	0.53
5:S:114:GLN:HG3	5:S:118:ASP:OD1	2.08	0.53
9:W:50:ALA:HB2	10:X:120:CYS:HB2	1.91	0.53
14:b:167:GLU:HG3	14:b:168:ALA:N	2.24	0.53
15:p:28:TRP:HZ3	15:p:84:GLN:HG2	1.73	0.53
1:A:183:GLU:O	1:A:187:LYS:HG3	2.08	0.53
1:A:185:HIS:ND1	1:A:185:HIS:O	2.41	0.53
6:F:134:ILE:N	6:F:134:ILE:HD12	2.24	0.53
14:N:2:SER:OG	14:N:139:GLY:N	2.42	0.53
1:O:98:LYS:HD3	8:V:68:SER:O	2.08	0.53
7:U:245:GLU:C	7:U:247:ASN:H	2.16	0.53
13:a:91:LYS:O	13:a:95:PRO:HA	2.08	0.53
15:c:59:GLN:CG	15:c:60:ALA:H	2.22	0.53
15:h:77:LEU:HA	15:h:80:ASN:HD22	1.74	0.53
15:l:89:ARG:NH2	15:l:118:ASP:HA	2.24	0.53
15:l:136:ALA:N	15:l:137:PRO:CD	2.72	0.53
15:m:65:GLU:HA	15:m:68:LEU:HD23	1.90	0.53
15:p:58:ALA:O	15:p:59:GLN:HB2	2.08	0.53
15:p:193:LYS:HE2	15:p:193:LYS:HA	1.91	0.53
5:E:167:TYR:CD1	5:E:170:LYS:HB2	2.43	0.53
7:U:23:VAL:O	7:U:26:ALA:HB3	2.08	0.53
15:f:58:ALA:O	15:f:59:GLN:HB2	2.08	0.53
15:g:136:ALA:N	15:g:137:PRO:HD2	2.24	0.53
15:h:176:SER:CB	15:i:142:MET:HB2	2.28	0.53
1:A:117:LEU:O	1:A:121:MET:HG2	2.08	0.53
3:C:64:GLU:O	3:C:65:LYS:HG2	2.09	0.53
4:D:49:ARG:HH22	15:i:231:SER:C	2.16	0.53
8:H:19:ARG:HH12	14:b:181:ALA:HA	1.73	0.53
9:I:34:LEU:HD22	9:I:174:ASP:HB3	1.91	0.53
9:I:38:SER:HB2	9:I:41:ILE:HD13	1.90	0.53
11:K:195:GLN:HA	11:K:195:GLN:NE2	2.24	0.53
12:L:24:ASN:OD1	10:X:171:LEU:HD12	2.09	0.53
14:N:15:ALA:HB1	14:N:173:MET:HE2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:T:50:LYS:HB3	6:T:59:TYR:HB3	1.90	0.53
7:U:180:ASP:O	7:U:183:PRO:HD3	2.09	0.53
15:f:97:PRO:HB2	15:f:223:ARG:NH1	2.24	0.53
15:i:58:ALA:O	15:i:59:GLN:HB2	2.07	0.53
15:k:138:THR:CG2	15:k:142:MET:HE3	2.39	0.53
15:o:28:TRP:CZ2	15:o:87:THR:HG21	2.44	0.53
15:o:176:SER:HB3	15:p:142:MET:CB	2.24	0.53
15:o:203:THR:OG1	15:p:90:THR:HG23	2.09	0.53
1:A:131:ARG:HH12	1:A:133:TYR:HB3	1.74	0.52
7:G:19:ARG:HH11	7:G:19:ARG:HB2	1.74	0.52
12:L:66:HIS:CD2	12:L:74:ILE:HB	2.43	0.52
1:O:18:ILE:HG22	2:P:128:ARG:HB3	1.91	0.52
1:O:35:THR:O	1:O:38:THR:HG22	2.09	0.52
4:R:99:THR:O	4:R:100:LEU:HD13	2.09	0.52
11:Y:88:ALA:O	11:Y:91:ILE:HG22	2.09	0.52
15:e:22:PHE:HD1	15:e:212:TYR:HH	1.56	0.52
15:f:89:ARG:NH2	15:f:118:ASP:HA	2.23	0.52
15:g:41:LYS:C	15:g:43:ALA:N	2.67	0.52
15:i:119:GLU:O	15:i:123:LYS:HG2	2.09	0.52
5:E:170:LYS:HD2	5:E:171:ALA:N	2.23	0.52
10:J:163:LEU:HD11	10:J:193:MET:HB3	1.90	0.52
6:T:185:ASN:HD22	6:T:186:PRO:N	2.06	0.52
8:V:9:LYS:HD3	8:V:146:MET:O	2.09	0.52
14:b:135:ALA:HB1	14:b:139:GLY:HA3	1.91	0.52
15:e:119:GLU:O	15:e:123:LYS:HG2	2.10	0.52
15:g:130:LYS:HA	15:g:133:SER:HB3	1.91	0.52
15:l:28:TRP:CZ2	15:l:87:THR:HG21	2.44	0.52
2:B:81:ASP:O	2:B:85:LEU:HB2	2.09	0.52
2:B:227:ILE:HG12	9:I:186:TYR:CD2	2.43	0.52
7:G:46:VAL:HG22	7:G:217:TRP:HB3	1.89	0.52
9:I:4:VAL:HG12	9:I:126:SER:HB2	1.92	0.52
2:P:112:SER:HA	2:P:156:TYR:CE2	2.44	0.52
3:Q:70:ASN:HD22	3:Q:71:ASP:H	1.56	0.52
3:Q:96:GLN:HB3	10:X:60:TYR:CE2	2.45	0.52
6:T:133:LEU:C	6:T:134:ILE:HD12	2.34	0.52
7:U:48:ALA:HB2	7:U:215:ILE:HG23	1.91	0.52
7:U:72:HIS:CE1	7:U:105:PRO:HB2	2.44	0.52
12:Z:81:LYS:HG3	12:Z:85:ASN:HD21	1.74	0.52
15:l:136:ALA:N	15:l:137:PRO:HD2	2.23	0.52
15:m:25:ILE:HG21	15:m:212:TYR:CE1	2.44	0.52
15:m:89:ARG:NH2	15:m:118:ASP:HA	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:p:22:PHE:HD1	15:p:212:TYR:HH	1.56	0.52
15:p:45:GLU:O	15:p:49:VAL:HG23	2.09	0.52
2:B:24:ALA:C	2:B:26:THR:H	2.17	0.52
3:C:165:VAL:N	3:C:169:THR:HG21	2.25	0.52
4:D:105:THR:HG23	4:D:108:TYR:CB	2.40	0.52
6:F:213:ILE:HG22	6:F:214:ALA:N	2.24	0.52
14:N:135:ALA:HB3	14:N:140:ALA:N	2.24	0.52
4:R:70:HIS:HB3	4:R:219:SER:OG	2.09	0.52
4:R:163:THR:HG21	4:R:171:VAL:CG2	2.39	0.52
6:T:158:GLY:O	6:T:159:THR:HB	2.10	0.52
7:U:15:SER:OG	7:U:19:ARG:HB3	2.10	0.52
7:U:217:TRP:N	7:U:217:TRP:CD1	2.76	0.52
8:V:163:ILE:HD12	8:V:170:GLY:HA2	1.92	0.52
14:b:153:ARG:HG3	14:b:153:ARG:NH1	2.22	0.52
15:c:28:TRP:CZ2	15:c:87:THR:HG21	2.44	0.52
15:d:55:TYR:HA	15:d:184:ARG:HH21	1.75	0.52
15:e:213:LEU:HD22	15:f:9:ILE:HG23	1.92	0.52
15:g:136:ALA:N	15:g:137:PRO:CD	2.73	0.52
15:i:136:ALA:N	15:i:137:PRO:CD	2.73	0.52
15:o:103:ASP:HB2	15:o:223:ARG:HE	1.75	0.52
1:A:155:TYR:HD2	1:A:164:VAL:O	1.93	0.52
6:F:26:LEU:O	6:F:29:ILE:HB	2.10	0.52
6:F:70:MET:HE3	6:F:105:VAL:HG22	1.91	0.52
7:G:140:VAL:HG12	7:G:141:ASP:H	1.74	0.52
7:G:169:GLN:HA	7:G:172:LYS:HB2	1.90	0.52
1:O:133:TYR:O	1:O:134:MET:HB3	2.08	0.52
5:S:237:ALA:O	5:S:240:ILE:HB	2.10	0.52
12:Z:159:ARG:HD2	12:Z:162:LEU:HD23	1.92	0.52
15:d:133:SER:HA	15:d:136:ALA:CB	2.40	0.52
15:d:205:VAL:O	15:d:209:ILE:HG12	2.09	0.52
15:e:216:TRP:O	15:e:219:LEU:HB2	2.10	0.52
15:f:65:GLU:HA	15:f:68:LEU:HD23	1.91	0.52
15:j:65:GLU:HA	15:j:68:LEU:HD23	1.91	0.52
15:m:119:GLU:O	15:m:123:LYS:HG2	2.10	0.52
15:n:8:LEU:HA	15:n:11:ASN:ND2	2.25	0.52
15:o:8:LEU:HA	15:o:11:ASN:ND2	2.25	0.52
15:p:216:TRP:N	15:p:219:LEU:HD13	2.23	0.52
2:B:49:LYS:HE2	2:B:58:SER:HB2	1.91	0.52
7:G:39:ILE:HG13	7:G:46:VAL:HB	1.91	0.52
7:G:175:LEU:HA	7:G:178:LEU:HD12	1.90	0.52
7:G:229:PHE:CD2	7:G:231:LYS:HE3	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:8:PHE:HA	12:L:146:TRP:CE3	2.45	0.52
12:L:81:LYS:HG3	12:L:85:ASN:HD21	1.74	0.52
13:M:194:GLU:HG3	13:M:205:LYS:HD3	1.91	0.52
1:O:148:GLU:CD	1:O:148:GLU:H	2.17	0.52
6:T:37:GLY:HA2	6:T:45:VAL:O	2.09	0.52
15:d:65:GLU:HA	15:d:68:LEU:HD23	1.90	0.52
15:e:59:GLN:CG	15:e:60:ALA:H	2.23	0.52
15:g:220:ILE:HD12	15:g:220:ILE:H	1.75	0.52
15:k:119:GLU:O	15:k:123:LYS:HG2	2.09	0.52
15:k:224:THR:HG22	15:k:226:THR:H	1.73	0.52
15:o:136:ALA:N	15:o:137:PRO:HD2	2.25	0.52
1:A:86:PRO:HG3	15:e:231:SER:OG	2.09	0.52
3:C:218:LYS:HG3	3:C:225:VAL:HG12	1.92	0.52
5:E:151:ASP:HB2	5:E:154:GLN:OE1	2.08	0.52
7:U:229:PHE:CD2	7:U:231:LYS:HE3	2.44	0.52
8:V:6:VAL:O	8:V:12:VAL:HG23	2.10	0.52
10:X:12:VAL:HG23	10:X:181:ILE:HB	1.92	0.52
12:Z:176:ASN:HD21	12:Z:190:ASN:HD22	1.57	0.52
13:a:138:MET:N	13:a:139:PRO:CD	2.72	0.52
14:b:2:SER:OG	14:b:139:GLY:N	2.42	0.52
15:c:205:VAL:O	15:c:209:ILE:HG12	2.10	0.52
15:k:176:SER:OG	15:k:179:LEU:HB2	2.08	0.52
15:o:12:LEU:O	15:o:16:TYR:HD1	1.91	0.52
15:o:22:PHE:HD1	15:o:212:TYR:HH	1.56	0.52
1:A:18:ILE:HD13	1:A:18:ILE:N	2.24	0.52
1:A:18:ILE:HG22	2:B:128:ARG:HB3	1.91	0.52
1:A:126:GLN:NE2	1:A:126:GLN:C	2.68	0.52
1:A:220:LYS:HB3	1:A:242:GLU:HB2	1.91	0.52
2:B:108:LYS:HE2	2:B:143:ASN:ND2	2.25	0.52
4:D:69:SER:O	4:D:221:ILE:HD12	2.10	0.52
8:H:31:THR:HG22	8:H:33:LYS:HG2	1.92	0.52
14:N:148:ARG:HD2	9:W:165:ASN:ND2	2.24	0.52
7:U:187:SER:HG	7:U:190:GLU:HB2	1.73	0.52
8:V:13:ILE:HD11	8:V:177:VAL:HG13	1.92	0.52
9:W:4:VAL:HG12	9:W:126:SER:HB2	1.90	0.52
15:c:89:ARG:NH2	15:c:118:ASP:HA	2.24	0.52
7:G:77:TYR:HB3	7:G:135:THR:HG23	1.91	0.52
10:J:12:VAL:HG23	10:J:181:ILE:HB	1.92	0.52
6:T:68:GLU:O	6:T:222:PHE:N	2.40	0.52
9:W:5:GLY:O	9:W:124:TYR:HA	2.09	0.52
14:b:203:ASN:O	14:b:204:LEU:HD13	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:c:12:LEU:O	15:c:16:TYR:HD1	1.93	0.52
15:c:136:ALA:N	15:c:137:PRO:CD	2.73	0.52
15:d:28:TRP:CZ2	15:d:87:THR:HG21	2.45	0.52
15:d:193:LYS:HE2	15:d:193:LYS:HA	1.91	0.52
15:n:218:LYS:NZ	15:o:99:HIS:O	2.43	0.52
15:o:22:PHE:CZ	15:p:9:ILE:HD11	2.38	0.52
15:o:59:GLN:CG	15:o:60:ALA:H	2.23	0.52
15:o:133:SER:HA	15:o:136:ALA:CB	2.40	0.52
15:o:147:GLU:HA	15:p:143:TYR:OH	2.10	0.52
1:A:42:SER:O	1:A:170:ALA:HA	2.09	0.52
4:D:235:GLN:HG2	4:D:235:GLN:O	2.10	0.52
6:F:118:LYS:N	6:F:118:LYS:HD2	2.25	0.52
7:G:76:VAL:HG22	7:G:77:TYR:H	1.75	0.52
7:G:108:ILE:N	7:G:109:PRO:CD	2.73	0.52
7:G:194:GLN:NE2	7:G:197:LYS:NZ	2.58	0.52
8:H:74:SER:HB3	8:H:77:THR:OG1	2.10	0.52
14:N:153:ARG:HG3	14:N:153:ARG:NH1	2.17	0.52
1:O:24:ARG:O	1:O:25:LEU:C	2.53	0.52
1:O:40:ILE:HD12	1:O:56:GLN:O	2.09	0.52
1:O:125:SER:HA	1:O:128:TYR:CD2	2.44	0.52
1:O:131:ARG:HG2	1:O:131:ARG:HH11	1.75	0.52
2:P:68:THR:C	2:P:70:ASP:H	2.18	0.52
3:Q:77:VAL:HG12	3:Q:78:ALA:N	2.25	0.52
3:Q:146:TYR:O	3:Q:147:GLN:HG3	2.10	0.52
5:S:136:ARG:HB2	5:S:137:PRO:CD	2.38	0.52
6:T:189:LEU:O	6:T:192:ALA:HB3	2.10	0.52
15:d:58:ALA:O	15:d:59:GLN:HB2	2.10	0.52
15:f:131:SER:C	15:f:133:SER:H	2.18	0.52
2:B:34:SER:OG	2:B:47:THR:HB	2.09	0.51
3:C:133:VAL:CG1	3:C:134:SER:N	2.73	0.51
4:D:11:PHE:N	5:E:23:GLN:HE22	2.08	0.51
7:G:197:LYS:HG3	7:G:201:LEU:HD11	1.92	0.51
9:I:52:THR:O	9:I:56:THR:HG23	2.10	0.51
9:I:200:GLN:HE22	13:a:176:ARG:NH1	2.07	0.51
10:J:29:ASN:HD22	10:J:29:ASN:N	2.09	0.51
1:O:220:LYS:HB3	1:O:242:GLU:HB2	1.92	0.51
3:Q:218:LYS:HG3	3:Q:225:VAL:HG12	1.91	0.51
4:R:235:GLN:O	4:R:235:GLN:HG2	2.10	0.51
5:S:110:GLU:HB3	5:S:156:PHE:CZ	2.44	0.51
6:T:164:ARG:HH22	6:T:202:ARG:HB3	1.75	0.51
11:Y:24:ILE:HG23	11:Y:25:SER:N	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Z:16:VAL:CG2	12:Z:176:ASN:HB2	2.40	0.51
15:g:25:ILE:HD12	15:g:88:ILE:HA	1.91	0.51
15:g:131:SER:C	15:g:133:SER:H	2.17	0.51
15:g:176:SER:OG	15:g:179:LEU:HB2	2.10	0.51
15:j:133:SER:HA	15:j:136:ALA:HB3	1.92	0.51
15:k:133:SER:HA	15:k:136:ALA:CB	2.40	0.51
15:n:43:ALA:HB2	15:n:198:THR:HG21	1.91	0.51
15:n:176:SER:OG	15:n:179:LEU:HB2	2.09	0.51
15:o:28:TRP:HZ3	15:o:84:GLN:HG2	1.75	0.51
15:p:59:GLN:CG	15:p:60:ALA:H	2.22	0.51
2:P:49:LYS:HE2	2:P:58:SER:HB2	1.91	0.51
11:Y:8:VAL:HG23	11:Y:9:GLN:H	1.76	0.51
14:b:3:VAL:HG11	14:b:44:GLY:HA3	1.92	0.51
15:d:204:MET:O	15:d:208:VAL:HG23	2.10	0.51
15:e:89:ARG:NH2	15:e:118:ASP:HA	2.25	0.51
15:g:133:SER:HA	15:g:136:ALA:CB	2.40	0.51
1:A:46:ARG:HG3	1:A:167:LYS:O	2.10	0.51
6:F:38:LEU:N	6:F:38:LEU:HD23	2.26	0.51
12:L:144:TYR:CD2	12:L:145:LYS:N	2.78	0.51
12:L:159:ARG:O	12:L:162:LEU:HB3	2.11	0.51
14:N:62:LEU:O	14:N:65:GLU:HB3	2.10	0.51
2:P:24:ALA:C	2:P:26:THR:H	2.16	0.51
3:Q:24:TYR:O	3:Q:27:GLU:HG3	2.10	0.51
3:Q:58:GLU:HG2	3:Q:59:GLN:N	2.25	0.51
3:Q:140:TYR:C	3:Q:140:TYR:CD1	2.89	0.51
5:S:97:VAL:HG11	12:Z:65:LEU:CD2	2.41	0.51
7:U:194:GLN:NE2	7:U:197:LYS:NZ	2.59	0.51
9:W:10:ASN:C	9:W:180:ILE:HG13	2.35	0.51
14:b:3:VAL:O	14:b:135:ALA:HA	2.10	0.51
15:d:103:ASP:HB2	15:d:223:ARG:HE	1.75	0.51
15:j:59:GLN:CG	15:j:60:ALA:H	2.23	0.51
15:j:142:MET:SD	15:p:176:SER:HB2	2.50	0.51
15:k:136:ALA:N	15:k:137:PRO:CD	2.73	0.51
15:n:177:PRO:HG3	15:o:62:LYS:HA	1.92	0.51
15:o:200:HIS:O	15:o:203:THR:HB	2.11	0.51
15:p:10:GLN:O	15:p:14:ASP:HB2	2.09	0.51
3:C:191:GLU:HG2	3:C:195:LYS:HE2	1.92	0.51
7:G:182:HIS:HA	7:G:184:GLU:OE2	2.11	0.51
7:G:201:LEU:HD13	7:G:201:LEU:H	1.75	0.51
8:H:92:ASN:N	8:H:92:ASN:ND2	2.58	0.51
9:I:196:ARG:NH1	10:J:142:GLU:HG3	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:105:THR:HG21	12:L:108:GLU:OE1	2.10	0.51
13:M:138:MET:N	13:M:139:PRO:CD	2.73	0.51
13:M:183:THR:HG23	13:M:189:VAL:O	2.11	0.51
3:Q:89:ASN:O	3:Q:93:ILE:HG13	2.11	0.51
4:R:114:ALA:O	4:R:118:GLN:HB2	2.10	0.51
5:S:78:MET:HE1	5:S:82:THR:HG22	1.93	0.51
10:X:163:LEU:HD11	10:X:193:MET:HB3	1.92	0.51
12:Z:144:TYR:CD2	12:Z:145:LYS:N	2.78	0.51
13:a:77:ILE:HG23	13:a:78:ASN:N	2.25	0.51
14:b:192:ILE:N	14:b:192:ILE:HD12	2.26	0.51
15:c:193:LYS:HA	15:c:193:LYS:HE2	1.92	0.51
15:k:58:ALA:O	15:k:59:GLN:HB2	2.10	0.51
15:k:59:GLN:CG	15:k:60:ALA:H	2.24	0.51
15:m:136:ALA:N	15:m:137:PRO:CD	2.73	0.51
3:C:165:VAL:CA	3:C:169:THR:HG21	2.40	0.51
6:F:54:ASP:CG	6:F:55:GLU:H	2.19	0.51
7:G:150:LEU:HD11	7:G:154:GLY:HA2	1.92	0.51
7:G:169:GLN:H	7:G:169:GLN:CD	2.18	0.51
9:I:5:GLY:O	9:I:124:TYR:HA	2.11	0.51
9:I:24:PRO:HA	13:a:187:ILE:CD1	2.41	0.51
2:P:94:HIS:NE2	2:P:98:LYS:HD3	2.26	0.51
6:T:53:ALA:HB1	15:n:229:MET:HE1	1.93	0.51
15:d:216:TRP:HA	15:d:219:LEU:HD13	1.93	0.51
15:e:133:SER:HA	15:e:136:ALA:CB	2.41	0.51
15:g:25:ILE:HG21	15:g:212:TYR:CE1	2.46	0.51
15:h:59:GLN:CG	15:h:60:ALA:H	2.22	0.51
15:i:59:GLN:CG	15:i:60:ALA:H	2.23	0.51
15:j:138:THR:CG2	15:j:142:MET:HE3	2.38	0.51
15:l:8:LEU:HA	15:l:11:ASN:ND2	2.25	0.51
15:m:176:SER:OG	15:n:139:PRO:HA	2.10	0.51
15:n:22:PHE:CZ	15:o:9:ILE:HD11	2.40	0.51
1:A:53:VAL:C	1:A:54:ILE:HD12	2.36	0.51
1:A:87:ILE:HG23	1:A:88:PRO:HD3	1.93	0.51
6:T:33:SER:HB3	6:T:62:LYS:HZ3	1.72	0.51
9:W:172:ASN:ND2	9:W:192:THR:HA	2.25	0.51
10:X:6:MET:CE	10:X:145:TYR:HD1	2.24	0.51
15:f:45:GLU:O	15:f:49:VAL:HG23	2.11	0.51
15:f:193:LYS:HA	15:f:193:LYS:HE2	1.92	0.51
15:i:131:SER:C	15:i:133:SER:H	2.19	0.51
15:o:130:LYS:HA	15:o:133:SER:HB3	1.91	0.51
15:o:136:ALA:N	15:o:137:PRO:CD	2.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:190:HIS:CE1	2:B:194:LEU:HD11	2.46	0.51
3:C:140:TYR:CD1	3:C:141:ASP:N	2.79	0.51
5:E:15:PHE:CD1	5:E:21:LEU:HD21	2.46	0.51
7:G:15:SER:OG	7:G:19:ARG:HB3	2.11	0.51
9:I:158:ALA:O	9:I:161:ALA:HB3	2.11	0.51
11:K:3:ILE:O	11:K:4:LEU:HD23	2.11	0.51
14:N:120:ARG:HH11	14:N:130:SER:HB2	1.76	0.51
2:P:68:THR:CG2	2:P:71:ILE:HB	2.38	0.51
4:R:27:VAL:HG11	4:R:132:SER:CB	2.41	0.51
10:X:15:ALA:CB	10:X:178:VAL:HG22	2.40	0.51
15:c:8:LEU:HA	15:c:11:ASN:ND2	2.26	0.51
15:g:28:TRP:HZ3	15:g:84:GLN:HG2	1.75	0.51
15:g:216:TRP:CA	15:g:219:LEU:HD13	2.41	0.51
15:k:200:HIS:O	15:k:203:THR:HB	2.10	0.51
15:l:77:LEU:HA	15:l:80:ASN:HD22	1.76	0.51
15:m:131:SER:C	15:m:133:SER:H	2.17	0.51
15:n:133:SER:HA	15:n:136:ALA:CB	2.41	0.51
15:p:136:ALA:N	15:p:137:PRO:CD	2.73	0.51
7:G:71:ARG:NH1	14:N:64:THR:HG22	2.25	0.51
11:K:66:TYR:CE1	11:K:74:LEU:HD23	2.45	0.51
14:N:81:PRO:HA	14:N:84:ILE:HD12	1.91	0.51
1:O:54:ILE:CG2	1:O:210:MET:SD	2.99	0.51
5:S:180:GLN:O	5:S:184:LEU:HB2	2.10	0.51
6:T:2:PHE:HD1	6:T:3:ARG:HG2	1.73	0.51
7:U:194:GLN:HE22	7:U:197:LYS:NZ	2.08	0.51
10:X:51:VAL:HG12	10:X:52:THR:N	2.25	0.51
15:h:58:ALA:O	15:h:59:GLN:HB2	2.11	0.51
15:i:12:LEU:O	15:i:16:TYR:HD1	1.94	0.51
15:k:133:SER:HA	15:k:136:ALA:HB3	1.93	0.51
15:l:70:VAL:HG11	15:l:191:MET:HE1	1.92	0.51
15:m:120:LEU:HA	15:m:204:MET:HE3	1.92	0.51
15:p:133:SER:HA	15:p:136:ALA:HB3	1.92	0.51
1:A:156:LYS:HE2	1:A:166:TYR:CE2	2.46	0.51
4:D:159:TRP:CZ2	5:E:59:LEU:HD23	2.46	0.51
5:E:110:GLU:HB3	5:E:156:PHE:CZ	2.45	0.51
7:G:72:HIS:CE1	7:G:105:PRO:HB2	2.46	0.51
8:H:160:SER:HB2	8:H:193:TYR:HB2	1.93	0.51
14:N:25:LEU:HD12	14:N:26:LEU:H	1.76	0.51
1:O:144:VAL:HG12	1:O:154:ILE:HG12	1.93	0.51
6:T:38:LEU:HD23	6:T:38:LEU:N	2.26	0.51
9:W:48:THR:O	9:W:51:ASP:HB2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:W:104:ASP:C	9:W:106:THR:H	2.19	0.51
12:Z:38:ASN:HB2	12:Z:39:PRO:HD2	1.93	0.51
14:b:171:ASN:ND2	14:b:174:ARG:NH2	2.59	0.51
15:c:65:GLU:HA	15:c:68:LEU:HD23	1.93	0.51
15:c:132:GLY:HA3	15:i:189:ASP:OD2	2.11	0.51
15:c:136:ALA:N	15:c:137:PRO:HD2	2.26	0.51
15:g:22:PHE:CZ	15:h:9:ILE:HD11	2.38	0.51
15:k:28:TRP:HZ3	15:k:84:GLN:HG2	1.76	0.51
15:l:25:ILE:HG21	15:l:212:TYR:CE1	2.46	0.51
3:C:19:LEU:O	3:C:21:GLN:N	2.44	0.51
5:E:78:MET:HE1	5:E:82:THR:HG22	1.92	0.51
6:F:94:TYR:O	6:F:98:VAL:HG23	2.11	0.51
8:H:186:LEU:HD22	8:H:188:PHE:CE2	2.46	0.51
9:I:180:ILE:O	9:I:180:ILE:HG22	2.10	0.51
4:R:31:THR:HB	4:R:63:LYS:HZ1	1.75	0.51
7:U:108:ILE:N	7:U:109:PRO:CD	2.74	0.51
7:U:150:LEU:HD11	7:U:154:GLY:C	2.36	0.51
9:W:66:HIS:O	9:W:70:THR:HG23	2.11	0.51
11:Y:5:GLY:HA2	11:Y:13:ILE:O	2.11	0.51
11:Y:18:LYS:HD3	11:Y:179:ILE:HG13	1.92	0.51
12:Z:110:PRO:O	12:Z:111:THR:HG23	2.11	0.51
15:h:89:ARG:NH2	15:h:118:ASP:HA	2.25	0.51
15:j:133:SER:HA	15:j:136:ALA:CB	2.40	0.51
15:j:136:ALA:N	15:j:137:PRO:HD2	2.26	0.51
15:k:147:GLU:HA	15:l:143:TYR:OH	2.11	0.51
15:p:17:THR:CG2	15:p:94:ILE:HG22	2.41	0.51
15:p:136:ALA:N	15:p:137:PRO:HD2	2.26	0.51
15:p:200:HIS:O	15:p:203:THR:HB	2.11	0.51
14:N:62:LEU:C	14:N:62:LEU:HD23	2.36	0.50
1:O:42:SER:O	1:O:170:ALA:HA	2.10	0.50
1:O:54:ILE:HG13	1:O:225:VAL:CG2	2.40	0.50
3:Q:120:GLN:O	3:Q:123:THR:HB	2.11	0.50
7:U:44:GLY:HA3	7:U:218:CYS:O	2.11	0.50
15:f:176:SER:CB	15:g:142:MET:HB2	2.37	0.50
15:m:133:SER:HA	15:m:136:ALA:CB	2.41	0.50
15:m:136:ALA:N	15:m:137:PRO:HD2	2.26	0.50
15:o:46:ALA:HA	15:o:191:MET:HE3	1.94	0.50
15:o:103:ASP:HB3	15:o:223:ARG:HG2	1.93	0.50
2:B:200:VAL:HG21	2:B:204:PHE:CE1	2.46	0.50
7:G:108:ILE:N	7:G:108:ILE:HD13	2.27	0.50
10:J:90:ARG:O	10:J:90:ARG:HG3	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:24:TYR:HA	9:W:167:LEU:HD12	1.92	0.50
1:O:139:VAL:HG23	1:O:141:LEU:HD21	1.92	0.50
1:O:145:SER:HA	1:O:228:ALA:HB1	1.92	0.50
4:R:78:LEU:HD12	4:R:81:ASP:OD2	2.11	0.50
6:T:24:TYR:N	6:T:24:TYR:CD1	2.79	0.50
6:T:70:MET:HE3	6:T:105:VAL:HG22	1.93	0.50
10:X:29:ASN:HD22	10:X:29:ASN:H	1.59	0.50
11:Y:190:GLN:C	11:Y:192:ASP:H	2.18	0.50
12:Z:4:LEU:HD12	12:Z:161:ILE:HD11	1.92	0.50
15:d:22:PHE:HD1	15:d:212:TYR:HH	1.60	0.50
15:e:136:ALA:N	15:e:137:PRO:CD	2.73	0.50
15:f:136:ALA:N	15:f:137:PRO:CD	2.74	0.50
15:f:136:ALA:N	15:f:137:PRO:HD2	2.26	0.50
15:j:77:LEU:HA	15:j:80:ASN:HD22	1.74	0.50
15:m:58:ALA:O	15:m:59:GLN:HB2	2.10	0.50
15:n:77:LEU:HA	15:n:80:ASN:HD22	1.76	0.50
15:n:136:ALA:N	15:n:137:PRO:CD	2.74	0.50
15:p:28:TRP:CZ3	15:p:84:GLN:HG2	2.47	0.50
5:E:37:ALA:CB	5:E:50:VAL:HG12	2.41	0.50
6:F:121:GLN:HE22	7:G:86:HIS:CD2	2.24	0.50
7:G:23:VAL:O	7:G:26:ALA:HB3	2.11	0.50
3:Q:59:GLN:N	3:Q:59:GLN:NE2	2.59	0.50
3:Q:156:ASN:HD21	4:R:79:ASN:HB2	1.77	0.50
6:T:159:THR:OG1	6:T:160:ALA:N	2.42	0.50
9:W:3:ILE:HD12	9:W:44:ALA:CB	2.42	0.50
13:a:14:LEU:HD13	13:a:34:VAL:CG1	2.41	0.50
15:c:28:TRP:HZ3	15:c:84:GLN:HG2	1.76	0.50
15:e:45:GLU:O	15:e:49:VAL:HG23	2.11	0.50
15:g:119:GLU:O	15:g:123:LYS:HG2	2.11	0.50
15:h:28:TRP:HZ3	15:h:84:GLN:HG2	1.77	0.50
15:j:28:TRP:CZ3	15:j:84:GLN:HG2	2.46	0.50
15:j:28:TRP:CZ2	15:j:87:THR:HG21	2.46	0.50
15:m:28:TRP:HZ3	15:m:84:GLN:HG2	1.76	0.50
15:n:127:SER:HA	15:n:130:LYS:HG3	1.93	0.50
1:A:98:LYS:HD3	8:H:68:SER:O	2.10	0.50
3:C:228:LYS:HB3	3:C:230:PHE:HE1	1.76	0.50
7:G:98:PHE:C	7:G:98:PHE:HD1	2.19	0.50
8:H:189:TYR:CE1	14:b:212:ASP:HA	2.47	0.50
10:J:81:LEU:O	10:J:82:VAL:C	2.55	0.50
10:J:133:ALA:HB2	10:J:169:ASP:CB	2.40	0.50
1:O:41:ASN:HB2	1:O:56:GLN:OE1	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:66:LEU:HD11	2:P:68:THR:O	2.11	0.50
2:P:108:LYS:HE2	2:P:143:ASN:ND2	2.26	0.50
4:R:133:THR:HG23	4:R:150:THR:CG2	2.35	0.50
9:W:196:ARG:NH1	10:X:142:GLU:HG3	2.26	0.50
12:Z:1:THR:HG23	12:Z:33:ARG:CZ	2.42	0.50
14:b:13:ILE:HG22	14:b:14:ILE:N	2.27	0.50
15:d:59:GLN:CG	15:d:60:ALA:H	2.25	0.50
15:f:22:PHE:HD1	15:f:212:TYR:OH	1.94	0.50
15:g:89:ARG:NH2	15:g:118:ASP:HA	2.25	0.50
15:h:147:GLU:HA	15:i:143:TYR:OH	2.11	0.50
15:i:77:LEU:HA	15:i:80:ASN:HD22	1.76	0.50
15:i:200:HIS:O	15:i:203:THR:HB	2.11	0.50
15:k:45:GLU:O	15:k:49:VAL:HG23	2.11	0.50
15:m:133:SER:HA	15:m:136:ALA:HB3	1.93	0.50
15:n:119:GLU:O	15:n:123:LYS:HG2	2.11	0.50
15:o:143:TYR:O	15:o:144:ALA:HB3	2.11	0.50
1:A:38:THR:HG23	1:A:39:ASN:H	1.76	0.50
3:C:13:PHE:H	4:D:19:GLN:HE22	1.57	0.50
3:C:120:GLN:O	3:C:123:THR:HB	2.11	0.50
5:E:46:VAL:HG23	5:E:153:TYR:HD1	1.76	0.50
8:H:48:SER:HB2	8:H:94:THR:HB	1.93	0.50
14:N:119:LEU:HG	14:N:134:LEU:HD12	1.93	0.50
1:O:102:ALA:CB	8:V:65:LEU:HD13	2.42	0.50
5:S:64:ILE:HD12	5:S:64:ILE:H	1.75	0.50
6:T:146:GLU:O	6:T:153:VAL:HA	2.11	0.50
8:V:6:VAL:C	8:V:12:VAL:HG23	2.36	0.50
8:V:75:THR:HG22	8:V:111:TYR:HE1	1.75	0.50
13:a:4:LEU:HD12	13:a:5:GLY:H	1.76	0.50
15:e:136:ALA:N	15:e:137:PRO:HD2	2.27	0.50
15:i:136:ALA:N	15:i:137:PRO:HD2	2.27	0.50
15:j:136:ALA:N	15:j:137:PRO:CD	2.73	0.50
15:j:143:TYR:O	15:j:144:ALA:HB3	2.11	0.50
15:j:216:TRP:O	15:j:219:LEU:HB2	2.12	0.50
15:l:25:ILE:HG23	15:l:88:ILE:HG12	1.93	0.50
15:m:77:LEU:HA	15:m:80:ASN:HD22	1.76	0.50
15:n:193:LYS:HA	15:n:193:LYS:HE2	1.93	0.50
10:J:149:LEU:HD12	10:J:154:LEU:HA	1.92	0.50
12:L:1:THR:HG23	12:L:33:ARG:CZ	2.42	0.50
13:M:6:ILE:HD12	13:M:6:ILE:N	2.27	0.50
1:O:131:ARG:HH12	1:O:133:TYR:HB3	1.76	0.50
4:R:45:GLY:C	4:R:46:CYS:SG	2.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:W:158:ALA:O	9:W:161:ALA:HB3	2.11	0.50
15:e:193:LYS:HE2	15:e:193:LYS:HA	1.93	0.50
15:f:133:SER:HA	15:f:136:ALA:CB	2.41	0.50
15:j:130:LYS:HA	15:j:133:SER:HB3	1.94	0.50
15:k:136:ALA:C	15:k:139:PRO:HD2	2.37	0.50
15:m:176:SER:CB	15:n:139:PRO:HA	2.41	0.50
2:B:68:THR:O	2:B:70:ASP:N	2.44	0.50
3:C:70:ASN:HD22	3:C:71:ASP:H	1.59	0.50
4:D:45:GLY:C	4:D:46:CYS:SG	2.94	0.50
5:E:18:GLU:HB2	15:g:102:GLU:OE2	2.12	0.50
8:H:18:SER:OG	8:H:171:GLY:HA3	2.12	0.50
8:H:40:LYS:HZ2	8:H:182:GLY:HA2	1.75	0.50
14:N:142:MET:HG3	9:W:132:LEU:HB3	1.92	0.50
14:N:171:ASN:ND2	14:N:174:ARG:HH21	2.10	0.50
3:Q:70:ASN:ND2	3:Q:71:ASP:N	2.58	0.50
15:d:70:VAL:HG11	15:d:191:MET:HE1	1.92	0.50
15:f:8:LEU:HA	15:f:11:ASN:ND2	2.25	0.50
15:g:28:TRP:CZ2	15:g:87:THR:HG21	2.46	0.50
15:i:65:GLU:HA	15:i:68:LEU:HD23	1.92	0.50
15:i:143:TYR:O	15:i:144:ALA:HB3	2.12	0.50
15:j:193:LYS:HE2	15:j:193:LYS:HA	1.94	0.50
15:k:22:PHE:HD1	15:k:212:TYR:HH	1.58	0.50
15:k:193:LYS:HA	15:k:193:LYS:HE2	1.94	0.50
1:A:25:LEU:HD12	1:A:25:LEU:N	2.27	0.50
1:A:179:THR:HG23	2:B:55:LEU:HD12	1.92	0.50
2:B:12:PHE:CE2	3:C:130:PRO:HG2	2.46	0.50
7:G:229:PHE:HD2	7:G:231:LYS:HE3	1.75	0.50
9:I:165:ASN:ND2	14:b:148:ARG:HD2	2.26	0.50
11:K:82:PHE:O	11:K:85:GLN:HB3	2.12	0.50
13:M:132:ALA:HB1	13:M:186:HIS:CE1	2.47	0.50
2:P:70:ASP:C	2:P:71:ILE:HG13	2.36	0.50
6:T:36:VAL:CG2	6:T:160:ALA:HB2	2.42	0.50
7:U:197:LYS:O	7:U:201:LEU:HD13	2.12	0.50
8:V:53:GLN:HE22	9:W:119:THR:H	1.59	0.50
10:X:100:VAL:HG12	10:X:101:ALA:N	2.25	0.50
11:Y:34:THR:CG2	11:Y:35:ARG:N	2.74	0.50
13:a:170:GLU:OE1	13:a:170:GLU:HA	2.12	0.50
15:i:28:TRP:HZ3	15:i:84:GLN:HG2	1.77	0.50
15:m:28:TRP:CZ2	15:m:87:THR:HG21	2.47	0.50
15:m:45:GLU:O	15:m:49:VAL:HG23	2.12	0.50
15:m:136:ALA:C	15:m:139:PRO:HD2	2.37	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:76:SER:OG	1:A:77:ARG:N	2.44	0.50
1:A:125:SER:HA	1:A:128:TYR:CD2	2.47	0.50
8:H:126:ILE:HD12	8:H:134:ILE:CG1	2.40	0.50
8:H:190:PRO:O	8:H:192:GLU:N	2.45	0.50
11:K:5:GLY:HA2	11:K:13:ILE:O	2.12	0.50
14:N:189:LEU:HD23	14:N:190:ALA:N	2.27	0.50
1:O:218:PHE:CD2	1:O:223:LEU:HD11	2.46	0.50
2:P:190:HIS:CE1	2:P:194:LEU:HD11	2.47	0.50
2:P:227:ILE:HG12	9:W:186:TYR:CD2	2.46	0.50
4:R:206:GLY:C	4:R:208:LYS:H	2.19	0.50
9:W:104:ASP:O	9:W:106:THR:N	2.41	0.50
9:W:175:VAL:HG12	9:W:176:CYS:N	2.27	0.50
15:e:138:THR:CG2	15:e:142:MET:HE3	2.42	0.50
15:g:189:ASP:O	15:g:193:LYS:HG2	2.12	0.50
15:g:193:LYS:HE2	15:g:193:LYS:HA	1.94	0.50
15:g:216:TRP:HA	15:g:219:LEU:HD13	1.94	0.50
15:h:41:LYS:C	15:h:43:ALA:N	2.69	0.50
15:h:109:VAL:HG22	15:i:99:HIS:HD2	1.76	0.50
15:j:58:ALA:O	15:j:59:GLN:HB2	2.12	0.50
15:k:33:LEU:HG	15:l:16:TYR:OH	2.11	0.50
15:k:136:ALA:N	15:k:137:PRO:HD2	2.26	0.50
15:l:45:GLU:O	15:l:49:VAL:HG23	2.11	0.50
2:B:130:PHE:O	2:B:152:PRO:HB3	2.12	0.49
5:E:203:ILE:O	5:E:207:VAL:HG22	2.11	0.49
6:F:16:THR:O	7:G:28:LYS:HB3	2.12	0.49
13:M:133:ALA:O	13:M:134:ALA:C	2.54	0.49
1:O:38:THR:HG23	1:O:39:ASN:H	1.76	0.49
2:P:29:LYS:NZ	2:P:29:LYS:HB3	2.27	0.49
3:Q:114:ARG:NH1	3:Q:114:ARG:HB2	2.27	0.49
5:S:203:ILE:O	5:S:207:VAL:HG22	2.12	0.49
11:Y:151:MET:HB3	11:Y:155:GLU:HB2	1.94	0.49
15:c:73:ARG:O	15:c:76:ASP:HB3	2.12	0.49
15:g:77:LEU:HA	15:g:80:ASN:HD22	1.76	0.49
15:i:8:LEU:HA	15:i:11:ASN:ND2	2.26	0.49
15:i:113:VAL:O	15:i:116:ILE:HG22	2.11	0.49
1:A:24:ARG:O	1:A:25:LEU:C	2.55	0.49
1:A:73:PHE:N	1:A:73:PHE:CD1	2.80	0.49
1:A:76:SER:HB3	1:A:79:ILE:HD13	1.94	0.49
1:A:146:VAL:HA	1:A:151:GLY:O	2.12	0.49
6:F:92:CYS:HA	6:F:103:LEU:HD22	1.95	0.49
11:K:160:LEU:HD23	11:K:161:LYS:N	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:54:PHE:C	12:L:54:PHE:HD2	2.20	0.49
12:L:159:ARG:HD2	12:L:162:LEU:HD23	1.94	0.49
13:M:91:LYS:HB3	13:M:94:PHE:O	2.12	0.49
1:O:28:VAL:O	1:O:31:ALA:HB3	2.12	0.49
2:P:185:LEU:HD21	2:P:213:ILE:HD13	1.94	0.49
3:Q:133:VAL:CG1	3:Q:134:SER:N	2.74	0.49
5:S:15:PHE:CD1	5:S:21:LEU:HD21	2.46	0.49
7:U:24:GLU:O	7:U:27:VAL:HB	2.12	0.49
11:Y:118:ILE:HA	11:Y:123:THR:O	2.12	0.49
14:b:203:ASN:C	14:b:204:LEU:HD13	2.37	0.49
15:d:25:ILE:HD12	15:d:88:ILE:HA	1.93	0.49
15:f:134:GLY:HA2	15:f:190:PHE:CE2	2.47	0.49
15:l:200:HIS:O	15:l:203:THR:HB	2.12	0.49
15:n:28:TRP:CZ2	15:n:87:THR:HG21	2.47	0.49
1:A:43:LEU:HD12	1:A:178:ILE:HG22	1.93	0.49
14:N:8:TYR:CE2	14:N:162:VAL:HG22	2.47	0.49
14:N:13:ILE:HG22	14:N:14:ILE:N	2.28	0.49
1:O:43:LEU:HD12	1:O:178:ILE:HG22	1.93	0.49
2:P:23:TYR:O	2:P:26:THR:HB	2.12	0.49
3:Q:163:ILE:HG13	3:Q:164:SER:N	2.27	0.49
6:T:36:VAL:HG22	6:T:160:ALA:HB2	1.93	0.49
8:V:36:ARG:HB2	8:V:42:TRP:CZ2	2.47	0.49
8:V:175:MET:HB2	8:V:186:LEU:HB2	1.94	0.49
12:Z:159:ARG:O	12:Z:162:LEU:HB3	2.13	0.49
15:c:133:SER:HA	15:c:136:ALA:CB	2.42	0.49
15:l:215:ASN:O	15:l:217:LYS:N	2.45	0.49
1:A:91:ARG:HH12	7:G:156:TYR:H	1.60	0.49
6:F:72:LEU:HD23	6:F:132:LEU:HD22	1.93	0.49
7:G:25:TYR:N	7:G:25:TYR:CD2	2.80	0.49
8:H:66:TYR:CE1	8:H:70:TYR:HB2	2.48	0.49
8:H:190:PRO:C	8:H:192:GLU:H	2.20	0.49
9:I:4:VAL:HG22	9:I:159:ILE:HD11	1.94	0.49
11:K:190:GLN:C	11:K:192:ASP:H	2.20	0.49
1:O:54:ILE:HG13	1:O:225:VAL:HG21	1.94	0.49
3:Q:140:TYR:CD1	3:Q:141:ASP:N	2.80	0.49
3:Q:163:ILE:HD12	3:Q:173:GLN:OE1	2.11	0.49
4:R:27:VAL:HG11	4:R:132:SER:HB2	1.94	0.49
4:R:112:TYR:O	4:R:116:VAL:HG23	2.12	0.49
6:T:92:CYS:HA	6:T:103:LEU:HD22	1.95	0.49
8:V:110:VAL:O	8:V:121:LYS:HA	2.12	0.49
10:X:18:LEU:HD12	10:X:175:GLY:HA3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:Y:3:ILE:O	11:Y:4:LEU:HD23	2.11	0.49
11:Y:110:LYS:O	11:Y:112:LYS:HG3	2.12	0.49
12:Z:35:ILE:CD1	12:Z:45:MET:HE3	2.35	0.49
15:d:133:SER:HA	15:d:136:ALA:HB3	1.94	0.49
15:e:133:SER:HA	15:e:136:ALA:HB3	1.94	0.49
15:g:143:TYR:O	15:g:144:ALA:HB3	2.11	0.49
15:k:143:TYR:O	15:k:144:ALA:HB3	2.12	0.49
15:n:136:ALA:N	15:n:137:PRO:HD2	2.27	0.49
15:n:177:PRO:HG3	15:o:62:LYS:HG3	1.94	0.49
9:I:131:SER:O	9:I:135:MET:HB2	2.11	0.49
12:L:110:PRO:O	12:L:111:THR:HG23	2.12	0.49
4:R:176:GLU:OE2	5:S:57:PRO:HD2	2.13	0.49
6:T:94:TYR:CE1	6:T:98:VAL:HG21	2.48	0.49
9:W:220:ILE:HG22	9:W:221:CYS:N	2.27	0.49
13:a:132:ALA:HB1	13:a:186:HIS:CE1	2.48	0.49
15:e:113:VAL:O	15:e:116:ILE:HG22	2.12	0.49
15:f:41:LYS:C	15:f:43:ALA:N	2.69	0.49
15:g:45:GLU:O	15:g:49:VAL:HG23	2.12	0.49
15:i:227:ASP:C	15:i:229:MET:H	2.19	0.49
15:j:68:LEU:O	15:j:72:GLN:HB2	2.13	0.49
15:k:202:SER:O	15:k:206:ARG:HG3	2.13	0.49
15:n:131:SER:C	15:n:133:SER:H	2.20	0.49
1:A:126:GLN:O	1:A:129:THR:HB	2.12	0.49
1:A:195:ASN:O	1:A:196:GLU:HB2	2.11	0.49
1:A:225:VAL:CG1	1:A:226:GLY:N	2.75	0.49
3:C:188:ASP:OD1	3:C:188:ASP:N	2.45	0.49
5:E:33:LEU:HD12	5:E:33:LEU:H	1.76	0.49
7:G:35:THR:CG2	7:G:167:GLY:H	2.26	0.49
9:I:3:ILE:HD12	9:I:44:ALA:CB	2.42	0.49
11:K:4:LEU:HD22	11:K:131:ALA:HB2	1.95	0.49
13:M:46:ASN:C	13:M:98:VAL:HG12	2.38	0.49
14:N:203:ASN:C	14:N:204:LEU:HD13	2.37	0.49
4:R:174:PHE:CZ	4:R:178:ASN:ND2	2.80	0.49
9:W:131:SER:O	9:W:135:MET:HB2	2.13	0.49
11:Y:9:GLN:HE21	11:Y:150:ASP:HA	1.78	0.49
12:Z:4:LEU:HA	12:Z:100:MET:CE	2.43	0.49
12:Z:182:GLU:O	12:Z:182:GLU:HG3	2.10	0.49
13:a:114:TYR:CD2	13:a:124:ARG:HA	2.48	0.49
15:d:22:PHE:HD1	15:d:212:TYR:OH	1.96	0.49
15:d:215:ASN:O	15:d:217:LYS:N	2.45	0.49
15:g:8:LEU:HA	15:g:11:ASN:ND2	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:g:33:LEU:HD12	15:h:12:LEU:HD13	1.94	0.49
15:h:133:SER:HA	15:h:136:ALA:CB	2.42	0.49
15:m:17:THR:CG2	15:m:94:ILE:HG22	2.43	0.49
15:n:133:SER:HA	15:n:136:ALA:HB3	1.93	0.49
15:o:131:SER:C	15:o:133:SER:H	2.19	0.49
15:p:131:SER:C	15:p:133:SER:H	2.21	0.49
4:D:109:LEU:HD13	4:D:109:LEU:C	2.37	0.49
6:F:4:ASN:HD21	15:f:102:GLU:HA	1.76	0.49
6:F:24:TYR:N	6:F:24:TYR:CD1	2.81	0.49
2:P:243:ILE:O	2:P:245:ASP:N	2.45	0.49
3:Q:175:LEU:HD13	3:Q:196:THR:HA	1.94	0.49
8:V:36:ARG:HB2	8:V:42:TRP:CE2	2.47	0.49
8:V:74:SER:HB3	8:V:77:THR:OG1	2.12	0.49
8:V:190:PRO:HA	8:V:193:TYR:CE2	2.48	0.49
11:Y:95:ARG:HB3	11:Y:95:ARG:CZ	2.43	0.49
12:Z:15:ALA:HB1	12:Z:161:ILE:HG13	1.94	0.49
2:B:160:LYS:HD3	2:B:179:TRP:CH2	2.47	0.49
3:C:70:ASN:ND2	3:C:71:ASP:N	2.60	0.49
4:D:163:THR:HG21	4:D:171:VAL:CG2	2.42	0.49
5:E:178:GLY:HA3	5:E:207:VAL:HG11	1.95	0.49
6:F:54:ASP:CG	6:F:55:GLU:N	2.71	0.49
9:I:1:THR:HB	9:I:46:ALA:HB1	1.94	0.49
10:J:51:VAL:HG12	10:J:52:THR:N	2.26	0.49
13:M:117:ASP:OD2	13:M:119:VAL:HG22	2.12	0.49
1:O:248:ILE:HG22	1:O:251:GLN:OE1	2.13	0.49
8:V:126:ILE:HD12	8:V:134:ILE:CG1	2.41	0.49
14:b:19:LEU:HD11	14:b:26:LEU:HD12	1.93	0.49
15:d:33:LEU:HD23	15:d:34:GLN:N	2.28	0.49
15:g:133:SER:HA	15:g:136:ALA:HB3	1.94	0.49
15:g:196:LEU:HD22	15:h:82:TYR:CD2	2.48	0.49
15:i:103:ASP:HB3	15:i:223:ARG:HG2	1.94	0.49
15:n:17:THR:CG2	15:n:94:ILE:HG22	2.43	0.49
15:n:110:GLN:NE2	15:n:222:PRO:HB3	2.28	0.49
15:o:176:SER:OG	15:p:139:PRO:HA	2.13	0.49
15:o:193:LYS:HE2	15:o:193:LYS:HA	1.92	0.49
15:p:201:LEU:O	15:p:205:VAL:HG23	2.13	0.49
1:A:133:TYR:O	1:A:134:MET:HB3	2.12	0.49
3:C:73:ILE:HG12	3:C:108:VAL:HG22	1.94	0.49
12:L:149:SER:HB2	12:L:152:ASP:CG	2.37	0.49
14:N:208:ASN:C	14:N:208:ASN:HD22	2.21	0.49
3:Q:235:ILE:C	3:Q:237:ASP:N	2.70	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:V:67:THR:C	8:V:69:GLN:H	2.21	0.49
11:Y:70:GLU:O	11:Y:71:ASP:HB3	2.12	0.49
14:b:208:ASN:HD22	14:b:208:ASN:C	2.21	0.49
15:d:63:SER:HA	15:d:64:PRO:HD2	1.74	0.49
15:m:97:PRO:HB2	15:m:223:ARG:NH1	2.27	0.49
15:o:133:SER:HA	15:o:136:ALA:HB3	1.95	0.49
15:p:176:SER:OG	15:p:179:LEU:HB2	2.13	0.49
1:A:131:ARG:HG2	1:A:131:ARG:HH11	1.78	0.49
6:F:2:PHE:HD1	6:F:3:ARG:HG2	1.75	0.49
11:K:34:THR:CG2	11:K:35:ARG:N	2.75	0.49
12:L:206:SER:O	12:L:207:PHE:HB2	2.13	0.49
14:N:81:PRO:HD2	14:N:112:GLN:OE1	2.13	0.49
1:O:117:LEU:O	1:O:121:MET:HG2	2.13	0.49
2:P:44:VAL:CA	2:P:213:ILE:HG22	2.42	0.49
12:Z:149:SER:HB2	12:Z:152:ASP:CG	2.38	0.49
14:b:198:LEU:HD23	14:b:199:THR:N	2.28	0.49
15:e:127:SER:HA	15:e:130:LYS:HG3	1.94	0.49
15:f:205:VAL:O	15:f:209:ILE:HG12	2.13	0.49
15:h:17:THR:CG2	15:h:94:ILE:HG22	2.43	0.49
15:k:216:TRP:O	15:k:219:LEU:HB2	2.13	0.49
15:l:109:VAL:HG21	15:l:218:LYS:HD3	1.94	0.49
15:l:193:LYS:HE2	15:l:193:LYS:HA	1.94	0.49
15:m:8:LEU:HA	15:m:11:ASN:ND2	2.28	0.49
2:B:156:TYR:HD1	2:B:156:TYR:O	1.95	0.48
3:C:181:LYS:O	3:C:184:MET:HB2	2.13	0.48
6:F:197:ILE:C	6:F:199:GLN:N	2.69	0.48
8:H:8:PHE:HE2	8:H:148:LYS:CA	2.21	0.48
9:I:48:THR:O	9:I:51:ASP:HB2	2.13	0.48
14:N:189:LEU:HD23	14:N:189:LEU:C	2.38	0.48
2:P:44:VAL:HG23	2:P:213:ILE:HG22	1.95	0.48
2:P:196:LEU:O	2:P:200:VAL:HG23	2.13	0.48
7:U:25:TYR:N	7:U:25:TYR:CD2	2.79	0.48
9:W:152:ILE:HG22	9:W:153:LYS:N	2.27	0.48
12:Z:123:LYS:HG3	12:Z:124:GLY:N	2.28	0.48
15:d:177:PRO:HG3	15:e:62:LYS:HG3	1.93	0.48
15:g:176:SER:OG	15:h:139:PRO:HA	2.13	0.48
15:g:215:ASN:O	15:g:217:LYS:N	2.46	0.48
15:h:68:LEU:O	15:h:72:GLN:HB2	2.13	0.48
15:m:216:TRP:O	15:m:219:LEU:HB2	2.14	0.48
3:C:198:SER:OG	3:C:199:LYS:N	2.47	0.48
4:D:28:LYS:O	4:D:166:ARG:HB3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:174:PHE:CZ	4:D:178:ASN:ND2	2.81	0.48
6:F:36:VAL:CG2	6:F:160:ALA:HB2	2.43	0.48
11:K:119:ASP:OD2	11:K:123:THR:HB	2.12	0.48
12:L:38:ASN:HB2	12:L:39:PRO:HD2	1.95	0.48
1:O:220:LYS:O	1:O:220:LYS:NZ	2.41	0.48
3:Q:188:ASP:N	3:Q:188:ASP:OD1	2.46	0.48
4:R:201:GLU:O	4:R:204:GLN:NE2	2.45	0.48
6:T:20:PHE:HZ	15:m:102:GLU:HB3	1.78	0.48
7:U:100:LYS:HE2	14:b:57:ARG:NH1	2.28	0.48
15:c:41:LYS:C	15:c:43:ALA:N	2.70	0.48
15:d:190:PHE:O	15:d:194:VAL:HG23	2.12	0.48
15:e:216:TRP:O	15:e:219:LEU:N	2.45	0.48
15:l:202:SER:O	15:l:206:ARG:HG3	2.13	0.48
2:B:16:GLY:HA3	3:C:28:SER:HB2	1.96	0.48
8:H:80:SER:O	8:H:83:LYS:HB3	2.14	0.48
12:L:15:ALA:HB1	12:L:161:ILE:HG13	1.96	0.48
7:U:246:ILE:HG23	7:U:246:ILE:O	2.11	0.48
8:V:18:SER:OG	8:V:171:GLY:HA3	2.14	0.48
8:V:131:SER:O	8:V:134:ILE:HG12	2.13	0.48
9:W:45:GLY:HA2	9:W:98:LEU:HB3	1.95	0.48
10:X:15:ALA:HB2	10:X:178:VAL:HG13	1.95	0.48
15:c:28:TRP:CZ3	15:c:84:GLN:HG2	2.49	0.48
15:c:133:SER:HA	15:c:136:ALA:HB3	1.94	0.48
15:e:17:THR:CG2	15:e:94:ILE:HG22	2.42	0.48
15:h:33:LEU:HD23	15:h:34:GLN:N	2.29	0.48
15:i:14:ASP:O	15:i:18:GLU:HG2	2.13	0.48
15:n:58:ALA:O	15:n:59:GLN:HB2	2.11	0.48
15:p:127:SER:HA	15:p:130:LYS:HG3	1.94	0.48
1:A:124:LEU:HD23	1:A:127:ILE:HD12	1.94	0.48
4:D:36:VAL:HG13	4:D:195:THR:HG23	1.94	0.48
5:E:142:LEU:HB2	5:E:158:ALA:CB	2.41	0.48
5:E:241:LYS:C	5:E:243:LEU:N	2.71	0.48
9:I:220:ILE:HG22	9:I:221:CYS:N	2.27	0.48
11:K:95:ARG:HB3	11:K:95:ARG:CZ	2.43	0.48
14:N:45:ILE:CG2	14:N:52:MET:HG3	2.43	0.48
14:N:84:ILE:H	14:N:84:ILE:HG13	1.46	0.48
8:V:67:THR:O	8:V:69:GLN:N	2.46	0.48
11:Y:168:GLU:HG2	11:Y:175:PHE:CZ	2.46	0.48
14:b:40:ASN:O	14:b:110:GLY:HA3	2.12	0.48
14:b:201:LYS:O	14:b:204:LEU:HD11	2.14	0.48
15:f:28:TRP:HZ3	15:f:84:GLN:HG2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:f:133:SER:HA	15:f:136:ALA:HB3	1.94	0.48
15:k:77:LEU:HA	15:k:80:ASN:HD22	1.78	0.48
15:l:131:SER:C	15:l:133:SER:H	2.22	0.48
1:A:134:MET:HE3	7:G:124:LEU:HD13	1.95	0.48
1:A:225:VAL:HG12	1:A:226:GLY:N	2.29	0.48
6:F:43:HIS:HB3	6:F:215:ILE:HD11	1.94	0.48
6:F:185:ASN:ND2	6:F:188:GLU:H	2.11	0.48
7:G:137:PHE:CD2	7:G:137:PHE:N	2.81	0.48
13:M:186:HIS:HD2	13:M:188:GLN:H	1.62	0.48
1:O:91:ARG:HH12	7:U:156:TYR:H	1.61	0.48
3:Q:165:VAL:N	3:Q:169:THR:HG21	2.29	0.48
5:S:22:PHE:CD2	5:S:22:PHE:N	2.82	0.48
5:S:81:LEU:CD1	15:o:230:VAL:HG12	2.44	0.48
6:T:126:ARG:NH1	6:T:127:PRO:O	2.47	0.48
9:W:97:TYR:N	9:W:97:TYR:CD1	2.81	0.48
14:b:19:LEU:HD13	14:b:20:GLY:N	2.28	0.48
15:f:63:SER:HA	15:f:64:PRO:HD2	1.72	0.48
15:k:177:PRO:HG3	15:l:62:LYS:HG3	1.96	0.48
15:n:28:TRP:HZ3	15:n:84:GLN:HG2	1.79	0.48
15:o:14:ASP:O	15:o:18:GLU:HG2	2.13	0.48
15:p:22:PHE:HD1	15:p:212:TYR:OH	1.95	0.48
15:p:70:VAL:HG11	15:p:191:MET:HE1	1.94	0.48
2:B:29:LYS:NZ	2:B:29:LYS:HB3	2.29	0.48
4:D:48:ARG:HG2	4:D:48:ARG:HH11	1.77	0.48
5:E:56:SER:HB3	5:E:57:PRO:HD2	1.95	0.48
6:F:197:ILE:HG23	6:F:198:SER:N	2.28	0.48
8:H:190:PRO:C	8:H:192:GLU:N	2.71	0.48
10:J:18:LEU:HD12	10:J:175:GLY:HA3	1.96	0.48
1:O:220:LYS:O	1:O:221:ASN:HB2	2.12	0.48
2:P:157:PHE:CE2	3:Q:52:VAL:HG11	2.49	0.48
4:R:36:VAL:HG13	4:R:195:THR:HG23	1.95	0.48
5:S:241:LYS:C	5:S:243:LEU:N	2.70	0.48
8:V:143:ARG:HH11	8:V:143:ARG:HB3	1.77	0.48
8:V:186:LEU:HD22	8:V:188:PHE:HE2	1.78	0.48
10:X:16:CYS:SG	10:X:34:ILE:HG13	2.53	0.48
15:g:41:LYS:C	15:g:43:ALA:H	2.20	0.48
15:g:103:ASP:HB2	15:g:223:ARG:NE	2.29	0.48
15:j:25:ILE:HG21	15:j:212:TYR:CE1	2.49	0.48
15:k:33:LEU:HD23	15:k:34:GLN:N	2.29	0.48
15:l:127:SER:HA	15:l:130:LYS:HG3	1.96	0.48
2:B:238:LEU:N	2:B:238:LEU:CD1	2.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:208:TYR:CG	3:C:209:ASP:N	2.81	0.48
5:E:133:LEU:HD22	5:E:133:LEU:H	1.78	0.48
7:G:23:VAL:O	7:G:27:VAL:HG23	2.14	0.48
12:L:53:GLN:OE1	13:M:121:SER:HA	2.13	0.48
4:R:31:THR:HB	4:R:63:LYS:HZ3	1.77	0.48
6:T:121:GLN:HE22	7:U:86:HIS:CD2	2.25	0.48
7:U:77:TYR:HB3	7:U:135:THR:HG23	1.96	0.48
7:U:150:LEU:HD11	7:U:154:GLY:CA	2.44	0.48
8:V:55:ILE:O	8:V:59:VAL:HG23	2.14	0.48
8:V:75:THR:HG22	8:V:111:TYR:CE1	2.49	0.48
8:V:89:ASN:O	8:V:91:ASP:N	2.47	0.48
15:e:215:ASN:O	15:e:217:LYS:N	2.46	0.48
15:i:22:PHE:HD1	15:i:212:TYR:OH	1.96	0.48
15:j:131:SER:C	15:j:133:SER:H	2.22	0.48
15:m:25:ILE:HG23	15:m:88:ILE:HG12	1.96	0.48
15:m:41:LYS:C	15:m:43:ALA:N	2.70	0.48
1:A:123:ASN:O	1:A:127:ILE:HG13	2.14	0.48
2:B:226:GLY:HA3	9:I:186:TYR:O	2.14	0.48
4:D:155:ILE:C	4:D:155:ILE:HD12	2.39	0.48
7:G:194:GLN:NE2	7:G:194:GLN:HA	2.28	0.48
11:K:152:THR:HG23	11:K:155:GLU:OE1	2.14	0.48
1:O:179:THR:HG23	2:P:55:LEU:HD12	1.96	0.48
2:P:161:ALA:O	3:Q:56:LEU:HD23	2.14	0.48
3:Q:37:GLY:HA2	3:Q:45:VAL:O	2.13	0.48
15:d:25:ILE:HG21	15:d:212:TYR:CE1	2.49	0.48
15:p:189:ASP:O	15:p:193:LYS:HG2	2.14	0.48
7:G:48:ALA:HB2	7:G:215:ILE:HG23	1.95	0.48
7:G:135:THR:O	7:G:149:MET:HA	2.13	0.48
8:H:55:ILE:O	8:H:59:VAL:HG23	2.13	0.48
8:H:185:ARG:HG3	8:H:185:ARG:NH1	2.28	0.48
9:I:175:VAL:HG12	9:I:176:CYS:N	2.28	0.48
14:N:19:LEU:HD11	14:N:26:LEU:HD12	1.95	0.48
1:O:73:PHE:N	1:O:73:PHE:CD1	2.80	0.48
1:O:128:TYR:CD1	1:O:133:TYR:HE1	2.27	0.48
1:O:131:ARG:O	1:O:132:ALA:HB3	2.13	0.48
1:O:144:VAL:O	1:O:145:SER:HB3	2.13	0.48
1:O:155:TYR:HD2	1:O:164:VAL:O	1.97	0.48
2:P:34:SER:OG	2:P:47:THR:HB	2.14	0.48
2:P:187:ASP:O	2:P:190:HIS:HB3	2.13	0.48
4:R:11:PHE:H	5:S:23:GLN:NE2	2.05	0.48
9:W:3:ILE:HG22	9:W:16:ALA:CB	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:X:15:ALA:HB2	10:X:178:VAL:HG22	1.96	0.48
12:Z:64:ARG:NH2	12:Z:68:LEU:HD21	2.28	0.48
14:b:49:ILE:CG2	14:b:53:GLN:HE21	2.24	0.48
15:c:45:GLU:O	15:c:49:VAL:HG23	2.14	0.48
15:c:77:LEU:HA	15:c:80:ASN:HD22	1.77	0.48
15:c:138:THR:CG2	15:c:142:MET:HE3	2.43	0.48
15:d:43:ALA:HB2	15:d:198:THR:HG21	1.96	0.48
15:d:189:ASP:O	15:d:193:LYS:HG2	2.14	0.48
15:g:176:SER:HB2	15:h:142:MET:SD	2.53	0.48
15:g:216:TRP:O	15:g:219:LEU:N	2.47	0.48
15:h:131:SER:C	15:h:133:SER:H	2.22	0.48
15:k:109:VAL:HG21	15:k:218:LYS:HD3	1.94	0.48
15:k:131:SER:C	15:k:133:SER:H	2.20	0.48
15:p:43:ALA:HB2	15:p:198:THR:HG21	1.96	0.48
1:A:128:TYR:HE1	1:A:133:TYR:HH	1.52	0.48
4:D:176:GLU:OE2	5:E:57:PRO:HD2	2.14	0.48
7:G:121:ALA:C	7:G:123:THR:H	2.21	0.48
9:I:90:TYR:N	9:I:90:TYR:CD2	2.82	0.48
11:K:68:ILE:C	11:K:68:ILE:HD12	2.38	0.48
4:R:233:VAL:O	4:R:237:GLU:HG2	2.13	0.48
6:T:16:THR:O	7:U:28:LYS:HB3	2.14	0.48
6:T:197:ILE:C	6:T:199:GLN:N	2.72	0.48
7:U:197:LYS:HG3	7:U:201:LEU:HD11	1.96	0.48
14:b:1:THR:OG1	14:b:2:SER:N	2.46	0.48
15:d:41:LYS:C	15:d:43:ALA:H	2.22	0.48
15:e:10:GLN:O	15:e:14:ASP:HB2	2.14	0.48
15:f:41:LYS:C	15:f:43:ALA:H	2.21	0.48
15:h:216:TRP:HA	15:h:219:LEU:HD13	1.96	0.48
15:l:10:GLN:O	15:l:14:ASP:HB2	2.14	0.48
15:m:193:LYS:HE2	15:m:193:LYS:HA	1.95	0.48
2:B:74:VAL:HG22	2:B:75:TYR:N	2.29	0.47
3:C:175:LEU:HD13	3:C:196:THR:HA	1.96	0.47
3:C:186:VAL:HG13	3:C:187:ASP:N	2.29	0.47
4:D:78:LEU:HD12	4:D:81:ASP:OD2	2.13	0.47
4:D:81:ASP:O	4:D:82:SER:C	2.57	0.47
5:E:42:THR:C	5:E:44:GLU:H	2.20	0.47
6:F:118:LYS:HD2	6:F:118:LYS:H	1.78	0.47
14:N:3:VAL:HG11	14:N:44:GLY:HA3	1.96	0.47
1:O:25:LEU:HD12	1:O:25:LEU:N	2.29	0.47
1:O:43:LEU:HD23	1:O:43:LEU:C	2.39	0.47
2:P:122:THR:O	2:P:124:SER:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:139:HIS:HD2	2:P:144:GLY:C	2.21	0.47
3:Q:44:ILE:HD11	3:Q:146:TYR:HB3	1.96	0.47
3:Q:165:VAL:CA	3:Q:169:THR:HG21	2.44	0.47
4:R:28:LYS:O	4:R:166:ARG:HB3	2.13	0.47
5:S:178:GLY:HA3	5:S:207:VAL:HG11	1.96	0.47
7:U:136:ILE:HG12	7:U:149:MET:HG3	1.96	0.47
10:X:140:MET:HE3	10:X:144:LEU:HD11	1.95	0.47
11:Y:160:LEU:HD23	11:Y:161:LYS:N	2.29	0.47
14:b:120:ARG:HH11	14:b:130:SER:HB2	1.79	0.47
15:c:131:SER:C	15:c:133:SER:H	2.20	0.47
15:c:215:ASN:O	15:c:217:LYS:N	2.47	0.47
15:d:103:ASP:HB3	15:d:223:ARG:HG2	1.95	0.47
15:h:28:TRP:CZ3	15:h:84:GLN:HG2	2.49	0.47
15:h:177:PRO:HG3	15:i:62:LYS:HG3	1.96	0.47
15:n:25:ILE:HG21	15:n:212:TYR:CE1	2.49	0.47
15:n:45:GLU:O	15:n:49:VAL:HG23	2.13	0.47
15:o:10:GLN:O	15:o:14:ASP:HB2	2.14	0.47
2:B:122:THR:O	2:B:124:SER:N	2.47	0.47
3:C:156:ASN:HD21	4:D:79:ASN:HB2	1.79	0.47
4:D:112:TYR:O	4:D:116:VAL:HG23	2.13	0.47
6:F:94:TYR:CE1	6:F:98:VAL:HG21	2.50	0.47
6:F:123:TYR:CG	6:F:124:GLY:N	2.82	0.47
7:G:19:ARG:HH11	7:G:19:ARG:CG	2.27	0.47
11:K:50:GLY:HA3	12:L:118:ASP:O	2.14	0.47
13:M:48:PHE:H	13:M:98:VAL:HG13	1.79	0.47
1:O:124:LEU:HD23	1:O:127:ILE:HD12	1.96	0.47
4:R:109:LEU:HD13	4:R:109:LEU:C	2.39	0.47
6:T:42:THR:HG22	6:T:218:LYS:NZ	2.29	0.47
8:V:127:ALA:HA	14:b:27:ARG:NH2	2.28	0.47
13:a:133:ALA:O	13:a:134:ALA:C	2.57	0.47
15:d:10:GLN:O	15:d:14:ASP:HB2	2.14	0.47
15:f:17:THR:CG2	15:f:94:ILE:HG22	2.44	0.47
15:g:205:VAL:O	15:g:209:ILE:HG12	2.13	0.47
15:h:109:VAL:HG21	15:h:218:LYS:HD3	1.97	0.47
15:k:120:LEU:HA	15:k:204:MET:HE3	1.96	0.47
15:m:70:VAL:HG11	15:m:191:MET:HE1	1.95	0.47
15:n:216:TRP:O	15:n:219:LEU:N	2.47	0.47
15:n:216:TRP:CA	15:n:219:LEU:HD13	2.44	0.47
1:A:126:GLN:NE2	1:A:127:ILE:HA	2.30	0.47
1:A:144:VAL:HG12	1:A:154:ILE:HG12	1.97	0.47
7:G:24:GLU:O	7:G:27:VAL:HB	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:133:PHE:HA	8:V:133:PHE:HA	1.96	0.47
9:I:10:ASN:C	9:I:180:ILE:HG13	2.38	0.47
12:L:16:VAL:O	12:L:175:VAL:HA	2.13	0.47
12:L:199:LYS:O	12:L:202:GLU:HB3	2.15	0.47
13:M:43:MET:HG2	13:M:44:SER:N	2.27	0.47
14:N:212:ASP:O	14:N:214:ALA:N	2.47	0.47
2:P:224:TYR:OH	2:P:230:ASP:HB3	2.14	0.47
3:Q:114:ARG:HB2	3:Q:114:ARG:HH11	1.79	0.47
5:S:112:LEU:O	5:S:113:THR:C	2.57	0.47
6:T:213:ILE:HG22	6:T:214:ALA:N	2.28	0.47
15:e:68:LEU:O	15:e:72:GLN:HB2	2.15	0.47
15:g:58:ALA:O	15:g:59:GLN:HB2	2.14	0.47
15:o:33:LEU:HD23	15:o:34:GLN:N	2.29	0.47
3:C:185:LYS:HE3	3:C:185:LYS:HB3	1.68	0.47
4:D:163:THR:HG21	4:D:171:VAL:HG23	1.97	0.47
6:F:68:GLU:O	6:F:222:PHE:N	2.37	0.47
8:H:4:MET:CB	8:H:126:ILE:HG22	2.44	0.47
8:H:38:HIS:CE1	8:H:67:THR:HG21	2.48	0.47
8:H:110:VAL:O	8:H:121:LYS:HA	2.14	0.47
11:K:87:LEU:HA	11:K:90:SER:HB3	1.96	0.47
6:T:54:ASP:CG	6:T:55:GLU:H	2.21	0.47
9:W:7:LYS:HB3	9:W:12:VAL:HB	1.97	0.47
9:W:90:TYR:N	9:W:90:TYR:CD2	2.82	0.47
9:W:177:VAL:O	9:W:184:ALA:HA	2.14	0.47
12:Z:54:PHE:C	12:Z:54:PHE:HD2	2.21	0.47
15:c:136:ALA:C	15:c:139:PRO:HD2	2.39	0.47
15:j:22:PHE:HD1	15:j:212:TYR:HH	1.60	0.47
15:j:55:TYR:HA	15:j:184:ARG:HH21	1.80	0.47
15:l:68:LEU:O	15:l:72:GLN:HB2	2.15	0.47
15:m:28:TRP:CZ3	15:m:84:GLN:HG2	2.48	0.47
15:m:143:TYR:O	15:m:144:ALA:HB3	2.14	0.47
15:n:41:LYS:C	15:n:43:ALA:N	2.70	0.47
3:C:16:GLU:HG3	15:i:102:GLU:OE2	2.14	0.47
3:C:235:ILE:C	3:C:237:ASP:N	2.71	0.47
7:G:188:ALA:O	7:G:191:ALA:HB3	2.14	0.47
8:H:97:ILE:HD12	8:H:98:ILE:N	2.29	0.47
8:H:143:ARG:NH1	8:H:146:MET:HE2	2.22	0.47
10:J:33:LYS:HD2	10:J:33:LYS:N	2.30	0.47
11:K:77:GLN:C	11:K:77:GLN:CD	2.82	0.47
14:N:167:GLU:HG3	14:N:168:ALA:N	2.30	0.47
2:P:197:LYS:HA	2:P:204:PHE:CZ	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:114:ARG:HG3	3:Q:115:LEU:N	2.26	0.47
3:Q:198:SER:OG	3:Q:199:LYS:HG3	2.14	0.47
4:R:45:GLY:C	4:R:46:CYS:HG	2.23	0.47
7:U:19:ARG:HH11	7:U:19:ARG:CG	2.27	0.47
14:b:144:ASN:O	14:b:148:ARG:HG3	2.14	0.47
14:b:171:ASN:HD22	14:b:174:ARG:NH2	2.13	0.47
15:c:33:LEU:HD23	15:c:34:GLN:N	2.29	0.47
15:d:33:LEU:HG	15:e:16:TYR:OH	2.13	0.47
15:f:113:VAL:O	15:f:116:ILE:HG22	2.14	0.47
15:i:28:TRP:CZ3	15:i:84:GLN:HG2	2.50	0.47
15:j:216:TRP:CA	15:j:219:LEU:HD13	2.44	0.47
15:k:114:LEU:HA	15:k:114:LEU:HD23	1.72	0.47
15:m:10:GLN:O	15:m:14:ASP:HB2	2.13	0.47
15:n:22:PHE:HD1	15:n:212:TYR:HH	1.62	0.47
15:n:127:SER:C	15:n:129:GLU:H	2.21	0.47
1:A:131:ARG:NH1	1:A:133:TYR:HB3	2.30	0.47
8:H:89:ASN:O	8:H:91:ASP:N	2.48	0.47
8:H:138:CYS:HA	8:H:154:PHE:CZ	2.49	0.47
8:H:189:TYR:O	8:H:192:GLU:HB2	2.14	0.47
9:I:21:THR:O	9:I:22:GLN:HB2	2.14	0.47
11:K:135:SER:O	11:K:139:THR:HG23	2.13	0.47
12:L:190:ASN:C	12:L:191:HIS:CD2	2.92	0.47
13:M:14:LEU:HD23	13:M:14:LEU:HA	1.77	0.47
1:O:126:GLN:NE2	1:O:126:GLN:C	2.72	0.47
2:P:211:LEU:CD2	2:P:238:LEU:HD22	2.45	0.47
3:Q:208:TYR:CG	3:Q:209:ASP:N	2.82	0.47
8:V:3:ILE:HG22	8:V:16:ALA:CB	2.45	0.47
14:b:70:ASN:ND2	14:b:73:ALA:HB2	2.29	0.47
14:b:139:GLY:O	14:b:141:HIS:N	2.47	0.47
15:c:119:GLU:O	15:c:123:LYS:HG2	2.14	0.47
15:d:216:TRP:O	15:d:219:LEU:HB2	2.14	0.47
15:h:41:LYS:C	15:h:43:ALA:H	2.22	0.47
15:h:138:THR:N	15:h:139:PRO:CD	2.77	0.47
15:m:138:THR:CG2	15:m:142:MET:HE3	2.43	0.47
15:o:216:TRP:O	15:o:219:LEU:HB2	2.14	0.47
1:A:20:SER:OG	1:A:24:ARG:N	2.41	0.47
2:B:64:VAL:HG13	2:B:237:LYS:HE2	1.95	0.47
2:B:197:LYS:HA	2:B:204:PHE:CZ	2.50	0.47
3:C:195:LYS:O	3:C:199:LYS:HD3	2.15	0.47
3:C:198:SER:OG	3:C:199:LYS:HG3	2.14	0.47
6:F:36:VAL:HG22	6:F:160:ALA:HB2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:176:LEU:C	6:F:176:LEU:HD12	2.40	0.47
7:G:121:ALA:HA	7:G:124:LEU:HD12	1.96	0.47
8:H:110:VAL:HG12	8:H:122:LEU:O	2.15	0.47
9:I:90:TYR:O	9:I:91:GLN:C	2.57	0.47
10:J:29:ASN:O	10:J:30:LYS:HG3	2.14	0.47
14:N:124:LEU:HD23	14:N:125:LEU:H	1.79	0.47
1:O:216:THR:CG2	1:O:217:GLU:N	2.78	0.47
2:P:64:VAL:HG13	2:P:237:LYS:HE2	1.96	0.47
6:T:70:MET:CE	6:T:105:VAL:HG22	2.44	0.47
6:T:105:VAL:CG1	6:T:145:LEU:HD13	2.45	0.47
7:U:85:ARG:HH11	7:U:85:ARG:HG2	1.80	0.47
7:U:108:ILE:N	7:U:108:ILE:HD13	2.30	0.47
9:W:90:TYR:N	9:W:90:TYR:HD2	2.13	0.47
10:X:150:GLU:HB2	10:X:153:ASP:OD2	2.14	0.47
15:c:22:PHE:HD1	15:c:212:TYR:OH	1.96	0.47
15:c:127:SER:HA	15:c:130:LYS:HG3	1.97	0.47
15:c:138:THR:N	15:c:139:PRO:CD	2.78	0.47
15:c:214:LEU:HG	15:d:13:ARG:NH1	2.29	0.47
15:c:216:TRP:HA	15:c:219:LEU:HD13	1.96	0.47
15:d:102:GLU:C	15:d:104:ASN:N	2.72	0.47
15:e:41:LYS:C	15:e:43:ALA:N	2.72	0.47
15:g:63:SER:HA	15:g:64:PRO:HD2	1.74	0.47
15:i:25:ILE:HG21	15:i:212:TYR:CE1	2.50	0.47
15:i:68:LEU:O	15:i:72:GLN:HB2	2.15	0.47
15:j:14:ASP:O	15:j:18:GLU:HG2	2.15	0.47
15:j:215:ASN:O	15:j:217:LYS:N	2.48	0.47
15:l:17:THR:CG2	15:l:94:ILE:HG22	2.41	0.47
15:l:138:THR:CG2	15:l:142:MET:HE3	2.44	0.47
15:m:68:LEU:O	15:m:72:GLN:HB2	2.15	0.47
15:o:176:SER:CB	15:p:142:MET:SD	3.02	0.47
15:p:41:LYS:C	15:p:43:ALA:N	2.72	0.47
3:C:120:GLN:NE2	3:C:120:GLN:C	2.73	0.47
4:D:149:GLN:HG2	4:D:150:THR:N	2.30	0.47
4:D:233:VAL:O	4:D:237:GLU:HG2	2.15	0.47
6:F:53:ALA:HB1	15:g:229:MET:CE	2.43	0.47
11:K:118:ILE:HA	11:K:123:THR:O	2.14	0.47
13:M:213:ASP:HB2	9:W:19:ARG:NH2	2.29	0.47
5:S:108:ASN:O	5:S:109:VAL:C	2.57	0.47
8:V:107:LYS:CG	8:V:108:GLY:H	2.28	0.47
9:W:21:THR:O	9:W:22:GLN:HB2	2.14	0.47
11:Y:38:SER:CB	11:Y:39:PRO:HD2	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Z:12:ILE:CD1	12:Z:102:CYS:HB3	2.45	0.47
15:e:110:GLN:NE2	15:e:222:PRO:HB3	2.30	0.47
15:h:136:ALA:C	15:h:139:PRO:HD2	2.40	0.47
15:i:216:TRP:O	15:i:219:LEU:HB2	2.14	0.47
15:j:203:THR:OG1	15:k:90:THR:HG23	2.15	0.47
15:k:28:TRP:CZ3	15:k:84:GLN:HG2	2.50	0.47
15:k:215:ASN:O	15:k:217:LYS:N	2.48	0.47
15:o:89:ARG:NH2	15:o:118:ASP:HA	2.29	0.47
15:p:120:LEU:HA	15:p:204:MET:HE3	1.96	0.47
1:A:60:PRO:HG2	1:A:61:ASP:H	1.80	0.47
3:C:24:TYR:O	3:C:27:GLU:HG3	2.14	0.47
9:I:104:ASP:C	9:I:106:THR:H	2.22	0.47
9:I:105:PRO:O	9:I:106:THR:HG23	2.15	0.47
5:S:27:SER:O	5:S:30:ALA:HB3	2.14	0.47
5:S:170:LYS:HD2	5:S:171:ALA:N	2.29	0.47
10:X:49:THR:HB	11:Y:122:GLY:O	2.15	0.47
12:Z:4:LEU:CD1	12:Z:15:ALA:HB3	2.45	0.47
15:e:177:PRO:HG3	15:f:62:LYS:HG3	1.96	0.47
15:i:28:TRP:CZ2	15:i:87:THR:HG21	2.50	0.47
15:i:102:GLU:C	15:i:104:ASN:N	2.73	0.47
15:n:33:LEU:HD23	15:n:34:GLN:N	2.30	0.47
15:n:216:TRP:O	15:n:219:LEU:HB2	2.15	0.47
15:p:102:GLU:C	15:p:104:ASN:N	2.73	0.47
3:C:96:GLN:HB3	10:J:60:TYR:CE2	2.49	0.47
3:C:163:ILE:HG13	3:C:164:SER:H	1.79	0.47
4:D:212:ILE:HG21	4:D:224:LEU:HD22	1.97	0.47
5:E:108:ASN:O	5:E:109:VAL:C	2.58	0.47
7:G:71:ARG:NH1	14:N:64:THR:CG2	2.77	0.47
8:H:143:ARG:HH11	8:H:143:ARG:HB3	1.80	0.47
8:H:153:ASP:HA	8:H:156:LYS:HB2	1.97	0.47
9:I:102:GLY:HA2	9:I:178:MET:SD	2.54	0.47
14:N:92:MET:HE2	14:N:106:ILE:HD13	1.97	0.47
1:O:156:LYS:HE2	1:O:166:TYR:CE2	2.50	0.47
1:O:195:ASN:O	1:O:196:GLU:HB2	2.13	0.47
2:P:218:ASN:HB3	2:P:221:LEU:HD13	1.96	0.47
3:Q:69:LEU:CD2	3:Q:92:ARG:HG3	2.45	0.47
4:R:228:GLU:CA	4:R:231:GLN:HE21	2.24	0.47
5:S:124:GLY:N	5:S:132:ARG:HB2	2.29	0.47
7:U:85:ARG:HG2	7:U:85:ARG:NH1	2.30	0.47
8:V:4:MET:SD	8:V:159:LEU:CD1	3.03	0.47
8:V:40:LYS:HZ2	8:V:182:GLY:HA2	1.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:Y:3:ILE:HD12	11:Y:44:SER:HB2	1.96	0.47
11:Y:191:VAL:C	11:Y:193:ASP:N	2.71	0.47
14:b:139:GLY:O	14:b:142:MET:N	2.46	0.47
15:c:216:TRP:O	15:c:219:LEU:N	2.47	0.47
15:d:136:ALA:C	15:d:139:PRO:HD2	2.40	0.47
15:g:33:LEU:HD23	15:g:34:GLN:N	2.30	0.47
15:i:138:THR:N	15:i:139:PRO:CD	2.77	0.47
15:j:109:VAL:HG21	15:j:218:LYS:HD3	1.97	0.47
15:j:134:GLY:HA2	15:j:190:PHE:CE2	2.50	0.47
15:k:189:ASP:OD2	15:l:132:GLY:HA3	2.15	0.47
15:l:33:LEU:HD23	15:l:34:GLN:N	2.29	0.47
15:l:64:PRO:HB2	15:l:67:LEU:HG	1.97	0.47
15:n:143:TYR:O	15:n:144:ALA:HB3	2.14	0.47
15:n:200:HIS:O	15:n:203:THR:HB	2.15	0.47
15:o:28:TRP:CZ3	15:o:84:GLN:HG2	2.49	0.47
2:B:20:GLN:O	2:B:21:ILE:C	2.58	0.46
2:B:64:VAL:CG1	2:B:237:LYS:HE2	2.45	0.46
2:B:224:TYR:OH	2:B:230:ASP:HB3	2.14	0.46
5:E:165:TYR:CE1	6:F:53:ALA:HB2	2.50	0.46
6:F:146:GLU:O	6:F:153:VAL:HA	2.15	0.46
11:K:18:LYS:HD3	11:K:179:ILE:HG13	1.96	0.46
13:M:59:PHE:O	13:M:62:SER:N	2.48	0.46
3:Q:185:LYS:HD2	3:Q:186:VAL:H	1.79	0.46
4:R:57:THR:OG1	4:R:58:ARG:N	2.48	0.46
4:R:155:ILE:C	4:R:155:ILE:HD12	2.40	0.46
5:S:39:GLY:O	5:S:169:ALA:HA	2.15	0.46
7:U:35:THR:CG2	7:U:167:GLY:H	2.28	0.46
7:U:49:VAL:HG22	7:U:50:GLU:N	2.29	0.46
13:a:3:ILE:HG22	13:a:16:GLY:HA3	1.96	0.46
14:b:119:LEU:HD23	14:b:131:SER:O	2.15	0.46
15:c:61:GLU:CG	15:c:62:LYS:N	2.77	0.46
15:c:68:LEU:O	15:c:72:GLN:HB2	2.14	0.46
15:l:109:VAL:HG22	15:m:99:HIS:HD2	1.80	0.46
15:n:120:LEU:HA	15:n:204:MET:HE3	1.97	0.46
15:n:215:ASN:O	15:n:217:LYS:N	2.48	0.46
5:E:136:ARG:HB2	5:E:137:PRO:CD	2.39	0.46
5:E:237:ALA:O	5:E:240:ILE:HB	2.16	0.46
11:K:22:ARG:HB2	11:K:27:LEU:HD11	1.97	0.46
12:L:144:TYR:CD2	12:L:144:TYR:C	2.93	0.46
2:P:189:ILE:O	2:P:193:LEU:HD12	2.15	0.46
3:Q:129:ARG:HG3	3:Q:129:ARG:O	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:R:162:GLN:HG3	4:R:163:THR:N	2.29	0.46
5:S:81:LEU:HD12	5:S:81:LEU:HA	1.69	0.46
6:T:54:ASP:CG	6:T:55:GLU:N	2.73	0.46
9:W:1:THR:HB	9:W:46:ALA:HB1	1.97	0.46
14:b:135:ALA:HB3	14:b:140:ALA:N	2.31	0.46
15:d:177:PRO:CG	15:e:62:LYS:HA	2.43	0.46
15:g:10:GLN:O	15:g:14:ASP:HB2	2.15	0.46
15:h:63:SER:HA	15:h:64:PRO:HD2	1.74	0.46
15:k:41:LYS:C	15:k:43:ALA:N	2.72	0.46
1:A:16:ILE:CG2	1:A:17:THR:N	2.77	0.46
1:A:155:TYR:HD2	1:A:165:GLY:HA2	1.78	0.46
6:F:155:GLU:C	6:F:156:LEU:HD12	2.39	0.46
7:G:142:LYS:HG3	8:H:105:LYS:NZ	2.31	0.46
7:G:150:LEU:HD11	7:G:154:GLY:C	2.41	0.46
9:I:90:TYR:N	9:I:90:TYR:HD2	2.13	0.46
9:I:167:LEU:HD12	13:a:24:TYR:HA	1.98	0.46
11:K:52:THR:HG23	11:K:53:VAL:N	2.26	0.46
11:K:88:ALA:O	11:K:91:ILE:HG22	2.15	0.46
1:O:120:ARG:HA	1:O:123:ASN:HB2	1.98	0.46
2:P:74:VAL:HG22	2:P:75:TYR:N	2.30	0.46
2:P:145:PHE:HE1	2:P:214:ILE:HG22	1.80	0.46
2:P:193:LEU:O	2:P:197:LYS:N	2.48	0.46
13:a:43:MET:CG	13:a:44:SER:N	2.79	0.46
15:d:218:LYS:NZ	15:e:98:GLU:HG2	2.31	0.46
15:f:119:GLU:O	15:f:123:LYS:HG2	2.16	0.46
15:f:136:ALA:C	15:f:139:PRO:HD2	2.41	0.46
15:h:133:SER:HA	15:h:136:ALA:HB3	1.97	0.46
15:h:189:ASP:O	15:h:193:LYS:HG2	2.14	0.46
15:i:41:LYS:C	15:i:43:ALA:N	2.70	0.46
15:j:200:HIS:O	15:j:203:THR:HB	2.16	0.46
1:A:220:LYS:O	1:A:221:ASN:HB2	2.15	0.46
3:C:107:PRO:HB2	3:C:110:ILE:HD12	1.97	0.46
3:C:114:ARG:HG3	3:C:115:LEU:N	2.27	0.46
3:C:183:ASP:O	3:C:184:MET:C	2.58	0.46
4:D:181:ARG:HH22	5:E:60:GLU:HG2	1.80	0.46
6:F:126:ARG:NH1	6:F:127:PRO:O	2.49	0.46
8:H:102:TYR:HA	8:H:108:GLY:HA2	1.97	0.46
11:K:3:ILE:CD1	11:K:16:SER:HB3	2.45	0.46
11:K:8:VAL:HG23	11:K:9:GLN:H	1.80	0.46
11:K:168:GLU:HG2	11:K:175:PHE:CZ	2.48	0.46
1:O:117:LEU:HD12	1:O:121:MET:HG2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:123:ASN:ND2	2:P:84:VAL:HG12	2.30	0.46
2:P:200:VAL:HG21	2:P:204:PHE:CD1	2.51	0.46
5:S:8:TYR:O	5:S:9:ASP:CB	2.63	0.46
5:S:165:TYR:HE2	6:T:60:GLN:HB2	1.79	0.46
7:U:77:TYR:CD2	7:U:77:TYR:N	2.83	0.46
7:U:106:ILE:HA	7:U:107:PRO:HD3	1.81	0.46
8:V:9:LYS:HG3	8:V:145:ASN:OD1	2.16	0.46
14:b:-6:GLN:HG3	14:b:-5:PRO:N	2.30	0.46
15:d:119:GLU:O	15:d:123:LYS:HG2	2.15	0.46
15:e:216:TRP:CA	15:e:219:LEU:HD13	2.45	0.46
15:i:136:ALA:C	15:i:139:PRO:HD2	2.41	0.46
15:n:55:TYR:HA	15:n:184:ARG:HH21	1.80	0.46
15:o:109:VAL:HG21	15:o:218:LYS:HD3	1.97	0.46
15:o:216:TRP:O	15:o:219:LEU:N	2.49	0.46
2:B:112:SER:HA	2:B:156:TYR:CE2	2.50	0.46
6:F:164:ARG:HH22	6:F:202:ARG:HB3	1.80	0.46
7:G:193:LYS:HE2	7:G:193:LYS:HB3	1.73	0.46
11:K:3:ILE:HD12	11:K:44:SER:HB2	1.97	0.46
14:N:19:LEU:HD13	14:N:20:GLY:N	2.29	0.46
1:O:167:LYS:HZ2	1:O:192:ASP:HB2	1.80	0.46
4:R:159:TRP:CZ2	5:S:59:LEU:HD23	2.50	0.46
6:T:69:HIS:ND1	6:T:69:HIS:C	2.73	0.46
6:T:111:LEU:O	6:T:115:LYS:HB2	2.15	0.46
6:T:216:VAL:HB	6:T:222:PHE:HD2	1.80	0.46
10:X:90:ARG:O	10:X:90:ARG:HG3	2.16	0.46
11:Y:152:THR:OG1	11:Y:155:GLU:HG3	2.15	0.46
14:b:62:LEU:O	14:b:65:GLU:HB3	2.15	0.46
15:c:17:THR:CG2	15:c:94:ILE:HG22	2.45	0.46
15:c:102:GLU:C	15:c:104:ASN:N	2.74	0.46
15:c:139:PRO:HA	15:i:176:SER:CB	2.45	0.46
15:c:216:TRP:CA	15:c:219:LEU:HD13	2.45	0.46
15:d:41:LYS:C	15:d:43:ALA:N	2.70	0.46
15:d:115:LYS:O	15:d:118:ASP:HB3	2.16	0.46
15:d:189:ASP:OD2	15:e:132:GLY:HA3	2.16	0.46
15:e:55:TYR:HA	15:e:184:ARG:HH21	1.79	0.46
15:e:136:ALA:C	15:e:139:PRO:HD2	2.40	0.46
15:g:28:TRP:CZ3	15:g:84:GLN:HG2	2.50	0.46
15:h:14:ASP:O	15:h:18:GLU:HG2	2.16	0.46
15:j:33:LEU:HD23	15:j:34:GLN:N	2.30	0.46
15:n:134:GLY:HA2	15:n:190:PHE:CE2	2.51	0.46
15:o:190:PHE:O	15:o:194:VAL:HG23	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:p:110:GLN:NE2	15:p:222:PRO:HB3	2.30	0.46
1:A:33:LYS:H	1:A:33:LYS:CD	2.22	0.46
1:A:112:MET:HA	1:A:113:PRO:HD3	1.73	0.46
2:B:74:VAL:HG22	2:B:75:TYR:H	1.79	0.46
4:D:31:THR:HB	4:D:63:LYS:HZ1	1.80	0.46
10:J:117:LEU:N	10:J:117:LEU:HD23	2.30	0.46
1:O:131:ARG:NH1	1:O:133:TYR:HB3	2.30	0.46
2:P:12:PHE:HE2	3:Q:130:PRO:HG2	1.80	0.46
2:P:226:GLY:HA3	9:W:186:TYR:O	2.15	0.46
3:Q:185:LYS:HD2	3:Q:186:VAL:N	2.31	0.46
3:Q:191:GLU:HG2	3:Q:195:LYS:HE2	1.96	0.46
6:T:33:SER:HB3	6:T:62:LYS:HZ2	1.77	0.46
9:W:215:GLU:CD	10:X:189:ARG:HE	2.23	0.46
15:f:216:TRP:O	15:f:219:LEU:N	2.48	0.46
15:h:49:VAL:HA	15:h:52:ASN:ND2	2.31	0.46
15:h:190:PHE:O	15:h:194:VAL:HG23	2.15	0.46
15:k:176:SER:HB3	15:l:142:MET:CB	2.26	0.46
15:k:216:TRP:O	15:k:219:LEU:N	2.48	0.46
15:m:102:GLU:C	15:m:104:ASN:N	2.71	0.46
2:B:161:ALA:O	3:C:56:LEU:HD23	2.16	0.46
3:C:185:LYS:HD2	3:C:186:VAL:H	1.80	0.46
6:F:149:PRO:C	6:F:151:GLY:H	2.23	0.46
7:G:204:GLU:HG3	7:G:207:LYS:HE2	1.98	0.46
8:H:138:CYS:HA	8:H:154:PHE:CE1	2.50	0.46
9:I:38:SER:HB2	9:I:41:ILE:CD1	2.45	0.46
12:L:36:GLU:HA	12:L:42:LEU:HD23	1.98	0.46
13:M:137:ILE:HG23	13:M:178:SER:HB3	1.98	0.46
13:M:190:GLY:O	13:M:191:ASP:HB2	2.14	0.46
14:N:133:THR:O	14:N:134:LEU:HD23	2.15	0.46
4:R:221:ILE:O	4:R:222:VAL:HB	2.15	0.46
5:S:225:GLN:NE2	5:S:225:GLN:HA	2.30	0.46
7:U:49:VAL:HG11	7:U:65:LYS:HB2	1.98	0.46
7:U:169:GLN:HA	7:U:172:LYS:HB2	1.96	0.46
10:X:98:PRO:HG2	10:X:115:PHE:CD1	2.51	0.46
12:Z:36:GLU:HA	12:Z:42:LEU:HD23	1.98	0.46
12:Z:190:ASN:C	12:Z:191:HIS:CD2	2.94	0.46
13:a:143:ASN:O	13:a:147:PHE:N	2.49	0.46
14:b:-2:THR:HA	14:b:47:GLY:O	2.15	0.46
14:b:101:PRO:C	14:b:102:LEU:HD12	2.41	0.46
14:b:119:LEU:HG	14:b:134:LEU:HD12	1.98	0.46
15:d:17:THR:CG2	15:d:94:ILE:HG22	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:d:49:VAL:HA	15:d:52:ASN:ND2	2.30	0.46
15:i:215:ASN:O	15:i:217:LYS:N	2.48	0.46
15:k:205:VAL:O	15:k:209:ILE:HG12	2.14	0.46
15:m:127:SER:HA	15:m:130:LYS:HG3	1.97	0.46
15:m:215:ASN:O	15:m:217:LYS:N	2.49	0.46
15:n:10:GLN:O	15:n:14:ASP:HB2	2.16	0.46
3:C:77:VAL:CG1	3:C:78:ALA:N	2.79	0.46
3:C:89:ASN:O	3:C:93:ILE:HG13	2.15	0.46
7:G:197:LYS:CG	7:G:201:LEU:HD21	2.46	0.46
8:H:188:PHE:CD2	8:H:188:PHE:N	2.84	0.46
10:J:37:TYR:O	10:J:40:VAL:HG23	2.16	0.46
11:K:-1:MET:HG2	11:K:1:ASP:H	1.81	0.46
13:M:51:ASP:OD2	13:M:96:TYR:HA	2.15	0.46
1:O:68:THR:HG21	7:U:158:GLY:CA	2.42	0.46
1:O:146:VAL:HA	1:O:151:GLY:O	2.14	0.46
9:W:72:ARG:HH11	9:W:72:ARG:CG	2.27	0.46
13:a:143:ASN:O	13:a:147:PHE:HA	2.16	0.46
15:c:10:GLN:O	15:c:14:ASP:HB2	2.15	0.46
15:e:120:LEU:HA	15:e:204:MET:HE3	1.97	0.46
15:f:120:LEU:CA	15:f:204:MET:HE3	2.45	0.46
15:f:143:TYR:O	15:f:144:ALA:HB3	2.14	0.46
15:i:33:LEU:HD23	15:i:34:GLN:N	2.30	0.46
15:i:103:ASP:HB2	15:i:223:ARG:NE	2.27	0.46
15:k:123:LYS:HE3	15:k:204:MET:HE2	1.98	0.46
15:l:143:TYR:O	15:l:144:ALA:HB3	2.16	0.46
15:m:219:LEU:HD12	15:m:219:LEU:N	2.31	0.46
15:n:41:LYS:C	15:n:43:ALA:H	2.24	0.46
15:o:215:ASN:O	15:o:217:LYS:N	2.49	0.46
15:p:33:LEU:HD23	15:p:34:GLN:N	2.30	0.46
1:A:54:ILE:HG13	1:A:225:VAL:CG2	2.46	0.46
9:I:19:ARG:NH2	13:a:213:ASP:HB2	2.30	0.46
12:L:98:GLY:O	12:L:99:THR:HB	2.15	0.46
14:N:153:ARG:HH11	14:N:153:ARG:CG	2.23	0.46
1:O:60:PRO:HG2	1:O:61:ASP:H	1.81	0.46
3:Q:68:LYS:NZ	10:X:66:LYS:NZ	2.64	0.46
5:S:240:ILE:O	5:S:243:LEU:HB3	2.16	0.46
5:S:244:LYS:HG2	5:S:244:LYS:O	2.14	0.46
12:Z:199:LYS:O	12:Z:202:GLU:HB3	2.16	0.46
13:a:-5:TYR:OH	13:a:95:PRO:HD2	2.16	0.46
14:b:40:ASN:ND2	14:b:40:ASN:N	2.55	0.46
15:d:45:GLU:O	15:d:49:VAL:HG23	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:e:14:ASP:O	15:e:18:GLU:HG2	2.15	0.46
15:e:39:ILE:C	15:e:41:LYS:N	2.73	0.46
15:e:58:ALA:O	15:e:59:GLN:HB2	2.15	0.46
15:e:147:GLU:HA	15:f:143:TYR:OH	2.16	0.46
15:f:61:GLU:CG	15:f:62:LYS:N	2.79	0.46
15:f:215:ASN:O	15:f:217:LYS:N	2.48	0.46
15:g:102:GLU:C	15:g:104:ASN:N	2.73	0.46
15:g:227:ASP:C	15:g:229:MET:H	2.24	0.46
15:h:65:GLU:HA	15:h:68:LEU:HD23	1.98	0.46
15:l:28:TRP:HZ3	15:l:84:GLN:HG2	1.80	0.46
15:o:102:GLU:C	15:o:104:ASN:N	2.72	0.46
15:p:215:ASN:O	15:p:217:LYS:N	2.49	0.46
3:C:29:ILE:C	3:C:31:HIS:N	2.74	0.46
3:C:59:GLN:N	3:C:59:GLN:NE2	2.64	0.46
6:F:40:SER:HA	6:F:180:ILE:HD12	1.97	0.46
9:I:3:ILE:HD12	9:I:44:ALA:HB3	1.98	0.46
11:K:22:ARG:O	11:K:24:ILE:N	2.48	0.46
13:M:5:GLY:C	13:M:6:ILE:HD12	2.40	0.46
1:O:16:ILE:CG2	1:O:17:THR:N	2.77	0.46
1:O:22:GLU:O	1:O:24:ARG:HG2	2.16	0.46
2:P:130:PHE:O	2:P:152:PRO:HB3	2.15	0.46
2:P:200:VAL:HG12	2:P:201:GLU:N	2.31	0.46
12:Z:85:ASN:O	12:Z:89:GLN:HG2	2.15	0.46
13:a:59:PHE:HA	13:a:62:SER:OG	2.16	0.46
14:b:45:ILE:CG2	14:b:52:MET:HG3	2.46	0.46
14:b:81:PRO:HA	14:b:84:ILE:HD12	1.98	0.46
15:d:138:THR:CG2	15:d:142:MET:HE3	2.42	0.46
15:d:200:HIS:O	15:d:203:THR:HB	2.16	0.46
15:j:202:SER:O	15:j:206:ARG:HG3	2.16	0.46
15:l:119:GLU:O	15:l:123:LYS:HG2	2.16	0.46
15:m:103:ASP:HB2	15:m:223:ARG:HE	1.80	0.46
15:p:227:ASP:C	15:p:229:MET:H	2.24	0.46
1:A:128:TYR:HB2	1:A:129:THR:H	1.57	0.45
2:B:66:LEU:HD13	2:B:235:PHE:CG	2.51	0.45
6:F:40:SER:OG	6:F:41:ASN:N	2.49	0.45
6:F:63:ILE:O	6:F:64:ILE:HG13	2.17	0.45
6:F:197:ILE:C	6:F:199:GLN:H	2.23	0.45
8:H:82:PHE:HB2	8:H:113:ILE:CD1	2.46	0.45
10:J:6:MET:CE	10:J:145:TYR:HD1	2.24	0.45
11:K:38:SER:CB	11:K:39:PRO:HD2	2.46	0.45
13:M:59:PHE:HA	13:M:62:SER:OG	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:20:GLN:O	2:P:21:ILE:C	2.59	0.45
5:S:56:SER:HB3	5:S:57:PRO:HD2	1.97	0.45
7:U:47:PHE:CE1	7:U:137:PHE:HA	2.52	0.45
7:U:72:HIS:HE1	7:U:105:PRO:HB2	1.80	0.45
8:V:113:ILE:HG12	8:V:119:VAL:HG13	1.98	0.45
15:e:189:ASP:O	15:e:193:LYS:HG2	2.16	0.45
15:h:143:TYR:C	15:h:145:LEU:N	2.72	0.45
15:l:102:GLU:C	15:l:104:ASN:H	2.25	0.45
15:m:109:VAL:HG21	15:m:218:LYS:HD3	1.98	0.45
15:o:196:LEU:HD22	15:p:82:TYR:CD2	2.51	0.45
15:p:33:LEU:HD23	15:p:33:LEU:C	2.41	0.45
1:A:207:ILE:HD12	1:A:248:ILE:HD11	1.98	0.45
2:B:189:ILE:O	2:B:193:LEU:HD12	2.15	0.45
5:E:165:TYR:HE2	6:F:60:GLN:HB2	1.80	0.45
7:G:47:PHE:CE1	7:G:137:PHE:HA	2.50	0.45
7:G:246:ILE:HG23	7:G:246:ILE:O	2.15	0.45
8:H:1:THR:HA	8:H:33:LYS:HZ3	1.80	0.45
8:H:75:THR:HG22	8:H:111:TYR:HE1	1.81	0.45
9:I:45:GLY:HA2	9:I:98:LEU:HB3	1.98	0.45
13:M:2:THR:HG21	13:M:133:ALA:HB3	1.98	0.45
3:Q:231:LYS:HA	3:Q:231:LYS:HE3	1.97	0.45
6:T:16:THR:HG23	15:m:102:GLU:OE2	2.15	0.45
7:U:98:PHE:C	7:U:98:PHE:HD1	2.23	0.45
11:Y:77:GLN:C	11:Y:77:GLN:CD	2.84	0.45
12:Z:144:TYR:CD2	12:Z:144:TYR:C	2.95	0.45
13:a:186:HIS:HD2	13:a:188:GLN:H	1.64	0.45
15:f:189:ASP:O	15:f:193:LYS:HG2	2.17	0.45
15:f:215:ASN:O	15:f:217:LYS:HG2	2.15	0.45
15:h:115:LYS:O	15:h:118:ASP:HB3	2.16	0.45
15:j:136:ALA:C	15:j:139:PRO:HD2	2.41	0.45
15:k:138:THR:N	15:k:139:PRO:CD	2.79	0.45
15:l:134:GLY:HA2	15:l:190:PHE:CE2	2.51	0.45
15:l:182:GLU:OE2	15:m:139:PRO:HG3	2.16	0.45
15:o:68:LEU:O	15:o:72:GLN:HB2	2.17	0.45
15:p:190:PHE:O	15:p:194:VAL:HG23	2.16	0.45
1:A:120:ARG:HA	1:A:123:ASN:HB2	1.99	0.45
5:E:37:ALA:HA	5:E:50:VAL:HG12	1.97	0.45
5:E:225:GLN:HA	5:E:225:GLN:NE2	2.30	0.45
6:F:111:LEU:O	6:F:115:LYS:HB2	2.16	0.45
7:G:217:TRP:CD1	7:G:230:VAL:HG22	2.51	0.45
8:H:124:TYR:N	8:H:124:TYR:CD1	2.83	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:166:LEU:H	13:M:166:LEU:HD12	1.82	0.45
14:N:198:LEU:HD23	14:N:199:THR:N	2.31	0.45
14:N:219:GLY:H	8:V:32:ASP:CG	2.24	0.45
11:Y:22:ARG:HB2	11:Y:27:LEU:HD11	1.97	0.45
12:Z:105:THR:HG21	12:Z:108:GLU:OE1	2.16	0.45
14:b:26:LEU:O	14:b:28:PHE:N	2.49	0.45
14:b:144:ASN:HD22	14:b:148:ARG:NH2	2.15	0.45
15:e:33:LEU:HG	15:f:16:TYR:OH	2.16	0.45
15:e:131:SER:C	15:e:133:SER:H	2.22	0.45
15:h:215:ASN:O	15:h:217:LYS:HG2	2.16	0.45
15:j:22:PHE:HZ	15:k:9:ILE:CD1	2.24	0.45
15:j:216:TRP:HA	15:j:219:LEU:HD13	1.98	0.45
15:l:49:VAL:HA	15:l:52:ASN:ND2	2.31	0.45
15:l:138:THR:N	15:l:139:PRO:CD	2.79	0.45
15:m:102:GLU:C	15:m:104:ASN:H	2.24	0.45
15:n:33:LEU:HG	15:o:16:TYR:OH	2.15	0.45
15:n:227:ASP:C	15:n:229:MET:H	2.24	0.45
3:C:142:ASP:OD2	3:C:142:ASP:N	2.49	0.45
7:G:217:TRP:N	7:G:217:TRP:HD1	2.15	0.45
13:M:11:PHE:N	13:M:11:PHE:CD1	2.85	0.45
14:N:55:ILE:O	14:N:58:LEU:N	2.50	0.45
1:O:87:ILE:HG23	1:O:88:PRO:HD3	1.98	0.45
1:O:243:GLU:O	1:O:243:GLU:HG2	2.16	0.45
2:P:36:GLY:HA2	2:P:44:VAL:O	2.17	0.45
3:Q:106:ILE:HA	3:Q:107:PRO:HD3	1.85	0.45
6:T:118:LYS:N	6:T:118:LYS:HD2	2.31	0.45
7:U:80:LEU:HD23	7:U:80:LEU:HA	1.81	0.45
8:V:124:TYR:N	8:V:124:TYR:CD1	2.85	0.45
11:Y:3:ILE:HD13	11:Y:16:SER:HB3	1.97	0.45
11:Y:7:ARG:HG2	11:Y:7:ARG:NH1	2.30	0.45
11:Y:50:GLY:H	12:Z:91:LYS:HZ1	1.64	0.45
11:Y:52:THR:HG23	11:Y:53:VAL:N	2.27	0.45
14:b:144:ASN:ND2	14:b:148:ARG:NH2	2.64	0.45
15:f:102:GLU:C	15:f:104:ASN:N	2.74	0.45
15:h:102:GLU:C	15:h:104:ASN:N	2.73	0.45
15:h:227:ASP:C	15:h:229:MET:H	2.23	0.45
15:j:41:LYS:C	15:j:43:ALA:H	2.25	0.45
15:k:46:ALA:O	15:k:50:ILE:HG13	2.17	0.45
15:m:200:HIS:O	15:m:203:THR:HB	2.16	0.45
15:n:49:VAL:HA	15:n:52:ASN:ND2	2.31	0.45
15:n:219:LEU:N	15:n:219:LEU:HD12	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:54:ILE:HG13	1:A:225:VAL:HG21	1.97	0.45
1:A:83:VAL:HG13	1:A:140:ILE:O	2.16	0.45
2:B:157:PHE:CE2	3:C:52:VAL:HG11	2.50	0.45
3:C:91:ALA:HB2	3:C:115:LEU:HD21	1.98	0.45
7:G:150:LEU:HD11	7:G:154:GLY:CA	2.47	0.45
10:J:81:LEU:C	10:J:83:SER:N	2.70	0.45
11:K:191:VAL:C	11:K:193:ASP:N	2.74	0.45
1:O:76:SER:HB3	1:O:79:ILE:HD13	1.97	0.45
1:O:155:TYR:HD2	1:O:165:GLY:HA2	1.81	0.45
3:Q:119:LYS:HD2	3:Q:153:PRO:HA	1.98	0.45
3:Q:150:THR:O	3:Q:157:TYR:HA	2.15	0.45
7:U:140:VAL:HG12	7:U:141:ASP:H	1.82	0.45
7:U:201:LEU:N	7:U:201:LEU:CD1	2.79	0.45
8:V:138:CYS:O	8:V:154:PHE:HZ	1.99	0.45
8:V:190:PRO:C	8:V:192:GLU:H	2.25	0.45
10:X:136:GLN:OE1	10:X:136:GLN:N	2.48	0.45
10:X:149:LEU:HD12	10:X:154:LEU:HA	1.98	0.45
13:a:48:PHE:H	13:a:98:VAL:HG13	1.82	0.45
13:a:152:GLU:HB2	13:a:155:THR:HG21	1.98	0.45
15:e:200:HIS:O	15:e:203:THR:HB	2.16	0.45
15:h:102:GLU:O	15:h:104:ASN:N	2.50	0.45
15:i:17:THR:CG2	15:i:94:ILE:HG22	2.45	0.45
15:i:133:SER:HA	15:i:136:ALA:HB3	1.98	0.45
15:o:136:ALA:C	15:o:139:PRO:HD2	2.41	0.45
15:o:189:ASP:O	15:o:193:LYS:HG2	2.17	0.45
15:p:49:VAL:HA	15:p:52:ASN:ND2	2.31	0.45
2:B:23:TYR:O	2:B:26:THR:HB	2.17	0.45
2:B:193:LEU:O	2:B:197:LYS:N	2.49	0.45
6:F:53:ALA:HB2	15:g:229:MET:HE1	1.93	0.45
6:F:147:PHE:CD1	6:F:147:PHE:C	2.93	0.45
12:L:122:LEU:HD23	12:L:122:LEU:HA	1.66	0.45
13:M:80:ALA:O	13:M:83:ASN:HB3	2.17	0.45
14:N:63:VAL:HG12	14:N:64:THR:N	2.32	0.45
1:O:204:GLU:HB3	1:O:248:ILE:HG23	1.98	0.45
1:O:243:GLU:O	1:O:246:VAL:HB	2.17	0.45
1:O:250:GLU:HG2	1:O:251:GLN:H	1.81	0.45
3:Q:70:ASN:HB3	3:Q:73:ILE:HB	1.97	0.45
3:Q:228:LYS:HB3	3:Q:230:PHE:HE1	1.81	0.45
4:R:37:LYS:HD3	4:R:147:LEU:HB2	1.99	0.45
7:U:217:TRP:CD1	7:U:230:VAL:HG22	2.52	0.45
10:X:112:ILE:HD12	10:X:128:ILE:HG12	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:X:177:VAL:HG21	10:X:188:LYS:HE2	1.98	0.45
12:Z:206:SER:O	12:Z:207:PHE:HB2	2.17	0.45
13:a:190:GLY:O	13:a:191:ASP:HB2	2.17	0.45
14:b:57:ARG:HG2	14:b:57:ARG:NH1	2.25	0.45
14:b:143:ALA:C	14:b:145:PRO:CD	2.89	0.45
15:g:49:VAL:HA	15:g:52:ASN:ND2	2.31	0.45
15:g:138:THR:CG2	15:g:142:MET:HE3	2.46	0.45
15:i:201:LEU:O	15:i:205:VAL:HG23	2.16	0.45
15:k:17:THR:CG2	15:k:94:ILE:HG22	2.45	0.45
15:l:80:ASN:O	15:l:84:GLN:HG3	2.17	0.45
15:l:102:GLU:C	15:l:104:ASN:N	2.72	0.45
15:l:189:ASP:OD2	15:m:132:GLY:HA3	2.17	0.45
15:n:109:VAL:O	15:n:113:VAL:HG23	2.17	0.45
15:n:216:TRP:HA	15:n:219:LEU:HD13	1.98	0.45
15:o:25:ILE:HG21	15:o:212:TYR:CE1	2.51	0.45
15:o:41:LYS:C	15:o:43:ALA:N	2.75	0.45
15:o:102:GLU:C	15:o:104:ASN:H	2.25	0.45
3:C:129:ARG:O	3:C:129:ARG:HG3	2.17	0.45
3:C:185:LYS:HD2	3:C:186:VAL:N	2.32	0.45
3:C:211:LEU:HD13	3:C:212:GLU:N	2.32	0.45
6:F:129:GLY:O	6:F:130:VAL:HB	2.16	0.45
7:G:170:SER:O	7:G:174:GLU:HG2	2.17	0.45
7:G:182:HIS:C	7:G:184:GLU:H	2.25	0.45
8:H:1:THR:O	8:H:129:SER:HB3	2.17	0.45
13:M:91:LYS:O	13:M:95:PRO:HA	2.17	0.45
14:N:8:TYR:O	14:N:117:GLN:NE2	2.49	0.45
14:N:70:ASN:ND2	14:N:73:ALA:HB2	2.32	0.45
2:P:75:TYR:CD2	2:P:76:SER:N	2.84	0.45
2:P:229:THR:O	2:P:231:LYS:NZ	2.49	0.45
3:Q:40:ALA:C	3:Q:42:ASP:H	2.25	0.45
3:Q:83:ASP:O	3:Q:84:ALA:C	2.60	0.45
11:Y:119:ASP:OD2	11:Y:123:THR:HB	2.17	0.45
14:b:52:MET:HA	14:b:55:ILE:HD12	1.98	0.45
14:b:89:ALA:O	14:b:90:THR:C	2.58	0.45
15:g:200:HIS:O	15:g:203:THR:HB	2.16	0.45
15:j:41:LYS:C	15:j:43:ALA:N	2.71	0.45
15:j:189:ASP:O	15:j:193:LYS:HG2	2.16	0.45
15:m:138:THR:N	15:m:139:PRO:CD	2.79	0.45
15:m:216:TRP:HA	15:m:219:LEU:HD13	1.98	0.45
15:n:227:ASP:O	15:n:230:VAL:HG23	2.17	0.45
2:B:200:VAL:HG12	2:B:201:GLU:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:94:HIS:CD2	3:C:114:ARG:HD2	2.51	0.45
7:G:197:LYS:O	7:G:201:LEU:HD13	2.17	0.45
11:K:49:ALA:O	11:K:52:THR:HG22	2.17	0.45
14:N:192:ILE:HD12	14:N:192:ILE:N	2.32	0.45
1:O:39:ASN:C	1:O:39:ASN:HD22	2.24	0.45
1:O:43:LEU:HD22	1:O:54:ILE:HB	1.99	0.45
3:Q:13:PHE:H	4:R:19:GLN:HE22	1.64	0.45
4:R:174:PHE:C	4:R:174:PHE:CD2	2.95	0.45
5:S:18:GLU:HB2	15:n:102:GLU:OE2	2.16	0.45
8:V:186:LEU:HD22	8:V:188:PHE:CE2	2.52	0.45
8:V:190:PRO:O	8:V:192:GLU:N	2.50	0.45
15:d:102:GLU:O	15:d:104:ASN:N	2.50	0.45
15:e:41:LYS:C	15:e:43:ALA:H	2.24	0.45
15:g:22:PHE:HD1	15:g:212:TYR:OH	1.99	0.45
15:g:202:SER:O	15:g:206:ARG:HG3	2.17	0.45
15:h:102:GLU:C	15:h:104:ASN:H	2.24	0.45
15:l:41:LYS:C	15:l:43:ALA:N	2.73	0.45
15:l:176:SER:CB	15:m:139:PRO:HA	2.47	0.45
15:m:33:LEU:HD23	15:m:34:GLN:N	2.32	0.45
15:m:110:GLN:NE2	15:m:222:PRO:HB3	2.31	0.45
15:o:67:LEU:N	15:o:67:LEU:HD23	2.32	0.45
15:o:202:SER:O	15:o:206:ARG:HG3	2.17	0.45
15:p:14:ASP:O	15:p:18:GLU:HG2	2.16	0.45
2:B:44:VAL:HG23	2:B:213:ILE:HG22	1.99	0.45
4:D:228:GLU:CA	4:D:231:GLN:HE21	2.23	0.45
6:F:176:LEU:O	6:F:178:THR:N	2.50	0.45
7:G:166:LYS:HZ2	7:G:206:ASN:HD21	1.64	0.45
10:J:42:LEU:HD12	10:J:43:GLY:H	1.82	0.45
13:M:187:ILE:CD1	9:W:24:PRO:HA	2.44	0.45
14:N:102:LEU:HD12	14:N:102:LEU:N	2.31	0.45
2:P:44:VAL:CG2	2:P:211:LEU:HD11	2.47	0.45
10:X:66:LYS:HA	10:X:71:ARG:O	2.17	0.45
12:Z:12:ILE:HG22	12:Z:13:ILE:N	2.32	0.45
15:c:143:TYR:O	15:c:144:ALA:HB3	2.16	0.45
15:d:33:LEU:HD23	15:d:33:LEU:C	2.41	0.45
15:d:131:SER:C	15:d:133:SER:N	2.75	0.45
15:d:138:THR:N	15:d:139:PRO:CD	2.80	0.45
15:e:102:GLU:C	15:e:104:ASN:N	2.72	0.45
15:g:39:ILE:C	15:g:41:LYS:N	2.74	0.45
15:k:113:VAL:O	15:k:116:ILE:HG22	2.17	0.45
15:k:201:LEU:O	15:k:205:VAL:HG23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:k:216:TRP:CA	15:k:219:LEU:HD13	2.47	0.45
15:o:63:SER:HA	15:o:64:PRO:HD2	1.70	0.45
15:p:138:THR:N	15:p:139:PRO:CD	2.80	0.45
1:A:220:LYS:O	1:A:220:LYS:NZ	2.46	0.45
2:B:75:TYR:CD2	2:B:76:SER:N	2.85	0.45
10:J:80:GLN:O	10:J:83:SER:HB3	2.16	0.45
10:J:150:GLU:HB2	10:J:153:ASP:OD2	2.17	0.45
11:K:137:PHE:HB3	12:Z:134:THR:OG1	2.16	0.45
14:N:48:ASP:CG	14:N:50:SER:HG	2.25	0.45
1:O:26:TYR:OH	15:k:102:GLU:CB	2.62	0.45
1:O:45:VAL:HG23	1:O:52:VAL:HG23	1.99	0.45
1:O:114:CYS:O	1:O:116:VAL:N	2.50	0.45
1:O:176:GLN:HA	1:O:179:THR:HB	1.98	0.45
4:R:227:GLU:O	4:R:231:GLN:HG3	2.17	0.45
5:S:51:GLU:OE2	5:S:53:ARG:HB2	2.17	0.45
7:U:116:GLY:O	7:U:120:GLN:HB2	2.17	0.45
7:U:137:PHE:CD2	7:U:137:PHE:N	2.85	0.45
7:U:194:GLN:NE2	7:U:194:GLN:HA	2.32	0.45
9:W:128:GLY:O	9:W:131:SER:HB2	2.17	0.45
15:c:214:LEU:N	15:c:214:LEU:CD1	2.80	0.45
15:h:189:ASP:OD2	15:i:132:GLY:HA3	2.17	0.45
15:i:143:TYR:C	15:i:145:LEU:N	2.72	0.45
15:j:227:ASP:C	15:j:229:MET:H	2.25	0.45
15:k:14:ASP:O	15:k:18:GLU:HG2	2.17	0.45
1:A:145:SER:HA	1:A:228:ALA:HB1	1.99	0.44
4:D:212:ILE:CG2	4:D:224:LEU:HD22	2.47	0.44
8:H:6:VAL:C	8:H:12:VAL:HG23	2.42	0.44
8:H:95:ALA:H	8:H:115:LEU:HD13	1.81	0.44
10:J:15:ALA:CB	10:J:178:VAL:HG22	2.47	0.44
12:L:114:TYR:CD2	12:L:114:TYR:C	2.95	0.44
14:N:218:LYS:HA	8:V:32:ASP:OD1	2.18	0.44
2:P:157:PHE:CD1	2:P:157:PHE:N	2.85	0.44
3:Q:185:LYS:HB3	3:Q:185:LYS:HE3	1.64	0.44
6:T:147:PHE:CD1	6:T:147:PHE:C	2.93	0.44
7:U:21:PHE:HA	7:U:24:GLU:HG3	2.00	0.44
7:U:129:ARG:HA	7:U:130:PRO:HD3	1.82	0.44
8:V:4:MET:SD	8:V:159:LEU:HD11	2.57	0.44
10:X:29:ASN:N	10:X:29:ASN:ND2	2.64	0.44
13:a:6:ILE:N	13:a:6:ILE:HD12	2.31	0.44
15:c:33:LEU:HD23	15:c:33:LEU:C	2.42	0.44
15:c:190:PHE:O	15:c:194:VAL:HG23	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:e:138:THR:N	15:e:139:PRO:CD	2.80	0.44
15:f:227:ASP:C	15:f:229:MET:H	2.24	0.44
15:h:55:TYR:HA	15:h:184:ARG:HH21	1.81	0.44
15:m:131:SER:C	15:m:133:SER:N	2.75	0.44
15:o:22:PHE:HD1	15:o:212:TYR:OH	2.00	0.44
1:A:16:ILE:CG2	1:A:17:THR:H	2.29	0.44
1:A:124:LEU:HA	1:A:124:LEU:HD23	1.88	0.44
1:A:144:VAL:O	1:A:145:SER:HB3	2.17	0.44
1:A:177:GLU:N	1:A:177:GLU:CD	2.75	0.44
2:B:36:GLY:HA2	2:B:44:VAL:O	2.18	0.44
5:E:124:GLY:N	5:E:132:ARG:HB2	2.30	0.44
7:G:84:GLY:O	7:G:88:VAL:HG23	2.17	0.44
1:O:135:ARG:HD3	7:U:12:SER:O	2.18	0.44
3:Q:198:SER:OG	3:Q:199:LYS:N	2.49	0.44
5:S:133:LEU:HD22	5:S:133:LEU:H	1.82	0.44
6:T:48:ALA:HB1	6:T:62:LYS:HG3	1.99	0.44
11:Y:54:GLN:HG3	12:Z:88:TYR:CE2	2.53	0.44
12:Z:122:LEU:HD23	12:Z:122:LEU:HA	1.62	0.44
15:d:127:SER:HA	15:d:130:LYS:HG3	1.99	0.44
15:e:190:PHE:O	15:e:194:VAL:HG23	2.17	0.44
15:m:113:VAL:O	15:m:116:ILE:HG22	2.18	0.44
15:m:190:PHE:O	15:m:194:VAL:HG23	2.17	0.44
15:o:127:SER:C	15:o:129:GLU:H	2.26	0.44
1:A:64:LEU:HD23	7:G:159:TYR:CD2	2.52	0.44
3:C:29:ILE:O	3:C:31:HIS:N	2.49	0.44
3:C:163:ILE:CG1	3:C:164:SER:N	2.81	0.44
4:D:27:VAL:HG11	4:D:132:SER:CB	2.47	0.44
6:F:62:LYS:O	6:F:73:SER:HA	2.17	0.44
6:F:133:LEU:C	6:F:134:ILE:HD12	2.42	0.44
6:F:232:LYS:HE3	6:F:233:TYR:CE2	2.52	0.44
8:H:189:TYR:HA	8:H:190:PRO:HD3	1.83	0.44
12:L:4:LEU:HA	12:L:100:MET:CE	2.47	0.44
13:M:141:LEU:O	13:M:145:VAL:HB	2.17	0.44
1:O:128:TYR:HE1	1:O:133:TYR:HH	1.58	0.44
1:O:199:TRP:O	1:O:200:GLU:C	2.60	0.44
4:R:37:LYS:HG2	4:R:160:SER:O	2.17	0.44
8:V:190:PRO:C	8:V:192:GLU:N	2.75	0.44
10:X:101:ALA:HA	10:X:111:PHE:O	2.17	0.44
14:b:104:ASN:CB	14:b:106:ILE:HD11	2.34	0.44
15:c:227:ASP:C	15:c:229:MET:H	2.24	0.44
15:e:103:ASP:HB2	15:e:223:ARG:HE	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:f:138:THR:N	15:f:139:PRO:CD	2.81	0.44
15:f:201:LEU:O	15:f:205:VAL:HG23	2.17	0.44
15:j:127:SER:HA	15:j:130:LYS:HG3	2.00	0.44
15:n:196:LEU:HD22	15:o:82:TYR:CD2	2.53	0.44
1:A:104:PHE:O	1:A:105:ARG:C	2.59	0.44
1:A:117:LEU:HD12	1:A:121:MET:HG2	1.99	0.44
5:E:26:TYR:O	5:E:29:GLU:N	2.50	0.44
6:F:190:ILE:O	6:F:194:VAL:HG23	2.17	0.44
6:F:218:LYS:HE3	6:F:218:LYS:HB2	1.72	0.44
8:H:107:LYS:CG	8:H:108:GLY:H	2.29	0.44
8:H:147:SER:OG	8:H:150:GLU:HB2	2.18	0.44
8:H:163:ILE:HD12	8:H:170:GLY:HA2	1.98	0.44
9:I:59:ILE:HG12	9:I:83:LEU:CD2	2.46	0.44
9:I:131:SER:C	9:I:132:LEU:HD23	2.43	0.44
12:L:208:ASN:O	12:L:210:VAL:N	2.51	0.44
2:P:57:MET:HB2	2:P:59:GLU:OE2	2.17	0.44
6:T:176:LEU:C	6:T:176:LEU:HD12	2.42	0.44
7:U:171:ALA:HA	7:U:174:GLU:HB2	1.99	0.44
7:U:240:ASP:HA	7:U:243:GLN:HB2	1.98	0.44
9:W:6:VAL:HG12	9:W:124:TYR:CB	2.36	0.44
9:W:81:GLN:O	9:W:85:GLN:HG3	2.18	0.44
10:X:127:PHE:O	10:X:128:ILE:HD13	2.18	0.44
13:a:116:PHE:CE2	13:a:122:TYR:HB3	2.52	0.44
15:c:41:LYS:C	15:c:43:ALA:H	2.25	0.44
15:d:216:TRP:O	15:d:219:LEU:N	2.51	0.44
15:h:10:GLN:O	15:h:14:ASP:HB2	2.16	0.44
15:j:62:LYS:HA	15:p:177:PRO:CG	2.47	0.44
15:k:10:GLN:O	15:k:14:ASP:HB2	2.17	0.44
15:k:103:ASP:HB2	15:k:223:ARG:NE	2.31	0.44
15:l:28:TRP:CZ3	15:l:84:GLN:HG2	2.53	0.44
15:m:41:LYS:C	15:m:43:ALA:H	2.24	0.44
15:m:227:ASP:O	15:m:230:VAL:HG23	2.18	0.44
15:n:28:TRP:CZ3	15:n:84:GLN:HG2	2.53	0.44
15:n:189:ASP:O	15:n:193:LYS:HG2	2.17	0.44
15:p:102:GLU:C	15:p:104:ASN:H	2.26	0.44
3:C:70:ASN:HB3	3:C:73:ILE:HB	1.99	0.44
5:E:187:TRP:CH2	5:E:189:SER:HA	2.52	0.44
6:F:36:VAL:CG1	6:F:37:GLY:N	2.81	0.44
6:F:69:HIS:ND1	6:F:69:HIS:C	2.75	0.44
10:J:3:VAL:CG2	10:J:16:CYS:HB3	2.46	0.44
11:K:159:LEU:C	11:K:159:LEU:HD12	2.43	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:160:LEU:O	11:K:164:VAL:HG23	2.18	0.44
13:M:2:THR:HA	13:M:131:GLY:HA3	2.00	0.44
2:P:64:VAL:CG1	2:P:237:LYS:HE2	2.47	0.44
3:Q:27:GLU:C	3:Q:29:ILE:N	2.74	0.44
6:T:26:LEU:O	6:T:29:ILE:HB	2.17	0.44
7:U:204:GLU:HG3	7:U:207:LYS:HE2	1.98	0.44
8:V:34:LEU:CD2	8:V:44:CYS:HB3	2.48	0.44
8:V:138:CYS:HA	8:V:154:PHE:CE1	2.53	0.44
9:W:90:TYR:O	9:W:91:GLN:C	2.60	0.44
13:a:114:TYR:HD2	13:a:123:GLU:O	2.00	0.44
13:a:155:THR:HG21	13:a:159:VAL:HB	1.98	0.44
15:c:49:VAL:HA	15:c:52:ASN:ND2	2.32	0.44
15:c:127:SER:C	15:c:129:GLU:H	2.25	0.44
15:c:142:MET:SD	15:i:176:SER:HB2	2.57	0.44
15:e:103:ASP:HB3	15:e:223:ARG:HG2	2.00	0.44
15:f:68:LEU:O	15:f:72:GLN:HB2	2.18	0.44
15:f:216:TRP:O	15:f:219:LEU:HB2	2.17	0.44
15:h:25:ILE:HG23	15:h:88:ILE:HG12	1.99	0.44
15:j:190:PHE:O	15:j:194:VAL:HG23	2.18	0.44
15:o:215:ASN:O	15:o:217:LYS:HG2	2.18	0.44
15:o:227:ASP:C	15:o:229:MET:H	2.23	0.44
2:B:73:ALA:HB2	2:B:136:ILE:HG23	1.99	0.44
2:B:239:THR:O	2:B:243:ILE:HG13	2.18	0.44
6:F:42:THR:HG23	6:F:183:ASP:HB3	2.00	0.44
6:F:217:GLY:O	6:F:219:ASP:N	2.50	0.44
7:G:72:HIS:HE1	7:G:105:PRO:HB2	1.82	0.44
8:H:36:ARG:HB2	8:H:42:TRP:CZ2	2.53	0.44
9:I:147:THR:O	9:I:148:LYS:C	2.60	0.44
11:K:6:ILE:HG23	11:K:13:ILE:HB	2.00	0.44
11:K:164:VAL:HA	11:K:167:LEU:HD12	1.99	0.44
12:L:12:ILE:CD1	12:L:102:CYS:HB3	2.48	0.44
1:O:33:LYS:H	1:O:33:LYS:CD	2.23	0.44
1:O:126:GLN:NE2	1:O:127:ILE:HA	2.31	0.44
5:S:241:LYS:C	5:S:243:LEU:H	2.25	0.44
7:U:113:ASP:O	7:U:114:ARG:C	2.59	0.44
8:V:138:CYS:HA	8:V:154:PHE:CZ	2.51	0.44
14:b:106:ILE:HD12	14:b:106:ILE:N	2.32	0.44
15:c:62:LYS:HG3	15:i:177:PRO:HG3	1.99	0.44
15:f:10:GLN:O	15:f:14:ASP:HB2	2.18	0.44
15:h:119:GLU:O	15:h:123:LYS:HG2	2.17	0.44
15:i:41:LYS:C	15:i:43:ALA:H	2.24	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:k:33:LEU:HD23	15:k:33:LEU:C	2.42	0.44
15:m:130:LYS:O	15:m:134:GLY:N	2.51	0.44
15:m:216:TRP:CA	15:m:219:LEU:HD13	2.48	0.44
15:o:177:PRO:CG	15:p:62:LYS:HA	2.38	0.44
1:A:128:TYR:HA	1:A:133:TYR:HE1	1.82	0.44
2:B:32:VAL:HG12	2:B:33:THR:N	2.33	0.44
2:B:162:THR:OG1	2:B:163:ALA:N	2.50	0.44
8:H:6:VAL:O	8:H:12:VAL:HG23	2.17	0.44
8:H:131:SER:O	8:H:134:ILE:HG12	2.17	0.44
9:I:92:GLY:C	9:I:94:ILE:H	2.25	0.44
10:J:101:ALA:HA	10:J:111:PHE:O	2.18	0.44
14:N:55:ILE:O	14:N:56:GLU:C	2.61	0.44
14:N:96:ARG:HG3	14:N:97:SER:N	2.33	0.44
14:N:118:PHE:CD1	14:N:118:PHE:C	2.96	0.44
1:O:181:ASN:N	1:O:181:ASN:ND2	2.65	0.44
2:P:66:LEU:HD13	2:P:235:PHE:CG	2.53	0.44
3:Q:133:VAL:O	3:Q:153:PRO:HG3	2.18	0.44
6:T:90:GLN:H	6:T:90:GLN:HG2	1.46	0.44
6:T:197:ILE:HG23	6:T:198:SER:N	2.32	0.44
7:U:21:PHE:HZ	15:l:102:GLU:HB3	1.82	0.44
8:V:1:THR:HA	8:V:33:LYS:HZ3	1.81	0.44
8:V:178:LEU:HD13	8:V:178:LEU:HA	1.86	0.44
11:Y:49:ALA:O	11:Y:52:THR:HG22	2.17	0.44
12:Z:8:PHE:HA	12:Z:146:TRP:CE3	2.53	0.44
14:b:19:LEU:HB2	14:b:184:SER:CB	2.43	0.44
14:b:85:PHE:C	14:b:85:PHE:CD2	2.96	0.44
15:d:109:VAL:O	15:d:113:VAL:HG23	2.17	0.44
15:e:22:PHE:HD1	15:e:212:TYR:OH	2.01	0.44
15:e:215:ASN:O	15:e:217:LYS:HG2	2.17	0.44
15:h:22:PHE:CZ	15:i:9:ILE:HD11	2.42	0.44
15:l:102:GLU:O	15:l:104:ASN:N	2.50	0.44
1:A:50:CYS:HA	1:A:228:ALA:O	2.17	0.44
1:A:52:VAL:HG12	1:A:227:VAL:HG22	1.99	0.44
1:A:204:GLU:HB3	1:A:248:ILE:HG23	1.99	0.44
5:E:81:LEU:HD12	5:E:81:LEU:HA	1.64	0.44
6:F:72:LEU:HD22	6:F:72:LEU:C	2.43	0.44
6:F:105:VAL:O	6:F:106:GLU:C	2.61	0.44
6:F:227:GLY:O	6:F:229:ALA:N	2.51	0.44
7:G:25:TYR:HA	7:G:28:LYS:HB2	2.00	0.44
10:J:42:LEU:HD12	10:J:99:VAL:O	2.18	0.44
14:N:85:PHE:CD2	14:N:85:PHE:C	2.95	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:18:ILE:N	1:O:18:ILE:CD1	2.81	0.44
3:Q:27:GLU:O	3:Q:29:ILE:N	2.51	0.44
3:Q:230:PHE:N	3:Q:230:PHE:CD1	2.86	0.44
4:R:149:GLN:HG2	4:R:150:THR:N	2.33	0.44
5:S:165:TYR:CE2	6:T:60:GLN:HB2	2.53	0.44
6:T:140:SER:HB3	14:b:72:LEU:CD2	2.47	0.44
6:T:185:ASN:HA	6:T:186:PRO:HD2	1.79	0.44
11:Y:8:VAL:HG23	11:Y:9:GLN:N	2.33	0.44
12:Z:208:ASN:O	12:Z:210:VAL:N	2.51	0.44
15:d:97:PRO:HB2	15:d:223:ARG:NH1	2.32	0.44
15:f:216:TRP:CA	15:f:219:LEU:HD13	2.48	0.44
15:g:176:SER:CB	15:h:139:PRO:HA	2.48	0.44
15:i:10:GLN:O	15:i:14:ASP:HB2	2.18	0.44
15:i:215:ASN:O	15:i:217:LYS:HG2	2.18	0.44
15:m:177:PRO:HG3	15:n:62:LYS:HG3	1.98	0.44
15:p:63:SER:HA	15:p:64:PRO:HD2	1.72	0.44
15:p:220:ILE:HD12	15:p:220:ILE:H	1.82	0.44
1:A:77:ARG:HA	1:A:77:ARG:HE	1.83	0.44
1:A:106:TYR:HB2	8:H:61:TYR:HD2	1.82	0.44
1:A:218:PHE:CD2	1:A:223:LEU:HD11	2.52	0.44
2:B:43:VAL:O	2:B:213:ILE:HB	2.17	0.44
2:B:122:THR:HG22	2:B:123:GLN:N	2.33	0.44
7:G:107:PRO:C	7:G:109:PRO:HD2	2.43	0.44
2:P:38:LYS:HA	2:P:43:VAL:HG13	2.00	0.44
4:R:192:VAL:O	4:R:193:LYS:C	2.61	0.44
6:T:62:LYS:O	6:T:73:SER:HA	2.18	0.44
6:T:63:ILE:O	6:T:64:ILE:HG13	2.17	0.44
8:V:126:ILE:HD12	8:V:134:ILE:CD1	2.48	0.44
10:X:56:GLU:HG2	10:X:56:GLU:H	1.60	0.44
15:e:102:GLU:O	15:e:104:ASN:N	2.51	0.44
15:i:133:SER:HA	15:i:136:ALA:CB	2.47	0.44
15:j:17:THR:CG2	15:j:94:ILE:HG22	2.48	0.44
15:j:102:GLU:C	15:j:104:ASN:N	2.74	0.44
15:k:41:LYS:C	15:k:43:ALA:H	2.26	0.44
15:n:102:GLU:C	15:n:104:ASN:H	2.26	0.44
1:A:35:THR:OG1	1:A:36:ASN:N	2.51	0.43
4:D:57:THR:OG1	4:D:58:ARG:N	2.51	0.43
5:E:22:PHE:CD2	5:E:22:PHE:N	2.85	0.43
5:E:42:THR:C	5:E:44:GLU:N	2.75	0.43
5:E:165:TYR:CE2	6:F:60:GLN:HB2	2.52	0.43
7:G:150:LEU:HD13	7:G:156:TYR:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:191:LEU:HB3	9:I:193:PRO:HD3	1.99	0.43
13:M:114:TYR:CD2	13:M:124:ARG:HA	2.53	0.43
2:P:197:LYS:HA	2:P:197:LYS:HE3	2.00	0.43
3:Q:39:MET:CE	3:Q:146:TYR:HB3	2.46	0.43
3:Q:186:VAL:HG13	3:Q:187:ASP:N	2.32	0.43
4:R:181:ARG:NH2	5:S:60:GLU:HG2	2.32	0.43
6:T:72:LEU:HD22	6:T:72:LEU:C	2.43	0.43
6:T:123:TYR:CG	6:T:124:GLY:N	2.85	0.43
6:T:217:GLY:O	6:T:219:ASP:N	2.51	0.43
7:U:94:GLU:CG	7:U:114:ARG:HH11	2.31	0.43
8:V:188:PHE:CD2	8:V:188:PHE:N	2.86	0.43
11:Y:4:LEU:HD22	11:Y:131:ALA:HB2	1.99	0.43
11:Y:164:VAL:HA	11:Y:167:LEU:HD12	2.00	0.43
15:e:33:LEU:HD23	15:e:34:GLN:N	2.33	0.43
15:e:176:SER:HB2	15:f:142:MET:SD	2.57	0.43
15:i:131:SER:C	15:i:133:SER:N	2.76	0.43
15:l:73:ARG:O	15:l:76:ASP:HB3	2.18	0.43
15:m:67:LEU:N	15:m:67:LEU:HD23	2.33	0.43
1:A:108:TYR:O	9:I:78:SER:HA	2.18	0.43
1:A:199:TRP:O	1:A:200:GLU:C	2.61	0.43
2:B:180:ASN:O	2:B:183:LEU:HG	2.17	0.43
3:C:150:THR:O	3:C:157:TYR:HA	2.17	0.43
3:C:230:PHE:N	3:C:230:PHE:CD1	2.86	0.43
5:E:114:GLN:HG3	5:E:118:ASP:OD1	2.18	0.43
6:F:185:ASN:C	6:F:185:ASN:ND2	2.64	0.43
7:G:134:SER:CB	7:G:164:THR:HG21	2.48	0.43
8:H:9:LYS:HG3	8:H:145:ASN:OD1	2.18	0.43
10:J:98:PRO:C	10:J:99:VAL:HG23	2.42	0.43
12:L:25:TRP:CZ3	13:M:135:SER:HA	2.53	0.43
13:M:3:ILE:HG22	13:M:16:GLY:HA3	2.00	0.43
13:M:170:GLU:OE1	13:M:170:GLU:HA	2.18	0.43
14:N:101:PRO:C	14:N:102:LEU:HD12	2.43	0.43
1:O:86:PRO:HG3	15:l:231:SER:OG	2.18	0.43
1:O:162:TYR:HD1	1:O:163:TYR:N	2.16	0.43
4:R:162:GLN:HE21	4:R:163:THR:N	2.06	0.43
5:S:42:THR:C	5:S:44:GLU:H	2.26	0.43
6:T:118:LYS:HD2	6:T:118:LYS:H	1.82	0.43
7:U:182:HIS:C	7:U:184:GLU:H	2.26	0.43
8:V:80:SER:O	8:V:83:LYS:HB3	2.18	0.43
9:W:131:SER:C	9:W:132:LEU:HD23	2.42	0.43
11:Y:-1:MET:HG2	11:Y:1:ASP:H	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:b:93:TYR:O	14:b:94:GLN:C	2.60	0.43
14:b:189:LEU:HD23	14:b:190:ALA:N	2.33	0.43
15:c:39:ILE:HG12	15:c:77:LEU:CD2	2.45	0.43
15:d:39:ILE:C	15:d:41:LYS:N	2.76	0.43
15:d:215:ASN:O	15:d:217:LYS:HG2	2.18	0.43
15:e:143:TYR:O	15:e:144:ALA:HB3	2.18	0.43
15:f:55:TYR:HA	15:f:184:ARG:HH21	1.83	0.43
15:g:67:LEU:N	15:g:67:LEU:HD23	2.33	0.43
15:j:114:LEU:HA	15:j:114:LEU:HD23	1.78	0.43
15:l:41:LYS:C	15:l:43:ALA:H	2.27	0.43
15:l:63:SER:HA	15:l:64:PRO:HD2	1.75	0.43
15:m:143:TYR:C	15:m:145:LEU:N	2.73	0.43
15:o:109:VAL:HG22	15:p:99:HIS:HD2	1.83	0.43
4:D:11:PHE:H	5:E:23:GLN:NE2	2.14	0.43
4:D:37:LYS:HD3	4:D:147:LEU:HB2	1.99	0.43
5:E:78:MET:HA	5:E:142:LEU:HD23	2.00	0.43
5:E:205:LYS:HB2	5:E:212:LEU:HD13	2.00	0.43
5:E:244:LYS:HG2	5:E:244:LYS:O	2.19	0.43
6:F:160:ALA:O	6:F:169:LYS:HE3	2.19	0.43
6:F:179:PHE:CD1	6:F:179:PHE:C	2.97	0.43
6:F:213:ILE:CG2	6:F:214:ALA:N	2.82	0.43
6:F:216:VAL:HB	6:F:222:PHE:HD2	1.83	0.43
7:G:171:ALA:HA	7:G:174:GLU:HB2	2.00	0.43
12:L:4:LEU:HD12	12:L:161:ILE:HD11	2.00	0.43
12:L:182:GLU:O	12:L:182:GLU:HG3	2.17	0.43
14:N:153:ARG:NH1	14:N:153:ARG:CG	2.81	0.43
2:P:74:VAL:HG22	2:P:75:TYR:H	1.83	0.43
6:T:179:PHE:C	6:T:179:PHE:CD1	2.97	0.43
7:U:63:ASN:HD22	7:U:63:ASN:H	1.66	0.43
14:b:84:ILE:H	14:b:84:ILE:HG13	1.51	0.43
15:c:39:ILE:C	15:c:41:LYS:N	2.76	0.43
15:c:55:TYR:HA	15:c:184:ARG:NH2	2.33	0.43
15:c:200:HIS:O	15:c:203:THR:HB	2.19	0.43
15:e:216:TRP:HA	15:e:219:LEU:HD13	2.00	0.43
15:g:17:THR:CG2	15:g:94:ILE:HG22	2.48	0.43
15:g:138:THR:N	15:g:139:PRO:CD	2.81	0.43
15:i:27:GLU:O	15:i:31:GLY:N	2.45	0.43
15:i:102:GLU:O	15:i:104:ASN:N	2.50	0.43
15:k:219:LEU:N	15:k:219:LEU:HD12	2.33	0.43
15:l:227:ASP:C	15:l:229:MET:H	2.26	0.43
15:n:102:GLU:C	15:n:104:ASN:N	2.75	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:p:25:ILE:CD1	15:p:88:ILE:HA	2.48	0.43
3:C:20:TYR:O	3:C:21:GLN:C	2.59	0.43
3:C:163:ILE:HD12	3:C:173:GLN:OE1	2.18	0.43
4:D:39:LYS:HE2	4:D:39:LYS:HB2	1.83	0.43
8:H:3:ILE:HG22	8:H:16:ALA:HB2	2.00	0.43
11:K:7:ARG:HG2	11:K:7:ARG:NH1	2.34	0.43
11:K:75:SER:O	11:K:79:VAL:HG23	2.19	0.43
14:N:-6:GLN:HG3	14:N:-5:PRO:N	2.32	0.43
14:N:51:ASP:O	14:N:54:HIS:HB3	2.18	0.43
14:N:201:LYS:O	14:N:204:LEU:HD11	2.18	0.43
14:N:212:ASP:C	14:N:214:ALA:H	2.27	0.43
1:O:236:LEU:HD23	1:O:236:LEU:HA	1.85	0.43
2:P:90:ARG:NH1	9:W:68:LEU:HB3	2.33	0.43
6:T:176:LEU:O	6:T:178:THR:N	2.51	0.43
8:V:102:TYR:HA	8:V:108:GLY:HA2	2.01	0.43
12:Z:76:VAL:HG23	12:Z:105:THR:HG22	1.99	0.43
14:b:59:LEU:O	14:b:60:LYS:C	2.61	0.43
15:f:28:TRP:CZ3	15:f:84:GLN:HG2	2.53	0.43
15:f:131:SER:C	15:f:133:SER:N	2.76	0.43
15:g:39:ILE:C	15:g:41:LYS:H	2.25	0.43
15:i:216:TRP:HA	15:i:219:LEU:HD13	2.00	0.43
15:j:214:LEU:N	15:j:214:LEU:CD1	2.82	0.43
15:n:138:THR:N	15:n:139:PRO:CD	2.81	0.43
15:p:216:TRP:O	15:p:219:LEU:HB2	2.18	0.43
1:A:18:ILE:HB	2:B:20:GLN:NE2	2.34	0.43
1:A:89:ASP:OD2	1:A:137:LEU:HA	2.18	0.43
1:A:167:LYS:HG2	2:B:55:LEU:O	2.19	0.43
4:D:50:SER:HA	4:D:53:LYS:HD3	2.00	0.43
7:G:47:PHE:HZ	7:G:138:GLY:N	2.16	0.43
7:G:201:LEU:N	7:G:201:LEU:CD1	2.81	0.43
14:N:41:THR:HG21	14:N:84:ILE:HD12	2.00	0.43
14:N:49:ILE:CG2	14:N:53:GLN:HE21	2.23	0.43
6:T:174:ARG:C	6:T:176:LEU:H	2.25	0.43
10:X:33:LYS:HD2	10:X:33:LYS:N	2.33	0.43
11:Y:54:GLN:HA	11:Y:54:GLN:OE1	2.18	0.43
11:Y:139:THR:O	11:Y:140:PHE:C	2.62	0.43
12:Z:1:THR:HG22	12:Z:2:THR:N	2.34	0.43
14:b:8:TYR:O	14:b:117:GLN:NE2	2.52	0.43
14:b:96:ARG:HG3	14:b:97:SER:N	2.33	0.43
15:d:134:GLY:HA2	15:d:190:PHE:CE2	2.54	0.43
15:d:176:SER:CB	15:e:142:MET:HB2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:g:215:ASN:O	15:g:217:LYS:HG2	2.19	0.43
15:h:216:TRP:O	15:h:219:LEU:HB2	2.19	0.43
15:k:68:LEU:O	15:k:72:GLN:HB2	2.19	0.43
15:l:33:LEU:HD23	15:l:33:LEU:C	2.43	0.43
15:n:136:ALA:C	15:n:139:PRO:HD2	2.44	0.43
15:p:68:LEU:O	15:p:72:GLN:HB2	2.18	0.43
14:N:119:LEU:HD23	14:N:131:SER:O	2.19	0.43
1:O:76:SER:OG	1:O:77:ARG:N	2.52	0.43
1:O:182:LEU:HG	1:O:182:LEU:H	1.55	0.43
2:P:34:SER:O	2:P:163:ALA:HA	2.18	0.43
2:P:213:ILE:C	2:P:213:ILE:HD12	2.44	0.43
5:S:37:ALA:HA	5:S:50:VAL:HG12	2.01	0.43
7:U:24:GLU:HG2	7:U:24:GLU:H	1.57	0.43
7:U:201:LEU:HD13	7:U:201:LEU:N	2.32	0.43
9:W:3:ILE:HD12	9:W:44:ALA:HB3	2.00	0.43
10:X:151:PRO:HG2	10:X:152:GLU:OE2	2.18	0.43
11:Y:159:LEU:C	11:Y:159:LEU:HD12	2.43	0.43
12:Z:4:LEU:HD12	12:Z:161:ILE:CD1	2.49	0.43
13:a:183:THR:HG23	13:a:189:VAL:O	2.19	0.43
15:c:216:TRP:O	15:c:219:LEU:HB2	2.18	0.43
15:d:147:GLU:HA	15:e:143:TYR:OH	2.18	0.43
15:g:25:ILE:HG23	15:g:88:ILE:HG12	1.99	0.43
15:g:102:GLU:C	15:g:104:ASN:H	2.27	0.43
15:h:33:LEU:HG	15:i:16:TYR:OH	2.18	0.43
15:i:33:LEU:HD23	15:i:33:LEU:C	2.44	0.43
15:j:219:LEU:HD12	15:j:219:LEU:N	2.33	0.43
15:o:43:ALA:HB2	15:o:198:THR:HG21	2.00	0.43
15:o:143:TYR:C	15:o:145:LEU:N	2.72	0.43
15:p:67:LEU:N	15:p:67:LEU:HD23	2.34	0.43
1:A:83:VAL:CG1	1:A:139:VAL:HB	2.48	0.43
2:B:243:ILE:O	2:B:245:ASP:N	2.51	0.43
6:F:42:THR:HG22	6:F:218:LYS:NZ	2.33	0.43
11:K:-1:MET:SD	11:K:133:GLY:CA	3.05	0.43
11:K:70:GLU:HA	11:K:70:GLU:OE1	2.18	0.43
12:L:81:LYS:O	12:L:84:SER:HB2	2.18	0.43
14:N:-3:VAL:HA	14:N:21:SER:O	2.18	0.43
14:N:122:VAL:HG13	14:N:122:VAL:O	2.19	0.43
1:O:169:THR:OG1	1:O:170:ALA:N	2.52	0.43
4:R:207:ALA:HB2	4:R:233:VAL:HG21	2.00	0.43
7:U:21:PHE:HD2	7:U:24:GLU:HG3	1.84	0.43
7:U:121:ALA:C	7:U:123:THR:H	2.27	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:U:166:LYS:HZ3	7:U:206:ASN:HD21	1.67	0.43
11:Y:76:PRO:HB2	11:Y:114:GLU:OE1	2.19	0.43
15:c:114:LEU:HA	15:c:114:LEU:HD23	1.83	0.43
15:c:215:ASN:O	15:c:217:LYS:HG2	2.19	0.43
15:d:201:LEU:O	15:d:205:VAL:HG23	2.19	0.43
15:e:49:VAL:HA	15:e:52:ASN:ND2	2.33	0.43
15:e:67:LEU:N	15:e:67:LEU:HD23	2.33	0.43
15:e:102:GLU:C	15:e:104:ASN:H	2.26	0.43
15:g:110:GLN:NE2	15:g:222:PRO:HB3	2.34	0.43
15:i:39:ILE:C	15:i:41:LYS:N	2.75	0.43
15:i:64:PRO:HB2	15:i:67:LEU:HG	2.01	0.43
15:j:176:SER:C	15:j:178:SER:N	2.75	0.43
2:B:59:GLU:H	2:B:59:GLU:HG3	1.55	0.43
3:C:106:ILE:HA	3:C:107:PRO:HD3	1.85	0.43
4:D:243:GLN:O	4:D:243:GLN:HG2	2.19	0.43
5:E:21:LEU:O	5:E:24:VAL:HB	2.18	0.43
8:H:3:ILE:HG22	8:H:16:ALA:HB1	1.99	0.43
8:H:7:THR:OG1	8:H:123:PRO:O	2.34	0.43
11:K:3:ILE:CG2	11:K:102:LEU:HG	2.48	0.43
11:K:9:GLN:NE2	11:K:150:ASP:HA	2.33	0.43
13:M:84:ILE:O	13:M:85:GLN:C	2.61	0.43
14:N:144:ASN:O	14:N:148:ARG:HG3	2.18	0.43
1:O:112:MET:HA	1:O:113:PRO:HD3	1.74	0.43
3:Q:120:GLN:NE2	3:Q:120:GLN:C	2.77	0.43
4:R:39:LYS:HD3	4:R:186:ALA:HA	2.01	0.43
4:R:81:ASP:O	4:R:82:SER:C	2.62	0.43
9:W:102:GLY:HA2	9:W:178:MET:SD	2.58	0.43
12:Z:4:LEU:HD11	12:Z:15:ALA:HB3	1.99	0.43
15:c:220:ILE:HD12	15:c:220:ILE:H	1.84	0.43
15:d:68:LEU:O	15:d:72:GLN:HB2	2.18	0.43
15:e:130:LYS:O	15:e:134:GLY:N	2.52	0.43
15:g:65:GLU:HA	15:g:68:LEU:CD2	2.49	0.43
15:j:39:ILE:HG12	15:j:77:LEU:CD2	2.45	0.43
15:k:55:TYR:HA	15:k:184:ARG:HH21	1.84	0.43
15:k:215:ASN:O	15:k:217:LYS:HG2	2.19	0.43
15:l:120:LEU:HA	15:l:204:MET:HE3	1.99	0.43
15:l:176:SER:HB2	15:m:142:MET:SD	2.59	0.43
15:o:55:TYR:HA	15:o:184:ARG:NH2	2.32	0.43
15:p:41:LYS:C	15:p:43:ALA:H	2.26	0.43
15:p:136:ALA:C	15:p:139:PRO:HD2	2.44	0.43
2:B:61:LEU:HD22	2:B:61:LEU:HA	1.91	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:156:TYR:N	2:B:156:TYR:CD1	2.87	0.43
2:B:196:LEU:O	2:B:200:VAL:HG23	2.18	0.43
2:B:218:ASN:HB3	2:B:221:LEU:HD13	2.00	0.43
3:C:8:SER:O	3:C:9:ARG:O	2.37	0.43
3:C:119:LYS:HD2	3:C:153:PRO:HA	2.00	0.43
4:D:207:ALA:HB2	4:D:233:VAL:HG21	2.01	0.43
7:G:49:VAL:HG11	7:G:65:LYS:HB2	2.01	0.43
8:H:61:TYR:CD1	8:H:61:TYR:C	2.96	0.43
9:I:50:ALA:HB2	10:J:120:CYS:HB2	1.99	0.43
9:I:81:GLN:O	9:I:85:GLN:HG3	2.18	0.43
10:J:66:LYS:HA	10:J:71:ARG:O	2.19	0.43
10:J:136:GLN:OE1	10:J:136:GLN:N	2.50	0.43
13:M:114:TYR:HD2	13:M:123:GLU:O	2.02	0.43
13:M:128:ARG:HG3	13:M:129:ALA:N	2.33	0.43
1:O:242:GLU:OE1	1:O:245:LEU:HB2	2.19	0.43
2:P:12:PHE:CE2	3:Q:130:PRO:HG2	2.54	0.43
2:P:108:LYS:HG2	2:P:148:TYR:OH	2.19	0.43
3:Q:91:ALA:HB2	3:Q:115:LEU:HD21	2.00	0.43
6:T:218:LYS:HE3	6:T:218:LYS:HB2	1.76	0.43
7:U:76:VAL:HG22	7:U:77:TYR:H	1.84	0.43
8:V:105:LYS:HG2	8:V:106:ASN:N	2.34	0.43
12:Z:98:GLY:O	12:Z:99:THR:HB	2.19	0.43
12:Z:158:LYS:HG3	12:Z:177:LEU:HD11	2.01	0.43
15:d:14:ASP:O	15:d:18:GLU:HG2	2.18	0.43
15:d:102:GLU:C	15:d:104:ASN:H	2.25	0.43
15:f:200:HIS:O	15:f:203:THR:HB	2.19	0.43
15:g:27:GLU:O	15:g:31:GLY:N	2.47	0.43
15:g:102:GLU:O	15:g:104:ASN:N	2.52	0.43
15:h:33:LEU:HD23	15:h:33:LEU:C	2.44	0.43
15:j:138:THR:N	15:j:139:PRO:CD	2.81	0.43
15:l:33:LEU:HD12	15:m:12:LEU:HD13	2.01	0.43
15:l:58:ALA:O	15:l:59:GLN:HB2	2.17	0.43
15:l:103:ASP:HB2	15:l:223:ARG:NE	2.34	0.43
15:l:190:PHE:O	15:l:194:VAL:HG23	2.19	0.43
15:m:189:ASP:O	15:m:193:LYS:HG2	2.19	0.43
15:n:39:ILE:C	15:n:41:LYS:N	2.77	0.43
15:o:41:LYS:C	15:o:43:ALA:H	2.27	0.43
15:o:103:ASP:HB2	15:o:223:ARG:NE	2.34	0.43
1:A:91:ARG:CZ	7:G:156:TYR:CE2	3.02	0.43
2:B:44:VAL:CA	2:B:213:ILE:HG22	2.48	0.43
2:B:70:ASP:C	2:B:71:ILE:HG13	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:231:LYS:HA	3:C:231:LYS:HE3	2.00	0.43
4:D:39:LYS:HD3	4:D:186:ALA:HA	2.00	0.43
4:D:75:PHE:CD2	4:D:76:SER:N	2.87	0.43
4:D:192:VAL:O	4:D:193:LYS:C	2.62	0.43
5:E:238:GLU:O	5:E:241:LYS:HB2	2.18	0.43
7:G:85:ARG:CG	7:G:85:ARG:HH11	2.31	0.43
8:H:8:PHE:HB2	8:H:146:MET:H	1.84	0.43
8:H:70:TYR:CD1	8:H:70:TYR:N	2.85	0.43
10:J:94:TYR:O	10:J:117:LEU:HB2	2.19	0.43
13:M:48:PHE:H	13:M:98:VAL:CG1	2.31	0.43
14:N:144:ASN:ND2	14:N:148:ARG:NH2	2.67	0.43
14:N:179:ARG:HH21	9:W:135:MET:HE3	1.84	0.43
3:Q:59:GLN:N	3:Q:59:GLN:HE21	2.17	0.43
3:Q:181:LYS:HE3	3:Q:181:LYS:HB2	1.82	0.43
3:Q:186:VAL:HG11	3:Q:217:ARG:NH1	2.34	0.43
5:S:140:VAL:O	5:S:160:PRO:HG3	2.19	0.43
5:S:187:TRP:CH2	5:S:189:SER:HA	2.54	0.43
6:T:42:THR:HG23	6:T:183:ASP:HB3	2.01	0.43
7:U:193:LYS:HE2	7:U:193:LYS:HB3	1.75	0.43
9:W:4:VAL:O	9:W:14:ILE:HG22	2.18	0.43
15:c:25:ILE:HG21	15:c:212:TYR:CE1	2.54	0.43
15:d:227:ASP:C	15:d:229:MET:H	2.27	0.43
15:h:35:GLU:O	15:h:35:GLU:HG2	2.18	0.43
15:h:39:ILE:C	15:h:41:LYS:N	2.77	0.43
15:h:67:LEU:HD23	15:h:67:LEU:N	2.34	0.43
15:i:102:GLU:C	15:i:104:ASN:H	2.26	0.43
15:j:63:SER:HA	15:j:64:PRO:HD2	1.74	0.43
15:j:214:LEU:HG	15:k:13:ARG:NH1	2.33	0.43
15:k:131:SER:C	15:k:133:SER:N	2.77	0.43
15:n:14:ASP:O	15:n:18:GLU:HG2	2.19	0.43
15:n:190:PHE:O	15:n:194:VAL:HG23	2.19	0.43
15:p:131:SER:C	15:p:133:SER:N	2.77	0.43
3:C:163:ILE:CG1	3:C:164:SER:H	2.32	0.42
5:E:112:LEU:O	5:E:113:THR:C	2.61	0.42
8:H:67:THR:O	8:H:69:GLN:N	2.52	0.42
9:I:135:MET:HB3	14:b:142:MET:HE3	2.00	0.42
12:L:55:TRP:O	12:L:58:TRP:HB3	2.19	0.42
12:L:76:VAL:HG23	12:L:105:THR:HG22	2.01	0.42
13:M:187:ILE:HG12	9:W:24:PRO:O	2.19	0.42
3:Q:15:PRO:HA	4:R:22:TYR:CD1	2.54	0.42
6:T:36:VAL:CG1	6:T:37:GLY:N	2.79	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:T:129:GLY:O	6:T:130:VAL:HB	2.19	0.42
7:U:216:SER:HA	7:U:230:VAL:HG23	2.01	0.42
8:V:95:ALA:H	8:V:115:LEU:HD13	1.83	0.42
10:X:22:SER:O	10:X:23:GLN:C	2.62	0.42
10:X:98:PRO:C	10:X:99:VAL:HG23	2.44	0.42
13:a:2:THR:HG21	13:a:133:ALA:HB3	2.00	0.42
13:a:84:ILE:HA	13:a:87:LEU:HD12	2.00	0.42
14:b:189:LEU:HD23	14:b:189:LEU:C	2.44	0.42
15:e:120:LEU:O	15:e:124:THR:HG23	2.19	0.42
15:f:33:LEU:HD23	15:f:34:GLN:N	2.33	0.42
15:f:80:ASN:O	15:f:84:GLN:HG3	2.19	0.42
15:f:87:THR:HA	15:f:90:THR:OG1	2.19	0.42
15:g:219:LEU:N	15:g:219:LEU:HD12	2.34	0.42
15:h:143:TYR:O	15:h:144:ALA:HB3	2.19	0.42
15:j:177:PRO:HG3	15:k:62:LYS:HG3	2.00	0.42
15:l:130:LYS:O	15:l:134:GLY:N	2.52	0.42
15:o:120:LEU:O	15:o:124:THR:HG23	2.19	0.42
15:o:138:THR:CG2	15:o:142:MET:HE3	2.45	0.42
2:B:187:ASP:O	2:B:190:HIS:HB3	2.19	0.42
5:E:51:GLU:OE2	5:E:53:ARG:HB2	2.19	0.42
5:E:109:VAL:O	5:E:112:LEU:HB3	2.19	0.42
5:E:121:LEU:HD12	5:E:161:SER:O	2.20	0.42
5:E:143:LEU:HA	5:E:143:LEU:HD23	1.61	0.42
6:F:6:TYR:CD2	6:F:6:TYR:N	2.87	0.42
6:F:17:GLY:HA3	7:G:29:ALA:HB2	2.02	0.42
8:H:105:LYS:HG2	8:H:106:ASN:N	2.35	0.42
9:I:41:ILE:HD11	9:I:74:PRO:HB2	2.01	0.42
9:I:97:TYR:CD1	9:I:97:TYR:N	2.88	0.42
10:J:9:LYS:O	10:J:10:ASP:HB2	2.20	0.42
12:L:4:LEU:C	12:L:4:LEU:CD2	2.92	0.42
14:N:41:THR:HG21	14:N:84:ILE:CD1	2.49	0.42
14:N:67:ALA:O	14:N:68:TYR:C	2.62	0.42
1:O:24:ARG:HD3	15:k:102:GLU:OE1	2.20	0.42
1:O:35:THR:OG1	1:O:36:ASN:N	2.51	0.42
1:O:89:ASP:OD2	1:O:137:LEU:HA	2.18	0.42
1:O:167:LYS:HG2	2:P:55:LEU:O	2.19	0.42
2:P:112:SER:CA	2:P:156:TYR:HE2	2.31	0.42
2:P:238:LEU:N	2:P:238:LEU:CD1	2.81	0.42
7:U:100:LYS:HE2	14:b:57:ARG:HH12	1.85	0.42
8:V:61:TYR:CD1	8:V:61:TYR:C	2.97	0.42
8:V:70:TYR:N	8:V:70:TYR:CD1	2.86	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:W:92:GLY:C	9:W:94:ILE:H	2.26	0.42
10:X:117:LEU:HD23	10:X:117:LEU:N	2.34	0.42
15:d:143:TYR:O	15:d:144:ALA:HB3	2.19	0.42
15:e:127:SER:OG	15:e:130:LYS:NZ	2.43	0.42
15:f:114:LEU:HA	15:f:114:LEU:HD23	1.80	0.42
15:g:136:ALA:C	15:g:139:PRO:HD2	2.44	0.42
15:i:49:VAL:HA	15:i:52:ASN:ND2	2.33	0.42
15:j:33:LEU:HD23	15:j:33:LEU:C	2.44	0.42
15:j:67:LEU:N	15:j:67:LEU:HD23	2.34	0.42
15:n:202:SER:O	15:n:206:ARG:HG3	2.19	0.42
15:o:33:LEU:HG	15:p:16:TYR:OH	2.19	0.42
1:A:188:LYS:C	1:A:190:LYS:N	2.76	0.42
3:C:39:MET:CE	3:C:146:TYR:HB3	2.49	0.42
3:C:190:ILE:O	3:C:193:ALA:HB3	2.19	0.42
5:E:122:ARG:C	5:E:132:ARG:HD3	2.44	0.42
6:F:158:GLY:O	6:F:159:THR:HB	2.19	0.42
7:G:216:SER:HA	7:G:230:VAL:HG23	2.00	0.42
9:I:4:VAL:HA	9:I:125:LEU:O	2.19	0.42
10:J:89:ARG:HG3	10:J:94:TYR:HE2	1.81	0.42
10:J:98:PRO:HG2	10:J:115:PHE:CD1	2.54	0.42
11:K:57:GLU:O	11:K:60:GLN:HB3	2.19	0.42
12:L:18:SER:HB2	12:L:31:VAL:H	1.82	0.42
13:M:100:THR:HG23	13:M:116:PHE:HB2	2.01	0.42
14:N:89:ALA:O	14:N:90:THR:C	2.61	0.42
14:N:144:ASN:HD22	14:N:148:ARG:NH2	2.16	0.42
1:O:53:VAL:O	1:O:53:VAL:HG23	2.20	0.42
1:O:198:SER:O	1:O:202:VAL:HG23	2.19	0.42
3:Q:181:LYS:O	3:Q:184:MET:HB2	2.19	0.42
4:R:212:ILE:HG21	4:R:224:LEU:HD22	2.01	0.42
5:S:204:LEU:O	5:S:208:MET:N	2.52	0.42
5:S:205:LYS:HB2	5:S:212:LEU:HD13	2.02	0.42
6:T:138:ASP:HB2	6:T:139:LYS:H	1.59	0.42
7:U:150:LEU:HD13	7:U:156:TYR:HB3	2.01	0.42
9:W:41:ILE:N	9:W:41:ILE:HD12	2.34	0.42
9:W:92:GLY:O	9:W:94:ILE:N	2.52	0.42
9:W:153:LYS:HE3	9:W:157:ASP:OD2	2.19	0.42
11:Y:57:GLU:O	11:Y:60:GLN:HB3	2.19	0.42
12:Z:81:LYS:HG3	12:Z:85:ASN:ND2	2.35	0.42
13:a:11:PHE:CD1	13:a:11:PHE:N	2.87	0.42
15:c:218:LYS:NZ	15:d:98:GLU:HG2	2.34	0.42
15:e:189:ASP:OD2	15:f:132:GLY:HA3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:f:138:THR:CG2	15:f:142:MET:HE3	2.44	0.42
15:h:73:ARG:O	15:h:76:ASP:HB3	2.20	0.42
15:i:214:LEU:N	15:i:214:LEU:CD1	2.83	0.42
15:k:102:GLU:C	15:k:104:ASN:N	2.76	0.42
15:l:136:ALA:C	15:l:139:PRO:HD2	2.44	0.42
15:m:103:ASP:C	15:m:105:LEU:H	2.27	0.42
15:n:131:SER:C	15:n:133:SER:N	2.76	0.42
15:n:176:SER:C	15:n:178:SER:N	2.76	0.42
1:A:98:LYS:HE3	1:A:98:LYS:HB2	1.89	0.42
3:C:114:ARG:HB2	3:C:114:ARG:HH11	1.84	0.42
6:F:74:LEU:HD22	6:F:81:ALA:HB1	2.01	0.42
8:H:34:LEU:CD2	8:H:44:CYS:HB3	2.49	0.42
9:I:84:LYS:HE2	9:I:117:GLY:O	2.18	0.42
10:J:81:LEU:O	10:J:83:SER:N	2.52	0.42
12:L:123:LYS:HG3	12:L:124:GLY:N	2.34	0.42
13:M:116:PHE:CE2	13:M:122:TYR:HB3	2.54	0.42
13:M:163:LEU:HD12	13:M:163:LEU:H	1.84	0.42
14:N:72:LEU:H	14:N:72:LEU:CD1	2.08	0.42
1:O:177:GLU:CD	1:O:177:GLU:N	2.78	0.42
2:P:44:VAL:HG23	2:P:213:ILE:CG2	2.49	0.42
4:R:49:ARG:HH22	15:p:231:SER:C	2.28	0.42
5:S:26:TYR:O	5:S:29:GLU:HB2	2.19	0.42
5:S:81:LEU:HD11	15:o:230:VAL:HG12	2.02	0.42
8:V:8:PHE:HB2	8:V:146:MET:H	1.83	0.42
9:W:59:ILE:HG12	9:W:83:LEU:CD2	2.48	0.42
10:X:184:ASP:CG	10:X:185:GLU:N	2.65	0.42
11:Y:70:GLU:C	11:Y:72:TYR:H	2.28	0.42
13:a:123:GLU:HA	13:a:123:GLU:OE2	2.19	0.42
15:f:46:ALA:HA	15:f:191:MET:HE3	2.02	0.42
15:j:215:ASN:O	15:j:217:LYS:HG2	2.20	0.42
15:l:33:LEU:HG	15:m:16:TYR:OH	2.20	0.42
15:l:103:ASP:HB2	15:l:223:ARG:HE	1.84	0.42
15:m:227:ASP:C	15:m:229:MET:H	2.27	0.42
15:o:131:SER:C	15:o:133:SER:N	2.77	0.42
1:A:21:PRO:HA	2:B:23:TYR:CE1	2.55	0.42
1:A:176:GLN:HA	1:A:179:THR:HB	2.02	0.42
2:B:132:VAL:O	2:B:152:PRO:HG3	2.20	0.42
2:B:148:TYR:CE2	2:B:158:PRO:HB3	2.54	0.42
3:C:172:ALA:HB2	3:C:200:THR:HG21	2.01	0.42
5:E:142:LEU:HD23	5:E:142:LEU:HA	1.79	0.42
7:G:26:ALA:O	7:G:30:VAL:HG23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:236:GLN:O	7:G:239:ILE:HB	2.18	0.42
9:I:84:LYS:HA	9:I:87:LEU:HB3	2.01	0.42
11:K:151:MET:HB3	11:K:155:GLU:HB2	2.01	0.42
14:N:-2:THR:HA	14:N:47:GLY:O	2.20	0.42
14:N:40:ASN:ND2	14:N:40:ASN:N	2.51	0.42
3:Q:173:GLN:O	3:Q:176:LEU:HB2	2.18	0.42
6:T:40:SER:OG	6:T:41:ASN:N	2.53	0.42
7:U:203:HIS:O	7:U:205:ASP:N	2.45	0.42
8:V:119:VAL:C	8:V:120:HIS:CD2	2.97	0.42
8:V:189:TYR:HA	8:V:190:PRO:HD3	1.85	0.42
9:W:43:CYS:SG	9:W:100:VAL:HA	2.60	0.42
9:W:124:TYR:CD1	9:W:124:TYR:N	2.87	0.42
10:X:6:MET:HG2	10:X:127:PHE:HB3	2.02	0.42
10:X:114:GLY:C	10:X:115:PHE:CD1	2.98	0.42
11:Y:70:GLU:O	11:Y:71:ASP:CB	2.67	0.42
12:Z:211:ILE:H	12:Z:211:ILE:HG13	1.56	0.42
15:e:27:GLU:O	15:e:31:GLY:N	2.47	0.42
15:i:115:LYS:O	15:i:118:ASP:HB3	2.20	0.42
15:k:227:ASP:O	15:k:230:VAL:HG23	2.19	0.42
15:m:214:LEU:N	15:m:214:LEU:CD1	2.82	0.42
15:n:68:LEU:O	15:n:72:GLN:HB2	2.19	0.42
1:A:39:ASN:C	1:A:39:ASN:HD22	2.28	0.42
2:B:241:GLN:O	2:B:244:ASN:ND2	2.53	0.42
4:D:162:GLN:HG3	4:D:163:THR:N	2.34	0.42
6:F:90:GLN:H	6:F:90:GLN:HG2	1.55	0.42
6:F:110:HIS:O	6:F:113:CYS:HB3	2.20	0.42
7:G:201:LEU:HD13	7:G:201:LEU:N	2.35	0.42
8:H:63:LEU:C	8:H:65:LEU:N	2.74	0.42
8:H:122:LEU:HB3	8:H:123:PRO:CD	2.49	0.42
11:K:151:MET:HA	11:K:155:GLU:OE1	2.20	0.42
13:M:14:LEU:HD13	13:M:34:VAL:CG1	2.45	0.42
14:N:3:VAL:O	14:N:135:ALA:HA	2.20	0.42
1:O:167:LYS:NZ	1:O:167:LYS:HB3	2.34	0.42
2:P:32:VAL:HG12	2:P:33:THR:N	2.34	0.42
2:P:74:VAL:HG13	2:P:135:LEU:HB2	2.01	0.42
5:S:16:SER:OG	5:S:20:ARG:HB2	2.20	0.42
6:T:134:ILE:N	6:T:134:ILE:CD1	2.83	0.42
6:T:149:PRO:C	6:T:151:GLY:H	2.26	0.42
8:V:147:SER:OG	8:V:150:GLU:HB2	2.20	0.42
13:a:77:ILE:O	13:a:78:ASN:C	2.62	0.42
15:g:127:SER:C	15:g:129:GLU:H	2.28	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:i:39:ILE:CG2	15:i:198:THR:HG23	2.44	0.42
15:i:189:ASP:O	15:i:193:LYS:HG2	2.20	0.42
15:i:190:PHE:O	15:i:194:VAL:HG23	2.19	0.42
15:i:216:TRP:CA	15:i:219:LEU:HD13	2.49	0.42
15:k:220:ILE:HD12	15:k:220:ILE:H	1.85	0.42
15:l:22:PHE:HD1	15:l:212:TYR:HH	1.68	0.42
15:l:22:PHE:CZ	15:m:9:ILE:HD11	2.44	0.42
15:l:189:ASP:O	15:l:193:LYS:HG2	2.20	0.42
15:p:25:ILE:HG23	15:p:88:ILE:HG12	2.00	0.42
1:A:151:GLY:HA3	1:A:152:PRO:HD3	1.92	0.42
2:B:118:MET:HE1	2:B:132:VAL:O	2.20	0.42
3:C:83:ASP:O	3:C:84:ALA:C	2.62	0.42
3:C:241:LYS:C	3:C:243:GLY:H	2.27	0.42
4:D:36:VAL:HG11	4:D:195:THR:HG23	2.00	0.42
5:E:132:ARG:HG2	5:E:132:ARG:HH11	1.84	0.42
5:E:204:LEU:O	5:E:205:LYS:C	2.61	0.42
9:I:8:PHE:HB2	9:I:146:LEU:O	2.19	0.42
10:J:44:ILE:CG2	10:J:51:VAL:HG22	2.49	0.42
12:L:138:GLY:O	12:L:139:VAL:C	2.62	0.42
13:M:86:HIS:O	13:M:87:LEU:C	2.62	0.42
13:M:172:ILE:O	13:M:176:ARG:HG3	2.19	0.42
14:N:26:LEU:O	14:N:28:PHE:N	2.52	0.42
14:N:148:ARG:HH11	9:W:165:ASN:ND2	2.17	0.42
2:P:20:GLN:O	2:P:23:TYR:N	2.53	0.42
3:Q:183:ASP:O	3:Q:184:MET:C	2.61	0.42
4:R:48:ARG:HG2	4:R:48:ARG:HH11	1.85	0.42
5:S:20:ARG:O	5:S:21:LEU:HD23	2.20	0.42
5:S:192:THR:OG1	5:S:195:GLU:HG3	2.20	0.42
6:T:215:ILE:CG1	6:T:216:VAL:N	2.75	0.42
7:U:236:GLN:O	7:U:239:ILE:HB	2.20	0.42
8:V:107:LYS:HB3	8:V:107:LYS:HE3	1.84	0.42
10:X:-7:ASP:HB3	10:X:-4:SER:OG	2.19	0.42
15:c:87:THR:HA	15:c:90:THR:OG1	2.20	0.42
15:c:176:SER:OG	15:d:139:PRO:HA	2.20	0.42
15:e:127:SER:C	15:e:129:GLU:H	2.28	0.42
15:f:102:GLU:O	15:f:104:ASN:N	2.53	0.42
15:f:176:SER:C	15:f:178:SER:N	2.77	0.42
15:h:201:LEU:O	15:h:205:VAL:HG23	2.19	0.42
15:h:216:TRP:CA	15:h:219:LEU:HD13	2.50	0.42
15:m:14:ASP:O	15:m:18:GLU:HG2	2.19	0.42
15:n:33:LEU:HD23	15:n:33:LEU:C	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:n:176:SER:C	15:n:178:SER:H	2.28	0.42
15:o:201:LEU:O	15:o:205:VAL:HG23	2.20	0.42
1:A:69:VAL:O	1:A:70:SER:HB2	2.19	0.42
1:A:198:SER:O	1:A:202:VAL:HG23	2.20	0.42
1:A:251:GLN:O	1:A:251:GLN:HG2	2.20	0.42
5:E:8:TYR:O	5:E:9:ASP:CB	2.65	0.42
5:E:39:GLY:O	5:E:169:ALA:HA	2.20	0.42
6:F:219:ASP:N	6:F:219:ASP:OD2	2.53	0.42
7:G:41:CYS:HB2	7:G:186:LEU:O	2.19	0.42
8:H:152:VAL:O	8:H:156:LYS:HG3	2.20	0.42
1:O:127:ILE:HG13	1:O:127:ILE:H	1.65	0.42
1:O:239:GLU:HA	1:O:239:GLU:OE2	2.20	0.42
2:P:212:ALA:HB2	2:P:237:LYS:HA	2.02	0.42
3:Q:50:ARG:HH11	3:Q:50:ARG:HB3	1.85	0.42
3:Q:59:GLN:O	3:Q:62:SER:O	2.37	0.42
4:R:127:ARG:HA	4:R:128:PRO:HD3	1.75	0.42
7:U:26:ALA:O	7:U:30:VAL:HG23	2.20	0.42
7:U:217:TRP:N	7:U:217:TRP:HD1	2.18	0.42
10:X:181:ILE:HD12	10:X:181:ILE:N	2.35	0.42
12:Z:88:TYR:O	12:Z:89:GLN:C	2.62	0.42
12:Z:95:LEU:O	12:Z:117:SER:HB2	2.18	0.42
13:a:4:LEU:HG	13:a:6:ILE:CD1	2.49	0.42
14:b:62:LEU:HD23	14:b:62:LEU:C	2.43	0.42
15:c:131:SER:C	15:c:133:SER:N	2.78	0.42
15:c:143:TYR:C	15:c:145:LEU:N	2.72	0.42
15:c:218:LYS:HZ2	15:d:98:GLU:HG2	1.85	0.42
15:d:61:GLU:CG	15:d:62:LYS:N	2.81	0.42
15:e:125:LEU:HD23	15:e:125:LEU:HA	1.86	0.42
15:f:103:ASP:HB3	15:f:223:ARG:HG2	2.01	0.42
15:g:143:TYR:C	15:g:145:LEU:N	2.72	0.42
15:j:64:PRO:HB2	15:j:67:LEU:HG	2.01	0.42
15:l:143:TYR:C	15:l:145:LEU:N	2.75	0.42
15:n:46:ALA:HA	15:n:191:MET:HE3	2.01	0.42
1:A:38:THR:HG23	1:A:39:ASN:N	2.34	0.42
2:B:135:LEU:HD23	2:B:135:LEU:HA	1.85	0.42
2:B:145:PHE:HE1	2:B:214:ILE:HG22	1.84	0.42
3:C:13:PHE:N	4:D:19:GLN:HE22	2.17	0.42
6:F:24:TYR:O	6:F:27:GLU:HB2	2.20	0.42
7:G:12:SER:OG	7:G:126:ASN:N	2.53	0.42
8:H:190:PRO:HG2	14:b:211:TRP:CE2	2.55	0.42
2:P:241:GLN:O	2:P:244:ASN:ND2	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:39:MET:HE1	3:Q:146:TYR:C	2.45	0.42
5:S:204:LEU:O	5:S:205:LYS:C	2.62	0.42
6:T:19:LEU:HD23	6:T:19:LEU:HA	1.90	0.42
6:T:34:VAL:CG2	6:T:35:THR:N	2.82	0.42
7:U:25:TYR:HA	7:U:28:LYS:HB2	2.01	0.42
10:X:128:ILE:HD13	10:X:128:ILE:HA	1.87	0.42
14:b:153:ARG:HH11	14:b:153:ARG:CG	2.26	0.42
15:e:109:VAL:HG21	15:e:218:LYS:HD3	2.02	0.42
15:f:176:SER:OG	15:g:139:PRO:HA	2.20	0.42
15:l:109:VAL:O	15:l:113:VAL:HG23	2.20	0.42
15:l:127:SER:C	15:l:129:GLU:H	2.27	0.42
15:m:102:GLU:O	15:m:104:ASN:N	2.52	0.42
15:m:123:LYS:HE3	15:m:204:MET:HE2	2.01	0.42
15:p:27:GLU:O	15:p:31:GLY:N	2.48	0.42
15:p:65:GLU:HA	15:p:68:LEU:CD2	2.49	0.42
15:p:113:VAL:O	15:p:116:ILE:HG22	2.19	0.42
2:B:185:LEU:O	2:B:188:ALA:HB3	2.20	0.42
4:D:133:THR:HG23	4:D:150:THR:CG2	2.41	0.42
5:E:202:LYS:O	5:E:206:GLN:HG3	2.20	0.42
5:E:240:ILE:O	5:E:243:LEU:HB3	2.19	0.42
6:F:64:ILE:HB	6:F:72:LEU:HD11	2.02	0.42
6:F:102:LYS:HE3	6:F:102:LYS:HB2	1.81	0.42
10:J:15:ALA:HB2	10:J:178:VAL:HG22	2.01	0.42
11:K:8:VAL:HG23	11:K:9:GLN:N	2.34	0.42
11:K:175:PHE:CD1	11:K:175:PHE:N	2.88	0.42
13:M:-5:TYR:OH	13:M:95:PRO:HD2	2.20	0.42
13:M:152:GLU:HB2	13:M:155:THR:HG21	2.01	0.42
1:O:17:THR:O	1:O:18:ILE:CG2	2.68	0.42
2:P:44:VAL:HG23	2:P:211:LEU:HD11	2.02	0.42
3:Q:66:LEU:HD13	3:Q:66:LEU:HA	1.84	0.42
5:S:46:VAL:HG23	5:S:153:TYR:HD1	1.85	0.42
6:T:105:VAL:O	6:T:106:GLU:C	2.61	0.42
12:Z:64:ARG:CZ	12:Z:68:LEU:HD21	2.50	0.42
14:b:25:LEU:HD12	14:b:26:LEU:H	1.84	0.42
15:e:176:SER:OG	15:f:139:PRO:HA	2.19	0.42
15:f:73:ARG:O	15:f:76:ASP:HB3	2.20	0.42
15:h:91:VAL:O	15:h:95:ARG:HD3	2.20	0.42
15:h:220:ILE:HD12	15:h:220:ILE:H	1.85	0.42
15:k:127:SER:C	15:k:129:GLU:H	2.28	0.42
15:l:61:GLU:CG	15:l:62:LYS:N	2.81	0.42
15:l:125:LEU:HD23	15:l:125:LEU:HA	1.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:l:213:LEU:HD23	15:l:213:LEU:HA	1.87	0.42
1:A:44:ALA:N	1:A:169:THR:O	2.51	0.41
1:A:203:VAL:O	1:A:204:GLU:C	2.63	0.41
1:A:216:THR:CG2	1:A:217:GLU:N	2.83	0.41
6:F:4:ASN:ND2	15:f:102:GLU:HA	2.35	0.41
7:G:19:ARG:CG	7:G:19:ARG:NH1	2.82	0.41
7:G:219:SER:O	7:G:224:ASN:N	2.47	0.41
8:H:36:ARG:HB2	8:H:42:TRP:CE2	2.55	0.41
8:H:67:THR:C	8:H:69:GLN:H	2.27	0.41
8:H:188:PHE:N	8:H:188:PHE:HD2	2.18	0.41
9:I:6:VAL:HG23	9:I:13:VAL:CG1	2.50	0.41
9:I:153:LYS:HD3	9:I:153:LYS:O	2.19	0.41
11:K:39:PRO:HG2	11:K:73:GLU:CD	2.45	0.41
14:N:29:ASN:HD22	14:N:29:ASN:HA	1.66	0.41
2:P:24:ALA:C	2:P:26:THR:N	2.78	0.41
3:Q:29:ILE:O	3:Q:31:HIS:N	2.52	0.41
3:Q:211:LEU:HD13	3:Q:212:GLU:N	2.35	0.41
5:S:33:LEU:H	5:S:33:LEU:HD12	1.84	0.41
8:V:110:VAL:HG12	8:V:122:LEU:O	2.19	0.41
13:a:59:PHE:O	13:a:62:SER:N	2.53	0.41
13:a:207:PHE:C	13:a:208:TYR:CD2	2.98	0.41
14:b:143:ALA:O	14:b:145:PRO:N	2.53	0.41
15:f:39:ILE:C	15:f:41:LYS:N	2.77	0.41
15:k:216:TRP:HA	15:k:219:LEU:HD13	2.02	0.41
15:m:127:SER:C	15:m:129:GLU:H	2.28	0.41
15:n:80:ASN:O	15:n:84:GLN:HG3	2.20	0.41
15:o:33:LEU:HD23	15:o:33:LEU:C	2.44	0.41
15:p:61:GLU:CG	15:p:62:LYS:N	2.82	0.41
1:A:26:TYR:CD2	1:A:26:TYR:N	2.87	0.41
1:A:123:ASN:ND2	2:B:84:VAL:HG12	2.35	0.41
1:A:207:ILE:HG13	1:A:207:ILE:H	1.60	0.41
7:G:77:TYR:CD2	7:G:77:TYR:N	2.87	0.41
8:H:126:ILE:HD12	8:H:134:ILE:CD1	2.50	0.41
3:Q:15:PRO:HA	4:R:22:TYR:CG	2.55	0.41
3:Q:29:ILE:C	3:Q:31:HIS:N	2.77	0.41
5:S:188:HIS:O	5:S:191:LEU:HD12	2.20	0.41
7:U:35:THR:HG21	7:U:167:GLY:H	1.84	0.41
12:Z:145:LYS:O	12:Z:148:LEU:HD22	2.20	0.41
13:a:147:PHE:CG	13:a:161:LYS:HE3	2.55	0.41
15:d:176:SER:C	15:d:178:SER:N	2.77	0.41
15:e:28:TRP:HZ2	15:e:87:THR:HG21	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:e:115:LYS:O	15:e:118:ASP:HB3	2.20	0.41
15:g:14:ASP:O	15:g:18:GLU:HG2	2.19	0.41
15:i:216:TRP:O	15:i:219:LEU:N	2.53	0.41
15:i:220:ILE:HD12	15:i:220:ILE:H	1.84	0.41
15:j:120:LEU:O	15:j:124:THR:HG23	2.19	0.41
15:o:177:PRO:HG2	15:p:63:SER:H	1.84	0.41
15:p:87:THR:HA	15:p:90:THR:OG1	2.20	0.41
2:B:157:PHE:CD1	2:B:157:PHE:N	2.88	0.41
3:C:69:LEU:CD2	3:C:92:ARG:HG3	2.50	0.41
4:D:87:GLU:O	4:D:91:VAL:HG23	2.20	0.41
5:E:12:VAL:N	5:E:23:GLN:HG3	2.29	0.41
5:E:140:VAL:HG22	5:E:141:ALA:N	2.36	0.41
9:I:152:ILE:HG22	9:I:153:LYS:N	2.34	0.41
13:M:19:ARG:NE	13:M:191:ASP:OD2	2.52	0.41
14:N:93:TYR:O	14:N:94:GLN:C	2.62	0.41
1:O:18:ILE:HB	2:P:20:GLN:NE2	2.35	0.41
1:O:26:TYR:O	1:O:29:GLU:N	2.53	0.41
1:O:225:VAL:CG1	1:O:226:GLY:N	2.83	0.41
2:P:156:TYR:HD1	2:P:156:TYR:O	2.03	0.41
3:Q:235:ILE:O	3:Q:237:ASP:N	2.53	0.41
6:T:6:TYR:N	6:T:6:TYR:CD2	2.88	0.41
6:T:179:PHE:CD1	6:T:180:ILE:N	2.89	0.41
8:V:137:TYR:O	8:V:138:CYS:C	2.63	0.41
9:W:98:LEU:HD12	9:W:98:LEU:N	2.35	0.41
9:W:159:ILE:O	9:W:163:ILE:HG13	2.20	0.41
10:X:54:LEU:HD13	10:X:54:LEU:HA	1.72	0.41
11:Y:9:GLN:HB2	11:Y:151:MET:O	2.20	0.41
11:Y:191:VAL:O	11:Y:192:ASP:C	2.63	0.41
12:Z:138:GLY:O	12:Z:139:VAL:C	2.64	0.41
14:b:63:VAL:HG12	14:b:64:THR:N	2.36	0.41
14:b:121:TYR:CE1	14:b:123:ASN:ND2	2.75	0.41
14:b:144:ASN:N	14:b:145:PRO:CD	2.83	0.41
15:d:220:ILE:HD12	15:d:220:ILE:H	1.85	0.41
15:g:131:SER:C	15:g:133:SER:N	2.75	0.41
15:h:61:GLU:CG	15:h:62:LYS:N	2.79	0.41
15:j:73:ARG:O	15:j:76:ASP:HB3	2.20	0.41
15:n:102:GLU:O	15:n:104:ASN:N	2.53	0.41
15:o:102:GLU:O	15:o:104:ASN:N	2.53	0.41
15:p:143:TYR:C	15:p:145:LEU:N	2.74	0.41
2:B:85:LEU:HD23	2:B:85:LEU:C	2.45	0.41
2:B:98:LYS:HA	2:B:103:GLU:O	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:38:ILE:HG22	3:C:39:MET:N	2.35	0.41
6:F:46:LEU:HD11	6:F:72:LEU:HA	2.01	0.41
6:F:181:LYS:HE2	6:F:181:LYS:HB3	1.92	0.41
7:G:100:LYS:HB3	7:G:100:LYS:HZ3	1.86	0.41
10:J:140:MET:HE3	10:J:144:LEU:HD11	2.03	0.41
11:K:35:ARG:HD3	11:K:35:ARG:HA	1.94	0.41
13:M:83:ASN:ND2	13:M:83:ASN:C	2.78	0.41
13:M:166:LEU:H	13:M:166:LEU:CD1	2.33	0.41
13:M:166:LEU:HD13	13:M:171:VAL:HG22	2.03	0.41
1:O:69:VAL:O	1:O:70:SER:HB2	2.20	0.41
3:Q:20:TYR:O	3:Q:21:GLN:C	2.63	0.41
3:Q:68:LYS:HZ1	10:X:66:LYS:HZ1	1.68	0.41
3:Q:233:GLN:O	3:Q:235:ILE:N	2.53	0.41
4:R:138:PHE:CZ	4:R:145:PRO:HB3	2.55	0.41
8:V:82:PHE:HB2	8:V:113:ILE:CD1	2.50	0.41
8:V:127:ALA:HA	14:b:27:ARG:HH21	1.86	0.41
9:W:41:ILE:HD11	9:W:74:PRO:HB2	2.02	0.41
13:a:49:ALA:O	13:a:52:GLY:N	2.54	0.41
13:a:78:ASN:CG	13:a:79:SER:N	2.78	0.41
13:a:168:VAL:O	13:a:169:GLU:C	2.63	0.41
13:a:207:PHE:C	13:a:207:PHE:CD2	2.98	0.41
15:k:176:SER:CB	15:l:139:PRO:HA	2.51	0.41
15:n:215:ASN:O	15:n:217:LYS:HG2	2.21	0.41
15:o:216:TRP:CA	15:o:219:LEU:HD13	2.51	0.41
15:p:143:TYR:O	15:p:144:ALA:HB3	2.19	0.41
1:A:177:GLU:CD	1:A:177:GLU:H	2.28	0.41
1:A:230:LYS:HD2	1:A:230:LYS:HA	1.89	0.41
2:B:44:VAL:HG23	2:B:211:LEU:HD11	2.02	0.41
3:C:176:LEU:HD23	3:C:192:LEU:HD11	2.02	0.41
4:D:27:VAL:HG11	4:D:132:SER:HB2	2.01	0.41
5:E:189:SER:C	5:E:191:LEU:H	2.27	0.41
5:E:222:ILE:HB	5:E:228:PHE:HA	2.02	0.41
6:F:174:ARG:C	6:F:176:LEU:H	2.29	0.41
7:G:69:VAL:HA	14:N:68:TYR:HE1	1.85	0.41
11:K:171:MET:HA	11:K:172:PRO:HD3	1.83	0.41
1:O:28:VAL:HG23	1:O:29:GLU:N	2.34	0.41
1:O:50:CYS:HA	1:O:228:ALA:O	2.20	0.41
1:O:86:PRO:C	1:O:88:PRO:HD2	2.45	0.41
3:Q:19:LEU:O	3:Q:20:TYR:C	2.63	0.41
7:U:68:VAL:HG22	7:U:69:VAL:N	2.35	0.41
7:U:245:GLU:H	7:U:245:GLU:HG2	1.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:W:84:LYS:HE2	9:W:117:GLY:O	2.20	0.41
10:X:18:LEU:HD12	10:X:175:GLY:C	2.45	0.41
12:Z:114:TYR:CD2	12:Z:114:TYR:C	2.98	0.41
15:d:125:LEU:HD23	15:d:125:LEU:HA	1.88	0.41
15:e:65:GLU:HA	15:e:68:LEU:CD2	2.50	0.41
15:e:143:TYR:C	15:e:145:LEU:N	2.73	0.41
15:h:176:SER:HB3	15:i:142:MET:CB	2.32	0.41
15:i:25:ILE:CD1	15:i:91:VAL:HG21	2.44	0.41
15:k:39:ILE:C	15:k:41:LYS:N	2.79	0.41
15:k:110:GLN:NE2	15:k:222:PRO:HB3	2.35	0.41
15:k:227:ASP:C	15:k:229:MET:H	2.27	0.41
15:m:215:ASN:O	15:m:217:LYS:HG2	2.20	0.41
15:o:125:LEU:HD23	15:o:125:LEU:HA	1.83	0.41
2:B:203:GLU:HB3	2:B:204:PHE:H	1.72	0.41
3:C:59:GLN:O	3:C:62:SER:O	2.38	0.41
3:C:128:LEU:HD12	3:C:128:LEU:O	2.21	0.41
6:F:145:LEU:HD23	6:F:153:VAL:HG11	2.02	0.41
7:G:200:TYR:HB3	7:G:246:ILE:CD1	2.50	0.41
8:H:75:THR:HG22	8:H:111:TYR:CE1	2.54	0.41
8:H:126:ILE:HG13	8:H:126:ILE:O	2.21	0.41
11:K:117:GLN:HE22	11:K:131:ALA:N	2.18	0.41
14:N:1:THR:OG1	14:N:2:SER:N	2.52	0.41
14:N:142:MET:HE2	9:W:136:ALA:HB2	2.02	0.41
14:N:224:LYS:HG3	14:N:225:ILE:HG12	2.02	0.41
1:O:128:TYR:HB2	1:O:129:THR:H	1.59	0.41
3:Q:70:ASN:C	3:Q:72:LYS:N	2.78	0.41
5:S:9:ASP:OD2	5:S:16:SER:HA	2.21	0.41
6:T:44:ALA:HB1	6:T:135:ILE:HB	2.02	0.41
7:U:47:PHE:HZ	7:U:138:GLY:N	2.17	0.41
8:V:4:MET:CB	8:V:126:ILE:HG22	2.48	0.41
8:V:122:LEU:HB3	8:V:123:PRO:CD	2.51	0.41
12:Z:18:SER:HB2	12:Z:31:VAL:H	1.85	0.41
13:a:117:ASP:HB3	13:a:121:SER:N	2.36	0.41
15:c:143:TYR:OH	15:i:147:GLU:HA	2.21	0.41
15:g:109:VAL:HG22	15:h:99:HIS:HD2	1.86	0.41
15:i:127:SER:HA	15:i:130:LYS:HG3	2.01	0.41
15:j:176:SER:C	15:j:178:SER:H	2.29	0.41
15:n:138:THR:CG2	15:n:142:MET:HE3	2.48	0.41
15:n:203:THR:OG1	15:o:90:THR:HG23	2.20	0.41
15:p:64:PRO:HB2	15:p:67:LEU:HG	2.03	0.41
15:p:215:ASN:O	15:p:217:LYS:HG2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:37:LYS:HG2	4:D:160:SER:O	2.20	0.41
5:E:9:ASP:OD2	5:E:16:SER:HA	2.21	0.41
5:E:204:LEU:O	5:E:208:MET:N	2.53	0.41
6:F:103:LEU:HD12	6:F:103:LEU:HA	1.80	0.41
7:G:15:SER:H	7:G:19:ARG:H	1.67	0.41
8:H:178:LEU:HD13	8:H:178:LEU:HA	1.85	0.41
9:I:3:ILE:HG13	9:I:99:ILE:HD12	2.03	0.41
9:I:177:VAL:O	9:I:184:ALA:HA	2.20	0.41
10:J:9:LYS:HB2	10:J:148:ASN:HB3	2.03	0.41
11:K:151:MET:HE1	11:K:159:LEU:HD23	2.03	0.41
13:M:81:ALA:HB1	13:M:122:TYR:CD2	2.55	0.41
1:O:53:VAL:C	1:O:54:ILE:HD12	2.45	0.41
3:Q:48:ALA:O	3:Q:211:LEU:HD22	2.21	0.41
7:U:134:SER:HA	7:U:150:LEU:O	2.21	0.41
8:V:153:ASP:HA	8:V:156:LYS:HB2	2.03	0.41
9:W:84:LYS:HA	9:W:87:LEU:HB3	2.02	0.41
12:Z:67:GLU:OE2	12:Z:74:ILE:HG22	2.21	0.41
14:b:67:ALA:O	14:b:68:TYR:C	2.64	0.41
15:d:143:TYR:C	15:d:145:LEU:N	2.73	0.41
15:e:63:SER:HA	15:e:64:PRO:HD2	1.69	0.41
15:f:33:LEU:HD23	15:f:33:LEU:C	2.45	0.41
15:f:102:GLU:C	15:f:104:ASN:H	2.27	0.41
15:f:216:TRP:HA	15:f:219:LEU:HD13	2.02	0.41
15:j:127:SER:C	15:j:129:GLU:H	2.27	0.41
15:l:14:ASP:O	15:l:18:GLU:HG2	2.20	0.41
15:m:22:PHE:CZ	15:n:9:ILE:CD1	2.94	0.41
15:n:123:LYS:HE3	15:n:204:MET:HE2	2.03	0.41
15:p:103:ASP:HB3	15:p:223:ARG:HG2	2.02	0.41
1:A:127:ILE:HG13	1:A:127:ILE:H	1.66	0.41
2:B:24:ALA:C	2:B:26:THR:N	2.78	0.41
2:B:211:LEU:CD2	2:B:238:LEU:HD22	2.51	0.41
2:B:218:ASN:HA	2:B:219:PRO:HD2	1.88	0.41
4:D:30:GLY:O	4:D:166:ARG:HG2	2.20	0.41
4:D:31:THR:HB	4:D:63:LYS:HZ3	1.85	0.41
4:D:198:SER:O	4:D:201:GLU:HG2	2.21	0.41
4:D:227:GLU:O	4:D:231:GLN:HG3	2.21	0.41
5:E:22:PHE:O	5:E:23:GLN:C	2.63	0.41
5:E:193:LEU:O	5:E:197:GLU:HG3	2.21	0.41
8:H:19:ARG:HB3	8:H:170:GLY:N	2.32	0.41
8:H:107:LYS:NZ	8:H:108:GLY:O	2.53	0.41
10:J:42:LEU:HD12	10:J:43:GLY:N	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:115:PHE:N	10:J:115:PHE:HD1	2.17	0.41
13:M:141:LEU:O	13:M:142:ASP:C	2.64	0.41
14:N:179:ARG:CA	8:V:26:ILE:HD12	2.44	0.41
1:O:16:ILE:CG2	1:O:17:THR:H	2.29	0.41
2:P:156:TYR:N	2:P:156:TYR:CD1	2.89	0.41
2:P:212:ALA:C	2:P:213:ILE:HG23	2.46	0.41
3:Q:133:VAL:HG11	3:Q:135:PHE:CZ	2.56	0.41
3:Q:142:ASP:OD2	3:Q:142:ASP:N	2.53	0.41
5:S:222:ILE:HB	5:S:228:PHE:HA	2.03	0.41
7:U:41:CYS:HB2	7:U:186:LEU:O	2.20	0.41
9:W:183:ASP:HB3	9:W:184:ALA:H	1.55	0.41
10:X:14:ILE:O	10:X:14:ILE:HG23	2.21	0.41
11:Y:3:ILE:CG2	11:Y:102:LEU:HG	2.51	0.41
11:Y:13:ILE:O	11:Y:14:LEU:HD23	2.21	0.41
11:Y:22:ARG:HA	11:Y:22:ARG:HD3	1.76	0.41
13:a:81:ALA:HB1	13:a:122:TYR:HD2	1.85	0.41
13:a:114:TYR:CE2	13:a:124:ARG:HA	2.55	0.41
13:a:141:LEU:O	13:a:145:VAL:HB	2.21	0.41
15:c:39:ILE:C	15:c:41:LYS:H	2.28	0.41
15:c:67:LEU:HD23	15:c:67:LEU:N	2.35	0.41
15:e:43:ALA:HB2	15:e:198:THR:HG21	2.02	0.41
15:f:43:ALA:O	15:f:45:GLU:N	2.54	0.41
15:h:214:LEU:N	15:h:214:LEU:CD1	2.83	0.41
15:i:45:GLU:O	15:i:49:VAL:HG23	2.20	0.41
15:i:61:GLU:CG	15:i:62:LYS:N	2.80	0.41
15:j:46:ALA:HA	15:j:191:MET:HE3	2.03	0.41
15:l:67:LEU:N	15:l:67:LEU:HD23	2.36	0.41
15:m:39:ILE:C	15:m:41:LYS:H	2.29	0.41
15:m:139:PRO:HG2	15:m:140:ILE:HG13	2.02	0.41
15:m:206:ARG:HB3	15:n:94:ILE:HD11	2.01	0.41
15:n:189:ASP:OD2	15:o:132:GLY:HA3	2.21	0.41
1:A:45:VAL:HG23	1:A:52:VAL:HG23	2.02	0.41
2:B:34:SER:O	2:B:163:ALA:HA	2.20	0.41
2:B:68:THR:C	2:B:70:ASP:N	2.79	0.41
2:B:147:LEU:HB3	2:B:159:TRP:O	2.21	0.41
2:B:180:ASN:ND2	2:B:183:LEU:HG	2.36	0.41
2:B:229:THR:O	2:B:231:LYS:NZ	2.52	0.41
3:C:68:LYS:NZ	10:J:66:LYS:NZ	2.68	0.41
3:C:114:ARG:HB2	3:C:114:ARG:NH1	2.36	0.41
3:C:156:ASN:ND2	4:D:79:ASN:HB2	2.36	0.41
4:D:60:THR:HA	4:D:61:PRO:HD2	1.57	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:98:LEU:CD1	11:K:58:TYR:HA	2.50	0.41
5:E:66:LYS:O	5:E:77:ALA:HA	2.21	0.41
5:E:199:LEU:C	5:E:199:LEU:HD23	2.46	0.41
5:E:241:LYS:C	5:E:243:LEU:H	2.29	0.41
6:F:74:LEU:HB3	6:F:132:LEU:CD2	2.51	0.41
7:G:72:HIS:CD2	7:G:72:HIS:C	2.99	0.41
7:G:100:LYS:HG2	14:N:57:ARG:NH1	2.36	0.41
7:G:113:ASP:O	7:G:114:ARG:C	2.63	0.41
7:G:117:GLN:HA	7:G:120:GLN:HB2	2.03	0.41
7:G:216:SER:HB2	7:G:227:HIS:NE2	2.36	0.41
8:H:112:THR:HG22	8:H:120:HIS:HB2	2.03	0.41
8:H:119:VAL:C	8:H:120:HIS:CD2	2.99	0.41
8:H:119:VAL:C	8:H:120:HIS:CG	2.99	0.41
8:H:138:CYS:O	8:H:154:PHE:HZ	2.03	0.41
10:J:193:MET:HE3	10:J:193:MET:HB2	1.88	0.41
11:K:19:ALA:HB2	11:K:176:LYS:CG	2.50	0.41
12:L:193:VAL:O	12:L:194:GLY:C	2.64	0.41
13:M:101:ILE:CG2	13:M:102:ILE:N	2.83	0.41
14:N:40:ASN:O	14:N:110:GLY:HA3	2.20	0.41
1:O:160:ALA:HB1	15:k:230:VAL:HG13	2.03	0.41
1:O:230:LYS:HD2	1:O:230:LYS:HA	1.88	0.41
2:P:123:GLN:O	2:P:124:SER:HB2	2.21	0.41
2:P:152:PRO:C	2:P:154:GLY:H	2.29	0.41
2:P:161:ALA:O	2:P:162:THR:HB	2.20	0.41
3:Q:137:TYR:HB2	3:Q:149:TYR:HB2	2.03	0.41
5:S:42:THR:C	5:S:44:GLU:N	2.77	0.41
5:S:143:LEU:HD23	5:S:143:LEU:HA	1.69	0.41
5:S:221:CYS:HB3	5:S:231:TYR:HE1	1.86	0.41
6:T:3:ARG:HD2	6:T:3:ARG:HA	1.84	0.41
6:T:90:GLN:HE21	6:T:90:GLN:HB3	1.68	0.41
6:T:105:VAL:HG11	6:T:145:LEU:HD13	2.02	0.41
6:T:176:LEU:HD22	7:U:57:LEU:HD23	2.03	0.41
6:T:197:ILE:C	6:T:199:GLN:H	2.27	0.41
7:U:89:ASN:O	7:U:92:ARG:HB2	2.20	0.41
8:V:3:ILE:HG22	8:V:16:ALA:HB1	2.02	0.41
8:V:110:VAL:HG11	8:V:124:TYR:HA	2.02	0.41
8:V:151:THR:C	8:V:153:ASP:N	2.79	0.41
9:W:30:ASN:HD22	9:W:30:ASN:HA	1.59	0.41
9:W:41:ILE:HD12	9:W:41:ILE:H	1.86	0.41
9:W:76:VAL:HG21	9:W:109:HIS:HB2	2.02	0.41
9:W:180:ILE:O	9:W:180:ILE:HG22	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:X:159:SER:O	10:X:163:LEU:HB2	2.21	0.41
10:X:193:MET:HE3	10:X:193:MET:HB2	1.91	0.41
11:Y:50:GLY:H	12:Z:91:LYS:NZ	2.18	0.41
11:Y:135:SER:O	11:Y:139:THR:HG23	2.21	0.41
12:Z:55:TRP:O	12:Z:58:TRP:HB3	2.21	0.41
13:a:3:ILE:HD13	13:a:101:ILE:HD12	2.03	0.41
13:a:128:ARG:HG3	13:a:129:ALA:N	2.35	0.41
14:b:41:THR:HG21	14:b:84:ILE:HD12	2.01	0.41
14:b:222:THR:O	14:b:223:GLN:C	2.64	0.41
15:c:176:SER:C	15:c:178:SER:N	2.76	0.41
15:c:219:LEU:N	15:c:219:LEU:HD12	2.36	0.41
15:d:114:LEU:HD23	15:d:114:LEU:HA	1.82	0.41
15:e:109:VAL:HG22	15:f:99:HIS:HD2	1.86	0.41
15:e:227:ASP:C	15:e:229:MET:H	2.28	0.41
15:g:33:LEU:HD23	15:g:33:LEU:C	2.46	0.41
15:g:61:GLU:CG	15:g:62:LYS:N	2.78	0.41
15:h:127:SER:HA	15:h:130:LYS:HG3	2.03	0.41
15:i:63:SER:HA	15:i:64:PRO:HD2	1.78	0.41
15:i:67:LEU:N	15:i:67:LEU:HD23	2.34	0.41
15:i:127:SER:C	15:i:129:GLU:H	2.29	0.41
15:j:33:LEU:HG	15:k:16:TYR:OH	2.20	0.41
15:j:201:LEU:O	15:j:205:VAL:HG23	2.20	0.41
15:k:49:VAL:HA	15:k:52:ASN:ND2	2.36	0.41
15:k:64:PRO:HB2	15:k:67:LEU:HG	2.03	0.41
15:k:102:GLU:C	15:k:104:ASN:H	2.27	0.41
15:k:190:PHE:O	15:k:194:VAL:HG23	2.21	0.41
15:l:215:ASN:O	15:l:217:LYS:HG2	2.21	0.41
15:m:87:THR:HA	15:m:90:THR:OG1	2.20	0.41
15:n:67:LEU:HD23	15:n:67:LEU:N	2.36	0.41
15:p:25:ILE:HB	15:p:212:TYR:OH	2.20	0.41
15:p:103:ASP:HB2	15:p:223:ARG:HE	1.85	0.41
1:A:146:VAL:CG2	1:A:152:PRO:HA	2.41	0.41
1:A:181:ASN:N	1:A:181:ASN:ND2	2.66	0.41
3:C:13:PHE:HB2	4:D:19:GLN:NE2	2.36	0.41
4:D:119:ARG:HA	4:D:122:GLN:OE1	2.20	0.41
6:F:42:THR:OG1	6:F:183:ASP:HA	2.20	0.41
7:G:51:LYS:HE3	7:G:63:ASN:O	2.21	0.41
9:I:114:HIS:HB2	9:I:118:SER:HB3	2.03	0.41
11:K:70:GLU:O	11:K:71:ASP:HB3	2.20	0.41
11:K:139:THR:O	11:K:140:PHE:C	2.64	0.41
1:O:20:SER:HB2	1:O:21:PRO:CD	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:83:VAL:HG13	1:O:140:ILE:O	2.21	0.41
6:T:107:ARG:HE	6:T:107:ARG:HB3	1.70	0.41
6:T:155:GLU:C	6:T:156:LEU:HD12	2.46	0.41
8:V:67:THR:C	8:V:69:GLN:N	2.79	0.41
9:W:101:ALA:HB2	9:W:110:LEU:HD12	2.03	0.41
9:W:114:HIS:HB2	9:W:118:SER:HB3	2.02	0.41
10:X:81:LEU:C	10:X:83:SER:N	2.79	0.41
12:Z:4:LEU:CD1	12:Z:161:ILE:HD11	2.50	0.41
12:Z:35:ILE:HD12	12:Z:35:ILE:N	2.36	0.41
13:a:100:THR:HG23	13:a:116:PHE:HB2	2.03	0.41
15:c:102:GLU:C	15:c:104:ASN:H	2.28	0.41
15:h:215:ASN:O	15:h:217:LYS:N	2.54	0.41
15:j:102:GLU:C	15:j:104:ASN:H	2.29	0.41
15:j:131:SER:C	15:j:133:SER:N	2.79	0.41
15:k:109:VAL:O	15:k:113:VAL:HG23	2.20	0.41
15:m:39:ILE:C	15:m:41:LYS:N	2.75	0.41
15:o:80:ASN:O	15:o:84:GLN:HG3	2.21	0.41
15:o:123:LYS:HE3	15:o:204:MET:HE2	2.02	0.41
15:p:110:GLN:HE22	15:p:222:PRO:HG3	1.86	0.41
15:p:202:SER:O	15:p:206:ARG:HG3	2.20	0.41
6:F:197:ILE:CG2	6:F:198:SER:N	2.84	0.40
7:G:83:ASP:CG	7:G:129:ARG:HH22	2.29	0.40
9:I:72:ARG:HH11	9:I:72:ARG:CG	2.31	0.40
12:L:19:ARG:N	12:L:33:ARG:NH2	2.70	0.40
13:M:207:PHE:CD2	13:M:207:PHE:C	2.99	0.40
1:O:38:THR:HG23	1:O:39:ASN:N	2.35	0.40
1:O:69:VAL:HA	7:U:157:TRP:CZ3	2.56	0.40
1:O:83:VAL:CG1	1:O:139:VAL:HB	2.51	0.40
2:P:123:GLN:O	2:P:124:SER:CB	2.69	0.40
2:P:203:GLU:HB3	2:P:204:PHE:H	1.72	0.40
3:Q:175:LEU:HD11	3:Q:199:LYS:HB2	2.03	0.40
4:R:239:GLU:HA	4:R:242:GLU:HB3	2.02	0.40
6:T:38:LEU:HA	6:T:158:GLY:HA2	2.03	0.40
6:T:84:LEU:HD23	6:T:84:LEU:HA	1.91	0.40
7:U:143:ASN:ND2	7:U:143:ASN:N	2.55	0.40
7:U:200:TYR:HB3	7:U:246:ILE:CD1	2.51	0.40
8:V:59:VAL:O	8:V:60:GLN:C	2.64	0.40
9:W:191:LEU:HB3	9:W:193:PRO:HD3	2.01	0.40
11:Y:12:VAL:HG12	11:Y:13:ILE:N	2.36	0.40
12:Z:81:LYS:O	12:Z:84:SER:HB2	2.20	0.40
13:a:83:ASN:ND2	13:a:83:ASN:C	2.79	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:f:176:SER:HB2	15:g:142:MET:SD	2.61	0.40
15:f:190:PHE:O	15:f:194:VAL:HG23	2.20	0.40
15:h:120:LEU:HD23	15:h:120:LEU:HA	1.90	0.40
15:h:120:LEU:O	15:h:124:THR:HG23	2.20	0.40
15:i:219:LEU:N	15:i:219:LEU:HD12	2.36	0.40
15:j:49:VAL:HA	15:j:52:ASN:ND2	2.36	0.40
15:n:115:LYS:O	15:n:118:ASP:HB3	2.21	0.40
15:o:110:GLN:NE2	15:o:222:PRO:HB3	2.36	0.40
3:C:70:ASN:C	3:C:72:LYS:N	2.79	0.40
3:C:171:ALA:O	3:C:172:ALA:C	2.65	0.40
3:C:186:VAL:O	3:C:190:ILE:HG13	2.21	0.40
4:D:40:ASN:OD1	4:D:40:ASN:N	2.53	0.40
5:E:12:VAL:H	5:E:23:GLN:CG	2.31	0.40
7:G:49:VAL:HG22	7:G:50:GLU:N	2.32	0.40
7:G:80:LEU:HD23	7:G:80:LEU:HA	1.73	0.40
7:G:121:ALA:O	7:G:123:THR:N	2.48	0.40
8:H:137:TYR:O	8:H:138:CYS:C	2.64	0.40
10:J:22:SER:O	10:J:23:GLN:C	2.63	0.40
11:K:59:ILE:HD13	11:K:59:ILE:HA	1.91	0.40
13:M:81:ALA:HB1	13:M:122:TYR:HD2	1.85	0.40
2:P:45:ILE:CD1	2:P:64:VAL:HG23	2.51	0.40
4:R:82:SER:O	4:R:86:ILE:HG13	2.22	0.40
6:T:72:LEU:N	6:T:72:LEU:CD1	2.84	0.40
7:U:170:SER:O	7:U:174:GLU:HG2	2.21	0.40
11:Y:18:LYS:CD	11:Y:179:ILE:HG13	2.51	0.40
13:a:81:ALA:HB1	13:a:122:TYR:CD2	2.55	0.40
15:c:189:ASP:O	15:c:193:LYS:HG2	2.21	0.40
15:d:25:ILE:CD1	15:d:91:VAL:HG21	2.45	0.40
15:e:33:LEU:HD23	15:e:33:LEU:C	2.47	0.40
15:e:109:VAL:O	15:e:113:VAL:HG23	2.21	0.40
15:g:109:VAL:O	15:g:113:VAL:HG23	2.21	0.40
15:g:176:SER:CB	15:h:142:MET:HB2	2.37	0.40
15:h:86:GLU:O	15:h:90:THR:OG1	2.34	0.40
15:j:61:GLU:CG	15:j:62:LYS:N	2.81	0.40
15:k:103:ASP:C	15:k:105:LEU:H	2.30	0.40
15:k:134:GLY:HA2	15:k:190:PHE:CE2	2.56	0.40
15:k:218:LYS:NZ	15:l:98:GLU:HG2	2.36	0.40
15:n:25:ILE:CD1	15:n:91:VAL:HG21	2.46	0.40
2:B:44:VAL:CG2	2:B:211:LEU:HD11	2.52	0.40
5:E:16:SER:OG	5:E:20:ARG:HB2	2.22	0.40
5:E:46:VAL:HG23	5:E:153:TYR:CD1	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:210:ASN:ND2	6:F:210:ASN:N	2.68	0.40
7:G:86:HIS:ND1	7:G:86:HIS:C	2.78	0.40
9:I:90:TYR:HB2	9:I:94:ILE:CD1	2.52	0.40
10:J:99:VAL:HG13	10:J:128:ILE:HG21	2.04	0.40
13:M:117:ASP:HB3	13:M:121:SER:N	2.36	0.40
3:Q:235:ILE:C	3:Q:237:ASP:H	2.30	0.40
4:R:213:THR:HA	4:R:223:ALA:HA	2.03	0.40
7:U:15:SER:H	7:U:19:ARG:H	1.68	0.40
10:X:87:TYR:O	10:X:88:GLU:C	2.64	0.40
10:X:99:VAL:HG13	10:X:128:ILE:HG21	2.02	0.40
12:Z:45:MET:O	12:Z:45:MET:HG2	2.21	0.40
15:e:61:GLU:CG	15:e:62:LYS:N	2.78	0.40
15:f:147:GLU:OE2	15:f:176:SER:N	2.55	0.40
15:g:127:SER:HA	15:g:130:LYS:HG3	2.02	0.40
15:g:176:SER:C	15:g:178:SER:N	2.78	0.40
15:h:39:ILE:C	15:h:41:LYS:H	2.29	0.40
15:h:176:SER:OG	15:i:139:PRO:HA	2.21	0.40
15:j:39:ILE:C	15:j:41:LYS:H	2.29	0.40
15:j:120:LEU:HD23	15:j:120:LEU:HA	1.83	0.40
15:j:132:GLY:HA3	15:p:189:ASP:OD2	2.22	0.40
15:k:63:SER:HA	15:k:64:PRO:HD2	1.70	0.40
15:l:103:ASP:C	15:l:105:LEU:H	2.28	0.40
15:l:227:ASP:O	15:l:230:VAL:HG23	2.20	0.40
15:m:216:TRP:O	15:m:219:LEU:N	2.53	0.40
15:n:64:PRO:HB2	15:n:67:LEU:HG	2.03	0.40
15:n:201:LEU:O	15:n:205:VAL:HG23	2.21	0.40
1:A:113:PRO:O	1:A:116:VAL:HG23	2.22	0.40
2:B:20:GLN:O	2:B:23:TYR:N	2.53	0.40
2:B:200:VAL:HG21	2:B:204:PHE:CD1	2.57	0.40
3:C:238:ILE:CD1	3:C:241:LYS:HD2	2.52	0.40
5:E:38:ILE:HB	5:E:200:VAL:HG13	2.03	0.40
7:G:149:MET:HB3	7:G:159:TYR:CE1	2.56	0.40
7:G:194:GLN:NE2	7:G:197:LYS:HZ3	2.19	0.40
9:I:192:THR:N	9:I:193:PRO:CD	2.85	0.40
10:J:159:SER:O	10:J:163:LEU:HB2	2.22	0.40
12:L:1:THR:HG22	12:L:2:THR:N	2.36	0.40
12:L:95:LEU:HD12	12:L:95:LEU:HA	1.88	0.40
13:M:105:LEU:HD23	13:M:111:GLY:HA2	2.03	0.40
13:M:172:ILE:H	13:M:172:ILE:HG13	1.63	0.40
14:N:112:GLN:O	14:N:115:GLY:N	2.45	0.40
14:N:212:ASP:C	14:N:214:ALA:N	2.78	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:57:LYS:HG2	1:O:57:LYS:O	2.20	0.40
3:Q:8:SER:O	3:Q:9:ARG:O	2.39	0.40
3:Q:156:ASN:ND2	4:R:79:ASN:HB2	2.37	0.40
4:R:39:LYS:HB2	4:R:39:LYS:HE2	1.82	0.40
6:T:219:ASP:N	6:T:219:ASP:OD2	2.54	0.40
7:U:94:GLU:HG3	7:U:114:ARG:HH11	1.85	0.40
7:U:159:TYR:CD1	7:U:159:TYR:N	2.90	0.40
7:U:237:GLU:O	7:U:241:PHE:HB2	2.22	0.40
9:W:72:ARG:CG	9:W:72:ARG:NH1	2.84	0.40
9:W:88:PHE:C	9:W:90:TYR:N	2.75	0.40
10:X:86:LEU:HD23	10:X:86:LEU:HA	1.95	0.40
10:X:152:GLU:CD	10:X:152:GLU:H	2.30	0.40
11:Y:3:ILE:HD13	11:Y:3:ILE:HA	1.86	0.40
11:Y:68:ILE:C	11:Y:68:ILE:HD12	2.46	0.40
12:Z:77:ALA:O	12:Z:80:SER:OG	2.37	0.40
13:a:14:LEU:HD23	13:a:14:LEU:HA	1.79	0.40
14:b:41:THR:HG21	14:b:84:ILE:CD1	2.51	0.40
14:b:131:SER:HB3	14:b:134:LEU:CD2	2.52	0.40
15:d:127:SER:C	15:d:129:GLU:H	2.29	0.40
15:d:203:THR:CB	15:e:90:THR:HG23	2.51	0.40
15:i:139:PRO:HG2	15:i:140:ILE:HG13	2.03	0.40
15:j:176:SER:HB3	15:k:142:MET:CB	2.43	0.40
15:l:110:GLN:NE2	15:l:222:PRO:HB3	2.36	0.40
15:l:133:SER:HA	15:l:136:ALA:HB2	2.03	0.40
15:l:176:SER:C	15:l:178:SER:N	2.79	0.40
15:m:214:LEU:HG	15:n:13:ARG:NH1	2.36	0.40
15:n:25:ILE:HG23	15:n:88:ILE:HG12	2.04	0.40
15:n:63:SER:HA	15:n:64:PRO:HD2	1.69	0.40
15:p:219:LEU:N	15:p:219:LEU:HD12	2.36	0.40
1:A:243:GLU:O	1:A:243:GLU:HG2	2.21	0.40
3:C:168:ASN:C	3:C:170:SER:H	2.30	0.40
5:E:78:MET:CE	5:E:82:THR:HG22	2.51	0.40
9:I:3:ILE:HG22	9:I:16:ALA:HB1	2.03	0.40
9:I:62:ASN:O	9:I:65:LEU:HB2	2.22	0.40
10:J:56:GLU:HG2	10:J:56:GLU:H	1.57	0.40
10:J:114:GLY:C	10:J:115:PHE:CD1	3.00	0.40
11:K:180:VAL:HG21	11:K:194:PHE:CD2	2.57	0.40
13:M:143:ASN:O	13:M:147:PHE:HA	2.22	0.40
14:N:106:ILE:HD12	14:N:106:ILE:N	2.36	0.40
5:S:17:PRO:HA	6:T:24:TYR:CD2	2.56	0.40
5:S:52:LYS:HB2	5:S:216:ASN:HA	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S:142:LEU:HD23	5:S:142:LEU:HA	1.77	0.40
7:U:19:ARG:CG	7:U:19:ARG:NH1	2.83	0.40
8:V:143:ARG:NH1	8:V:146:MET:HE2	2.26	0.40
11:Y:58:TYR:CD2	11:Y:58:TYR:C	3.00	0.40
12:Z:148:LEU:HD13	12:Z:148:LEU:HA	1.88	0.40
13:a:172:ILE:H	13:a:172:ILE:HG13	1.64	0.40
14:b:81:PRO:HD2	14:b:112:GLN:OE1	2.21	0.40
14:b:118:PHE:CD1	14:b:118:PHE:C	2.99	0.40
14:b:122:VAL:O	14:b:122:VAL:CG1	2.68	0.40
15:c:35:GLU:O	15:c:35:GLU:HG2	2.21	0.40
15:g:68:LEU:O	15:g:72:GLN:HB2	2.22	0.40
15:h:22:PHE:HD1	15:h:212:TYR:OH	2.05	0.40
15:h:120:LEU:HA	15:h:204:MET:HE3	2.04	0.40
15:h:131:SER:C	15:h:133:SER:N	2.78	0.40
15:h:177:PRO:CG	15:i:62:LYS:HA	2.50	0.40
15:h:202:SER:O	15:h:206:ARG:HG3	2.22	0.40
15:i:202:SER:O	15:i:206:ARG:HG3	2.21	0.40
15:j:143:TYR:C	15:j:145:LEU:N	2.72	0.40
15:k:27:GLU:O	15:k:31:GLY:N	2.51	0.40
15:k:127:SER:HA	15:k:130:LYS:HG3	2.03	0.40
15:l:177:PRO:HG3	15:m:62:LYS:HG3	2.03	0.40
15:m:176:SER:C	15:m:178:SER:N	2.79	0.40
15:m:202:SER:O	15:m:206:ARG:HG3	2.21	0.40
15:n:143:TYR:C	15:n:145:LEU:N	2.75	0.40
15:o:213:LEU:HA	15:o:213:LEU:HD23	1.81	0.40
15:p:116:ILE:O	15:p:119:GLU:HB2	2.22	0.40

There are no symmetry-related clashes.

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	236/252 (94%)	172 (73%)	44 (19%)	20 (8%)	0	3
1	O	236/252 (94%)	174 (74%)	42 (18%)	20 (8%)	0	3
2	B	245/250 (98%)	170 (69%)	56 (23%)	19 (8%)	1	5
2	P	245/250 (98%)	174 (71%)	53 (22%)	18 (7%)	1	6
3	C	239/245 (98%)	191 (80%)	29 (12%)	19 (8%)	1	5
3	Q	239/245 (98%)	187 (78%)	32 (13%)	20 (8%)	0	4
4	D	237/254 (93%)	186 (78%)	36 (15%)	15 (6%)	1	8
4	R	237/254 (93%)	186 (78%)	36 (15%)	15 (6%)	1	8
5	E	242/260 (93%)	192 (79%)	36 (15%)	14 (6%)	1	10
5	S	242/260 (93%)	192 (79%)	35 (14%)	15 (6%)	1	9
6	F	231/234 (99%)	189 (82%)	36 (16%)	6 (3%)	4	26
6	T	231/234 (99%)	190 (82%)	32 (14%)	9 (4%)	2	18
7	G	238/287 (83%)	193 (81%)	37 (16%)	8 (3%)	3	20
7	U	238/287 (83%)	194 (82%)	34 (14%)	10 (4%)	2	16
8	H	194/196 (99%)	148 (76%)	30 (16%)	16 (8%)	0	4
8	V	194/196 (99%)	147 (76%)	34 (18%)	13 (7%)	1	7
9	I	220/232 (95%)	178 (81%)	27 (12%)	15 (7%)	1	7
9	W	220/232 (95%)	176 (80%)	31 (14%)	13 (6%)	1	10
10	J	202/205 (98%)	165 (82%)	33 (16%)	4 (2%)	6	31
10	X	202/205 (98%)	168 (83%)	30 (15%)	4 (2%)	6	31
11	K	196/198 (99%)	163 (83%)	24 (12%)	9 (5%)	2	15
11	Y	196/198 (99%)	160 (82%)	28 (14%)	8 (4%)	2	17
12	L	210/212 (99%)	180 (86%)	27 (13%)	3 (1%)	9	39
12	Z	210/212 (99%)	178 (85%)	29 (14%)	3 (1%)	9	39
13	M	220/222 (99%)	188 (86%)	24 (11%)	8 (4%)	2	19
13	a	220/222 (99%)	186 (84%)	25 (11%)	9 (4%)	2	17
14	N	231/233 (99%)	169 (73%)	43 (19%)	19 (8%)	0	4
14	b	231/233 (99%)	170 (74%)	40 (17%)	21 (9%)	0	3
15	c	194/231 (84%)	162 (84%)	22 (11%)	10 (5%)	1	12
15	d	194/231 (84%)	162 (84%)	21 (11%)	11 (6%)	1	11
15	e	194/231 (84%)	161 (83%)	22 (11%)	11 (6%)	1	11
15	f	194/231 (84%)	161 (83%)	23 (12%)	10 (5%)	1	12

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
15	g	194/231 (84%)	161 (83%)	23 (12%)	10 (5%)	1	12
15	h	194/231 (84%)	162 (84%)	22 (11%)	10 (5%)	1	12
15	i	194/231 (84%)	162 (84%)	22 (11%)	10 (5%)	1	12
15	j	194/231 (84%)	162 (84%)	23 (12%)	9 (5%)	2	15
15	k	194/231 (84%)	160 (82%)	24 (12%)	10 (5%)	1	12
15	l	194/231 (84%)	159 (82%)	25 (13%)	10 (5%)	1	12
15	m	194/231 (84%)	160 (82%)	24 (12%)	10 (5%)	1	12
15	n	194/231 (84%)	161 (83%)	23 (12%)	10 (5%)	1	12
15	o	194/231 (84%)	159 (82%)	25 (13%)	10 (5%)	1	12
15	p	194/231 (84%)	163 (84%)	20 (10%)	11 (6%)	1	11
All	All	8998/9794 (92%)	7221 (80%)	1282 (14%)	495 (6%)	1	11

All (495) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	16	ILE
1	A	19	PHE
1	A	60	PRO
1	A	115	ASP
1	A	221	ASN
2	B	7	PHE
2	B	9	LEU
2	B	40	THR
2	B	123	GLN
2	B	124	SER
2	B	244	ASN
3	C	7	ASP
3	C	8	SER
3	C	9	ARG
3	C	20	TYR
3	C	200	THR
4	D	7	ALA
4	D	9	SER
4	D	58	ARG
4	D	61	PRO
4	D	63	LYS
4	D	205	THR
5	E	9	ASP

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Mol	Chain	Res	Type
5	E	12	VAL
5	E	61	SER
5	E	133	LEU
5	E	134	MET
6	F	218	LYS
6	F	219	ASP
7	G	141	ASP
7	G	166	LYS
7	G	204	GLU
8	H	97	ILE
9	I	22	GLN
9	I	93	HIS
9	I	180	ILE
9	I	218	VAL
11	K	192	ASP
12	L	49	ALA
14	N	140	ALA
14	N	203	ASN
1	O	16	ILE
1	O	19	PHE
1	O	60	PRO
1	O	115	ASP
1	O	221	ASN
2	P	7	PHE
2	P	9	LEU
2	P	40	THR
2	P	123	GLN
2	P	124	SER
2	P	199	SER
2	P	244	ASN
3	Q	7	ASP
3	Q	8	SER
3	Q	9	ARG
3	Q	20	TYR
3	Q	30	SER
3	Q	200	THR
4	R	7	ALA
4	R	9	SER
4	R	58	ARG
4	R	61	PRO
4	R	63	LYS
4	R	205	THR

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Mol	Chain	Res	Type
5	S	9	ASP
5	S	12	VAL
5	S	61	SER
5	S	133	LEU
5	S	134	MET
6	T	218	LYS
6	T	219	ASP
7	U	141	ASP
7	U	166	LYS
7	U	204	GLU
8	V	97	ILE
9	W	22	GLN
9	W	91	GLN
9	W	93	HIS
9	W	180	ILE
11	Y	192	ASP
12	Z	49	ALA
14	b	140	ALA
14	b	203	ASN
15	c	20	SER
15	c	62	LYS
15	c	216	TRP
15	d	62	LYS
15	d	216	TRP
15	e	62	LYS
15	e	216	TRP
15	f	62	LYS
15	f	216	TRP
15	g	20	SER
15	g	62	LYS
15	g	216	TRP
15	h	62	LYS
15	h	216	TRP
15	i	62	LYS
15	i	216	TRP
15	j	62	LYS
15	j	216	TRP
15	k	62	LYS
15	k	216	TRP
15	l	62	LYS
15	l	216	TRP
15	m	62	LYS

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Mol	Chain	Res	Type
15	m	216	TRP
15	n	62	LYS
15	n	216	TRP
15	o	62	LYS
15	o	216	TRP
15	p	62	LYS
15	p	216	TRP
1	A	25	LEU
1	A	39	ASN
1	A	70	SER
1	A	114	CYS
1	A	161	GLY
1	A	164	VAL
1	A	190	LYS
1	A	196	GLU
2	B	19	GLY
2	B	21	ILE
2	B	199	SER
2	B	243	ILE
3	C	30	SER
3	C	52	VAL
3	C	59	GLN
3	C	65	LYS
3	C	184	MET
4	D	31	THR
4	D	40	ASN
4	D	82	SER
4	D	186	ALA
4	D	219	SER
4	D	222	VAL
5	E	120	ALA
5	E	214	GLU
6	F	177	ASP
6	F	228	GLU
7	G	122	HIS
7	G	224	ASN
8	H	90	LYS
8	H	105	LYS
8	H	137	TYR
8	H	145	ASN
8	H	187	ILE
8	H	191	ASP

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Mol	Chain	Res	Type
9	I	91	GLN
11	K	27	LEU
11	K	52	THR
11	K	191	VAL
11	K	194	PHE
12	L	209	ASN
13	M	134	ALA
13	M	200	LYS
14	N	1	THR
14	N	27	ARG
14	N	137	GLY
14	N	223	GLN
1	O	25	LEU
1	O	39	ASN
1	O	70	SER
1	O	114	CYS
1	O	161	GLY
1	O	164	VAL
1	O	190	LYS
1	O	196	GLU
1	O	232	LYS
2	P	8	SER
2	P	19	GLY
2	P	21	ILE
2	P	243	ILE
3	Q	52	VAL
3	Q	59	GLN
3	Q	65	LYS
3	Q	184	MET
4	R	31	THR
4	R	40	ASN
4	R	82	SER
4	R	186	ALA
4	R	219	SER
4	R	222	VAL
5	S	120	ALA
5	S	190	SER
5	S	214	GLU
6	T	177	ASP
7	U	224	ASN
8	V	68	SER
8	V	90	LYS

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Mol	Chain	Res	Type
8	V	137	TYR
8	V	138	CYS
8	V	145	ASN
8	V	187	ILE
8	V	191	ASP
9	W	218	VAL
10	X	117	LEU
11	Y	27	LEU
11	Y	191	VAL
11	Y	194	PHE
12	Z	209	ASN
13	a	94	PHE
13	a	134	ALA
14	b	1	THR
14	b	27	ARG
14	b	73	ALA
14	b	122	VAL
14	b	124	LEU
14	b	137	GLY
15	c	44	ALA
15	c	58	ALA
15	d	20	SER
15	d	44	ALA
15	d	58	ALA
15	e	20	SER
15	e	44	ALA
15	e	58	ALA
15	f	20	SER
15	f	44	ALA
15	f	58	ALA
15	g	44	ALA
15	g	58	ALA
15	h	20	SER
15	h	44	ALA
15	h	58	ALA
15	i	20	SER
15	i	44	ALA
15	i	58	ALA
15	j	20	SER
15	j	44	ALA
15	j	58	ALA
15	k	20	SER

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Mol	Chain	Res	Type
15	k	44	ALA
15	k	58	ALA
15	l	20	SER
15	l	44	ALA
15	l	58	ALA
15	m	20	SER
15	m	58	ALA
15	n	20	SER
15	n	44	ALA
15	n	58	ALA
15	o	20	SER
15	o	44	ALA
15	o	58	ALA
15	p	20	SER
15	p	44	ALA
15	p	58	ALA
1	A	37	GLN
1	A	168	ALA
1	A	232	LYS
2	B	5	TYR
2	B	8	SER
2	B	16	GLY
2	B	155	SER
2	B	242	GLU
3	C	78	ALA
3	C	232	PRO
3	C	234	GLU
5	E	190	SER
8	H	68	SER
8	H	129	SER
8	H	138	CYS
8	H	152	VAL
8	H	190	PRO
9	I	17	ASP
9	I	169	SER
9	I	183	ASP
10	J	117	LEU
11	K	8	VAL
13	M	156	ASN
13	M	201	ASP
14	N	68	TYR
14	N	73	ALA

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Mol	Chain	Res	Type
14	N	122	VAL
14	N	124	LEU
1	O	145	SER
1	O	168	ALA
2	P	16	GLY
2	P	155	SER
2	P	242	GLU
3	Q	83	ASP
3	Q	232	PRO
3	Q	234	GLU
6	T	175	THR
6	T	228	GLU
8	V	105	LYS
8	V	129	SER
8	V	152	VAL
9	W	17	ASP
9	W	169	SER
9	W	183	ASP
10	X	185	GLU
11	Y	8	VAL
11	Y	23	GLY
11	Y	52	THR
11	Y	140	PHE
13	a	156	ASN
13	a	200	LYS
13	a	201	ASP
14	b	68	TYR
14	b	223	GLN
15	c	63	SER
15	c	130	LYS
15	d	63	SER
15	d	103	ASP
15	d	130	LYS
15	e	63	SER
15	f	59	GLN
15	f	63	SER
15	f	103	ASP
15	f	130	LYS
15	g	130	LYS
15	h	63	SER
15	h	103	ASP
15	i	63	SER

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Mol	Chain	Res	Type
15	i	130	LYS
15	j	63	SER
15	j	130	LYS
15	k	63	SER
15	k	103	ASP
15	k	130	LYS
15	l	63	SER
15	l	103	ASP
15	l	224	THR
15	m	44	ALA
15	n	63	SER
15	n	103	ASP
15	o	63	SER
15	p	63	SER
15	p	130	LYS
1	A	128	TYR
1	A	134	MET
1	A	145	SER
1	A	179	THR
2	B	120	GLU
3	C	64	GLU
3	C	83	ASP
4	D	170	THR
4	D	194	LEU
5	E	53	ARG
5	E	206	GLN
5	E	225	GLN
5	E	249	ALA
7	G	246	ILE
9	I	171	SER
10	J	185	GLU
11	K	140	PHE
13	M	94	PHE
14	N	103	TRP
14	N	213	PHE
1	O	179	THR
2	P	5	TYR
2	P	58	SER
2	P	120	GLU
3	Q	28	SER
3	Q	64	GLU
3	Q	78	ALA

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Mol	Chain	Res	Type
3	Q	84	ALA
3	Q	178	MET
4	R	170	THR
4	R	194	LEU
5	S	53	ARG
5	S	206	GLN
5	S	225	GLN
5	S	249	ALA
6	T	159	THR
7	U	122	HIS
7	U	219	SER
8	V	190	PRO
9	W	145	ASP
9	W	171	SER
13	a	17	ASP
13	a	49	ALA
14	b	103	TRP
14	b	213	PHE
15	c	59	GLN
15	c	224	THR
15	d	59	GLN
15	d	224	THR
15	e	103	ASP
15	e	130	LYS
15	e	224	THR
15	f	224	THR
15	g	63	SER
15	g	224	THR
15	h	59	GLN
15	h	224	THR
15	i	59	GLN
15	i	103	ASP
15	i	224	THR
15	j	224	THR
15	k	59	GLN
15	k	224	THR
15	l	130	LYS
15	m	59	GLN
15	m	63	SER
15	m	130	LYS
15	m	224	THR
15	n	59	GLN

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Mol	Chain	Res	Type
15	n	130	LYS
15	n	224	THR
15	o	59	GLN
15	o	103	ASP
15	o	130	LYS
15	o	224	THR
15	p	59	GLN
15	p	224	THR
15	p	227	ASP
2	B	58	SER
3	C	84	ALA
3	C	178	MET
5	E	127	ALA
6	F	40	SER
6	F	186	PRO
7	G	219	SER
8	H	49	ALA
8	H	87	TYR
8	H	88	GLU
8	H	132	THR
9	I	106	THR
9	I	145	ASP
12	L	39	PRO
14	N	17	ASP
14	N	139	GLY
1	O	37	GLN
1	O	128	TYR
1	O	134	MET
3	Q	54	SER
3	Q	168	ASN
5	S	135	SER
6	T	40	SER
7	U	63	ASN
7	U	246	ILE
8	V	132	THR
9	W	53	GLU
9	W	105	PRO
14	b	16	ALA
14	b	17	ASP
14	b	100	ASN
14	b	139	GLY
14	b	144	ASN

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Mol	Chain	Res	Type
15	c	103	ASP
15	d	227	ASP
15	e	59	GLN
15	g	59	GLN
15	g	103	ASP
15	h	130	LYS
15	j	59	GLN
15	l	59	GLN
15	m	103	ASP
15	p	103	ASP
2	B	69	PRO
2	B	107	THR
3	C	54	SER
9	I	53	GLU
11	K	23	GLY
11	K	145	HIS
13	M	49	ALA
14	N	-7	GLN
14	N	100	ASN
4	R	152	PRO
5	S	109	VAL
5	S	127	ALA
6	T	186	PRO
14	b	-7	GLN
15	e	227	ASP
9	I	105	PRO
14	N	101	PRO
2	P	69	PRO
12	Z	39	PRO
14	b	101	PRO
4	D	152	PRO
5	E	109	VAL
7	G	140	VAL
9	I	192	THR
10	J	75	PRO
13	M	52	GLY
6	T	130	VAL
10	X	-6	PRO
13	a	52	GLY
13	a	157	GLY
14	b	14	ILE
3	C	15	PRO

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Mol	Chain	Res	Type
13	M	157	GLY
14	N	144	ASN
7	U	140	VAL
10	X	75	PRO
9	I	220	ILE
10	J	-6	PRO
7	U	13	VAL
9	W	220	ILE
14	N	84	ILE
14	b	84	ILE

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	204/210 (97%)	174 (85%)	30 (15%)	3	16
1	O	204/210 (97%)	174 (85%)	30 (15%)	3	16
2	B	200/209 (96%)	169 (84%)	31 (16%)	2	14
2	P	200/209 (96%)	168 (84%)	32 (16%)	2	13
3	C	198/204 (97%)	166 (84%)	32 (16%)	2	12
3	Q	198/204 (97%)	163 (82%)	35 (18%)	2	10
4	D	209/226 (92%)	167 (80%)	42 (20%)	1	7
4	R	209/226 (92%)	167 (80%)	42 (20%)	1	7
5	E	198/215 (92%)	166 (84%)	32 (16%)	2	12
5	S	198/215 (92%)	166 (84%)	32 (16%)	2	12
6	F	192/193 (100%)	161 (84%)	31 (16%)	2	13
6	T	192/193 (100%)	161 (84%)	31 (16%)	2	13
7	G	199/238 (84%)	164 (82%)	35 (18%)	2	10
7	U	199/238 (84%)	162 (81%)	37 (19%)	1	9
8	H	161/162 (99%)	129 (80%)	32 (20%)	1	7
8	V	161/162 (99%)	130 (81%)	31 (19%)	1	8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	I	181/190 (95%)	151 (83%)	30 (17%)	2	11
9	W	181/190 (95%)	151 (83%)	30 (17%)	2	11
10	J	172/173 (99%)	147 (86%)	25 (14%)	3	16
10	X	172/173 (99%)	147 (86%)	25 (14%)	3	16
11	K	175/175 (100%)	151 (86%)	24 (14%)	3	18
11	Y	175/175 (100%)	152 (87%)	23 (13%)	4	19
12	L	169/169 (100%)	146 (86%)	23 (14%)	3	18
12	Z	169/169 (100%)	146 (86%)	23 (14%)	3	18
13	M	185/185 (100%)	164 (89%)	21 (11%)	5	24
13	a	185/185 (100%)	162 (88%)	23 (12%)	4	21
14	N	199/199 (100%)	165 (83%)	34 (17%)	2	11
14	b	199/199 (100%)	162 (81%)	37 (19%)	1	9
15	c	163/190 (86%)	143 (88%)	20 (12%)	4	22
15	d	163/190 (86%)	144 (88%)	19 (12%)	5	23
15	e	163/190 (86%)	144 (88%)	19 (12%)	5	23
15	f	163/190 (86%)	145 (89%)	18 (11%)	6	26
15	g	163/190 (86%)	144 (88%)	19 (12%)	5	23
15	h	163/190 (86%)	145 (89%)	18 (11%)	6	26
15	i	163/190 (86%)	147 (90%)	16 (10%)	7	31
15	j	163/190 (86%)	146 (90%)	17 (10%)	7	28
15	k	163/190 (86%)	144 (88%)	19 (12%)	5	23
15	l	163/190 (86%)	145 (89%)	18 (11%)	6	26
15	m	163/190 (86%)	146 (90%)	17 (10%)	7	28
15	n	163/190 (86%)	145 (89%)	18 (11%)	6	26
15	o	163/190 (86%)	147 (90%)	16 (10%)	7	31
15	p	163/190 (86%)	144 (88%)	19 (12%)	5	23
All	All	7566/8156 (93%)	6460 (85%)	1106 (15%)	3	16

All (1106) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	18	ILE
1	A	25	LEU

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Mol	Chain	Res	Type
1	A	38	THR
1	A	43	LEU
1	A	68	THR
1	A	73	PHE
1	A	103	GLU
1	A	116	VAL
1	A	126	GLN
1	A	137	LEU
1	A	142	THR
1	A	147	ASP
1	A	148	GLU
1	A	153	SER
1	A	162	TYR
1	A	167	LYS
1	A	171	THR
1	A	177	GLU
1	A	181	ASN
1	A	182	LEU
1	A	209	HIS
1	A	218	PHE
1	A	220	LYS
1	A	231	ASP
1	A	234	PHE
1	A	235	THR
1	A	240	ASN
1	A	241	ILE
1	A	244	ARG
1	A	251	GLN
2	B	11	THR
2	B	18	LEU
2	B	29	LYS
2	B	40	THR
2	B	59	GLU
2	B	61	LEU
2	B	68	THR
2	B	70	ASP
2	B	89	SER
2	B	94	HIS
2	B	107	THR
2	B	112	SER
2	B	118	MET
2	B	134	LEU

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Mol	Chain	Res	Type
2	B	150	VAL
2	B	156	TYR
2	B	157	PHE
2	B	173	THR
2	B	178	ARG
2	B	180	ASN
2	B	183	LEU
2	B	197	LYS
2	B	207	ASP
2	B	210	GLU
2	B	211	LEU
2	B	217	GLU
2	B	220	ASP
2	B	241	GLN
2	B	244	ASN
2	B	247	LEU
2	B	248	GLU
3	C	10	THR
3	C	13	PHE
3	C	21	GLN
3	C	27	GLU
3	C	28	SER
3	C	45	VAL
3	C	50	ARG
3	C	52	VAL
3	C	53	THR
3	C	55	THR
3	C	56	LEU
3	C	59	GLN
3	C	60	ASP
3	C	66	LEU
3	C	69	LEU
3	C	114	ARG
3	C	115	LEU
3	C	123	THR
3	C	134	SER
3	C	143	ARG
3	C	150	THR
3	C	175	LEU
3	C	185	LYS
3	C	188	ASP
3	C	197	LEU

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Mol	Chain	Res	Type
3	C	206	LEU
3	C	209	ASP
3	C	213	PHE
3	C	228	LYS
3	C	231	LYS
3	C	232	PRO
3	C	235	ILE
4	D	20	VAL
4	D	24	LEU
4	D	31	THR
4	D	39	LYS
4	D	42	VAL
4	D	48	ARG
4	D	52	LEU
4	D	57	THR
4	D	60	THR
4	D	62	SER
4	D	66	LYS
4	D	73	LEU
4	D	84	ILE
4	D	97	ARG
4	D	100	LEU
4	D	105	THR
4	D	107	GLU
4	D	116	VAL
4	D	118	GLN
4	D	122	GLN
4	D	126	VAL
4	D	133	THR
4	D	147	LEU
4	D	150	THR
4	D	152	PRO
4	D	155	ILE
4	D	162	GLN
4	D	166	ARG
4	D	171	VAL
4	D	181	ARG
4	D	187	THR
4	D	190	GLU
4	D	195	THR
4	D	201	GLU
4	D	204	GLN

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Mol	Chain	Res	Type
4	D	208	LYS
4	D	221	ILE
4	D	224	LEU
4	D	226	SER
4	D	241	GLN
4	D	242	GLU
4	D	243	GLN
5	E	15	PHE
5	E	18	GLU
5	E	36	THR
5	E	48	LEU
5	E	53	ARG
5	E	59	LEU
5	E	61	SER
5	E	81	LEU
5	E	86	ARG
5	E	90	GLU
5	E	112	LEU
5	E	116	VAL
5	E	125	GLU
5	E	130	GLU
5	E	134	MET
5	E	160	PRO
5	E	166	ARG
5	E	177	GLU
5	E	184	LEU
5	E	185	ASN
5	E	189	SER
5	E	191	LEU
5	E	194	LYS
5	E	208	MET
5	E	209	GLU
5	E	210	GLU
5	E	222	ILE
5	E	234	GLU
5	E	235	LYS
5	E	242	GLU
5	E	243	LEU
5	E	245	GLU
6	F	11	VAL
6	F	23	GLU
6	F	27	GLU

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Mol	Chain	Res	Type
6	F	29	ILE
6	F	36	VAL
6	F	39	ARG
6	F	56	LEU
6	F	62	LYS
6	F	72	LEU
6	F	90	GLN
6	F	93	ASN
6	F	101	ARG
6	F	115	LYS
6	F	121	GLN
6	F	138	ASP
6	F	146	GLU
6	F	147	PHE
6	F	153	VAL
6	F	154	THR
6	F	176	LEU
6	F	185	ASN
6	F	187	ASP
6	F	189	LEU
6	F	198	SER
6	F	202	ARG
6	F	203	ASP
6	F	206	LEU
6	F	208	VAL
6	F	210	ASN
6	F	215	ILE
6	F	228	GLU
7	G	8	ASP
7	G	9	LEU
7	G	16	PRO
7	G	19	ARG
7	G	24	GLU
7	G	28	LYS
7	G	58	LEU
7	G	85	ARG
7	G	86	HIS
7	G	94	GLU
7	G	98	PHE
7	G	100	LYS
7	G	104	THR
7	G	106	ILE

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Mol	Chain	Res	Type
7	G	108	ILE
7	G	120	GLN
7	G	134	SER
7	G	140	VAL
7	G	143	ASN
7	G	147	LEU
7	G	152	PRO
7	G	164	THR
7	G	176	GLU
7	G	180	ASP
7	G	184	GLU
7	G	190	GLU
7	G	197	LYS
7	G	201	LEU
7	G	204	GLU
7	G	207	LYS
7	G	208	GLU
7	G	215	ILE
7	G	224	ASN
7	G	244	LYS
7	G	245	GLU
8	H	4	MET
8	H	8	PHE
8	H	14	LEU
8	H	21	THR
8	H	30	VAL
8	H	36	ARG
8	H	64	GLU
8	H	80	SER
8	H	84	GLU
8	H	86	CYS
8	H	88	GLU
8	H	91	ASP
8	H	92	ASN
8	H	97	ILE
8	H	104	ASP
8	H	106	ASN
8	H	110	VAL
8	H	115	LEU
8	H	119	VAL
8	H	132	THR
8	H	133	PHE

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Mol	Chain	Res	Type
8	H	143	ARG
8	H	146	MET
8	H	148	LYS
8	H	149	GLU
8	H	151	THR
8	H	160	SER
8	H	172	VAL
8	H	178	LEU
8	H	185	ARG
8	H	187	ILE
8	H	188	PHE
9	I	9	ASN
9	I	14	ILE
9	I	22	GLN
9	I	30	ASN
9	I	35	HIS
9	I	41	ILE
9	I	63	ILE
9	I	68	LEU
9	I	80	LEU
9	I	82	MET
9	I	84	LYS
9	I	86	HIS
9	I	87	LEU
9	I	88	PHE
9	I	90	TYR
9	I	91	GLN
9	I	94	ILE
9	I	98	LEU
9	I	106	THR
9	I	131	SER
9	I	132	LEU
9	I	146	LEU
9	I	149	GLU
9	I	153	LYS
9	I	156	SER
9	I	177	VAL
9	I	197	GLU
9	I	217	ILE
9	I	218	VAL
9	I	222	ASP
10	J	3	VAL

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Mol	Chain	Res	Type
10	J	9	LYS
10	J	12	VAL
10	J	20	LEU
10	J	23	GLN
10	J	29	ASN
10	J	35	PHE
10	J	40	VAL
10	J	49	THR
10	J	51	VAL
10	J	53	THR
10	J	54	LEU
10	J	56	GLU
10	J	57	MET
10	J	64	LEU
10	J	67	LEU
10	J	82	VAL
10	J	89	ARG
10	J	115	PHE
10	J	123	GLU
10	J	125	LYS
10	J	126	ASP
10	J	129	VAL
10	J	130	SER
10	J	191	LEU
11	K	6	ILE
11	K	9	GLN
11	K	10	ASP
11	K	16	SER
11	K	26	VAL
11	K	30	SER
11	K	34	THR
11	K	41	THR
11	K	74	LEU
11	K	83	VAL
11	K	89	LYS
11	K	94	ARG
11	K	101	VAL
11	K	109	LYS
11	K	110	LYS
11	K	127	LEU
11	K	139	THR
11	K	141	SER

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Mol	Chain	Res	Type
11	K	159	LEU
11	K	160	LEU
11	K	171	MET
11	K	178	VAL
11	K	180	VAL
11	K	194	PHE
12	L	3	THR
12	L	4	LEU
12	L	25	TRP
12	L	32	LYS
12	L	33	ARG
12	L	39	PRO
12	L	86	LEU
12	L	95	LEU
12	L	105	THR
12	L	107	LYS
12	L	111	THR
12	L	121	ARG
12	L	131	SER
12	L	134	THR
12	L	140	LEU
12	L	148	LEU
12	L	151	GLU
12	L	182	GLU
12	L	183	ASP
12	L	186	ILE
12	L	200	VAL
12	L	209	ASN
12	L	211	ILE
13	M	9	GLU
13	M	14	LEU
13	M	26	ILE
13	M	34	VAL
13	M	40	ASN
13	M	78	ASN
13	M	88	LEU
13	M	98	VAL
13	M	99	HIS
13	M	100	THR
13	M	119	VAL
13	M	122	TYR
13	M	123	GLU

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Mol	Chain	Res	Type
13	M	126	GLN
13	M	141	LEU
13	M	161	LYS
13	M	165	TYR
13	M	166	LEU
13	M	172	ILE
13	M	198	VAL
13	M	201	ASP
14	N	-6	GLN
14	N	19	LEU
14	N	21	SER
14	N	39	ASP
14	N	40	ASN
14	N	41	THR
14	N	60	LYS
14	N	63	VAL
14	N	70	ASN
14	N	72	LEU
14	N	77	GLU
14	N	88	LEU
14	N	90	THR
14	N	96	ARG
14	N	101	PRO
14	N	125	LEU
14	N	130	SER
14	N	142	MET
14	N	145	PRO
14	N	146	LEU
14	N	153	ARG
14	N	154	GLU
14	N	159	LYS
14	N	161	THR
14	N	176	LEU
14	N	179	ARG
14	N	182	ARG
14	N	192	ILE
14	N	204	LEU
14	N	208	ASN
14	N	218	LYS
14	N	223	GLN
14	N	224	LYS
14	N	225	ILE

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Mol	Chain	Res	Type
1	O	18	ILE
1	O	25	LEU
1	O	38	THR
1	O	43	LEU
1	O	68	THR
1	O	73	PHE
1	O	103	GLU
1	O	116	VAL
1	O	126	GLN
1	O	137	LEU
1	O	142	THR
1	O	147	ASP
1	O	148	GLU
1	O	153	SER
1	O	162	TYR
1	O	167	LYS
1	O	171	THR
1	O	177	GLU
1	O	181	ASN
1	O	182	LEU
1	O	209	HIS
1	O	218	PHE
1	O	220	LYS
1	O	231	ASP
1	O	234	PHE
1	O	235	THR
1	O	240	ASN
1	O	241	ILE
1	O	244	ARG
1	O	251	GLN
2	P	11	THR
2	P	18	LEU
2	P	29	LYS
2	P	40	THR
2	P	57	MET
2	P	59	GLU
2	P	61	LEU
2	P	68	THR
2	P	70	ASP
2	P	89	SER
2	P	94	HIS
2	P	107	THR

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Mol	Chain	Res	Type
2	P	112	SER
2	P	118	MET
2	P	134	LEU
2	P	150	VAL
2	P	156	TYR
2	P	157	PHE
2	P	173	THR
2	P	178	ARG
2	P	180	ASN
2	P	183	LEU
2	P	197	LYS
2	P	207	ASP
2	P	210	GLU
2	P	211	LEU
2	P	217	GLU
2	P	220	ASP
2	P	241	GLN
2	P	244	ASN
2	P	247	LEU
2	P	248	GLU
3	Q	10	THR
3	Q	13	PHE
3	Q	21	GLN
3	Q	27	GLU
3	Q	28	SER
3	Q	45	VAL
3	Q	50	ARG
3	Q	52	VAL
3	Q	53	THR
3	Q	55	THR
3	Q	56	LEU
3	Q	59	GLN
3	Q	60	ASP
3	Q	66	LEU
3	Q	69	LEU
3	Q	114	ARG
3	Q	115	LEU
3	Q	118	ILE
3	Q	123	THR
3	Q	134	SER
3	Q	140	TYR
3	Q	143	ARG

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Mol	Chain	Res	Type
3	Q	150	THR
3	Q	158	THR
3	Q	175	LEU
3	Q	185	LYS
3	Q	188	ASP
3	Q	197	LEU
3	Q	206	LEU
3	Q	209	ASP
3	Q	213	PHE
3	Q	228	LYS
3	Q	231	LYS
3	Q	232	PRO
3	Q	235	ILE
4	R	20	VAL
4	R	24	LEU
4	R	31	THR
4	R	39	LYS
4	R	42	VAL
4	R	48	ARG
4	R	52	LEU
4	R	57	THR
4	R	59	ILE
4	R	60	THR
4	R	62	SER
4	R	73	LEU
4	R	84	ILE
4	R	97	ARG
4	R	100	LEU
4	R	105	THR
4	R	107	GLU
4	R	116	VAL
4	R	118	GLN
4	R	122	GLN
4	R	126	VAL
4	R	133	THR
4	R	147	LEU
4	R	149	GLN
4	R	150	THR
4	R	152	PRO
4	R	155	ILE
4	R	162	GLN
4	R	166	ARG

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Mol	Chain	Res	Type
4	R	171	VAL
4	R	181	ARG
4	R	187	THR
4	R	190	GLU
4	R	195	THR
4	R	201	GLU
4	R	208	LYS
4	R	221	ILE
4	R	224	LEU
4	R	226	SER
4	R	241	GLN
4	R	242	GLU
4	R	243	GLN
5	S	15	PHE
5	S	18	GLU
5	S	36	THR
5	S	48	LEU
5	S	53	ARG
5	S	59	LEU
5	S	61	SER
5	S	81	LEU
5	S	86	ARG
5	S	90	GLU
5	S	112	LEU
5	S	116	VAL
5	S	125	GLU
5	S	130	GLU
5	S	134	MET
5	S	160	PRO
5	S	166	ARG
5	S	177	GLU
5	S	184	LEU
5	S	185	ASN
5	S	189	SER
5	S	191	LEU
5	S	194	LYS
5	S	208	MET
5	S	209	GLU
5	S	210	GLU
5	S	222	ILE
5	S	234	GLU
5	S	235	LYS

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Mol	Chain	Res	Type
5	S	242	GLU
5	S	243	LEU
5	S	245	GLU
6	T	11	VAL
6	T	23	GLU
6	T	27	GLU
6	T	29	ILE
6	T	36	VAL
6	T	39	ARG
6	T	56	LEU
6	T	62	LYS
6	T	72	LEU
6	T	90	GLN
6	T	93	ASN
6	T	101	ARG
6	T	115	LYS
6	T	121	GLN
6	T	138	ASP
6	T	146	GLU
6	T	147	PHE
6	T	154	THR
6	T	176	LEU
6	T	181	LYS
6	T	185	ASN
6	T	187	ASP
6	T	189	LEU
6	T	198	SER
6	T	202	ARG
6	T	203	ASP
6	T	206	LEU
6	T	208	VAL
6	T	210	ASN
6	T	215	ILE
6	T	228	GLU
7	U	8	ASP
7	U	9	LEU
7	U	16	PRO
7	U	19	ARG
7	U	24	GLU
7	U	28	LYS
7	U	58	LEU
7	U	85	ARG

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Mol	Chain	Res	Type
7	U	86	HIS
7	U	94	GLU
7	U	98	PHE
7	U	100	LYS
7	U	104	THR
7	U	106	ILE
7	U	108	ILE
7	U	120	GLN
7	U	125	TYR
7	U	134	SER
7	U	140	VAL
7	U	143	ASN
7	U	147	LEU
7	U	152	PRO
7	U	164	THR
7	U	176	GLU
7	U	180	ASP
7	U	184	GLU
7	U	190	GLU
7	U	197	LYS
7	U	201	LEU
7	U	204	GLU
7	U	207	LYS
7	U	208	GLU
7	U	215	ILE
7	U	217	TRP
7	U	224	ASN
7	U	244	LYS
7	U	245	GLU
8	V	4	MET
8	V	8	PHE
8	V	14	LEU
8	V	21	THR
8	V	30	VAL
8	V	36	ARG
8	V	64	GLU
8	V	80	SER
8	V	84	GLU
8	V	86	CYS
8	V	88	GLU
8	V	91	ASP
8	V	92	ASN

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Mol	Chain	Res	Type
8	V	97	ILE
8	V	104	ASP
8	V	106	ASN
8	V	110	VAL
8	V	115	LEU
8	V	119	VAL
8	V	132	THR
8	V	133	PHE
8	V	143	ARG
8	V	146	MET
8	V	148	LYS
8	V	149	GLU
8	V	151	THR
8	V	160	SER
8	V	172	VAL
8	V	178	LEU
8	V	185	ARG
8	V	187	ILE
9	W	9	ASN
9	W	14	ILE
9	W	22	GLN
9	W	30	ASN
9	W	35	HIS
9	W	41	ILE
9	W	63	ILE
9	W	68	LEU
9	W	80	LEU
9	W	82	MET
9	W	84	LYS
9	W	86	HIS
9	W	87	LEU
9	W	88	PHE
9	W	90	TYR
9	W	91	GLN
9	W	94	ILE
9	W	98	LEU
9	W	106	THR
9	W	121	VAL
9	W	131	SER
9	W	132	LEU
9	W	146	LEU
9	W	149	GLU

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Mol	Chain	Res	Type
9	W	153	LYS
9	W	156	SER
9	W	177	VAL
9	W	197	GLU
9	W	217	ILE
9	W	222	ASP
10	X	3	VAL
10	X	9	LYS
10	X	12	VAL
10	X	20	LEU
10	X	23	GLN
10	X	29	ASN
10	X	35	PHE
10	X	40	VAL
10	X	49	THR
10	X	51	VAL
10	X	53	THR
10	X	54	LEU
10	X	56	GLU
10	X	57	MET
10	X	64	LEU
10	X	67	LEU
10	X	82	VAL
10	X	89	ARG
10	X	115	PHE
10	X	123	GLU
10	X	125	LYS
10	X	126	ASP
10	X	129	VAL
10	X	130	SER
10	X	191	LEU
11	Y	6	ILE
11	Y	9	GLN
11	Y	10	ASP
11	Y	16	SER
11	Y	26	VAL
11	Y	30	SER
11	Y	34	THR
11	Y	41	THR
11	Y	74	LEU
11	Y	83	VAL
11	Y	89	LYS

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Mol	Chain	Res	Type
11	Y	94	ARG
11	Y	95	ARG
11	Y	101	VAL
11	Y	109	LYS
11	Y	110	LYS
11	Y	127	LEU
11	Y	159	LEU
11	Y	160	LEU
11	Y	171	MET
11	Y	178	VAL
11	Y	180	VAL
11	Y	194	PHE
12	Z	4	LEU
12	Z	25	TRP
12	Z	32	LYS
12	Z	33	ARG
12	Z	39	PRO
12	Z	86	LEU
12	Z	95	LEU
12	Z	105	THR
12	Z	107	LYS
12	Z	111	THR
12	Z	114	TYR
12	Z	121	ARG
12	Z	131	SER
12	Z	134	THR
12	Z	140	LEU
12	Z	148	LEU
12	Z	151	GLU
12	Z	182	GLU
12	Z	183	ASP
12	Z	186	ILE
12	Z	200	VAL
12	Z	209	ASN
12	Z	211	ILE
13	a	9	GLU
13	a	11	PHE
13	a	14	LEU
13	a	26	ILE
13	a	34	VAL
13	a	40	ASN
13	a	78	ASN

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Mol	Chain	Res	Type
13	a	88	LEU
13	a	98	VAL
13	a	99	HIS
13	a	100	THR
13	a	119	VAL
13	a	122	TYR
13	a	123	GLU
13	a	126	GLN
13	a	141	LEU
13	a	161	LYS
13	a	166	LEU
13	a	168	VAL
13	a	172	ILE
13	a	180	THR
13	a	198	VAL
13	a	201	ASP
14	b	-6	GLN
14	b	19	LEU
14	b	21	SER
14	b	29	ASN
14	b	39	ASP
14	b	40	ASN
14	b	41	THR
14	b	60	LYS
14	b	63	VAL
14	b	70	ASN
14	b	72	LEU
14	b	77	GLU
14	b	88	LEU
14	b	90	THR
14	b	96	ARG
14	b	101	PRO
14	b	103	TRP
14	b	125	LEU
14	b	130	SER
14	b	142	MET
14	b	145	PRO
14	b	146	LEU
14	b	151	VAL
14	b	153	ARG
14	b	154	GLU
14	b	159	LYS

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Mol	Chain	Res	Type
14	b	161	THR
14	b	176	LEU
14	b	179	ARG
14	b	182	ARG
14	b	192	ILE
14	b	204	LEU
14	b	208	ASN
14	b	218	LYS
14	b	223	GLN
14	b	224	LYS
14	b	225	ILE
15	c	14	ASP
15	c	26	GLU
15	c	34	GLN
15	c	35	GLU
15	c	47	HIS
15	c	54	THR
15	c	55	TYR
15	c	61	GLU
15	c	67	LEU
15	c	68	LEU
15	c	72	GLN
15	c	90	THR
15	c	120	LEU
15	c	138	THR
15	c	143	TYR
15	c	146	ARG
15	c	180	LEU
15	c	183	LEU
15	c	221	GLN
15	c	227	ASP
15	d	26	GLU
15	d	34	GLN
15	d	35	GLU
15	d	47	HIS
15	d	54	THR
15	d	55	TYR
15	d	61	GLU
15	d	67	LEU
15	d	68	LEU
15	d	72	GLN
15	d	90	THR

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Mol	Chain	Res	Type
15	d	120	LEU
15	d	138	THR
15	d	143	TYR
15	d	146	ARG
15	d	180	LEU
15	d	183	LEU
15	d	221	GLN
15	d	227	ASP
15	e	26	GLU
15	e	34	GLN
15	e	35	GLU
15	e	47	HIS
15	e	54	THR
15	e	55	TYR
15	e	61	GLU
15	e	67	LEU
15	e	68	LEU
15	e	72	GLN
15	e	90	THR
15	e	120	LEU
15	e	138	THR
15	e	143	TYR
15	e	146	ARG
15	e	180	LEU
15	e	183	LEU
15	e	221	GLN
15	e	227	ASP
15	f	14	ASP
15	f	26	GLU
15	f	34	GLN
15	f	35	GLU
15	f	54	THR
15	f	55	TYR
15	f	61	GLU
15	f	67	LEU
15	f	68	LEU
15	f	72	GLN
15	f	90	THR
15	f	120	LEU
15	f	138	THR
15	f	146	ARG
15	f	180	LEU

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Mol	Chain	Res	Type
15	f	183	LEU
15	f	221	GLN
15	f	227	ASP
15	g	14	ASP
15	g	26	GLU
15	g	34	GLN
15	g	35	GLU
15	g	47	HIS
15	g	54	THR
15	g	55	TYR
15	g	61	GLU
15	g	67	LEU
15	g	68	LEU
15	g	72	GLN
15	g	90	THR
15	g	120	LEU
15	g	138	THR
15	g	146	ARG
15	g	180	LEU
15	g	183	LEU
15	g	221	GLN
15	g	227	ASP
15	h	26	GLU
15	h	34	GLN
15	h	35	GLU
15	h	47	HIS
15	h	54	THR
15	h	55	TYR
15	h	61	GLU
15	h	67	LEU
15	h	68	LEU
15	h	72	GLN
15	h	90	THR
15	h	120	LEU
15	h	138	THR
15	h	146	ARG
15	h	180	LEU
15	h	183	LEU
15	h	221	GLN
15	h	227	ASP
15	i	26	GLU
15	i	34	GLN

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Mol	Chain	Res	Type
15	i	35	GLU
15	i	47	HIS
15	i	55	TYR
15	i	61	GLU
15	i	67	LEU
15	i	68	LEU
15	i	72	GLN
15	i	90	THR
15	i	120	LEU
15	i	138	THR
15	i	146	ARG
15	i	183	LEU
15	i	221	GLN
15	i	227	ASP
15	j	26	GLU
15	j	34	GLN
15	j	35	GLU
15	j	47	HIS
15	j	54	THR
15	j	55	TYR
15	j	61	GLU
15	j	67	LEU
15	j	68	LEU
15	j	72	GLN
15	j	90	THR
15	j	120	LEU
15	j	138	THR
15	j	146	ARG
15	j	183	LEU
15	j	221	GLN
15	j	227	ASP
15	k	14	ASP
15	k	26	GLU
15	k	34	GLN
15	k	35	GLU
15	k	47	HIS
15	k	54	THR
15	k	55	TYR
15	k	61	GLU
15	k	67	LEU
15	k	68	LEU
15	k	72	GLN

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Mol	Chain	Res	Type
15	k	90	THR
15	k	120	LEU
15	k	138	THR
15	k	146	ARG
15	k	180	LEU
15	k	183	LEU
15	k	221	GLN
15	k	227	ASP
15	l	14	ASP
15	l	26	GLU
15	l	34	GLN
15	l	35	GLU
15	l	47	HIS
15	l	54	THR
15	l	55	TYR
15	l	61	GLU
15	l	67	LEU
15	l	68	LEU
15	l	72	GLN
15	l	90	THR
15	l	120	LEU
15	l	138	THR
15	l	146	ARG
15	l	183	LEU
15	l	221	GLN
15	l	227	ASP
15	m	26	GLU
15	m	34	GLN
15	m	35	GLU
15	m	47	HIS
15	m	54	THR
15	m	55	TYR
15	m	61	GLU
15	m	67	LEU
15	m	68	LEU
15	m	72	GLN
15	m	90	THR
15	m	120	LEU
15	m	138	THR
15	m	146	ARG
15	m	183	LEU
15	m	221	GLN

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Mol	Chain	Res	Type
15	m	227	ASP
15	n	26	GLU
15	n	34	GLN
15	n	35	GLU
15	n	47	HIS
15	n	54	THR
15	n	55	TYR
15	n	61	GLU
15	n	67	LEU
15	n	68	LEU
15	n	72	GLN
15	n	90	THR
15	n	120	LEU
15	n	138	THR
15	n	146	ARG
15	n	180	LEU
15	n	183	LEU
15	n	221	GLN
15	n	227	ASP
15	o	26	GLU
15	o	34	GLN
15	o	35	GLU
15	o	47	HIS
15	o	55	TYR
15	o	61	GLU
15	o	67	LEU
15	o	68	LEU
15	o	72	GLN
15	o	90	THR
15	o	120	LEU
15	o	138	THR
15	o	146	ARG
15	o	183	LEU
15	o	221	GLN
15	o	227	ASP
15	p	14	ASP
15	p	26	GLU
15	p	34	GLN
15	p	35	GLU
15	p	47	HIS
15	p	54	THR
15	p	55	TYR

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Mol	Chain	Res	Type
15	p	61	GLU
15	p	67	LEU
15	p	68	LEU
15	p	72	GLN
15	p	90	THR
15	p	120	LEU
15	p	138	THR
15	p	146	ARG
15	p	180	LEU
15	p	183	LEU
15	p	221	GLN
15	p	227	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (299) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	39	ASN
1	A	84	ASN
1	A	123	ASN
1	A	126	GLN
1	A	130	GLN
1	A	175	GLN
1	A	181	ASN
1	A	184	ASN
1	A	221	ASN
2	B	20	GLN
2	B	30	GLN
2	B	139	HIS
2	B	190	HIS
2	B	218	ASN
2	B	244	ASN
3	C	59	GLN
3	C	70	ASN
3	C	94	HIS
3	C	120	GLN
3	C	124	GLN
3	C	233	GLN
4	D	19	GLN
4	D	40	ASN
4	D	162	GLN
4	D	204	GLN
4	D	231	GLN

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Mol	Chain	Res	Type
4	D	241	GLN
4	D	243	GLN
5	E	23	GLN
5	E	73	HIS
5	E	108	ASN
5	E	225	GLN
6	F	4	ASN
6	F	60	GLN
6	F	90	GLN
6	F	119	ASN
6	F	121	GLN
6	F	152	ASN
6	F	185	ASN
6	F	199	GLN
7	G	22	GLN
7	G	42	ASN
7	G	63	ASN
7	G	72	HIS
7	G	86	HIS
7	G	89	ASN
7	G	143	ASN
7	G	194	GLN
7	G	206	ASN
7	G	243	GLN
8	H	28	ASN
8	H	106	ASN
9	I	9	ASN
9	I	22	GLN
9	I	35	HIS
9	I	62	ASN
9	I	66	HIS
9	I	86	HIS
9	I	109	HIS
9	I	144	GLN
9	I	165	ASN
9	I	172	ASN
9	I	200	GLN
10	J	29	ASN
10	J	63	ASN
10	J	80	GLN
10	J	148	ASN
11	K	9	GLN

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Mol	Chain	Res	Type
11	K	36	GLN
11	K	40	HIS
11	K	62	ASN
11	K	77	GLN
11	K	85	GLN
11	K	117	GLN
11	K	195	GLN
12	L	9	GLN
12	L	66	HIS
12	L	85	ASN
12	L	176	ASN
12	L	179	HIS
12	L	188	HIS
12	L	190	ASN
12	L	191	HIS
13	M	-7	ASN
13	M	40	ASN
13	M	61	ASN
13	M	71	ASN
13	M	83	ASN
13	M	99	HIS
13	M	143	ASN
13	M	149	ASN
13	M	156	ASN
13	M	186	HIS
13	M	188	GLN
14	N	-7	GLN
14	N	29	ASN
14	N	40	ASN
14	N	53	GLN
14	N	66	ASN
14	N	104	ASN
14	N	144	ASN
14	N	163	GLN
14	N	203	ASN
14	N	205	GLN
14	N	208	ASN
1	O	39	ASN
1	O	84	ASN
1	O	123	ASN
1	O	126	GLN
1	O	130	GLN

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Mol	Chain	Res	Type
1	O	181	ASN
1	O	184	ASN
2	P	139	HIS
2	P	190	HIS
2	P	218	ASN
2	P	244	ASN
3	Q	59	GLN
3	Q	70	ASN
3	Q	120	GLN
3	Q	124	GLN
3	Q	156	ASN
3	Q	233	GLN
4	R	19	GLN
4	R	162	GLN
4	R	204	GLN
4	R	231	GLN
4	R	241	GLN
4	R	243	GLN
5	S	23	GLN
5	S	108	ASN
5	S	206	GLN
5	S	225	GLN
6	T	4	ASN
6	T	60	GLN
6	T	90	GLN
6	T	117	GLN
6	T	119	ASN
6	T	121	GLN
6	T	152	ASN
6	T	185	ASN
6	T	199	GLN
7	U	22	GLN
7	U	42	ASN
7	U	63	ASN
7	U	72	HIS
7	U	86	HIS
7	U	89	ASN
7	U	143	ASN
7	U	194	GLN
7	U	206	ASN
7	U	243	GLN
8	V	38	HIS

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Mol	Chain	Res	Type
8	V	92	ASN
8	V	106	ASN
8	V	120	HIS
9	W	9	ASN
9	W	22	GLN
9	W	30	ASN
9	W	35	HIS
9	W	62	ASN
9	W	66	HIS
9	W	86	HIS
9	W	91	GLN
9	W	109	HIS
9	W	144	GLN
9	W	165	ASN
9	W	172	ASN
9	W	189	ASN
9	W	200	GLN
10	X	23	GLN
10	X	29	ASN
10	X	63	ASN
10	X	80	GLN
10	X	148	ASN
11	Y	9	GLN
11	Y	36	GLN
11	Y	40	HIS
11	Y	62	ASN
11	Y	77	GLN
11	Y	85	GLN
11	Y	117	GLN
11	Y	195	GLN
12	Z	9	GLN
12	Z	66	HIS
12	Z	85	ASN
12	Z	176	ASN
12	Z	179	HIS
12	Z	188	HIS
12	Z	190	ASN
12	Z	191	HIS
13	a	-7	ASN
13	a	40	ASN
13	a	61	ASN
13	a	71	ASN

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Mol	Chain	Res	Type
13	a	83	ASN
13	a	99	HIS
13	a	143	ASN
13	a	149	ASN
13	a	156	ASN
13	a	186	HIS
13	a	188	GLN
14	b	-7	GLN
14	b	29	ASN
14	b	40	ASN
14	b	53	GLN
14	b	66	ASN
14	b	104	ASN
14	b	144	ASN
14	b	163	GLN
14	b	171	ASN
14	b	203	ASN
14	b	205	GLN
14	b	208	ASN
15	c	52	ASN
15	c	72	GLN
15	c	80	ASN
15	c	99	HIS
15	c	111	HIS
15	c	200	HIS
15	d	52	ASN
15	d	72	GLN
15	d	80	ASN
15	d	111	HIS
15	e	52	ASN
15	e	72	GLN
15	e	80	ASN
15	e	99	HIS
15	e	110	GLN
15	e	111	HIS
15	f	52	ASN
15	f	72	GLN
15	f	80	ASN
15	f	99	HIS
15	f	104	ASN
15	f	110	GLN
15	f	111	HIS

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Mol	Chain	Res	Type
15	g	52	ASN
15	g	72	GLN
15	g	80	ASN
15	g	99	HIS
15	g	110	GLN
15	g	111	HIS
15	g	185	GLN
15	h	52	ASN
15	h	72	GLN
15	h	75	GLN
15	h	80	ASN
15	h	99	HIS
15	h	110	GLN
15	h	111	HIS
15	i	52	ASN
15	i	72	GLN
15	i	80	ASN
15	i	99	HIS
15	i	111	HIS
15	j	52	ASN
15	j	72	GLN
15	j	80	ASN
15	j	99	HIS
15	j	111	HIS
15	k	52	ASN
15	k	72	GLN
15	k	80	ASN
15	k	110	GLN
15	k	111	HIS
15	k	185	GLN
15	l	52	ASN
15	l	72	GLN
15	l	80	ASN
15	l	110	GLN
15	l	111	HIS
15	l	200	HIS
15	m	52	ASN
15	m	72	GLN
15	m	80	ASN
15	m	99	HIS
15	m	110	GLN
15	m	111	HIS

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Mol	Chain	Res	Type
15	m	200	HIS
15	n	52	ASN
15	n	72	GLN
15	n	80	ASN
15	n	110	GLN
15	n	111	HIS
15	n	200	HIS
15	o	52	ASN
15	o	72	GLN
15	o	80	ASN
15	o	99	HIS
15	o	110	GLN
15	o	111	HIS
15	o	200	HIS
15	p	52	ASN
15	p	72	GLN
15	p	80	ASN
15	p	99	HIS
15	p	110	GLN
15	p	111	HIS
15	p	185	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 14 ligands modelled in this entry, 14 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
1	A	238/252 (94%)	0.95	20 (8%)	17	11	45, 88, 99, 100	0
1	O	238/252 (94%)	0.68	10 (4%)	40	25	51, 89, 99, 100	0
2	B	247/250 (98%)	0.64	12 (4%)	35	22	39, 78, 96, 100	0
2	P	247/250 (98%)	0.51	8 (3%)	50	31	46, 81, 98, 100	0
3	C	241/245 (98%)	0.38	9 (3%)	45	28	35, 71, 99, 100	0
3	Q	241/245 (98%)	0.48	13 (5%)	31	20	37, 77, 99, 100	0
4	D	239/254 (94%)	0.34	6 (2%)	58	39	34, 68, 98, 100	0
4	R	239/254 (94%)	0.30	6 (2%)	58	39	37, 74, 99, 100	0
5	E	244/260 (93%)	0.32	8 (3%)	49	30	29, 67, 98, 100	0
5	S	244/260 (93%)	0.42	12 (4%)	35	22	41, 72, 99, 100	0
6	F	233/234 (99%)	0.27	0	100	100	33, 69, 87, 98	0
6	T	233/234 (99%)	0.33	2 (0%)	81	64	45, 74, 92, 100	0
7	G	240/287 (83%)	0.76	18 (7%)	20	13	45, 82, 98, 100	0
7	U	240/287 (83%)	0.61	13 (5%)	31	20	52, 85, 99, 100	0
8	H	196/196 (100%)	0.66	5 (2%)	57	37	51, 79, 97, 100	0
8	V	196/196 (100%)	0.65	3 (1%)	72	52	56, 81, 98, 100	0
9	I	222/232 (95%)	0.54	8 (3%)	46	28	44, 74, 95, 100	0
9	W	222/232 (95%)	0.46	5 (2%)	61	41	44, 75, 93, 100	0
10	J	204/205 (99%)	0.09	4 (1%)	65	45	29, 60, 85, 100	0
10	X	204/205 (99%)	0.02	0	100	100	33, 60, 82, 95	0
11	K	198/198 (100%)	0.02	3 (1%)	72	52	23, 52, 80, 100	0
11	Y	198/198 (100%)	0.01	5 (2%)	58	39	30, 56, 84, 100	0
12	L	212/212 (100%)	-0.11	1 (0%)	87	76	30, 52, 72, 96	0
12	Z	212/212 (100%)	-0.14	1 (0%)	87	76	31, 52, 76, 92	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	M	222/222 (100%)	0.03	1 (0%) 87 76	28, 60, 79, 97	0
13	a	222/222 (100%)	0.06	2 (0%) 81 64	30, 61, 85, 99	0
14	N	233/233 (100%)	0.44	3 (1%) 75 55	37, 72, 95, 99	0
14	b	233/233 (100%)	0.57	10 (4%) 40 24	39, 74, 96, 100	0
15	c	198/231 (85%)	1.36	38 (19%) 3 2	58, 90, 99, 100	0
15	d	198/231 (85%)	1.46	47 (23%) 2 2	65, 92, 100, 100	0
15	e	198/231 (85%)	1.27	38 (19%) 3 2	58, 91, 100, 100	0
15	f	198/231 (85%)	1.17	28 (14%) 6 5	47, 89, 99, 100	0
15	g	198/231 (85%)	1.19	37 (18%) 3 2	48, 88, 99, 100	0
15	h	198/231 (85%)	1.14	30 (15%) 5 4	57, 86, 99, 100	0
15	i	198/231 (85%)	1.33	42 (21%) 2 2	56, 91, 100, 100	0
15	j	198/231 (85%)	1.08	22 (11%) 10 7	60, 94, 100, 100	0
15	k	198/231 (85%)	1.16	21 (10%) 11 8	65, 94, 100, 100	0
15	l	198/231 (85%)	1.02	23 (11%) 9 7	56, 93, 100, 100	0
15	m	198/231 (85%)	1.04	28 (14%) 6 5	56, 94, 100, 100	0
15	n	198/231 (85%)	1.00	22 (11%) 10 7	64, 94, 100, 100	0
15	o	198/231 (85%)	1.10	27 (13%) 7 5	70, 93, 100, 100	0
15	p	198/231 (85%)	1.11	28 (14%) 6 5	67, 95, 100, 100	0
All	All	9110/9794 (93%)	0.62	619 (6%) 23 15	23, 79, 99, 100	0

All (619) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
15	k	230	VAL	5.8
15	c	28	TRP	5.7
15	l	227	ASP	5.6
15	n	230	VAL	5.4
15	k	227	ASP	5.3
15	o	13	ARG	5.2
4	D	51	THR	5.2
15	l	230	VAL	5.0
15	i	13	ARG	4.9
15	k	231	SER	4.9
15	d	230	VAL	4.8
15	e	13	ARG	4.8
15	e	126	GLY	4.7

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Mol	Chain	Res	Type	RSRZ
3	C	245	THR	4.6
15	f	230	VAL	4.6
15	g	47	HIS	4.6
15	k	17	THR	4.5
15	e	145	LEU	4.5
15	m	28	TRP	4.4
15	i	16	TYR	4.4
15	f	231	SER	4.4
15	i	58	ALA	4.4
4	D	52	LEU	4.4
15	e	229	MET	4.3
9	W	218	VAL	4.3
15	g	28	TRP	4.3
15	d	27	GLU	4.3
15	e	16	TYR	4.2
15	f	227	ASP	4.2
15	n	52	ASN	4.2
1	A	213	ALA	4.2
5	S	126	GLY	4.2
15	k	128	GLY	4.2
15	h	128	GLY	4.1
15	l	228	HIS	4.1
14	N	39	ASP	4.1
15	k	16	TYR	4.0
15	k	27	GLU	4.0
15	g	128	GLY	4.0
15	d	16	TYR	4.0
15	l	231	SER	4.0
15	f	13	ARG	3.9
15	g	230	VAL	3.9
15	m	230	VAL	3.9
4	R	51	THR	3.8
15	f	128	GLY	3.8
15	h	47	HIS	3.8
3	Q	52	VAL	3.8
15	l	229	MET	3.8
15	e	10	GLN	3.8
15	n	227	ASP	3.8
15	e	230	VAL	3.7
3	Q	8	SER	3.7
15	g	27	GLU	3.7
15	m	13	ARG	3.7

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Mol	Chain	Res	Type	RSRZ
15	l	128	GLY	3.7
15	g	16	TYR	3.7
15	n	17	THR	3.7
5	E	128	SER	3.6
15	f	145	LEU	3.6
15	f	27	GLU	3.6
15	d	76	ASP	3.6
15	g	145	LEU	3.6
15	i	180	LEU	3.6
15	j	54	THR	3.6
15	h	13	ARG	3.6
15	h	50	ILE	3.6
15	n	28	TRP	3.5
15	g	52	ASN	3.5
12	Z	27	ALA	3.5
5	S	128	SER	3.5
15	c	230	VAL	3.5
7	U	220	LEU	3.5
15	e	94	ILE	3.5
9	W	219	ASN	3.5
15	e	227	ASP	3.5
15	o	50	ILE	3.5
15	e	27	GLU	3.4
5	S	129	GLY	3.4
15	j	105	LEU	3.4
15	d	82	TYR	3.4
15	d	40	ALA	3.4
9	I	180	ILE	3.4
15	g	186	ILE	3.4
15	n	229	MET	3.4
8	V	10	ASP	3.4
10	J	10	ASP	3.4
15	g	176	SER	3.3
15	c	10	GLN	3.3
15	f	47	HIS	3.3
15	d	28	TRP	3.3
15	f	28	TRP	3.3
15	g	231	SER	3.3
15	n	16	TYR	3.3
15	f	10	GLN	3.3
15	e	60	ALA	3.3
15	o	229	MET	3.3

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Mol	Chain	Res	Type	RSRZ
15	g	118	ASP	3.3
15	d	13	ARG	3.3
15	h	145	LEU	3.3
15	d	42	ALA	3.3
15	g	137	PRO	3.2
4	R	52	LEU	3.2
15	g	180	LEU	3.2
15	g	228	HIS	3.2
15	e	28	TRP	3.2
9	I	1	THR	3.2
15	i	28	TRP	3.2
15	i	53	SER	3.2
5	S	125	GLU	3.2
15	c	104	ASN	3.2
15	j	145	LEU	3.2
3	Q	7	ASP	3.2
15	f	18	GLU	3.2
15	h	195	GLU	3.2
15	n	8	LEU	3.2
14	b	78	ALA	3.2
15	c	42	ALA	3.2
15	j	28	TRP	3.1
15	j	13	ARG	3.1
15	c	50	ILE	3.1
15	p	229	MET	3.1
15	d	10	GLN	3.1
15	e	226	THR	3.1
15	p	54	THR	3.1
15	d	80	ASN	3.1
15	o	16	TYR	3.1
15	g	54	THR	3.1
15	o	28	TRP	3.1
15	h	16	TYR	3.1
2	P	30	GLN	3.1
7	G	18	GLY	3.1
15	c	32	THR	3.1
15	l	28	TRP	3.1
15	g	10	GLN	3.1
15	e	231	SER	3.1
15	d	145	LEU	3.0
15	e	32	THR	3.0
15	e	54	THR	3.0

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Mol	Chain	Res	Type	RSRZ
15	f	226	THR	3.0
3	C	6	TYR	3.0
5	E	127	ALA	3.0
15	l	13	ARG	3.0
15	i	27	GLU	3.0
15	c	53	SER	3.0
15	n	50	ILE	3.0
15	j	144	ALA	3.0
15	h	230	VAL	3.0
4	R	61	PRO	3.0
15	o	176	SER	3.0
15	h	94	ILE	3.0
15	g	143	TYR	3.0
15	c	118	ASP	3.0
15	m	189	ASP	3.0
7	G	16	PRO	2.9
15	f	146	ARG	2.9
15	n	129	GLU	2.9
3	C	7	ASP	2.9
15	f	135	GLY	2.9
15	p	126	GLY	2.9
1	A	251	GLN	2.9
7	G	206	ASN	2.9
4	R	31	THR	2.9
15	e	196	LEU	2.9
2	P	249	ALA	2.9
15	k	229	MET	2.9
11	Y	148	ARG	2.9
15	d	41	LYS	2.9
15	n	11	ASN	2.9
15	n	144	ALA	2.9
15	d	75	GLN	2.9
15	c	81	VAL	2.9
15	i	143	TYR	2.9
15	m	227	ASP	2.9
15	d	11	ASN	2.9
15	d	45	GLU	2.9
15	c	16	TYR	2.9
15	d	229	MET	2.9
3	C	169	THR	2.8
8	H	184	GLU	2.8
15	i	229	MET	2.8

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Mol	Chain	Res	Type	RSRZ
15	p	16	TYR	2.8
15	c	47	HIS	2.8
11	K	197	GLN	2.8
15	o	40	ALA	2.8
15	g	184	ARG	2.8
15	p	45	GLU	2.8
1	O	84	ASN	2.8
15	e	127	SER	2.8
15	g	20	SER	2.8
4	D	60	THR	2.8
15	i	230	VAL	2.8
9	W	222	ASP	2.8
15	d	35	GLU	2.8
15	h	101	GLU	2.8
15	o	192	LEU	2.8
1	A	129	THR	2.8
7	U	205	ASP	2.8
15	e	9	ILE	2.8
15	c	226	THR	2.8
8	H	11	GLY	2.7
15	d	52	ASN	2.7
15	j	186	ILE	2.7
2	B	206	GLY	2.7
15	c	184	ARG	2.7
15	g	146	ARG	2.7
2	B	177	LYS	2.7
15	d	185	GLN	2.7
15	d	179	LEU	2.7
15	e	137	PRO	2.7
13	a	213	ASP	2.7
15	f	143	TYR	2.7
11	Y	196	ALA	2.7
15	f	104	ASN	2.7
15	j	60	ALA	2.7
1	A	165	GLY	2.7
15	f	61	GLU	2.7
7	G	205	ASP	2.7
15	h	40	ALA	2.7
15	i	227	ASP	2.7
15	m	228	HIS	2.7
15	p	194	VAL	2.7
5	E	124	GLY	2.7

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Mol	Chain	Res	Type	RSRZ
15	i	195	GLU	2.7
15	j	68	LEU	2.7
15	k	228	HIS	2.7
15	i	11	ASN	2.7
15	d	50	ILE	2.6
15	c	13	ARG	2.6
15	g	13	ARG	2.6
12	L	212	GLY	2.6
15	h	17	THR	2.6
15	o	17	THR	2.6
15	p	219	LEU	2.6
5	S	231	TYR	2.6
15	c	76	ASP	2.6
15	f	186	ILE	2.6
10	J	183	LYS	2.6
15	c	128	GLY	2.6
1	A	78	THR	2.6
15	d	17	THR	2.6
15	f	228	HIS	2.6
15	i	22	PHE	2.6
15	i	142	MET	2.6
7	U	70	ASP	2.6
15	i	10	GLN	2.6
15	c	180	LEU	2.6
15	d	196	LEU	2.6
15	k	145	LEU	2.6
3	Q	220	ALA	2.6
15	i	228	HIS	2.6
15	k	222	PRO	2.6
7	G	240	ASP	2.6
9	W	120	ASP	2.6
7	G	201	LEU	2.6
15	l	180	LEU	2.6
15	n	226	THR	2.6
15	p	28	TRP	2.6
14	b	13	ILE	2.6
15	c	190	PHE	2.6
15	k	47	HIS	2.6
5	S	124	GLY	2.6
7	G	186	LEU	2.6
15	c	192	LEU	2.6
2	P	210	GLU	2.6

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Mol	Chain	Res	Type	RSRZ
15	m	26	GLU	2.6
15	f	229	MET	2.5
15	j	191	MET	2.5
14	b	183	SER	2.5
15	i	145	LEU	2.5
1	O	154	ILE	2.5
15	d	39	ILE	2.5
15	f	54	THR	2.5
15	h	220	ILE	2.5
15	o	226	THR	2.5
15	c	191	MET	2.5
15	d	47	HIS	2.5
15	f	55	TYR	2.5
15	h	143	TYR	2.5
15	d	180	LEU	2.5
15	g	68	LEU	2.5
15	p	10	GLN	2.5
15	p	145	LEU	2.5
1	A	84	ASN	2.5
15	f	42	ALA	2.5
15	j	195	GLU	2.5
15	p	122	ILE	2.5
15	h	142	MET	2.5
15	j	226	THR	2.5
15	i	33	LEU	2.5
15	o	179	LEU	2.5
15	g	126	GLY	2.5
15	j	10	GLN	2.5
15	m	231	SER	2.5
15	n	53	SER	2.5
5	S	127	ALA	2.5
15	c	40	ALA	2.5
15	i	29	ALA	2.5
15	i	187	ASP	2.5
3	Q	6	TYR	2.5
4	D	216	LYS	2.5
15	f	16	TYR	2.5
15	i	135	GLY	2.5
4	D	203	VAL	2.5
15	k	10	GLN	2.5
7	G	78	SER	2.5
15	k	6	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
15	o	53	SER	2.5
15	i	140	ILE	2.5
15	e	118	ASP	2.5
15	i	63	SER	2.4
15	g	142	MET	2.4
3	Q	222	ASP	2.4
15	i	193	LYS	2.4
15	j	123	LYS	2.4
7	U	186	LEU	2.4
15	g	226	THR	2.4
15	i	54	THR	2.4
15	d	228	HIS	2.4
15	j	16	TYR	2.4
15	c	56	GLY	2.4
15	j	134	GLY	2.4
11	K	196	ALA	2.4
15	g	50	ILE	2.4
15	e	26	GLU	2.4
7	G	241	PHE	2.4
11	Y	194	PHE	2.4
15	i	78	CYS	2.4
15	m	22	PHE	2.4
15	m	8	LEU	2.4
15	p	183	LEU	2.4
11	K	10	ASP	2.4
15	o	227	ASP	2.4
15	l	74	TYR	2.4
15	m	143	TYR	2.4
15	e	6	ALA	2.4
15	l	58	ALA	2.4
15	i	101	GLU	2.4
2	B	52	SER	2.4
15	e	53	SER	2.4
15	i	178	SER	2.4
7	G	218	CYS	2.4
15	d	192	LEU	2.4
6	T	185	ASN	2.4
15	c	17	THR	2.4
15	d	32	THR	2.4
15	o	230	VAL	2.4
1	A	109	GLY	2.4
1	A	128	TYR	2.4

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Mol	Chain	Res	Type	RSRZ
15	d	46	ALA	2.4
15	l	85	ALA	2.4
2	B	123	GLN	2.4
1	A	177	GLU	2.4
2	B	61	LEU	2.4
15	h	183	LEU	2.4
15	n	183	LEU	2.4
9	I	175	VAL	2.4
15	e	40	ALA	2.4
15	l	16	TYR	2.4
15	p	143	TYR	2.4
2	P	123	GLN	2.4
15	c	185	GLN	2.4
15	h	34	GLN	2.4
1	O	19	PHE	2.4
15	c	183	LEU	2.4
3	C	52	VAL	2.4
15	h	28	TRP	2.4
15	p	226	THR	2.3
1	O	15	HIS	2.3
1	A	155	TYR	2.3
1	O	160	ALA	2.3
1	O	240	ASN	2.3
3	Q	244	ILE	2.3
15	d	186	ILE	2.3
15	e	50	ILE	2.3
15	e	220	ILE	2.3
15	g	144	ALA	2.3
15	i	188	ALA	2.3
15	f	180	LEU	2.3
15	g	66	GLN	2.3
15	n	194	VAL	2.3
15	o	63	SER	2.3
15	d	126	GLY	2.3
8	H	13	ILE	2.3
15	g	32	THR	2.3
15	j	50	ILE	2.3
15	l	226	THR	2.3
15	p	228	HIS	2.3
6	T	9	ASP	2.3
15	c	68	LEU	2.3
15	m	33	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
15	m	125	LEU	2.3
5	S	242	GLU	2.3
15	g	193	LYS	2.3
7	U	35	THR	2.3
15	p	40	ALA	2.3
15	p	231	SER	2.3
15	d	191	MET	2.3
15	h	83	CYS	2.3
15	c	33	LEU	2.3
15	h	68	LEU	2.3
15	o	68	LEU	2.3
15	c	102	GLU	2.3
7	U	49	VAL	2.3
15	i	50	ILE	2.3
15	l	222	PRO	2.3
15	d	85	ALA	2.3
15	h	6	ALA	2.3
15	l	42	ALA	2.3
4	R	60	THR	2.3
14	b	184	SER	2.3
15	e	199	THR	2.3
15	h	63	SER	2.3
15	p	32	THR	2.3
15	h	181	LEU	2.3
15	m	183	LEU	2.3
15	n	228	HIS	2.3
15	p	68	LEU	2.3
15	e	11	ASN	2.3
7	G	22	GLN	2.3
15	m	45	GLU	2.3
15	n	64	PRO	2.3
5	E	134	MET	2.3
15	f	142	MET	2.3
2	P	25	LEU	2.3
15	e	17	THR	2.3
15	c	178	SER	2.3
15	d	218	LYS	2.3
15	e	146	ARG	2.3
15	e	185	GLN	2.3
15	f	223	ARG	2.3
15	k	186	ILE	2.2
15	l	126	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
5	S	121	LEU	2.2
7	G	9	LEU	2.2
15	m	145	LEU	2.2
15	p	180	LEU	2.2
7	U	131	PHE	2.2
15	l	47	HIS	2.2
15	n	47	HIS	2.2
2	B	53	SER	2.2
2	P	52	SER	2.2
10	J	-8	SER	2.2
15	d	231	SER	2.2
1	A	115	ASP	2.2
1	A	222	ASP	2.2
15	d	103	ASP	2.2
1	A	173	PRO	2.2
15	e	135	GLY	2.2
15	m	226	THR	2.2
15	o	228	HIS	2.2
5	S	61	SER	2.2
15	h	53	SER	2.2
15	d	49	VAL	2.2
15	e	24	VAL	2.2
14	b	40	ASN	2.2
1	A	50	CYS	2.2
5	E	130	GLU	2.2
15	g	61	GLU	2.2
4	D	61	PRO	2.2
14	N	140	ALA	2.2
15	e	105	LEU	2.2
15	g	187	ASP	2.2
15	i	192	LEU	2.2
15	p	23	ALA	2.2
15	i	32	THR	2.2
2	B	23	TYR	2.2
15	e	143	TYR	2.2
15	c	20	SER	2.2
7	U	67	GLN	2.2
15	g	122	ILE	2.2
15	j	27	GLU	2.2
7	G	225	GLY	2.2
13	M	-1	GLY	2.2
15	p	29	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
4	R	5	ASP	2.2
15	o	14	ASP	2.2
9	I	164	TRP	2.2
3	Q	61	THR	2.2
15	l	17	THR	2.2
15	m	54	THR	2.2
1	A	45	VAL	2.2
15	e	55	TYR	2.2
15	g	74	TYR	2.2
15	j	143	TYR	2.2
15	n	75	GLN	2.2
15	p	94	ILE	2.2
15	l	219	LEU	2.2
2	B	249	ALA	2.2
2	P	56	ALA	2.2
5	E	247	GLU	2.2
5	S	134	MET	2.2
7	G	188	ALA	2.2
7	U	50	GLU	2.2
15	g	229	MET	2.2
9	I	161	ALA	2.2
15	i	40	ALA	2.2
1	O	226	GLY	2.2
7	G	79	GLY	2.2
15	p	13	ARG	2.2
11	Y	10	ASP	2.2
11	Y	29	ASP	2.2
15	d	227	ASP	2.2
14	b	211	TRP	2.2
1	A	202	VAL	2.1
7	U	164	THR	2.1
8	H	31	THR	2.1
9	W	217	ILE	2.1
15	d	34	GLN	2.1
15	h	179	LEU	2.1
15	k	180	LEU	2.1
15	p	75	GLN	2.1
15	k	42	ALA	2.1
15	o	18	GLU	2.1
15	o	42	ALA	2.1
5	E	129	GLY	2.1
9	I	11	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
1	A	32	PHE	2.1
2	B	7	PHE	2.1
1	A	227	VAL	2.1
8	V	132	THR	2.1
15	p	138	THR	2.1
3	Q	226	TYR	2.1
7	U	39	ILE	2.1
15	m	105	LEU	2.1
15	k	13	ARG	2.1
15	l	10	GLN	2.1
3	C	127	GLY	2.1
7	U	79	GLY	2.1
7	G	229	PHE	2.1
1	O	61	ASP	2.1
5	S	62	ASP	2.1
15	k	81	VAL	2.1
15	o	187	ASP	2.1
15	e	228	HIS	2.1
3	C	61	THR	2.1
15	d	33	LEU	2.1
15	d	183	LEU	2.1
15	c	229	MET	2.1
15	d	142	MET	2.1
15	k	95	ARG	2.1
15	m	142	MET	2.1
15	i	64	PRO	2.1
15	k	132	GLY	2.1
2	P	243	ILE	2.1
3	C	222	ASP	2.1
3	Q	202	ASP	2.1
15	c	67	LEU	2.1
15	h	228	HIS	2.1
15	o	120	LEU	2.1
15	o	145	LEU	2.1
15	g	51	ARG	2.1
15	h	138	THR	2.1
15	m	229	MET	2.1
15	p	135	GLY	2.1
1	O	205	PHE	2.1
10	J	146	GLU	2.1
14	b	81	PRO	2.1
1	A	145	SER	2.1

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Mol	Chain	Res	Type	RSRZ
3	Q	62	SER	2.1
15	o	178	SER	2.1
15	c	70	VAL	2.1
1	O	39	ASN	2.1
9	I	182	LYS	2.1
9	I	194	ASN	2.1
5	E	133	LEU	2.1
8	H	186	LEU	2.1
15	i	181	LEU	2.1
15	i	186	ILE	2.1
15	j	33	LEU	2.1
15	l	99	HIS	2.1
15	m	47	HIS	2.1
15	d	199	THR	2.1
15	d	226	THR	2.1
15	i	199	THR	2.1
15	m	16	TYR	2.1
15	o	143	TYR	2.1
14	b	16	ALA	2.1
15	c	60	ALA	2.1
15	j	23	ALA	2.1
15	l	225	GLY	2.1
2	B	145	PHE	2.1
15	h	45	GLU	2.1
15	i	147	GLU	2.1
15	m	177	PRO	2.1
2	B	29	LYS	2.0
14	N	210	LYS	2.0
7	G	170	SER	2.0
15	i	20	SER	2.0
15	h	67	LEU	2.0
15	j	180	LEU	2.0
15	o	39	ILE	2.0
3	C	226	TYR	2.0
3	Q	245	THR	2.0
7	G	180	ASP	2.0
7	U	188	ALA	2.0
13	a	191	ASP	2.0
14	b	180	ASP	2.0
14	b	220	TYR	2.0
15	m	17	THR	2.0
15	p	227	ASP	2.0

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Mol	Chain	Res	Type	RSRZ
15	i	81	VAL	2.0
1	A	178	ILE	2.0
15	c	39	ILE	2.0
15	h	229	MET	2.0
3	Q	205	ALA	2.0
15	i	17	THR	2.0
15	m	138	THR	2.0
15	n	40	ALA	2.0
8	V	102	TYR	2.0
15	c	143	TYR	2.0
2	B	70	ASP	2.0
15	m	126	GLY	2.0
15	m	141	GLY	2.0
15	o	110	GLN	2.0
15	d	81	VAL	2.0
15	f	195	GLU	2.0
15	n	13	ARG	2.0
15	c	145	LEU	2.0

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

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

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
16	MG	H	1002	1/1	0.62	0.17	81,81,81,81	0
16	MG	X	1013	1/1	0.76	0.13	79,79,79,79	0
16	MG	V	1009	1/1	0.81	0.08	39,39,39,39	0
16	MG	U	1014	1/1	0.81	0.13	65,65,65,65	0
16	MG	L	1003	1/1	0.82	0.10	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
16	MG	X	1012	1/1	0.87	0.11	56,56,56,56	0
16	MG	I	1001	1/1	0.88	0.09	67,67,67,67	0
16	MG	J	1005	1/1	0.91	0.09	37,37,37,37	0
16	MG	W	1008	1/1	0.95	0.06	67,67,67,67	0
16	MG	J	1006	1/1	0.95	0.04	24,24,24,24	0
16	MG	M	1004	1/1	0.95	0.05	26,26,26,26	0
16	MG	G	1007	1/1	0.97	0.03	38,38,38,38	0
16	MG	a	1011	1/1	0.97	0.06	49,49,49,49	0
16	MG	Z	1010	1/1	0.98	0.04	38,38,38,38	0

6.5 Other polymers ⓘ

There are no such residues in this entry.